

**Appendix for**  
**The Perry Preschoolers at Late Midlife:**  
**A Study in Design-Specific Inference\***

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# 1 Partially Identifying the Satisficing Thresholds and Capacity Constraints

In addition to Examples 1 and 2 presented in the main paper, we present another example below detailing partial identification of model parameters for wave 4.

## Example 3: Wave 4 (A Case with No Transfers in the Last Stage)

Wave 4	$D_i = 0$	$D_i = 1$	Total
$M_i = 0$	5	10	15
$M_i = 1$	4	0	4
Total	9	10	19

In this example, we show the contingency table of  $M_i$  and  $D_i$  for the 19 participants  $i \in \mathcal{S}_4$  in cohort 4. The sizes of the larger and smaller undesignated groups would have been  $\lceil |\mathcal{S}_3|/2 \rceil = 10$  and  $\lfloor |\mathcal{S}_3|/2 \rfloor = 9$ . These coincide with the final sizes of the treatment and control groups, respectively. Accordingly, we can conclude that the observed final treatment group was indeed the initial treatment group for this cohort. Otherwise, the control group would have had at least 10 members. Let  $\tau_{4,1}^2$  be the Hotelling statistic for the observed partition of  $\mathcal{S}_4$  based on the final treatment status. Then,  $\delta_4 \geq \tau_{4,1}^2$ .<sup>1</sup> In addition, note that there are no children of working mothers in the final treatment group, which was also the initial treatment group, and so  $m_4 = 0$ . Since  $\min(\eta_4, m_4) = \min(\eta_4, 0) = 0$  and there are 4 members with working mothers in total, it follows that  $\eta_4 \in \{0, 1, 2, 3, 4\}$ , because any of these values satisfy the equality. Thus, the observed data for cohort 4 is not helpful in bounding  $\eta_4$ .

## General Partial Identification of the Satisficing Thresholds and Capacity Constraints

We next present a more general characterization of how to partially identify the satisficing thresholds and capacity constraints on special home visits.

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<sup>1</sup>In our application,  $\delta_4 \geq 7.5842786$ .

Wave $c$	$D_i = 0$	$D_i = 1$	Total
$M_i = 0$	$\omega_{0,0}$	$\omega_{0,1}$	$\omega_{0,*}$
$M_i = 1$	$\omega_{1,0}$	$\omega_{1,1}$	$\omega_{1,*}$
Total	$\omega_{*,0}$	$\omega_{*,1}$	$ \mathcal{S}_c $

The above contingency table shows that there are  $\omega_{m,d}$  participants with  $(M_i, D_i) = (m, d) \in \{0, 1\}^2$  among the participants  $\mathcal{S}_c$  in cohort  $c$ .<sup>2</sup> The total number of children with non-working mothers is  $\omega_{0,*} = \omega_{0,0} + \omega_{0,1}$  and that of working mothers is  $\omega_{1,*} = \omega_{1,0} + \omega_{1,1}$ . The total number of participants in the final control group is  $\omega_{*,0} = \omega_{0,0} + \omega_{1,0}$  and that in the final treatment group is  $\omega_{*,1} = \omega_{0,1} + \omega_{1,1}$ . The possible configurations would vary depending on whether  $|\mathcal{S}_c|$  is even or odd and also depending on whether  $\omega_{*,1} = \lceil |\mathcal{S}_c|/2 \rceil$  or  $\omega_{*,1} < \lceil |\mathcal{S}_c|/2 \rceil$ . We discuss each of these cases separately.

First, consider the case where  $|\mathcal{S}_c|$  is even or odd and  $\omega_{*,1} = \lceil |\mathcal{S}_c|/2 \rceil$ . In this case, since the size of the final treatment group remains the same as that of the initial treatment group, there must have been no transfers of children with working mothers from the treatment group to the control group. Since the final treatment group is the same as the initial one, we can bound the satisficing threshold as follows:  $\delta_c \geq \tau_{c,1}^2$ , where  $\tau_{c,1}^2$  is the Hotelling statistic for the partition of  $\mathcal{S}_c$  based on the final treatment status. In addition, since there are no transfers, the number of children of working mothers in the initial treatment group  $m_c$  equals  $\omega_{1,1}$ . Since  $\min(\eta_c, \omega_{1,1}) = \omega_{1,1}$ , it follows that  $\eta_c \in \{\omega_{1,1}, \dots, \omega_{1,*}\}$ , i.e., the number of slots available for special home visits must be at least the number  $\omega_{1,1}$  observed in the data.

Second, consider the case where  $|\mathcal{S}_c|$  is even and  $\omega_{*,1} < \lceil |\mathcal{S}_c|/2 \rceil$ . As in Example 1, in this case it is clear that the number of transfers in the final stage must have been  $\chi_c = \lceil |\mathcal{S}_c|/2 \rceil - \omega_{*,1}$ , which is a positive number. The  $\chi_c$  transferred children must be among the  $\omega_{1,0}$  members with working mothers in the final control group. Thus, there are  $\binom{\omega_{1,0}}{\chi_c}$  possibilities for the initial treatment group. Let  $\vartheta_c$  be the set containing the Hotelling statistics for those possibilities. Then,  $\delta_c \geq \min \vartheta_c$ . In addition, there must have been  $m_2 = \omega_{1,1} + \chi_c$  children with working mothers in the

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<sup>2</sup>Note that  $\omega_{m,d} \equiv \omega_{m,d,c}$  for all  $(m, d) \in \{0, 1\}^2$  but we suppress the subscript  $c$  for simplicity.



initial treatment group. It remains to determine which values of  $\eta_c$  are consistent with the equality  $\min(\eta_c, \omega_{1,1} + \chi_c) = \omega_{1,1}$ . Since  $\chi_c > 0$ , it follows that  $\eta_c = \omega_{1,1}$ .

Third, consider the case where  $|\mathcal{S}_c|$  is odd and  $\omega_{*,1} < \lceil |\mathcal{S}_c|/2 \rceil$ . As in Example 2, in this case there are two possibilities for the number  $\chi_c$  of transfers in the final stage. Specifically,  $\chi_c \in \{\lceil |\mathcal{S}_c|/2 \rceil - \omega_{*,1}, \lfloor |\mathcal{S}_c|/2 \rfloor - \omega_{*,1}\}$ . These  $\chi_c$  transferred children must be among the  $\omega_{1,0}$  members with working mothers in the final control group. Thus, there are  $\binom{\omega_{1,0}}{\lceil |\mathcal{S}_c|/2 \rceil - \omega_{*,1}} + \binom{\omega_{1,0}}{\lfloor |\mathcal{S}_c|/2 \rfloor - \omega_{*,1}}$  possibilities for the initial treatment group. Let  $\vartheta_c^\delta$  be the set containing the Hotelling statistics for those possibilities. Then,  $\delta_c \geq \min \vartheta_c^\delta$ . The number  $m_c$  of children with working mothers initially assigned treatment is either equal to  $\omega_{1,1} + \lceil |\mathcal{S}_c|/2 \rceil - \omega_{*,1}$  or equal to  $\omega_{1,1} + \lfloor |\mathcal{S}_c|/2 \rfloor - \omega_{*,1}$ . Let  $\vartheta_c^\eta$  be the set of values of  $\eta_c$  consistent with the equality  $\min(\eta_c, m_c) = \omega_{1,1}$ . If  $m_c = \omega_{1,1} + \lceil |\mathcal{S}_c|/2 \rceil - \omega_{*,1}$ , then  $\eta_c = \omega_{1,1}$ , since  $\lceil |\mathcal{S}_c|/2 \rceil > \omega_{*,1}$ . However, if  $m_c = \omega_{1,1} + \lfloor |\mathcal{S}_c|/2 \rfloor - \omega_{*,1}$ , there are two sub-cases: if  $\lfloor |\mathcal{S}_c|/2 \rfloor > \omega_{*,1}$ , then  $\eta_c = \omega_{1,1}$ ; but if  $\lfloor |\mathcal{S}_c|/2 \rfloor = \omega_{*,1}$ , then  $\eta_c \in \{\omega_{1,1}, \dots, \omega_{1,*}\}$ . Therefore, the special home visiting slots can be partially identified as follows:  $\eta_c \in \vartheta_c^\eta$ , where  $\vartheta_c^\eta = \{\omega_{1,1}, \dots, \omega_{1,*}\}$  if  $\lfloor |\mathcal{S}_c|/2 \rfloor = \omega_{*,1}$ , and  $\vartheta_c^\eta = \{\omega_{1,1}\}$  if  $\lfloor |\mathcal{S}_c|/2 \rfloor > \omega_{*,1}$ .

The above general characterization of the partial identification of satisficing thresholds  $\delta_c$  applies to all cohorts  $c \in \{0, 1, 2, 3, 4\}$  but that of the special home visiting capacity constraints  $\eta_c$  applies only to cohorts  $c \in \{2, 3, 4\}$ . However, similar reasoning can be used to partially identify the capacity constraint  $\eta_{0,1}$  for pooled cohorts 0 and 1.<sup>3</sup>

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<sup>3</sup>Specifically,  $\eta_{0,1} \in \{\eta \in \{0, \dots, \sum_{i \in \mathcal{S}_0 \cup \mathcal{S}_1} M_i\} : \min(\eta, \chi_0 + \chi_1 + \omega_{1,1}^{0,1}) = \omega_{1,1}^{0,1}, \chi_0 \in \mathcal{C}_0, \chi_1 \in \mathcal{C}_1\}$ , where  $\omega_{1,1}^{0,1} = \sum_{i \in \mathcal{S}_0 \cup \mathcal{S}_1} M_i D_i$  and  $\mathcal{C}_c = \{\lceil |\mathcal{S}_c|/2 \rceil - \omega_{*,1,c}, \max\{0, \lfloor |\mathcal{S}_c|/2 \rfloor - \omega_{*,1,c}\}\}$  for  $c \in \{0, 1\}$ . In our application,  $\eta_{0,1} \in \{3\}$ . Since we do not make assumptions on the gender of a dropped participant in wave 1 and the (common) mother's working status at baseline for that participant and his/her sibling, our partial identification of  $\delta_0$  and  $\delta_1$  depends on the values in the partially identified set for the gender and mother's working status. If the participant is female with a non-working mother, then  $\delta_0 \geq 3.0756812$  and  $\delta_1 \geq 6.9455137$ . If the participant is female with a working mother, then  $\delta_0 \geq 2.4008873$  and  $\delta_1 \geq 17.928905$ . If the participant is male with a non-working mother, then  $\delta_0 \geq 3.2125585$  and  $\delta_1 \geq 10.209109$ . If the participant is male with a working mother, then  $\delta_0 \geq 2.5834048$  and  $\delta_1 \geq 17.389038$ . The difference in the lower bounds for the satisficing thresholds for the four different cases shows that the values of the gender and mother's working status are important, especially for the randomization protocol for wave 1. Since we do not make assumptions on the gender and the mother's working status of the participant, this is a strength of our analysis, despite quadrupling the computational cost. We also use known information that there was at least one transfer in wave 0 to narrow the partially identified set for that cohort.

## **2 Monte Carlo Experiments Assessing Conventional and Worst-Case Methods**

**Table 1: Monte Carlo Evaluation of Rejection Rates of Various  $P$ -Values in the Pooled Sample**

		Null model $\rightarrow$	$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i = Y_i^1 - Y_i^0 = 0$		$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$		$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i \sim \text{Unif}(-4, 4)$		$Y_i^0 \sim \text{Ber}(0.5)$ $\tau_i = Y_i^1 - Y_i^0 = 0$		$Y_i^0 \sim \text{Ber}(0.1)$ $\tau_i = Y_i^1 - Y_i^0 = 0$	
$p$ -value		Test statistic $\downarrow$ \ Level $\rightarrow$	0.05	0.10	0.05	0.10	0.05	0.10	0.05	0.10	0.05	0.10
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1150	0.2450	0.0850	0.2250	0.1250	0.2000	0.1200	0.2100	0.1050	0.1900
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1250	0.1950	0.1150	0.2050	0.1000	0.2400	0.1050	0.2100	0.1100	0.2050
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1650	0.3100	0.2000	0.3300	0.1750	0.2650	0.1700	0.2900	0.1550	0.2700
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1400	0.2500	0.1100	0.2550	0.1350	0.2100	0.1200	0.2450	0.1100	0.2200
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1350	0.2050	0.1250	0.2300	0.1200	0.2350	0.1300	0.2400	0.1000	0.2200
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1300	0.2500	0.1450	0.2650	0.1600	0.2300	0.1150	0.2300	0.1100	0.2200
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1400	0.2550	0.1050	0.2450	0.1350	0.2050	0.1100	0.2550	0.1100	0.2150
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1350	0.2050	0.1100	0.2250	0.1150	0.2250	0.1050	0.2350	0.1100	0.2200
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1200	0.2300	0.1150	0.2400	0.1200	0.2200	0.1050	0.2300	0.1100	0.2050
	(10) $p_{B,S}^1$	Studentized UDIM	0.2550	0.3650	0.2700	0.3950	0.2100	0.3600	0.2650	0.3900	0.2650	0.3800
	(11) $p_{B,S}^2$	Studentized COLS	0.2150	0.3450	0.2350	0.4100	0.2450	0.3550	0.2250	0.3250	0.2850	0.3800
	(12) $p_{B,S}^3$	Studentized AIPW	0.2550	0.3500	0.2450	0.3800	0.2250	0.3100	0.2300	0.3750	0.2450	0.3600
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1100	0.2200	0.0950	0.2300	0.1300	0.2050	0.1150	0.2150	0.0700	0.1700
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.1250	0.2050	0.1050	0.2400	0.1100	0.2450	0.1100	0.2350	0.0900	0.2150
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1300	0.2400	0.1600	0.2650	0.1400	0.2450	0.0950	0.2300	0.1050	0.2200
	(16) $p_{P,S}^1$	Studentized UDIM	0.1050	0.2300	0.0850	0.2150	0.1300	0.1950	0.1200	0.2150	0.0750	0.2000
	(17) $p_{P,S}^2$	Studentized COLS	0.1200	0.1900	0.1000	0.1950	0.1100	0.2200	0.1000	0.2250	0.0800	0.1950
	(18) $p_{P,S}^3$	Studentized AIPW	0.1150	0.2350	0.1550	0.2550	0.1500	0.2350	0.1250	0.2300	0.1150	0.1950
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.0150	0.0850	0.0400	0.0600	0.0550	0.1200	0.0350	0.0950	0.0250	0.0850
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.0200	0.0900	0.0400	0.0950	0.0650	0.0900	0.0350	0.1150	0.0400	0.0950
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.0100	0.1150	0.0550	0.1400	0.0850	0.1550	0.0450	0.1050	0.0250	0.1150
	(22) $p_{M,S}^1$	Studentized UDIM	0.0150	0.0850	0.0400	0.0600	0.0450	0.1050	0.0400	0.1100	0.0350	0.0950
	(23) $p_{M,S}^2$	Studentized COLS	0.0150	0.0800	0.0400	0.0950	0.0600	0.0850	0.0300	0.1050	0.0400	0.0850
	(24) $p_{M,S}^3$	Studentized AIPW	0.0150	0.1100	0.0500	0.1400	0.0900	0.1450	0.0500	0.1100	0.0200	0.1050
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.0150	0.0800	0.0400	0.0600	0.0450	0.1150	0.0300	0.0800	0.0250	0.0850
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.0200	0.0900	0.0400	0.0900	0.0600	0.0900	0.0300	0.1150	0.0350	0.0950
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.0100	0.1100	0.0550	0.1350	0.0750	0.1500	0.0400	0.1050	0.0250	0.1100
	(28) $p_{R,S}^1$	Studentized UDIM	0.0150	0.0750	0.0350	0.0600	0.0400	0.1000	0.0350	0.1000	0.0350	0.0900
	(29) $p_{R,S}^2$	Studentized COLS	0.0100	0.0800	0.0400	0.0850	0.0550	0.0850	0.0300	0.1000	0.0400	0.0850
	(30) $p_{R,S}^3$	Studentized AIPW	0.0150	0.1000	0.0450	0.1350	0.0800	0.1450	0.0400	0.1100	0.0200	0.1050
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.0000	0.0400	0.0350	0.0550	0.0300	0.0800	0.0150	0.0600	0.0200	0.0450
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.0050	0.0450	0.0250	0.0650	0.0400	0.0800	0.0250	0.0600	0.0150	0.0850
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.0100	0.0700	0.0350	0.1100	0.0400	0.1100	0.0200	0.0700	0.0150	0.0650
	(34) $p_{D,S}^1$	Studentized UDIM	0.0000	0.0400	0.0300	0.0550	0.0300	0.0650	0.0150	0.0550	0.0200	0.0700
	(35) $p_{D,S}^2$	Studentized COLS	0.0100	0.0400	0.0300	0.0550	0.0350	0.0750	0.0200	0.0500	0.0100	0.0700
	(36) $p_{D,S}^3$	Studentized AIPW	0.0100	0.0900	0.0300	0.1000	0.0450	0.1000	0.0250	0.0700	0.0100	0.0800

*Note on the columns:* This table contains Monte Carlo-based estimates of rejection rates of hypothesis tests based on various  $p$ -values at the 5% and 10% significance levels. The table evaluates the rejection rates for the following five different null models, all which have a zero average treatment effect: (a)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ , where  $\mathcal{N}(0, 1)$  is the standard normal distribution; (b)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$ ; (c)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i \sim \text{Unif}(-4, 4)$ , where  $\text{Unif}(-4, 4)$  is the uniform distribution on the interval  $(-4, 4)$ ; (d)  $Y_i^0 \sim \text{Ber}(0.5)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ , where  $\text{Ber}(0.5)$  is the Bernoulli distribution with a success probability of 0.5; (e)  $Y_i^0 \sim \text{Ber}(0.1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ . In addition, the non-response probability in these null models is set at 20%. These rejection rate of a hypothesis test based on a particular  $p$ -value at a given significance level  $\alpha$  can also be interpreted as the probability that the  $p$ -value equals  $\alpha$  or lower under the null model.

*Note on the rows:* Rows (1) through (36) contain various  $p$ -values related to various treatment effect estimators: the unconditional difference-in-means (UDIM) estimator, the conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimator (accounting for non-response and imbalance in pre-program covariates between the experimental groups). The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 2: Monte Carlo Evaluation of Rejection Rates of Various  $P$ -Values in the Male Sample**

		Null model $\rightarrow$	$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i = Y_i^1 - Y_i^0 = 0$		$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$		$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i \sim \text{Unif}(-4, 4)$		$Y_i^0 \sim \text{Ber}(0.5)$ $\tau_i = Y_i^1 - Y_i^0 = 0$		$Y_i^0 \sim \text{Ber}(0.1)$ $\tau_i = Y_i^1 - Y_i^0 = 0$	
$p$ -value		Test statistic $\downarrow$ \ Level $\rightarrow$	0.05	0.10	0.05	0.10	0.05	0.10	0.05	0.10	0.05	0.10
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1250	0.2300	0.1550	0.2550	0.1000	0.2050	0.1050	0.2050	0.1000	0.2100
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1200	0.2350	0.1850	0.2800	0.1350	0.2100	0.1050	0.1900	0.0950	0.2250
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1750	0.3300	0.2350	0.3700	0.2150	0.3150	0.1500	0.2800	0.1200	0.2800
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1550	0.2450	0.1500	0.2950	0.1150	0.2200	0.1200	0.2200	0.1150	0.2300
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1500	0.2500	0.1900	0.3050	0.1300	0.2250	0.1150	0.2100	0.1100	0.2500
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1650	0.2800	0.1900	0.3200	0.1650	0.2700	0.1300	0.2350	0.0900	0.2550
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1450	0.2350	0.1500	0.2800	0.1100	0.2250	0.1100	0.2200	0.1100	0.1950
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1450	0.2500	0.1850	0.3000	0.1300	0.2200	0.1150	0.2100	0.1200	0.2150
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1300	0.2600	0.1700	0.2950	0.1400	0.2350	0.1000	0.2150	0.0950	0.2000
	(10) $p_{B,S}^1$	Studentized UDIM	0.2500	0.4050	0.2800	0.3900	0.2100	0.3200	0.2050	0.3600	0.2900	0.3950
	(11) $p_{B,S}^2$	Studentized COLS	0.2450	0.3650	0.2850	0.4050	0.2100	0.3000	0.1750	0.3050	0.3000	0.3900
	(12) $p_{B,S}^3$	Studentized AIPW	0.2650	0.4150	0.3050	0.4250	0.2650	0.3700	0.2050	0.3450	0.2750	0.4000
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.0950	0.2300	0.1700	0.2700	0.1150	0.2250	0.0850	0.1850	0.0650	0.1650
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.1250	0.2650	0.1900	0.3000	0.1300	0.2300	0.1000	0.2150	0.1200	0.2350
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1550	0.2550	0.1850	0.3250	0.1650	0.2800	0.1150	0.2300	0.1250	0.2200
	(16) $p_{P,S}^1$	Studentized UDIM	0.1000	0.2250	0.1500	0.2650	0.0950	0.2000	0.0850	0.1800	0.0800	0.1850
	(17) $p_{P,S}^2$	Studentized COLS	0.1200	0.2350	0.1650	0.2700	0.1250	0.2050	0.0900	0.1750	0.0850	0.1950
	(18) $p_{P,S}^3$	Studentized AIPW	0.1450	0.2900	0.1800	0.3250	0.1700	0.2600	0.1200	0.2200	0.1050	0.2300
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.0150	0.0900	0.1000	0.1650	0.0400	0.1200	0.0450	0.0950	0.0200	0.0950
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.0200	0.1000	0.0950	0.1900	0.0700	0.1350	0.0500	0.1100	0.0550	0.1350
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.0200	0.1350	0.1150	0.1850	0.0750	0.1600	0.0600	0.1200	0.0400	0.1300
	(22) $p_{M,S}^1$	Studentized UDIM	0.0150	0.0950	0.0750	0.1700	0.0400	0.1100	0.0450	0.1050	0.0250	0.0950
	(23) $p_{M,S}^2$	Studentized COLS	0.0200	0.0950	0.0850	0.1750	0.0600	0.1200	0.0450	0.0850	0.0350	0.1050
	(24) $p_{M,S}^3$	Studentized AIPW	0.0150	0.1250	0.1250	0.1800	0.0800	0.1650	0.0550	0.1050	0.0150	0.1200
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.0150	0.0800	0.0900	0.1650	0.0400	0.1150	0.0400	0.0900	0.0150	0.0900
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.0200	0.0950	0.0950	0.1800	0.0700	0.1300	0.0450	0.1000	0.0500	0.1200
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.0200	0.1250	0.1150	0.1850	0.0750	0.1450	0.0550	0.1150	0.0400	0.1300
	(28) $p_{R,S}^1$	Studentized UDIM	0.0150	0.0950	0.0700	0.1600	0.0400	0.1100	0.0400	0.0950	0.0250	0.0950
	(29) $p_{R,S}^2$	Studentized COLS	0.0150	0.0900	0.0800	0.1650	0.0600	0.1200	0.0450	0.0800	0.0300	0.1000
	(30) $p_{R,S}^3$	Studentized AIPW	0.0150	0.1200	0.1200	0.1750	0.0800	0.1550	0.0550	0.1000	0.0100	0.1150
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.0050	0.0600	0.0400	0.1300	0.0400	0.0750	0.0200	0.0600	0.0050	0.0650
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.0200	0.0700	0.0400	0.1400	0.0550	0.1050	0.0350	0.0600	0.0250	0.0900
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.0100	0.0700	0.0700	0.1500	0.0550	0.1000	0.0350	0.0900	0.0150	0.0900
	(34) $p_{D,S}^1$	Studentized UDIM	0.0150	0.0550	0.0400	0.1100	0.0350	0.0650	0.0300	0.0600	0.0000	0.0550
	(35) $p_{D,S}^2$	Studentized COLS	0.0050	0.0450	0.0450	0.1250	0.0350	0.0900	0.0350	0.0650	0.0150	0.0650
	(36) $p_{D,S}^3$	Studentized AIPW	0.0050	0.0800	0.0750	0.1350	0.0450	0.1100	0.0300	0.0650	0.0050	0.0650

*Note on the columns:* This table contains Monte Carlo-based estimates of rejection rates of hypothesis tests based on various  $p$ -values at the 5% and 10% significance levels. The table evaluates the rejection rates for the following five different null models, all which have a zero average treatment effect: (a)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ , where  $\mathcal{N}(0, 1)$  is the standard normal distribution; (b)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$ ; (c)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i \sim \text{Unif}(-4, 4)$ , where  $\text{Unif}(-4, 4)$  is the uniform distribution on the interval  $(-4, 4)$ ; (d)  $Y_i^0 \sim \text{Ber}(0.5)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ , where  $\text{Ber}(0.5)$  is the Bernoulli distribution with a success probability of 0.5; (e)  $Y_i^0 \sim \text{Ber}(0.1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ . In addition, the non-response probability in these null models is set at 20%. These rejection rate of a hypothesis test based on a particular  $p$ -value at a given significance level  $\alpha$  can also be interpreted as the probability that the  $p$ -value equals  $\alpha$  or lower under the null model.

*Note on the rows:* Rows (1) through (36) contain various  $p$ -values related to various treatment effect estimators: the unconditional difference-in-means (UDIM) estimator, the conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimator (accounting for non-response and imbalance in pre-program covariates between the experimental groups). The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

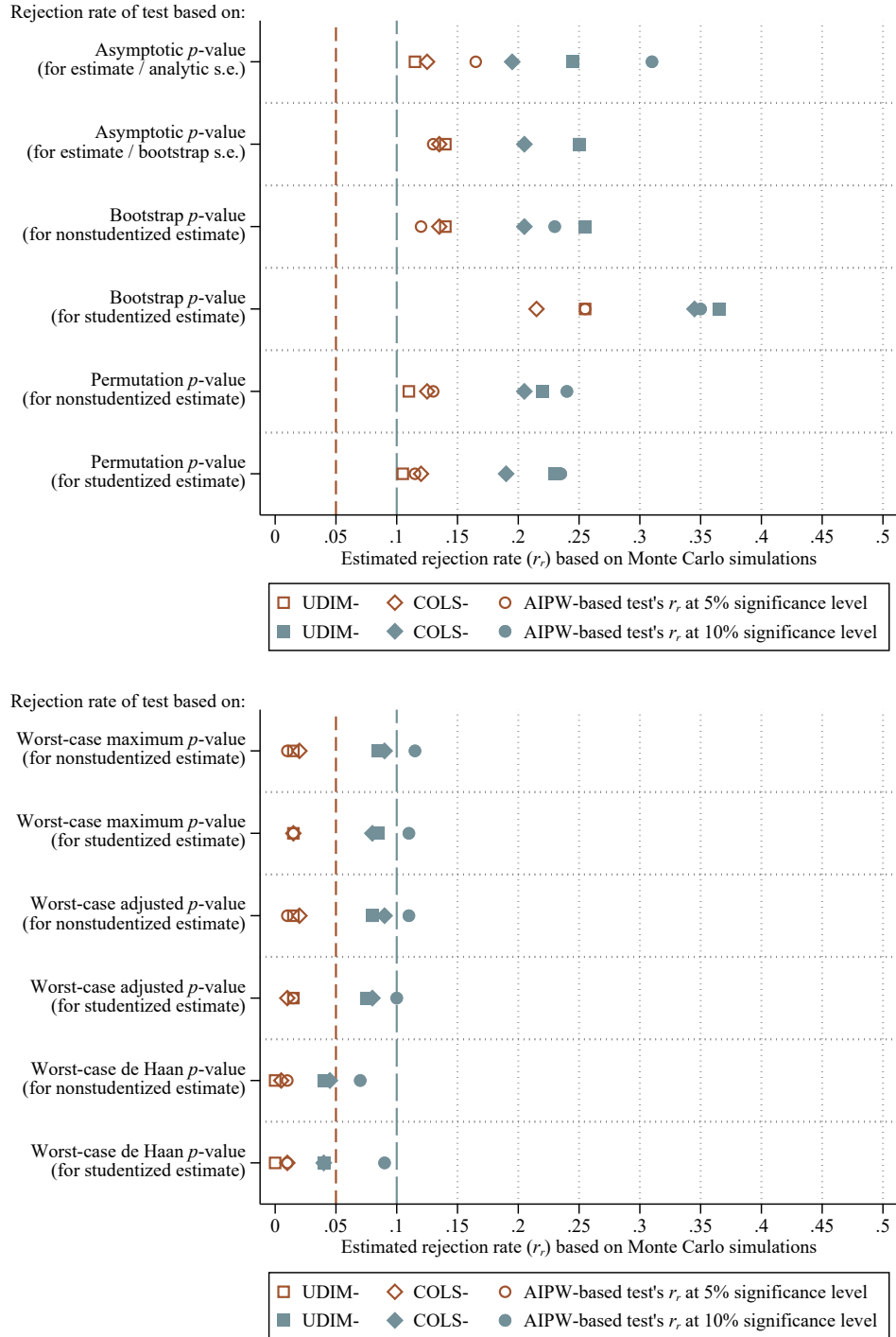
**Table 3: Monte Carlo Evaluation of Rejection Rates of Various  $P$ -Values in the Female Sample**

		Null model $\rightarrow$	$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i = Y_i^1 - Y_i^0 = 0$		$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$		$Y_i^0 \sim \mathcal{N}(0, 1)$ $\tau_i \sim \text{Unif}(-4, 4)$		$Y_i^0 \sim \text{Ber}(0.5)$ $\tau_i = Y_i^1 - Y_i^0 = 0$		$Y_i^0 \sim \text{Ber}(0.1)$ $\tau_i = Y_i^1 - Y_i^0 = 0$	
			0.05	0.10	0.05	0.10	0.05	0.10	0.05	0.10	0.05	0.10
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.0850	0.2150	0.0850	0.2050	0.1550	0.2250	0.1300	0.2400	0.1000	0.2450
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1150	0.2350	0.1250	0.2150	0.1550	0.2200	0.1350	0.2100	0.1100	0.2400
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1600	0.2650	0.1700	0.2600	0.1750	0.2900	0.1750	0.3050	0.1800	0.2800
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1150	0.2300	0.1100	0.2250	0.1600	0.2400	0.1350	0.2600	0.1050	0.2500
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1200	0.2250	0.1100	0.2150	0.1550	0.2300	0.1200	0.2350	0.1050	0.2350
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1100	0.2250	0.1050	0.2200	0.1400	0.2250	0.1450	0.2350	0.1050	0.2400
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1150	0.2350	0.1050	0.2150	0.1600	0.2450	0.1200	0.2500	0.1050	0.1450
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1100	0.2250	0.1150	0.2100	0.1450	0.2250	0.1300	0.2350	0.1100	0.1500
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1100	0.2200	0.1000	0.2100	0.1350	0.2200	0.1350	0.2200	0.0900	0.1500
	(10) $p_{B,S}^1$	Studentized UDIM	0.2550	0.3950	0.2000	0.3000	0.2250	0.3550	0.2150	0.3400	0.2450	0.3150
	(11) $p_{B,S}^2$	Studentized COLS	0.1950	0.3450	0.1900	0.2850	0.2000	0.3250	0.1850	0.3000	0.2300	0.3050
	(12) $p_{B,S}^3$	Studentized AIPW	0.1800	0.3150	0.1850	0.2900	0.1950	0.3050	0.1950	0.3400	0.2100	0.3150
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.0800	0.2100	0.0800	0.1850	0.1400	0.2250	0.1050	0.2050	0.0750	0.1650
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.0850	0.1950	0.0950	0.2100	0.1300	0.2150	0.1200	0.2200	0.1200	0.2100
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1050	0.2100	0.0900	0.2050	0.1350	0.2100	0.1250	0.2200	0.1300	0.2100
	(16) $p_{P,S}^1$	Studentized UDIM	0.0800	0.2150	0.0700	0.1950	0.1400	0.2100	0.1100	0.2350	0.1000	0.1850
	(17) $p_{P,S}^2$	Studentized COLS	0.0900	0.2050	0.1100	0.2250	0.1400	0.2150	0.1350	0.2100	0.0950	0.1850
	(18) $p_{P,S}^3$	Studentized AIPW	0.1050	0.1900	0.0950	0.2200	0.1300	0.2050	0.1200	0.2300	0.1150	0.2150
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.0100	0.0500	0.0250	0.0650	0.0650	0.1150	0.0450	0.1200	0.0250	0.0700
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.0150	0.0700	0.0450	0.0850	0.0600	0.1050	0.0550	0.1250	0.0400	0.1000
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.0050	0.0700	0.0300	0.0750	0.0450	0.1050	0.0350	0.1250	0.0450	0.0900
	(22) $p_{M,S}^1$	Studentized UDIM	0.0100	0.0500	0.0300	0.0650	0.0600	0.1150	0.0500	0.1250	0.0250	0.0950
	(23) $p_{M,S}^2$	Studentized COLS	0.0150	0.0650	0.0500	0.0950	0.0600	0.1400	0.0550	0.1350	0.0400	0.1000
	(24) $p_{M,S}^3$	Studentized AIPW	0.0050	0.0500	0.0600	0.0800	0.0450	0.1250	0.0350	0.1150	0.0350	0.0900
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.0100	0.0500	0.0250	0.0600	0.0550	0.1100	0.0450	0.1150	0.0250	0.0600
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.0150	0.0650	0.0450	0.0700	0.0550	0.1000	0.0550	0.1250	0.0400	0.1000
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.0050	0.0600	0.0250	0.0700	0.0350	0.1000	0.0350	0.1250	0.0350	0.0850
	(28) $p_{R,S}^1$	Studentized UDIM	0.0100	0.0450	0.0250	0.0650	0.0600	0.1150	0.0400	0.1200	0.0250	0.0900
	(29) $p_{R,S}^2$	Studentized COLS	0.0150	0.0650	0.0500	0.0950	0.0550	0.1400	0.0500	0.1250	0.0300	0.0950
	(30) $p_{R,S}^3$	Studentized AIPW	0.0050	0.0450	0.0600	0.0750	0.0450	0.1150	0.0350	0.1050	0.0350	0.0900
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.0100	0.0300	0.0150	0.0400	0.0350	0.0950	0.0200	0.0650	0.0200	0.0450
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.0100	0.0500	0.0200	0.0450	0.0300	0.0800	0.0300	0.0900	0.0100	0.0700
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.0050	0.0350	0.0200	0.0600	0.0250	0.0750	0.0300	0.0650	0.0250	0.0700
	(34) $p_{D,S}^1$	Studentized UDIM	0.0100	0.0250	0.0150	0.0400	0.0250	0.0800	0.0200	0.0800	0.0200	0.0550
	(35) $p_{D,S}^2$	Studentized COLS	0.0100	0.0300	0.0300	0.0650	0.0300	0.1150	0.0250	0.1050	0.0200	0.0500
	(36) $p_{D,S}^3$	Studentized AIPW	0.0050	0.0450	0.0350	0.0750	0.0200	0.0750	0.0200	0.0700	0.0200	0.0600

*Note on the columns:* This table contains Monte Carlo-based estimates of rejection rates of hypothesis tests based on various  $p$ -values at the 5% and 10% significance levels. The table evaluates the rejection rates for the following five different null models, all which have a zero average treatment effect: (a)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ , where  $\mathcal{N}(0, 1)$  is the standard normal distribution; (b)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$ ; (c)  $Y_i^0 \sim \mathcal{N}(0, 1)$ ,  $\tau_i \sim \text{Unif}(-4, 4)$ , where  $\text{Unif}(-4, 4)$  is the uniform distribution on the interval  $(-4, 4)$ ; (d)  $Y_i^0 \sim \text{Ber}(0.5)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ , where  $\text{Ber}(0.5)$  is the Bernoulli distribution with a success probability of 0.5; (e)  $Y_i^0 \sim \text{Ber}(0.1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$ . In addition, the non-response probability in these null models is set at 20%. These rejection rate of a hypothesis test based on a particular  $p$ -value at a given significance level  $\alpha$  can also be interpreted as the probability that the  $p$ -value equals  $\alpha$  or lower under the null model.

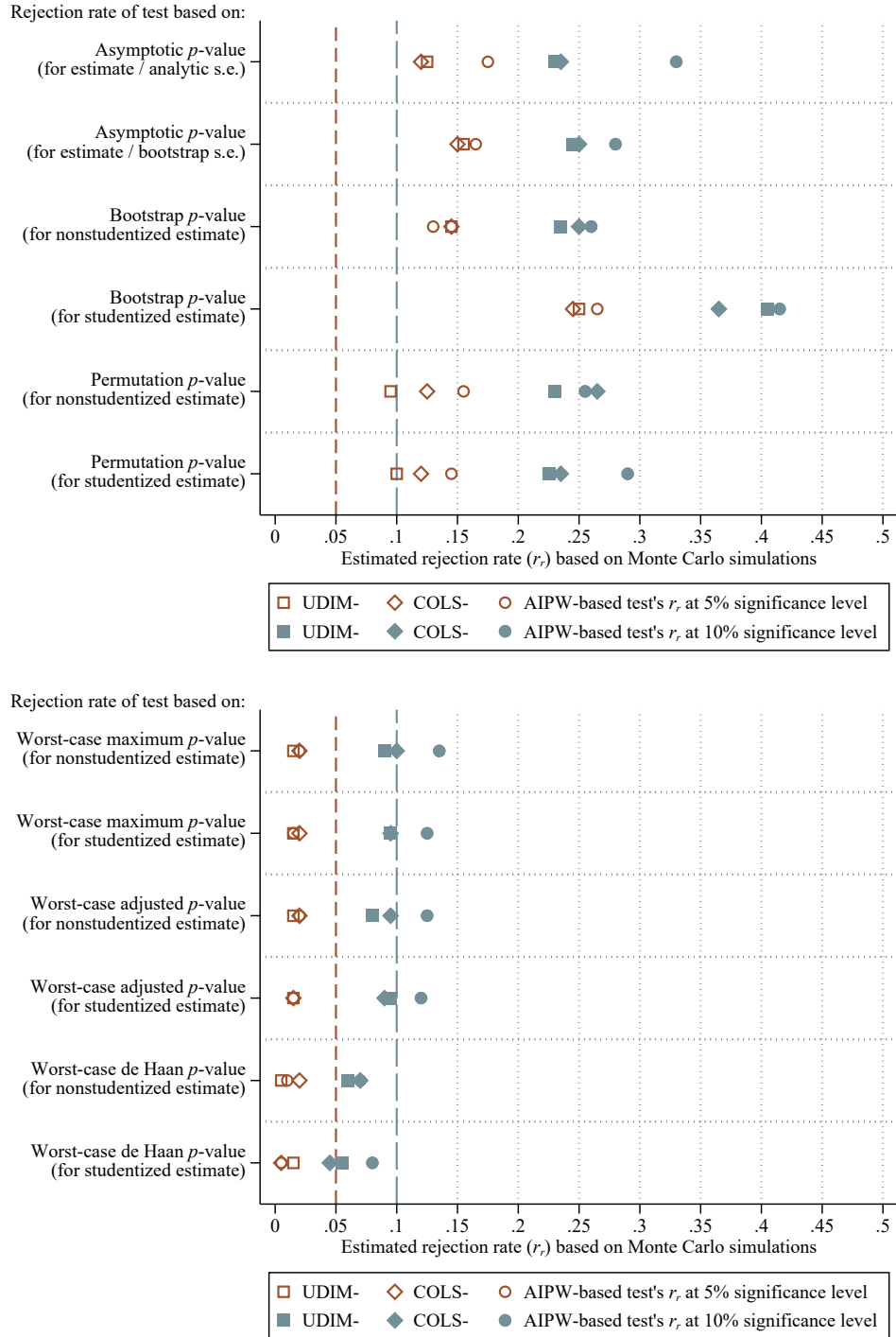
*Note on the rows:* Rows (1) through (36) contain various  $p$ -values related to various treatment effect estimators: the unconditional difference-in-means (UDIM) estimator, the conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimator (accounting for non-response and imbalance in pre-program covariates between the experimental groups). The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Figure 1:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Pooled** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



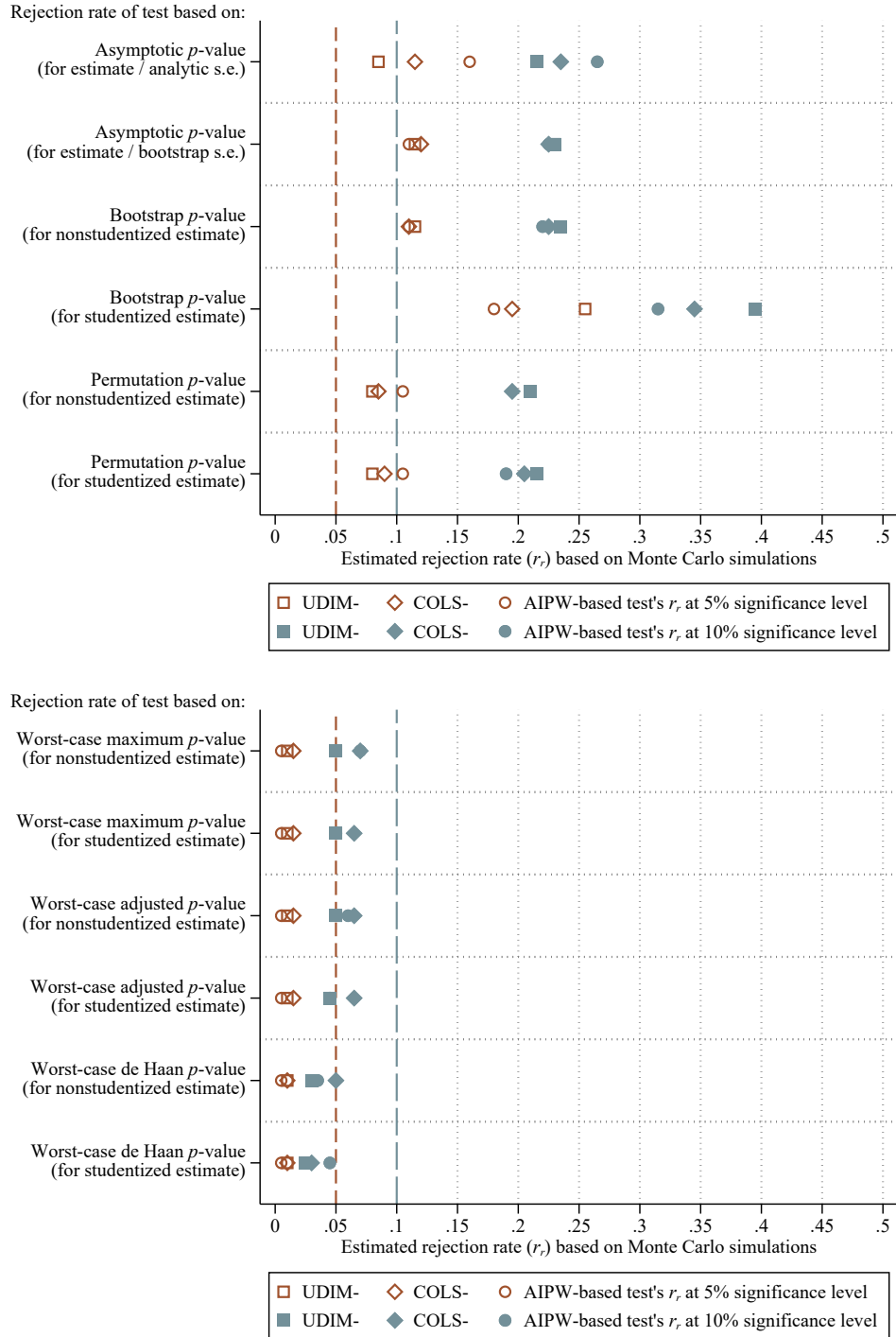
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 2:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Male** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

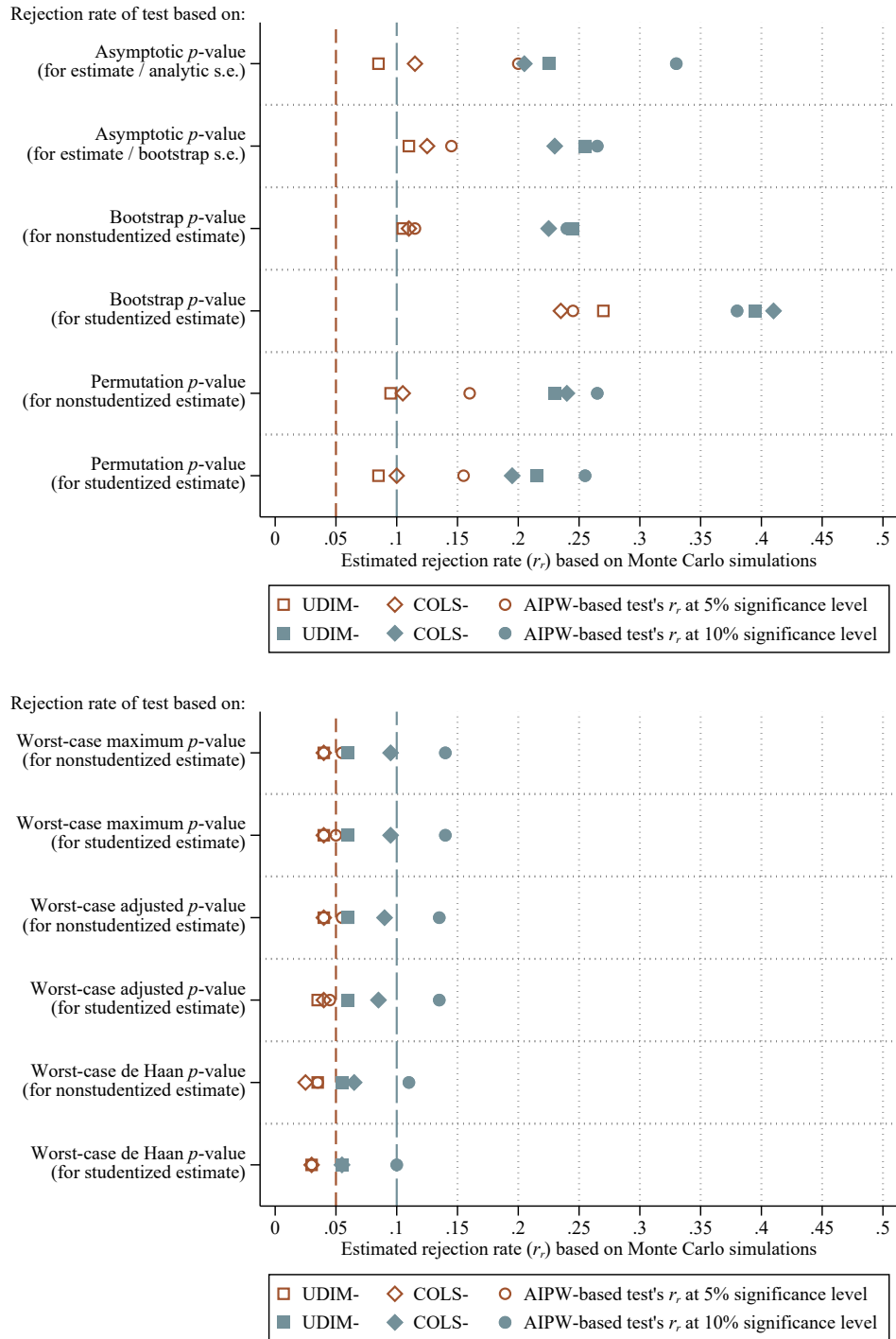
**Figure 3:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Female** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

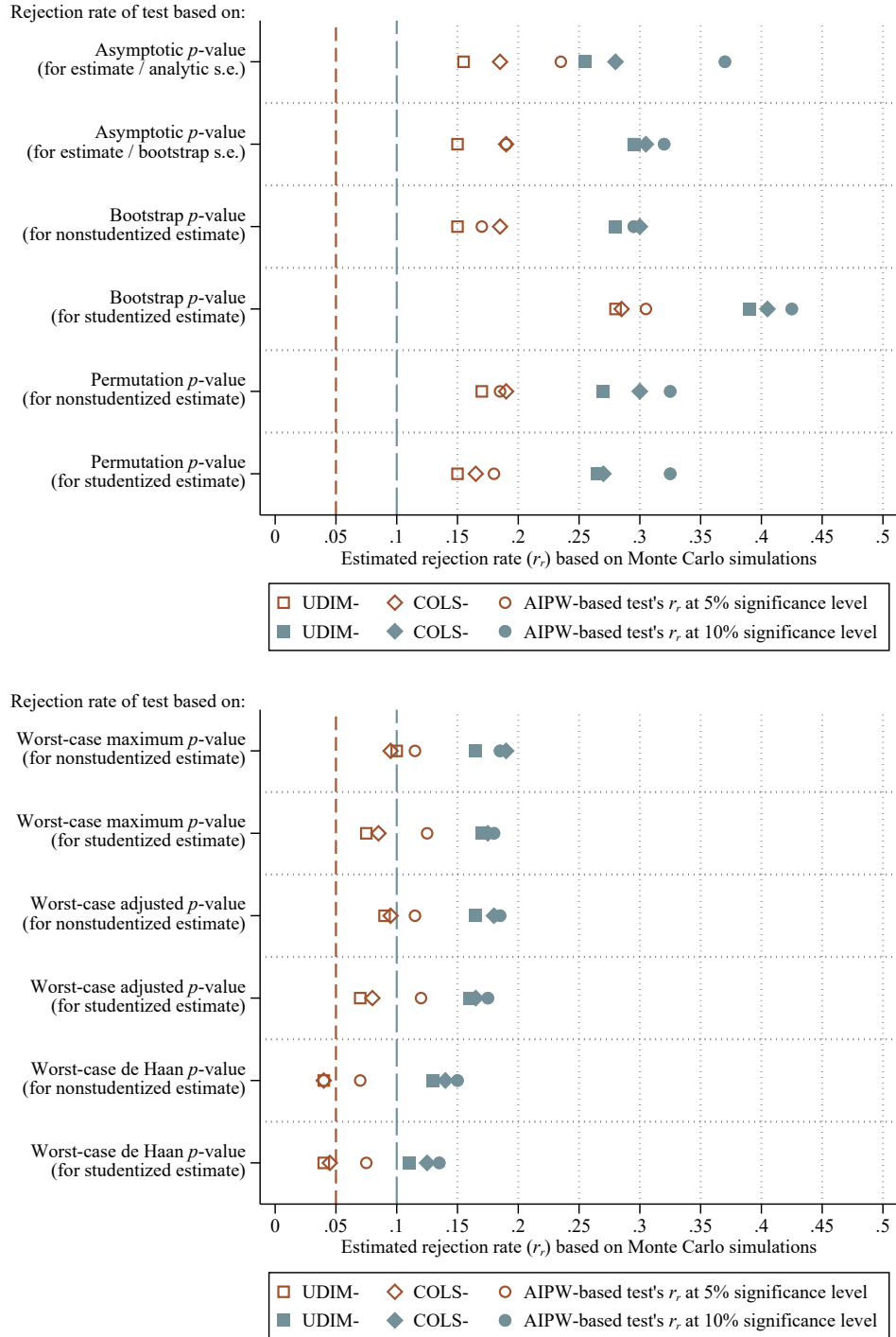


**Figure 4:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Pooled** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$  with an Attrition Probability of 20%



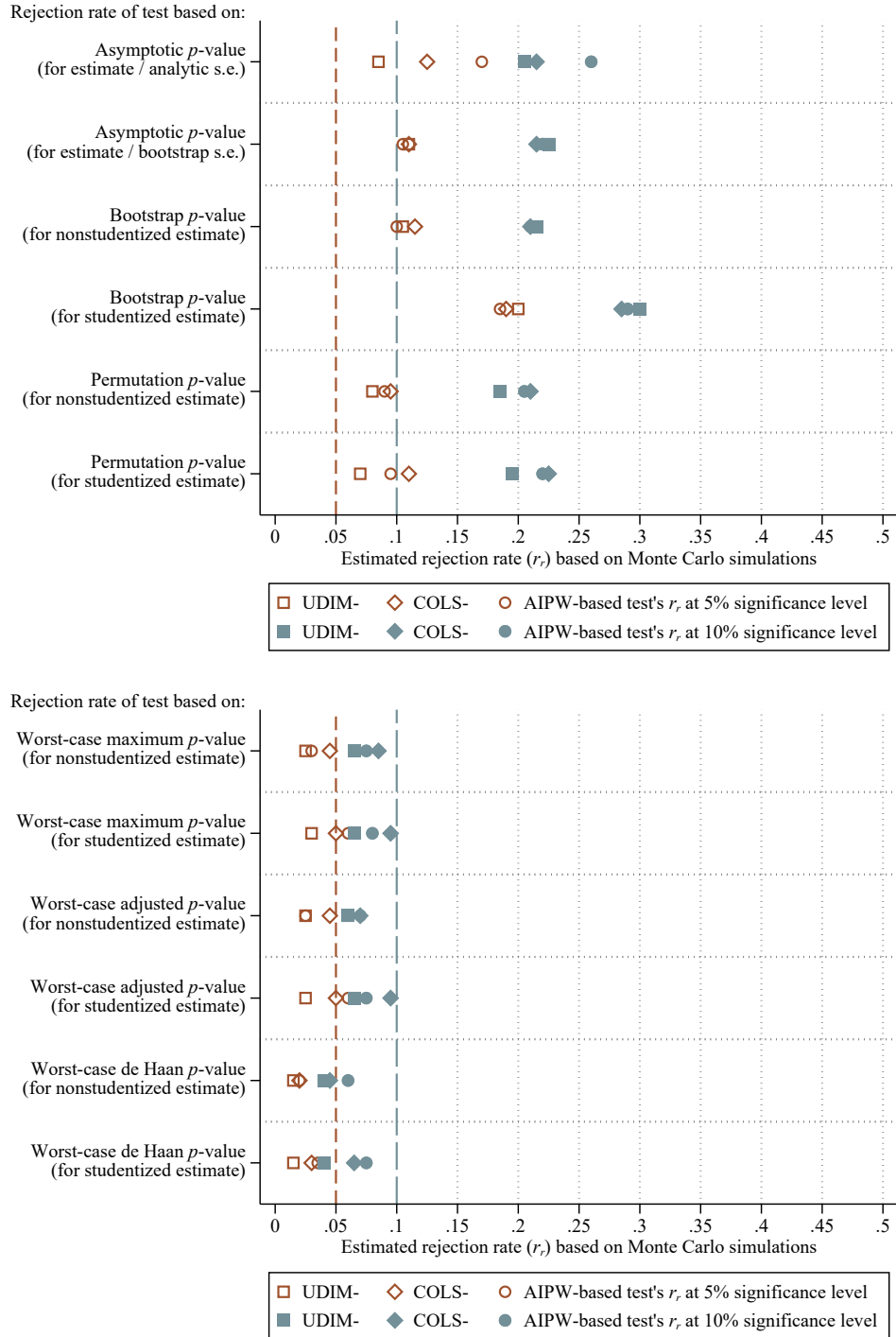
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 5:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Male** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$  with an Attrition Probability of 20%



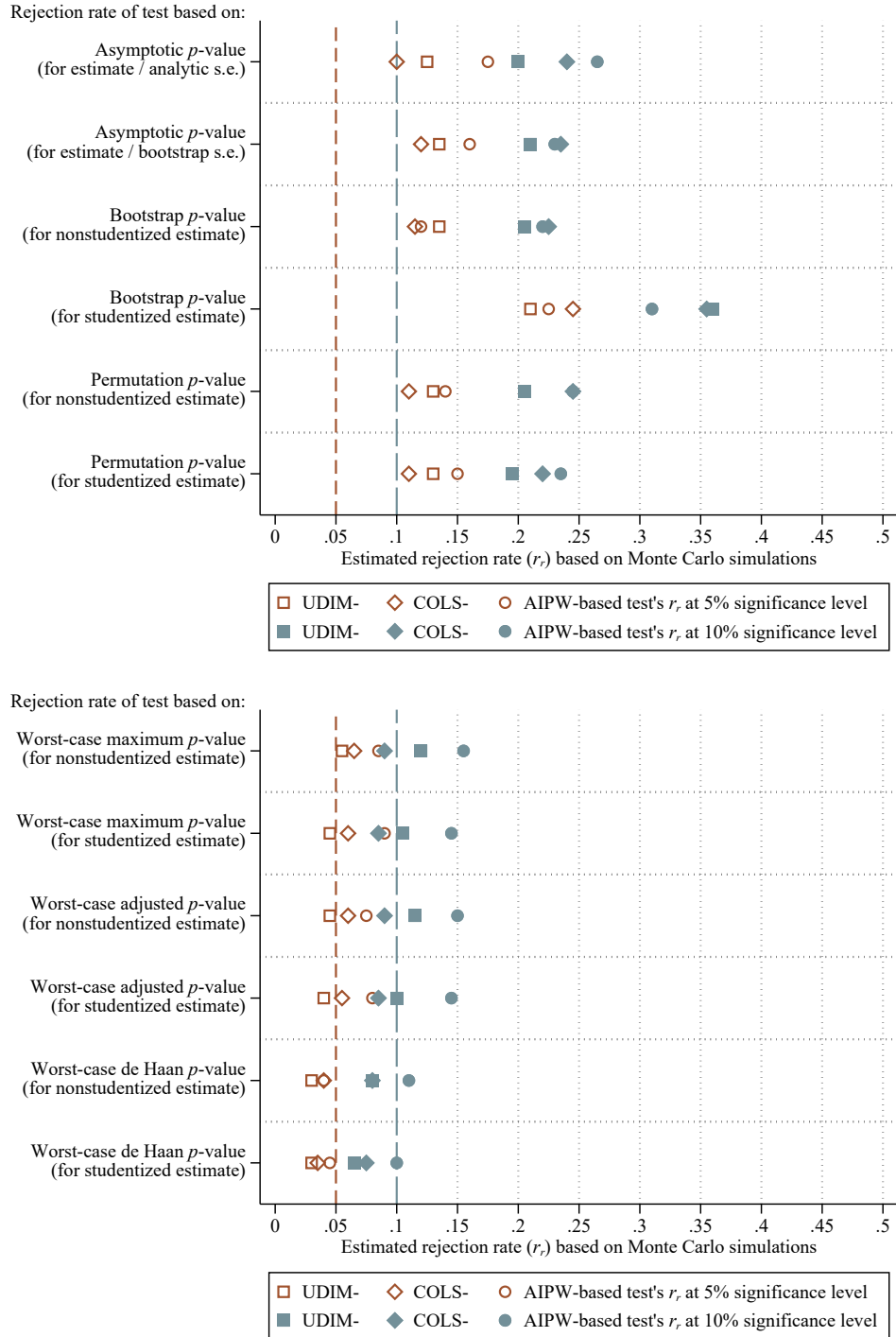
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 6:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Female** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i \sim 2 \cdot \mathcal{N}(0, 1)$  with an Attrition Probability of 20%



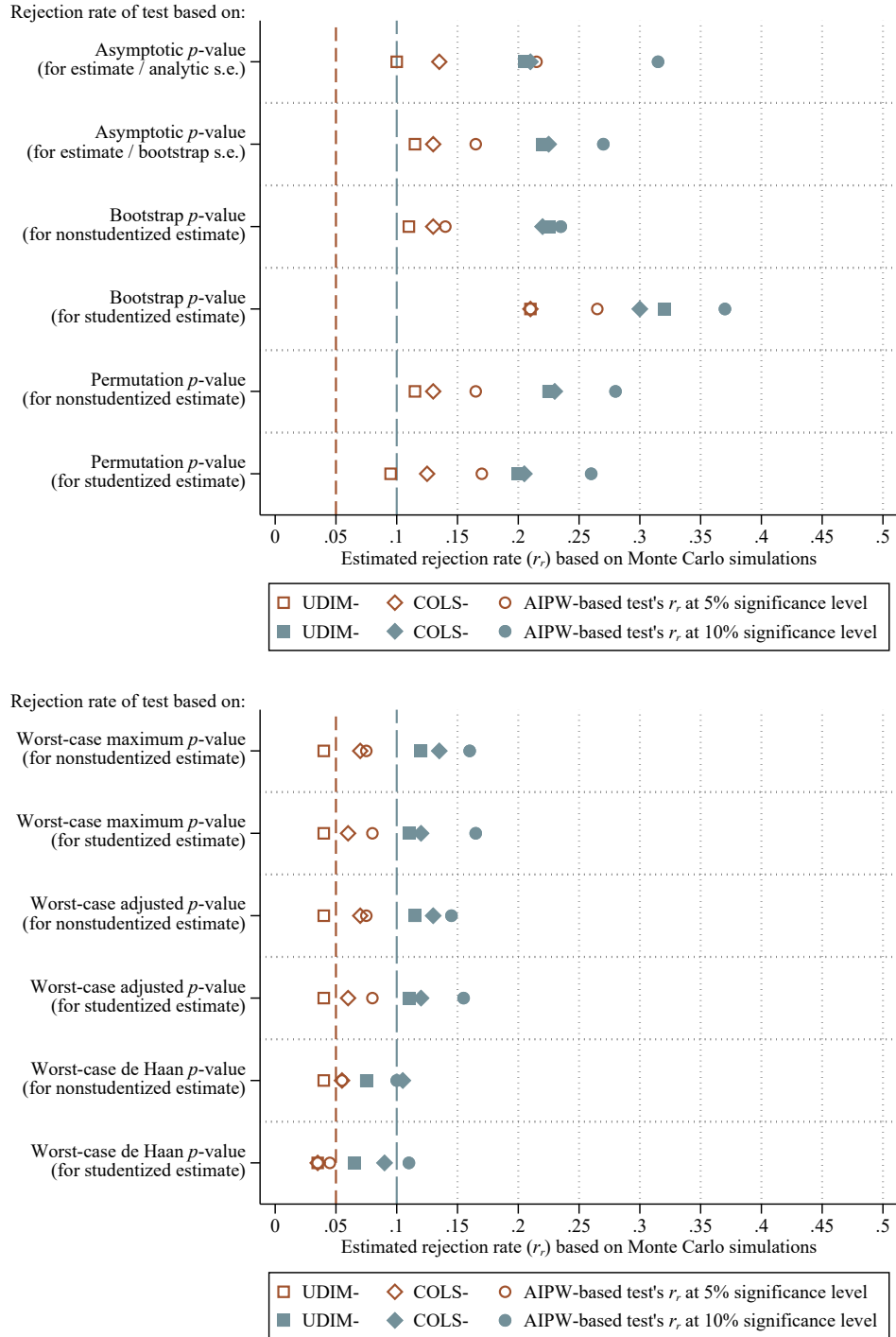
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 7:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Pooled** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i \sim \text{Unif}(-4, 4)$  with an Attrition Probability of 20%



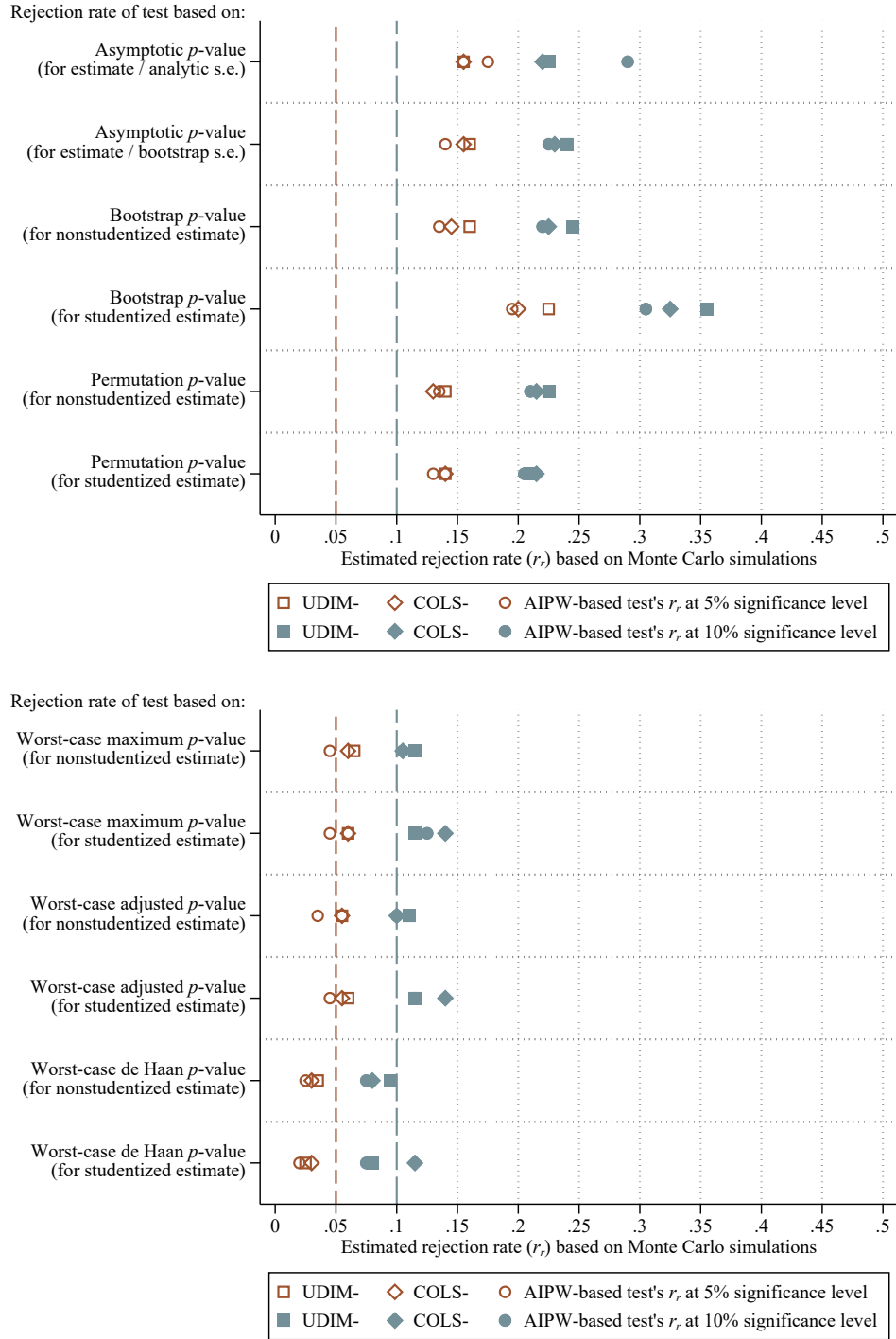
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 8:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Male** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i \sim \text{Unif}(-4, 4)$  with an Attrition Probability of 20%



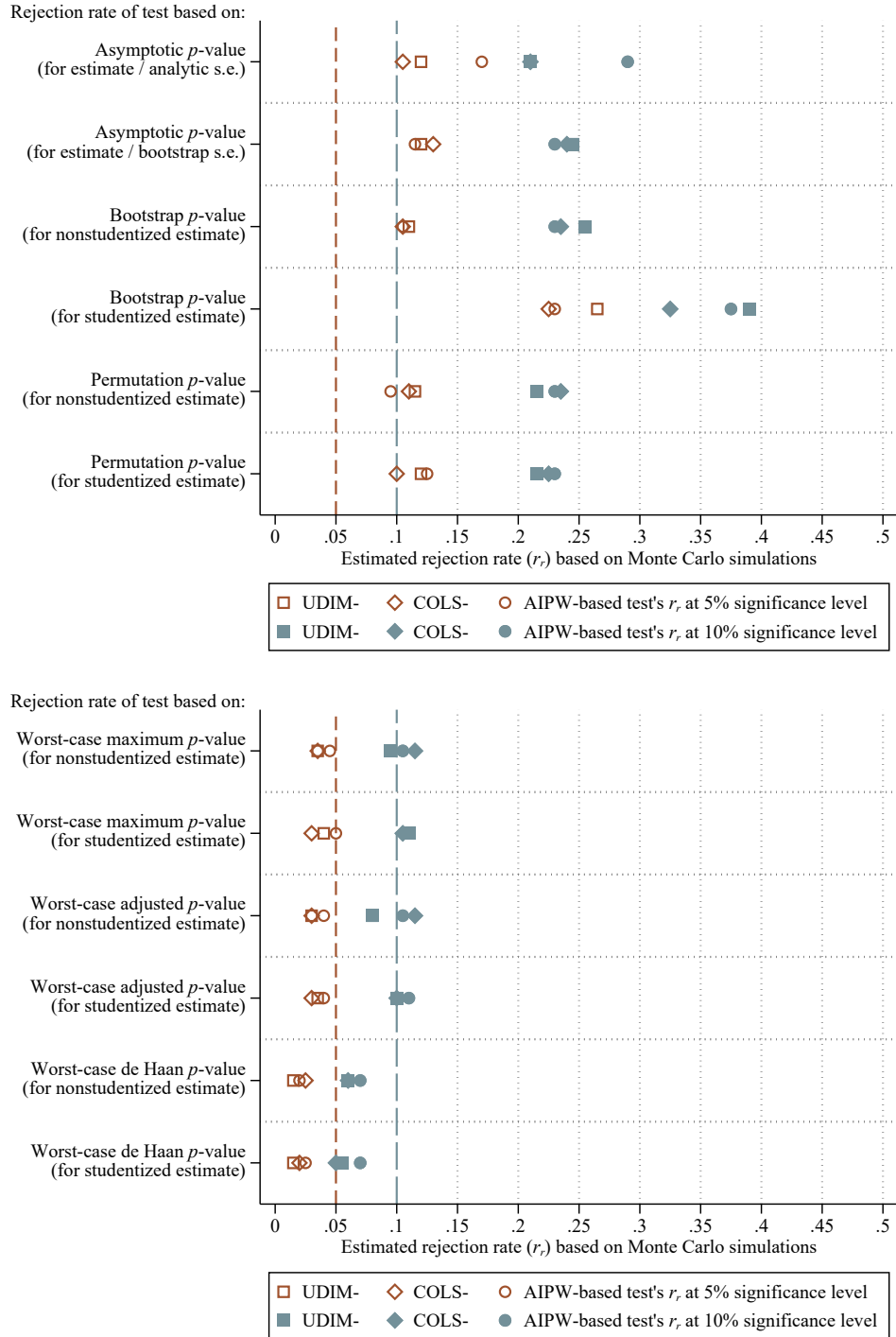
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 9:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Female** Sample Under the Null Hypothesis that  $Y_i^0 \sim \mathcal{N}(0, 1)$  and  $\tau_i \sim \text{Unif}(-4, 4)$  with an Attrition Probability of 20%



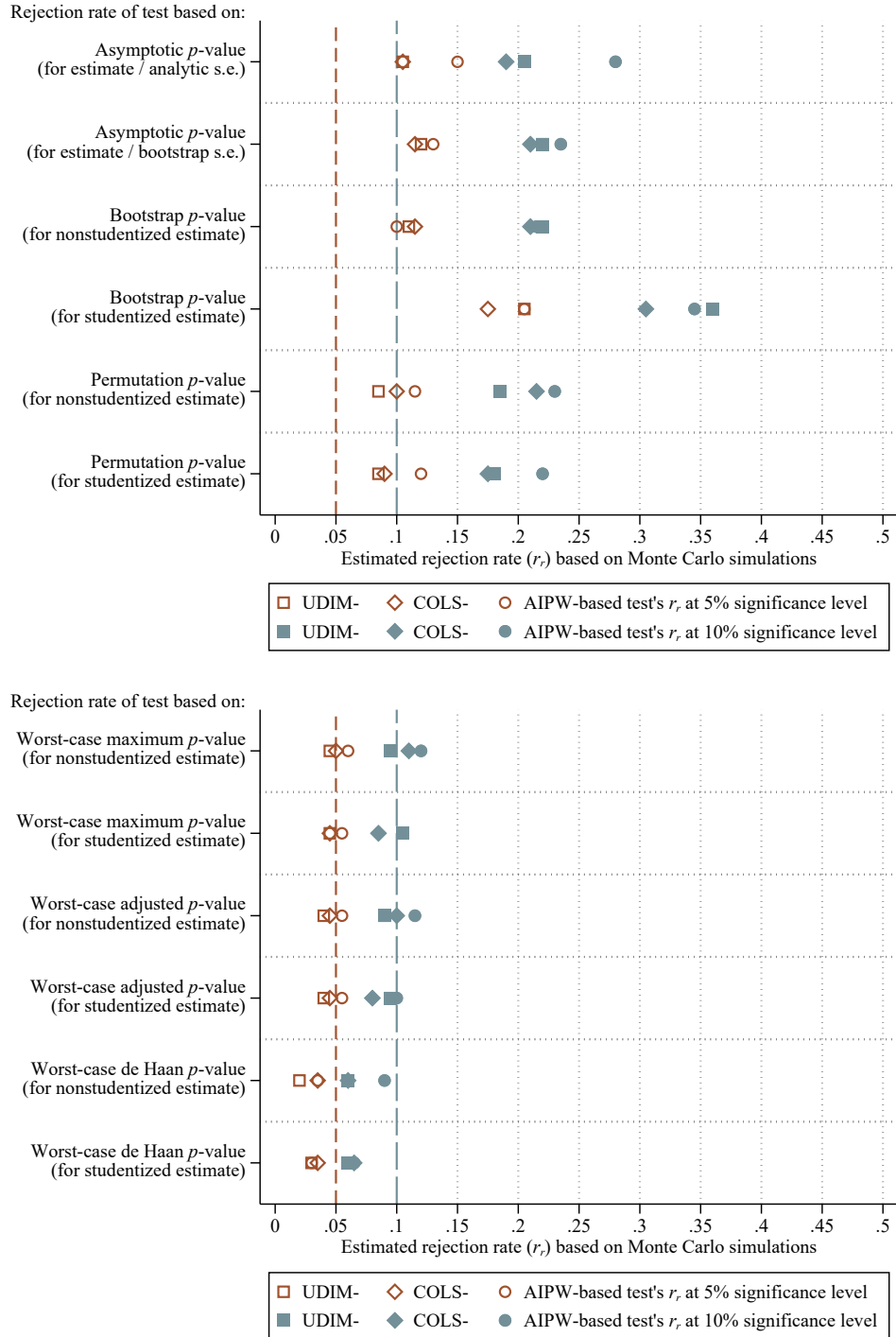
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 10:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Pooled** Sample Under the Null Hypothesis that  $Y_i^0 \sim \text{Ber}(0.5)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

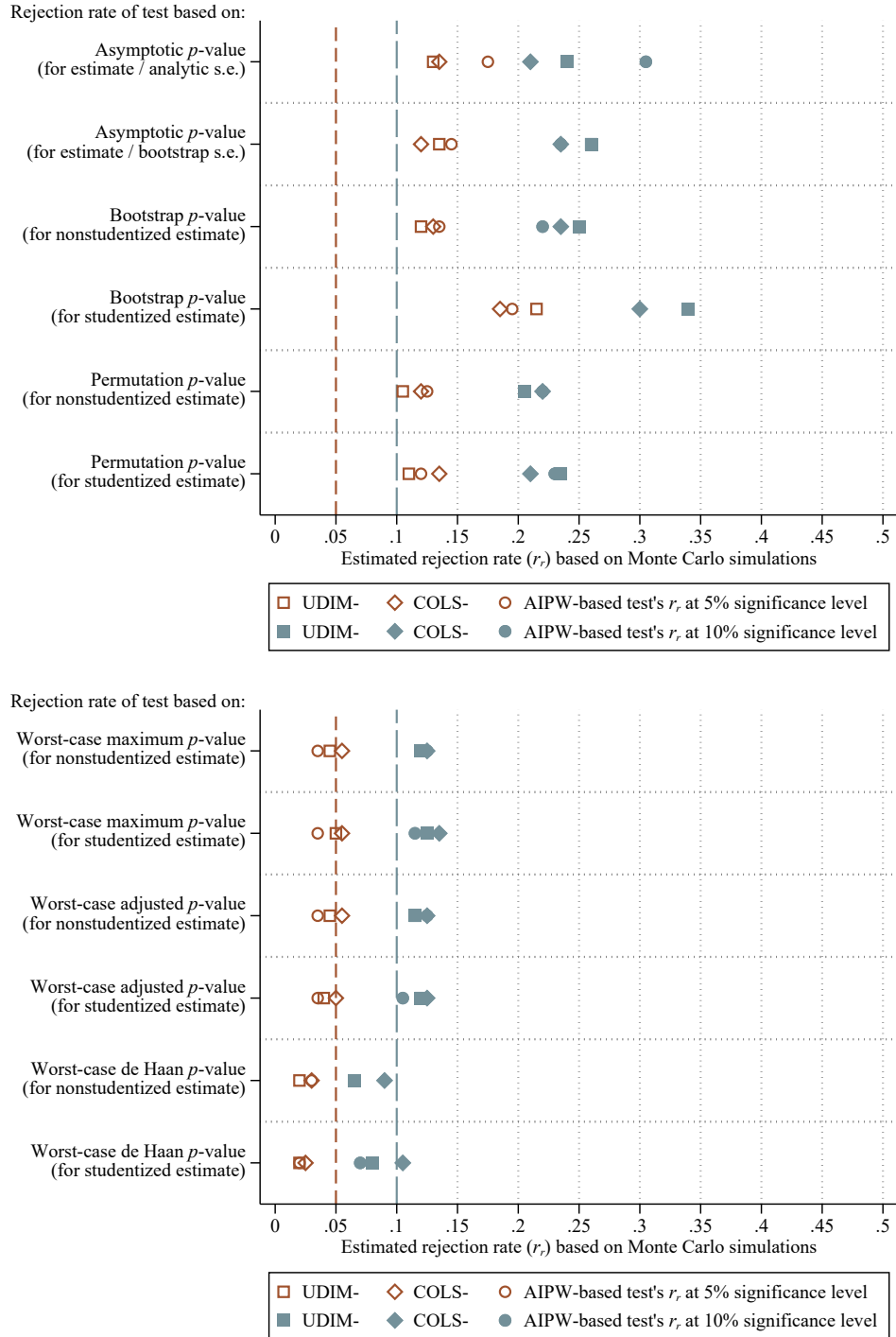
**Figure 11:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Male** Sample Under the Null Hypothesis that  $Y_i^0 \sim \text{Ber}(0.5)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

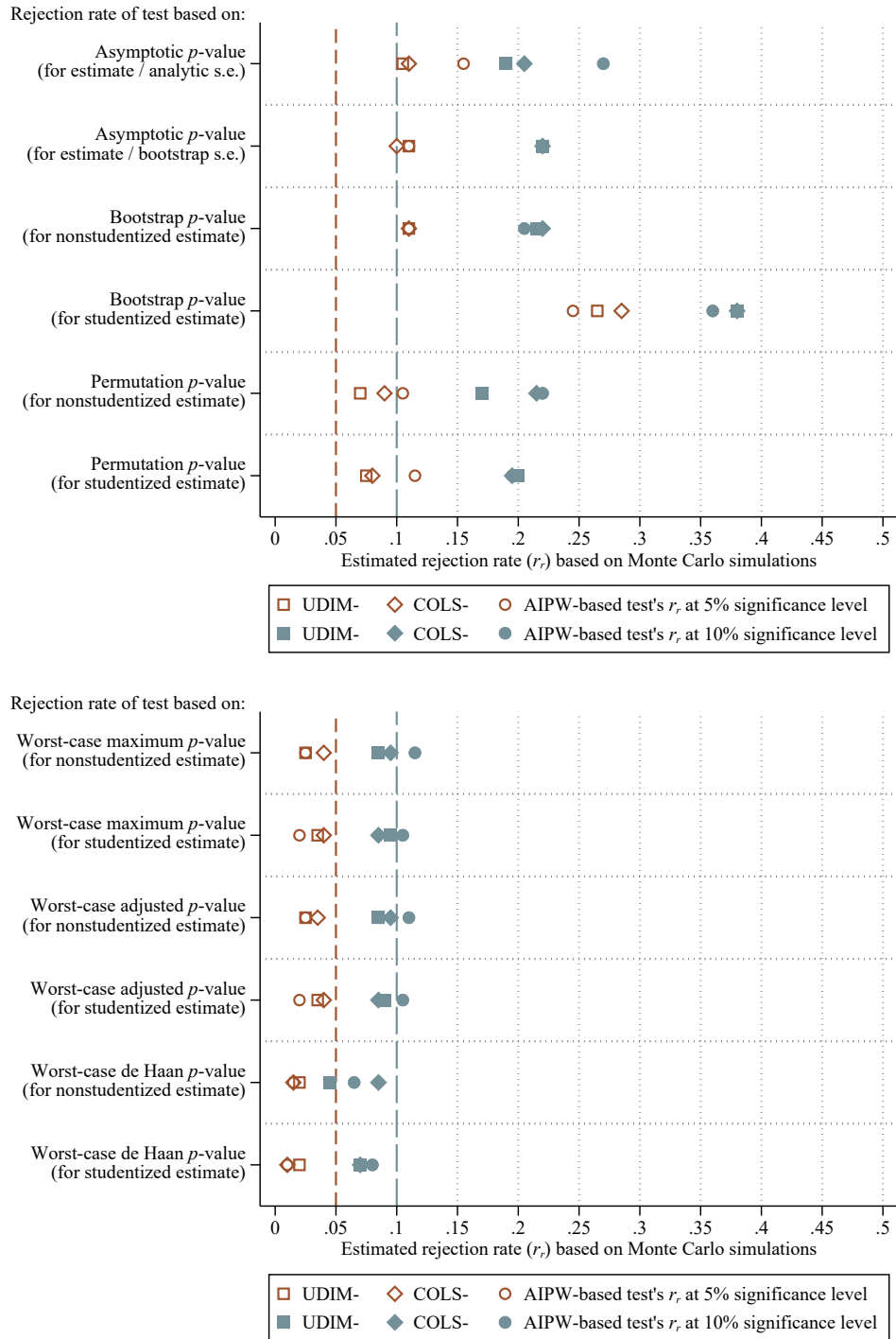


**Figure 12:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Female** Sample Under the Null Hypothesis that  $Y_i^0 \sim \text{Ber}(0.5)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



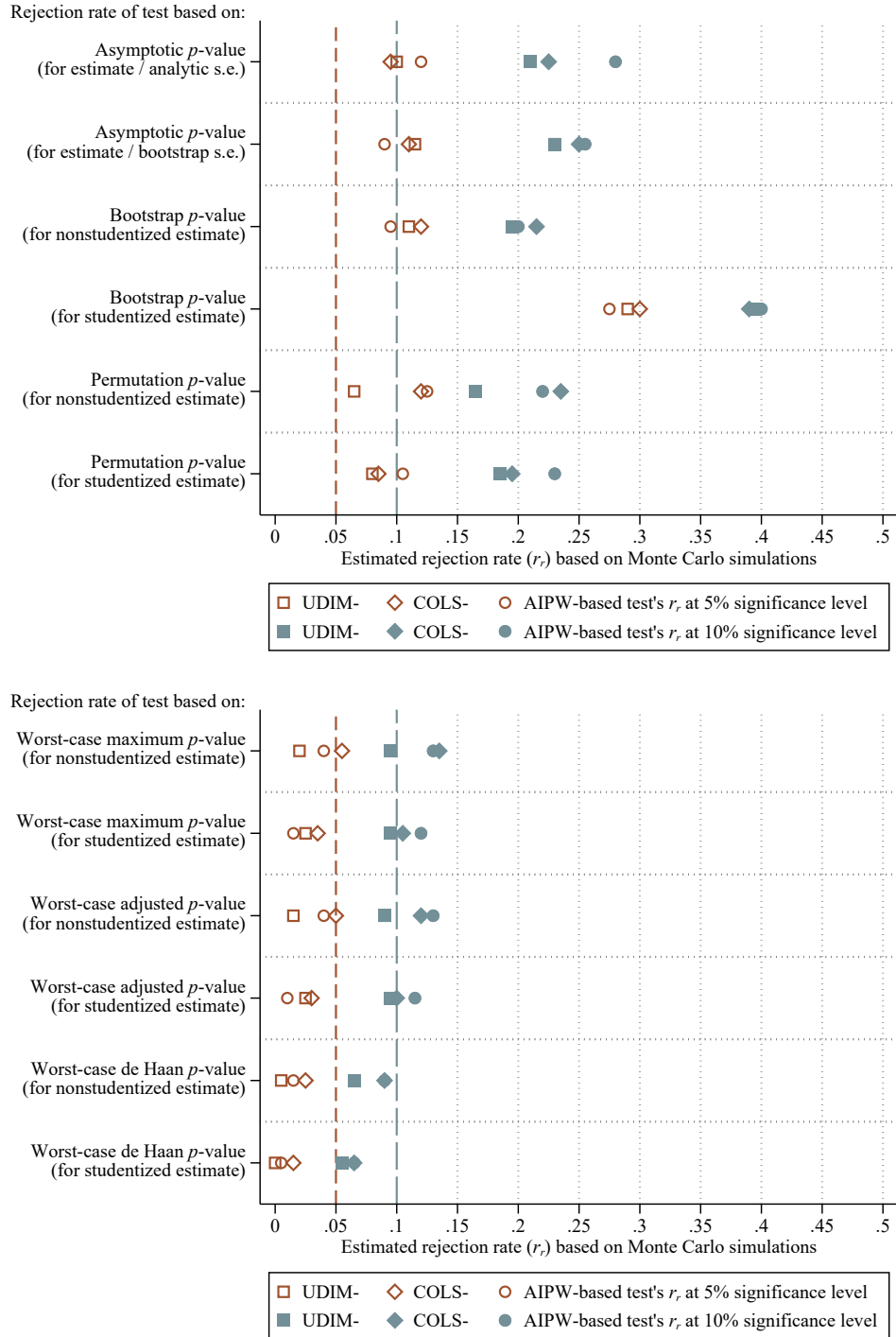
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 13:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Pooled** Sample Under the Null Hypothesis that  $Y_i^0 \sim \text{Ber}(0.1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



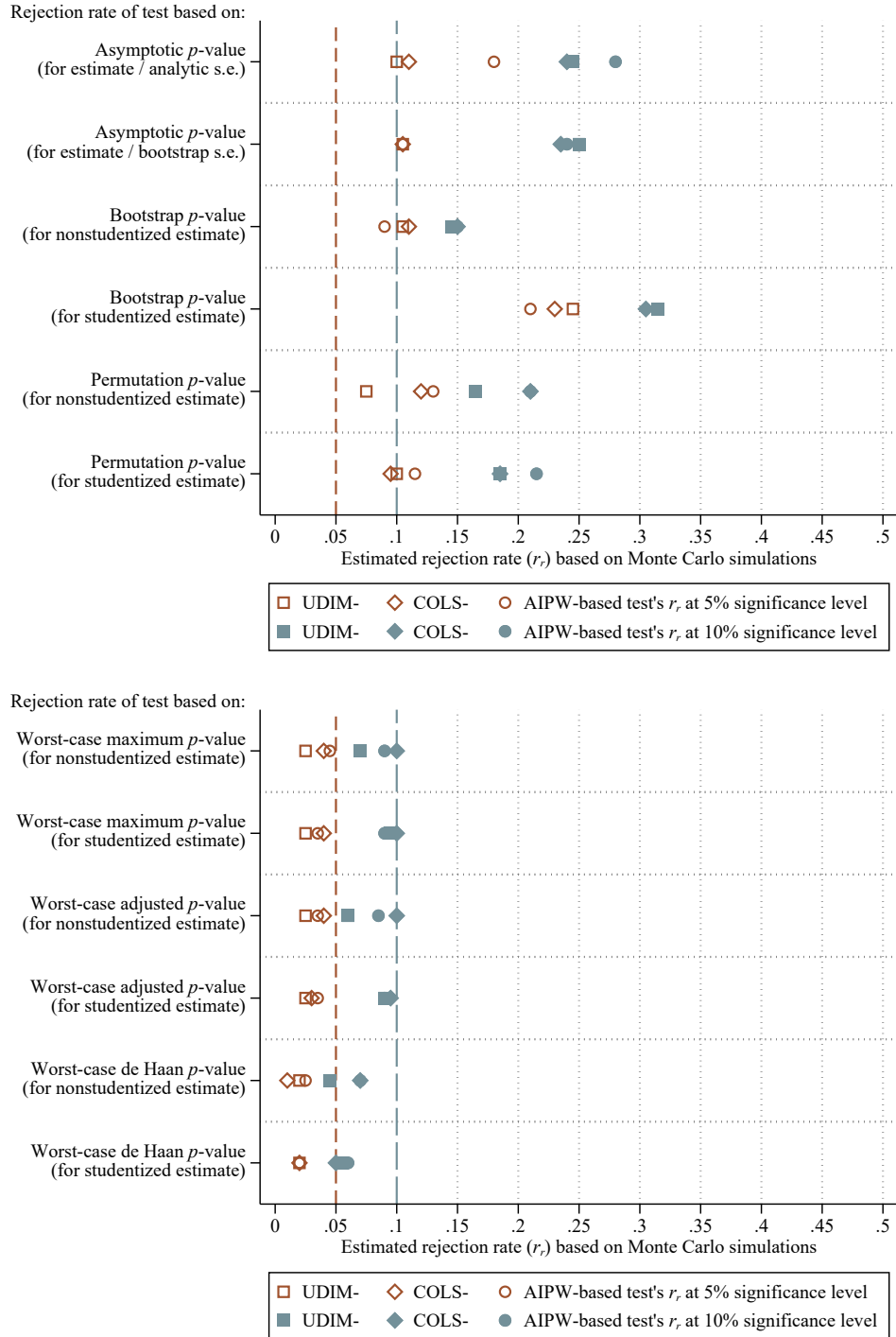
*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 14:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Male** Sample Under the Null Hypothesis that  $Y_i^0 \sim \text{Ber}(0.1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

**Figure 15:** Monte Carlo-Based Rejection Rates of Various  $P$ -Values in the **Female** Sample Under the Null Hypothesis that  $Y_i^0 \sim \text{Ber}(0.1)$ ,  $\tau_i = Y_i^1 - Y_i^0 = 0$  with an Attrition Probability of 20%



*Note:* This graph shows the empirical rejection rates at the 5% and 10% significance levels for various  $p$ -values based on 200 Monte Carlo simulations. The test statistic relevant to the  $p$ -value is given in parentheses. The label for each marker on the graph lists the estimator used for the test statistic.

### **3 Hypothesis Tests for Treatment Effects on Mortality Outcomes**

**Table 4: Treatment Effects on the Mortality Outcomes of the Pooled Participants**

	Statistic	Alive at age 20	Alive/non-disease mortality, age 20	Alive at age 30	Alive/non-disease mortality, age 30	Alive at age 40	Alive/non-disease mortality, age 40	Alive at age 50	Alive/non-disease mortality, age 50
Summary	(i) Observations	123	123	123	123	123	123	123	123
	(ii) Control	1.0000	1.0000	0.9385	1.0000	0.9231	0.9846	0.8923	0.9538
	(iii) Treatment	1.0000	1.0000	0.9828	0.9828	0.9655	0.9655	0.9310	0.9655
Estimates	(iv) UDIM	0.0000	0.0000	0.0443	-0.0172	0.0424	-0.0191	0.0387	0.0117
	(v) COLS	0.0000	0.0000	0.0569	-0.0216	0.0524	-0.0261	0.0582	0.0138
	(vi) AIPW	0.0000	0.0000	0.0522	-0.0183	0.0479	-0.0227	0.0586	0.0158
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.5000	0.5000	0.1002	0.1599	0.1520	0.2542	0.2277	0.3730
	(02) $p_{A,A}^2$	0.5000	0.5000	<b>0.0985</b>	0.1601	0.1473	0.2116	0.1708	0.3744
	(03) $p_{A,A}^3$	0.5000	0.5000	<b>0.0924</b>	0.1771	0.1426	0.2222	0.1426	0.3414
	(04) $p_{A,B}^1$	0.5000	0.5000	0.1011	0.1536	0.1519	0.2477	0.2276	0.3686
	(05) $p_{A,B}^2$	0.5000	0.5000	0.1001	0.1524	0.1490	0.2030	0.1739	0.3697
	(06) $p_{A,B}^3$	0.5000	0.5000	0.1023	0.1717	0.1569	0.2279	0.1580	0.3486
Bootstrap $p$ -values	(07) $p_{B,N}^1$	1.0000	1.0000	<b>0.0992</b>	0.3588	0.1488	0.2588	0.2364	0.3684
	(08) $p_{B,N}^2$	1.0000	1.0000	<b>0.0904</b>	0.3588	0.1472	0.2104	0.1760	0.3760
	(09) $p_{B,N}^3$	1.0000	1.0000	<b>0.0912</b>	0.3588	0.1544	0.2156	0.1540	0.3548
	(10) $p_{B,S}^1$	1.0000	1.0000	<b>0.0156</b>	<b>0.0004</b>	<b>0.0644</b>	0.1440	0.1620	0.3336
	(11) $p_{B,S}^2$	1.0000	1.0000	<b>0.0200</b>	<b>0.0004</b>	<b>0.0584</b>	<b>0.0884</b>	<b>0.0996</b>	0.3352
	(12) $p_{B,S}^3$	1.0000	1.0000	<b>0.0288</b>	<b>0.0212</b>	<b>0.0716</b>	0.1512	<b>0.0880</b>	0.3052
Permutation $p$ -values	(13) $p_{P,N}^1$	1.0000	1.0000	0.1256	0.3336	0.1856	0.3364	0.2572	0.3920
	(14) $p_{P,N}^2$	1.0000	1.0000	<b>0.0472</b>	<b>0.0536</b>	0.1180	0.1612	0.1488	0.3652
	(15) $p_{P,N}^3$	1.0000	1.0000	<b>0.0636</b>	0.1764	0.1404	0.2056	0.1536	0.3460
	(16) $p_{P,S}^1$	1.0000	1.0000	0.1044	0.4016	0.1608	0.3364	0.2352	0.3544
	(17) $p_{P,S}^2$	1.0000	1.0000	0.1012	0.1152	0.1608	0.1908	0.1812	0.3944
	(18) $p_{P,S}^3$	1.0000	1.0000	0.1172	0.3920	0.1700	0.2240	0.1688	0.3620
Worst-case max. $p$	(19) $p_{M,N}^1$	1.0000	1.0000	0.1241	0.4641	0.1718	0.5018	0.2337	0.4298
	(20) $p_{M,N}^2$	1.0000	1.0000	<b>0.0942</b>	<b>0.0731</b>	0.1692	0.2322	0.1891	0.4730
	(21) $p_{M,N}^3$	1.0000	1.0000	0.1170	0.1891	0.1895	0.2970	0.1837	0.4255
	(22) $p_{M,S}^1$	1.0000	1.0000	0.1096	0.4010	0.1599	0.4825	0.2118	0.4138
	(23) $p_{M,S}^2$	1.0000	1.0000	0.1719	0.1566	0.2064	0.2452	0.2164	0.4902
	(24) $p_{M,S}^3$	1.0000	1.0000	0.1863	0.4193	0.2141	0.3146	0.2023	0.4439
Worst-case adjusted $p$	(25) $p_{R,N}^1$	1.0000	1.0000	0.1274	0.4715	0.1756	0.5086	0.2433	0.4337
	(26) $p_{R,N}^2$	1.0000	1.0000	<b>0.0978</b>	<b>0.0754</b>	0.1701	0.2380	0.1975	0.4742
	(27) $p_{R,N}^3$	1.0000	1.0000	0.1229	0.1931	0.1908	0.2988	0.1935	0.4290
	(28) $p_{R,S}^1$	1.0000	1.0000	0.1131	0.4035	0.1617	0.4890	0.2172	0.4204
	(29) $p_{R,S}^2$	1.0000	1.0000	0.1748	0.1612	0.2117	0.2508	0.2198	0.4962
	(30) $p_{R,S}^3$	1.0000	1.0000	0.1891	0.4213	0.2157	0.3172	0.2081	0.4501
Worst-case de Haan $p$	(31) $p_{D,N}^1$	1.0000	1.0000	0.1449	0.4942	0.2080	0.5300	0.3294	0.4576
	(32) $p_{D,N}^2$	1.0000	1.0000	0.1133	0.1556	0.1911	0.2653	0.2111	0.6037
	(33) $p_{D,N}^3$	1.0000	1.0000	0.1698	0.2585	0.2214	0.3236	0.3782	0.4521
	(34) $p_{D,S}^1$	1.0000	1.0000	0.1645	0.4418	0.2254	0.5561	0.2667	0.5236
	(35) $p_{D,S}^2$	1.0000	1.0000	0.1896	0.2102	0.2588	0.3294	0.2475	0.5750
	(36) $p_{D,S}^3$	1.0000	1.0000	0.2265	0.5558	0.2545	0.3626	0.2331	0.4937

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 5: Treatment Effects on the Mortality Outcomes of the Male Participants**

	Statistic	Alive at age 20	Alive/non-disease mortality, age 20	Alive at age 30	Alive/non-disease mortality, age 30	Alive at age 40	Alive/non-disease mortality, age 40	Alive at age 50	Alive/non-disease mortality, age 50
Summary	(i) Observations	72	72	72	72	72	72	72	72
	(ii) Control	1.0000	1.0000	0.9487	1.0000	0.9231	0.9744	0.8974	0.9487
	(iii) Treatment	1.0000	1.0000	0.9697	0.9697	0.9697	0.9697	0.9091	0.9697
Estimates	(iv) UDIM	0.0000	0.0000	0.0210	-0.0303	0.0466	-0.0047	0.0117	0.0210
	(v) COLS	0.0000	0.0000	0.0281	-0.0367	0.0526	-0.0122	0.0316	0.0241
	(vi) AIPW	0.0000	0.0000	0.0262	-0.0313	0.0502	-0.0074	0.0372	0.0270
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.5000	0.5000	0.3281	0.1592	0.1904	0.4534	0.4353	0.3281
	(02) $p_{A,A}^2$	0.5000	0.5000	0.3155	0.1588	0.2032	0.3915	0.3497	0.3376
	(03) $p_{A,A}^3$	0.5000	0.5000	0.3040	0.1771	0.1835	0.4281	0.3030	0.3000
	(04) $p_{A,B}^1$	0.5000	0.5000	0.3304	0.1541	0.1929	0.4521	0.4352	0.3243
	(05) $p_{A,B}^2$	0.5000	0.5000	0.3197	0.1537	0.2085	0.3885	0.3522	0.3326
	(06) $p_{A,B}^3$	0.5000	0.5000	0.3130	0.1717	0.1975	0.4281	0.3122	0.3050
Bootstrap $p$ -values	(07) $p_{B,N}^1$	1.0000	1.0000	0.3632	0.3588	0.1980	0.5252	0.4376	0.3488
	(08) $p_{B,N}^2$	1.0000	1.0000	0.3404	0.3588	0.2140	0.4524	0.3576	0.3604
	(09) $p_{B,N}^3$	1.0000	1.0000	0.3380	0.3588	0.2052	0.4904	0.3224	0.3280
	(10) $p_{B,S}^1$	1.0000	1.0000	0.3480	<b>0.0004</b>	0.1216	0.3776	0.4308	0.3368
	(11) $p_{B,S}^2$	1.0000	1.0000	0.3288	<b>0.0032</b>	0.1380	0.3684	0.3032	0.3344
	(12) $p_{B,S}^3$	1.0000	1.0000	0.3224	<b>0.0244</b>	0.1324	0.3944	0.2468	0.3160
Permutation $p$ -values	(13) $p_{P,N}^1$	1.0000	1.0000	0.3676	0.2316	0.2300	0.4820	0.4664	0.3992
	(14) $p_{P,N}^2$	1.0000	1.0000	0.2568	<b>0.0592</b>	0.1644	0.3648	0.3260	0.3248
	(15) $p_{P,N}^3$	1.0000	1.0000	0.2824	0.1764	0.1816	0.4220	0.3052	0.2784
	(16) $p_{P,S}^1$	1.0000	1.0000	0.3548	0.2244	0.2220	0.4636	0.4536	0.3876
	(17) $p_{P,S}^2$	1.0000	1.0000	0.3152	<b>0.0880</b>	0.2224	0.3808	0.3440	0.3760
	(18) $p_{P,S}^3$	1.0000	1.0000	0.3100	0.3916	0.2096	0.4288	0.3044	0.3156
Worst-case max. $p$	(19) $p_{M,N}^1$	1.0000	1.0000	0.4265	0.3579	0.2603	0.6191	0.4423	0.4043
	(20) $p_{M,N}^2$	1.0000	1.0000	0.4093	<b>0.0767</b>	0.2744	0.3833	0.4072	0.4491
	(21) $p_{M,N}^3$	1.0000	1.0000	0.4040	0.1891	0.2738	0.4659	0.3630	0.3857
	(22) $p_{M,S}^1$	1.0000	1.0000	0.4187	0.2817	0.2576	0.5844	0.4217	0.3934
	(23) $p_{M,S}^2$	1.0000	1.0000	0.4864	<b>0.0928</b>	0.3318	0.3982	0.4141	0.4930
	(24) $p_{M,S}^3$	1.0000	1.0000	0.4553	0.4193	0.3093	0.4726	0.3651	0.4248
Worst-case adjusted $p$	(25) $p_{R,N}^1$	1.0000	1.0000	0.4360	0.3651	0.2646	0.6283	0.4473	0.4070
	(26) $p_{R,N}^2$	1.0000	1.0000	0.4184	<b>0.0794</b>	0.2846	0.3839	0.4074	0.4560
	(27) $p_{R,N}^3$	1.0000	1.0000	0.4144	0.1931	0.2853	0.4758	0.3697	0.3879
	(28) $p_{R,S}^1$	1.0000	1.0000	0.4239	0.2909	0.2615	0.5940	0.4272	0.3971
	(29) $p_{R,S}^2$	1.0000	1.0000	0.5008	<b>0.0956</b>	0.3328	0.3982	0.4215	0.4964
	(30) $p_{R,S}^3$	1.0000	1.0000	0.4638	0.4213	0.3208	0.4795	0.3717	0.4376
Worst-case de Haan $p$	(31) $p_{D,N}^1$	1.0000	1.0000	0.4674	0.4346	0.3310	0.7314	0.5066	0.4796
	(32) $p_{D,N}^2$	1.0000	1.0000	0.4813	0.1257	0.3366	0.5094	0.4438	0.4980
	(33) $p_{D,N}^3$	1.0000	1.0000	0.4767	0.2585	0.3299	0.5035	0.4261	0.4496
	(34) $p_{D,S}^1$	1.0000	1.0000	0.4673	0.3550	0.3116	0.6614	0.4737	0.4186
	(35) $p_{D,S}^2$	1.0000	1.0000	0.5543	0.1533	0.5379	0.4473	0.5897	0.5689
	(36) $p_{D,S}^3$	1.0000	1.0000	0.4872	0.5558	0.4996	0.5006	0.4047	0.5030

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 6: Treatment Effects on the Mortality Outcomes of the Female Participants**

	Statistic	Alive at age 20	Alive/non-disease mortality, age 20	Alive at age 30	Alive/non-disease mortality, age 30	Alive at age 40	Alive/non-disease mortality, age 40	Alive at age 50	Alive/non-disease mortality, age 50
Summary	(i) Observations	51	51	51	51	51	51	51	51
	(ii) Control	1.0000	1.0000	0.9231	1.0000	0.9231	1.0000	0.8846	0.9615
	(iii) Treatment	1.0000	1.0000	1.0000	1.0000	0.9600	0.9600	0.9600	0.9600
Estimates	(iv) UDIM	0.0000	0.0000	0.0769	0.0000	0.0369	-0.0400	0.0754	-0.0015
	(v) COLS	0.0000	0.0000	0.0957	0.0000	0.0492	-0.0465	0.0971	0.0014
	(vi) AIPW	0.0000	0.0000	0.0889	0.0000	0.0447	-0.0443	0.0889	-0.0001
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.5000	0.5000	<b>0.0768</b>	0.5000	0.2915	0.1601	0.1619	0.4890
	(02) $p_{A,A}^2$	0.5000	0.5000	<b>0.0808</b>	0.5000	0.2764	0.1646	0.1509	0.4917
	(03) $p_{A,A}^3$	0.5000	0.5000	<b>0.0797</b>	0.5000	0.2775	0.1442	0.1465	0.4996
	(04) $p_{A,B}^1$	0.5000	0.5000	<b>0.0634</b>	0.5000	0.2859	0.1553	0.1571	0.4886
	(05) $p_{A,B}^2$	0.5000	0.5000	<b>0.0751</b>	0.5000	0.2752	0.1602	0.1544	0.4916
	(06) $p_{A,B}^3$	0.5000	0.5000	<b>0.0788</b>	0.5000	0.2870	0.1702	0.1661	0.4996
Bootstrap $p$ -values	(07) $p_{B,N}^1$	1.0000	1.0000	0.1276	1.0000	0.3168	0.3468	0.1676	0.5460
	(08) $p_{B,N}^2$	1.0000	1.0000	0.1276	1.0000	0.2896	0.3468	0.1460	0.5604
	(09) $p_{B,N}^3$	1.0000	1.0000	0.1276	1.0000	0.3108	0.3468	0.1660	0.5544
	(10) $p_{B,S}^1$	1.0000	1.0000	0.1276	1.0000	0.2668	<b>0.0008</b>	<b>0.0704</b>	0.4320
	(11) $p_{B,S}^2$	1.0000	1.0000	0.1280	1.0000	0.2560	<b>0.0080</b>	<b>0.0740</b>	0.4568
	(12) $p_{B,S}^3$	1.0000	1.0000	0.1328	1.0000	0.2628	<b>0.0304</b>	<b>0.0928</b>	0.4460
Permutation $p$ -values	(13) $p_{P,N}^1$	1.0000	1.0000	0.1148	1.0000	0.3472	0.2804	0.2084	0.4956
	(14) $p_{P,N}^2$	1.0000	1.0000	<b>0.0236</b>	1.0000	0.2624	0.1284	0.1288	0.4900
	(15) $p_{P,N}^3$	1.0000	1.0000	<b>0.0364</b>	1.0000	0.2876	0.1420	0.1508	0.4956
	(16) $p_{P,S}^1$	1.0000	1.0000	0.1180	1.0000	0.3348	0.2540	0.1968	0.4796
	(17) $p_{P,S}^2$	1.0000	1.0000	<b>0.0700</b>	1.0000	0.3036	0.2220	0.1716	0.4916
	(18) $p_{P,S}^3$	1.0000	1.0000	0.1976	1.0000	0.3312	0.1568	0.1904	0.4956
Worst-case max. $p$	(19) $p_{M,N}^1$	1.0000	1.0000	0.1370	1.0000	0.3335	0.4910	0.2005	0.7301
	(20) $p_{M,N}^2$	1.0000	1.0000	<b>0.0782</b>	1.0000	0.2949	0.2539	0.1557	0.5524
	(21) $p_{M,N}^3$	1.0000	1.0000	<b>0.0937</b>	1.0000	0.3167	0.2801	0.1772	0.6163
	(22) $p_{M,S}^1$	1.0000	1.0000	0.1451	1.0000	0.3171	0.3978	0.1932	0.6967
	(23) $p_{M,S}^2$	1.0000	1.0000	0.1417	1.0000	0.3542	0.3341	0.2175	0.5530
	(24) $p_{M,S}^3$	1.0000	1.0000	0.2301	1.0000	0.3593	0.3548	0.2159	0.6163
Worst-case adjusted $p$	(25) $p_{R,N}^1$	1.0000	1.0000	0.1377	1.0000	0.3438	0.4947	0.2020	0.7337
	(26) $p_{R,N}^2$	1.0000	1.0000	<b>0.0797</b>	1.0000	0.3064	0.2558	0.1598	0.5575
	(27) $p_{R,N}^3$	1.0000	1.0000	<b>0.0987</b>	1.0000	0.3222	0.2804	0.1789	0.6216
	(28) $p_{R,S}^1$	1.0000	1.0000	0.1479	1.0000	0.3238	0.3981	0.1960	0.6981
	(29) $p_{R,S}^2$	1.0000	1.0000	0.1438	1.0000	0.3751	0.3364	0.2246	0.5571
	(30) $p_{R,S}^3$	1.0000	1.0000	0.2347	1.0000	0.3731	0.3554	0.2180	0.6216
Worst-case de Haan $p$	(31) $p_{D,N}^1$	1.0000	1.0000	0.1594	1.0000	0.4978	0.5175	0.2465	0.7539
	(32) $p_{D,N}^2$	1.0000	1.0000	<b>0.0943</b>	1.0000	0.3627	0.2607	0.2509	0.6629
	(33) $p_{D,N}^3$	1.0000	1.0000	0.1227	1.0000	0.4157	0.3460	0.2449	0.6361
	(34) $p_{D,S}^1$	1.0000	1.0000	0.2255	1.0000	0.3721	0.4664	0.2391	0.7138
	(35) $p_{D,S}^2$	1.0000	1.0000	0.1738	1.0000	0.4964	0.3857	0.2540	0.6124
	(36) $p_{D,S}^3$	1.0000	1.0000	0.2814	1.0000	0.5819	0.3593	0.2537	0.6361

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



## 4 Hypothesis Tests for Treatment Effects on Crime Outcomes

**Table 7:** Descriptions of Crime Outcomes

Variable	Description
# Mis./fel. arr./cnv. vio./pvd./any, age(s) $a$	Cumulative number of misdemeanor (mis.) or felony (fel.) arrests (arr.) or convictions (cnv.) for violent (vio.) crimes, property-violent-or-drug-related (pvd.) crimes, or any type of crimes by age $a$ or during the specified time period, respectively
$\geq 1$ Mis./fel. arr./cnv. vio./pvd./any, age(s) $a$	Indicator of one or more misdemeanor (mis.) or felony (fel.) arrests (arr.) or convictions (cnv.) for violent (vio.) crimes, property-violent-or-drug-related (pvd.) crimes, or any type of crimes by age $a$ or during the specified time period, respectively
$\geq 2$ Mis./fel. arr./cnv. vio./pvd./any, age(s) $a$	Indicator of two or more misdemeanor (mis.) or felony (fel.) arrests (arr.) or convictions (cnv.) for violent (vio.) crimes, property-violent-or-drug-related (pvd.) crimes, or any type of crimes by age $a$ or during the specified time period, respectively
Mis. fine/prob./jail vio./pvd./any, age(s) $a$	Cumulative fines in 2017 USD (fine), months of probation (prob.), or days jailed (jail) for violent (vio.) misdemeanors, property-violent-or-drug-related (pvd.) misdemeanors, or any type of misdemeanors by age $a$ or during the specified time period, respectively
Fel. fine/prob./jail vio./pvd./any, age(s) $a$	Cumulative fines in 2017 USD (fine), months of probation (prob.), or minimum months of prison sentence (jail) for violent (vio.) felonies, property-violent-or-drug-related (pvd.) felonies, or any type of felonies by age $a$ or during the specified time period, respectively

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor arrests for violent crime				Cumulative misdemeanor arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.5846	0.9206	1.0000	0.9400	1.5077	2.2540	2.5200	2.4000
	(iii) Mean of the treatment group		0.0862	0.2456	0.3269	0.3269	0.6034	0.9825	1.2692	1.0962
Estimates	(iv) UDIM (difference in means)		-0.4984	-0.6750	-0.6731	-0.6131	-0.9042	-1.2715	-1.2508	-1.3038
	(v) COLS (conditional OLS estimate)		-0.6166	-0.7643	-0.8302	-0.7521	-1.0744	-1.2827	-1.2685	-1.3257
	(vi) AIPW (augmented IPW estimate)		-0.5694	-0.7254	-0.8151	-0.7393	-1.0165	-1.1961	-1.2121	-1.2639
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0131</b>	<b>0.0040</b>	<b>0.0057</b>	<b>0.0092</b>	<b>0.0166</b>	<b>0.0050</b>	<b>0.0188</b>	<b>0.0112</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0104</b>	<b>0.0047</b>	<b>0.0042</b>	<b>0.0076</b>	<b>0.0136</b>	<b>0.0084</b>	<b>0.0308</b>	<b>0.0195</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0065</b>	<b>0.0021</b>	<b>0.0017</b>	<b>0.0033</b>	<b>0.0074</b>	<b>0.0057</b>	<b>0.0304</b>	<b>0.0152</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0027</b>	<b>0.0009</b>	<b>0.0043</b>	<b>0.0074</b>	<b>0.0069</b>	<b>0.0025</b>	<b>0.0190</b>	<b>0.0103</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0019</b>	<b>0.0009</b>	<b>0.0032</b>	<b>0.0062</b>	<b>0.0053</b>	<b>0.0044</b>	<b>0.0324</b>	<b>0.0190</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0019</b>	<b>0.0009</b>	<b>0.0046</b>	<b>0.0081</b>	<b>0.0047</b>	<b>0.0068</b>	<b>0.0526</b>	<b>0.0325</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0008</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0040</b>	<b>0.0044</b>	<b>0.0020</b>	<b>0.0208</b>	<b>0.0080</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0020</b>	<b>0.0020</b>	<b>0.0020</b>	<b>0.0284</b>	<b>0.0100</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0032</b>	<b>0.0028</b>	<b>0.0388</b>	<b>0.0160</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0112</b>	<b>0.0008</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0180</b>	<b>0.0052</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0052</b>	<b>0.0032</b>	<b>0.0040</b>	<b>0.0048</b>	<b>0.0100</b>	<b>0.0028</b>	<b>0.0164</b>	<b>0.0088</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0008</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0020</b>	<b>0.0012</b>	<b>0.0020</b>	<b>0.0144</b>	<b>0.0068</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0020</b>	<b>0.0012</b>	<b>0.0020</b>	<b>0.0024</b>	<b>0.0032</b>	<b>0.0060</b>	<b>0.0244</b>	<b>0.0116</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0052</b>	<b>0.0032</b>	<b>0.0044</b>	<b>0.0068</b>	<b>0.0116</b>	<b>0.0036</b>	<b>0.0212</b>	<b>0.0120</b>
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0032</b>	<b>0.0028</b>	<b>0.0036</b>	<b>0.0056</b>	<b>0.0080</b>	<b>0.0076</b>	<b>0.0356</b>	<b>0.0192</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0016</b>	<b>0.0028</b>	<b>0.0032</b>	<b>0.0044</b>	<b>0.0060</b>	<b>0.0080</b>	<b>0.0472</b>	<b>0.0204</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0115</b>	<b>0.0077</b>	<b>0.0127</b>	<b>0.0127</b>	<b>0.0170</b>	<b>0.0096</b>	<b>0.0302</b>	<b>0.0138</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0093</b>	<b>0.0083</b>	<b>0.0083</b>	<b>0.0104</b>	<b>0.0115</b>	<b>0.0123</b>	<b>0.0227</b>	<b>0.0127</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0132</b>	<b>0.0146</b>	<b>0.0134</b>	<b>0.0148</b>	<b>0.0123</b>	<b>0.0174</b>	<b>0.0365</b>	<b>0.0237</b>
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0115</b>	<b>0.0095</b>	<b>0.0153</b>	<b>0.0192</b>	<b>0.0183</b>	<b>0.0134</b>	<b>0.0338</b>	<b>0.0247</b>
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0103</b>	<b>0.0103</b>	<b>0.0134</b>	<b>0.0170</b>	<b>0.0199</b>	<b>0.0137</b>	<b>0.0622</b>	<b>0.0292</b>
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0099</b>	<b>0.0117</b>	<b>0.0134</b>	<b>0.0150</b>	<b>0.0155</b>	<b>0.0216</b>	<b>0.0733</b>	<b>0.0310</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0122</b>	<b>0.0079</b>	<b>0.0138</b>	<b>0.0138</b>	<b>0.0179</b>	<b>0.0098</b>	<b>0.0312</b>	<b>0.0146</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0094</b>	<b>0.0084</b>	<b>0.0084</b>	<b>0.0108</b>	<b>0.0124</b>	<b>0.0124</b>	<b>0.0262</b>	<b>0.0139</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0144</b>	<b>0.0159</b>	<b>0.0134</b>	<b>0.0148</b>	<b>0.0125</b>	<b>0.0191</b>	<b>0.0395</b>	<b>0.0248</b>
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0116</b>	<b>0.0104</b>	<b>0.0169</b>	<b>0.0205</b>	<b>0.0195</b>	<b>0.0137</b>	<b>0.0346</b>	<b>0.0270</b>
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0113</b>	<b>0.0108</b>	<b>0.0134</b>	<b>0.0175</b>	<b>0.0202</b>	<b>0.0138</b>	<b>0.0657</b>	<b>0.0334</b>
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0100</b>	<b>0.0119</b>	<b>0.0147</b>	<b>0.0155</b>	<b>0.0159</b>	<b>0.0231</b>	<b>0.0742</b>	<b>0.0329</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0196</b>	<b>0.0154</b>	<b>0.0202</b>	<b>0.0242</b>	<b>0.0291</b>	<b>0.0190</b>	<b>0.0421</b>	<b>0.0287</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0096</b>	<b>0.0154</b>	<b>0.0184</b>	<b>0.0154</b>	<b>0.0189</b>	<b>0.0168</b>	<b>0.0427</b>	<b>0.0180</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0221</b>	<b>0.0195</b>	<b>0.0197</b>	<b>0.0151</b>	<b>0.0186</b>	<b>0.0263</b>	<b>0.0720</b>	<b>0.0458</b>
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0141</b>	<b>0.0158</b>	<b>0.0370</b>	<b>0.0394</b>	<b>0.0373</b>	<b>0.0191</b>	<b>0.0494</b>	<b>0.0328</b>
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0154</b>	<b>0.0168</b>	<b>0.0281</b>	<b>0.0309</b>	<b>0.0220</b>	<b>0.0230</b>	<b>0.0764</b>	<b>0.0672</b>
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0154</b>	<b>0.0184</b>	<b>0.0350</b>	<b>0.0342</b>	<b>0.0219</b>	<b>0.0289</b>	0.1221	<b>0.0392</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor arrests for any crime				Cumulative misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		3.5385	6.4921	6.6600	6.4800	0.5231	0.6825	0.7200	0.6600
	(iii) Mean of the treatment group		1.9310	3.9649	4.5962	4.4038	0.0517	0.0877	0.1538	0.1538
Estimates	(iv) UDIM (difference in means)		-1.6074	-2.5272	-2.0638	-2.0762	-0.4714	-0.5948	-0.5662	-0.5062
	(v) COLS (conditional OLS estimate)		-1.8057	-2.1610	-1.5922	-1.6393	-0.5783	-0.7009	-0.7142	-0.6362
	(vi) AIPW (augmented IPW estimate)		-1.7011	-2.1509	-1.7017	-1.7378	-0.5300	-0.6491	-0.6926	-0.6167
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0167</b>	<b>0.0217</b>	<b>0.0579</b>	<b>0.0540</b>	<b>0.0109</b>	<b>0.0033</b>	<b>0.0048</b>	<b>0.0087</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0165</b>	<b>0.0526</b>	0.1164	0.1052	<b>0.0097</b>	<b>0.0038</b>	<b>0.0047</b>	<b>0.0093</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0120</b>	<b>0.0385</b>	<b>0.0921</b>	<b>0.0800</b>	<b>0.0064</b>	<b>0.0021</b>	<b>0.0023</b>	<b>0.0050</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0065</b>	<b>0.0117</b>	<b>0.0540</b>	<b>0.0484</b>	<b>0.0021</b>	<b>0.0005</b>	<b>0.0044</b>	<b>0.0086</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0049</b>	<b>0.0271</b>	0.1121	<b>0.0985</b>	<b>0.0017</b>	<b>0.0006</b>	<b>0.0043</b>	<b>0.0090</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0062</b>	<b>0.0282</b>	0.1093	<b>0.0963</b>	<b>0.0020</b>	<b>0.0010</b>	<b>0.0078</b>	<b>0.0144</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0060</b>	<b>0.0096</b>	<b>0.0520</b>	<b>0.0468</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0036</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0028</b>	<b>0.0228</b>	0.1060	<b>0.0924</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0036</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0076</b>	<b>0.0288</b>	<b>0.0992</b>	<b>0.0840</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0028</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0084</b>	<b>0.0060</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0012</b>	<b>0.0408</b>	<b>0.0292</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0036</b>	<b>0.0540</b>	<b>0.0412</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0180</b>	<b>0.0232</b>	<b>0.0572</b>	<b>0.0536</b>	<b>0.0036</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0032</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0080</b>	<b>0.0456</b>	0.1140	0.1064	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0116</b>	<b>0.0512</b>	<b>0.0968</b>	<b>0.0904</b>	<b>0.0016</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0020</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0200</b>	<b>0.0248</b>	<b>0.0600</b>	<b>0.0564</b>	<b>0.0036</b>	<b>0.0004</b>	<b>0.0036</b>	<b>0.0072</b>
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0200</b>	<b>0.0612</b>	0.1264	0.1172	<b>0.0028</b>	<b>0.0004</b>	<b>0.0040</b>	<b>0.0076</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0168</b>	<b>0.0564</b>	0.1116	0.1040	<b>0.0024</b>	<b>0.0008</b>	<b>0.0036</b>	<b>0.0080</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0377</b>	<b>0.0447</b>	<b>0.0778</b>	<b>0.0689</b>	<b>0.0122</b>	<b>0.0051</b>	<b>0.0099</b>	<b>0.0113</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0238</b>	<b>0.0652</b>	0.1239	0.1062	<b>0.0093</b>	<b>0.0025</b>	<b>0.0051</b>	<b>0.0083</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0303</b>	<b>0.0748</b>	0.1191	0.1045	<b>0.0135</b>	<b>0.0122</b>	<b>0.0099</b>	<b>0.0119</b>
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0377</b>	<b>0.0526</b>	<b>0.0790</b>	<b>0.0740</b>	<b>0.0122</b>	<b>0.0053</b>	<b>0.0122</b>	<b>0.0151</b>
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0393</b>	<b>0.0854</b>	0.1446	0.1312	<b>0.0122</b>	<b>0.0103</b>	<b>0.0122</b>	<b>0.0157</b>
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0342</b>	<b>0.0814</b>	0.1374	0.1153	<b>0.0099</b>	<b>0.0133</b>	<b>0.0134</b>	<b>0.0154</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0380</b>	<b>0.0449</b>	<b>0.0831</b>	<b>0.0730</b>	<b>0.0128</b>	<b>0.0053</b>	<b>0.0099</b>	<b>0.0118</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0245</b>	<b>0.0699</b>	0.1278	0.1109	<b>0.0094</b>	<b>0.0025</b>	<b>0.0053</b>	<b>0.0084</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0314</b>	<b>0.0765</b>	0.1220	0.1095	<b>0.0142</b>	<b>0.0128</b>	<b>0.0099</b>	<b>0.0125</b>
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0397</b>	<b>0.0563</b>	<b>0.0801</b>	<b>0.0788</b>	<b>0.0128</b>	<b>0.0053</b>	<b>0.0128</b>	<b>0.0158</b>
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0404</b>	<b>0.0908</b>	0.1521	0.1391	<b>0.0128</b>	<b>0.0108</b>	<b>0.0128</b>	<b>0.0157</b>
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0343</b>	<b>0.0834</b>	0.1510	0.1184	<b>0.0099</b>	<b>0.0143</b>	<b>0.0134</b>	<b>0.0162</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0380</b>	<b>0.0457</b>	0.1364	0.1266	<b>0.0132</b>	<b>0.0065</b>	<b>0.0099</b>	<b>0.0161</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0298</b>	<b>0.0948</b>	0.2079	0.1585	<b>0.0096</b>	<b>0.0027</b>	<b>0.0067</b>	<b>0.0096</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0463</b>	<b>0.0887</b>	0.1599	0.1522	<b>0.0142</b>	<b>0.0131</b>	<b>0.0107</b>	<b>0.0334</b>
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0534</b>	<b>0.0684</b>	0.1064	0.1319	<b>0.0154</b>	<b>0.0065</b>	<b>0.0147</b>	<b>0.0199</b>
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0569</b>	0.1050	0.1812	0.1593	<b>0.0154</b>	<b>0.0154</b>	<b>0.0165</b>	<b>0.0220</b>
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0417</b>	0.1067	0.2100	0.1418	<b>0.0154</b>	<b>0.0181</b>	<b>0.0179</b>	<b>0.0258</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor convictions for classified crime				Cumulative misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		1.3692	1.8571	2.0400	1.9200	3.1231	5.3810	5.3400	5.1600
	(iii) Mean of the treatment group		0.4483	0.6491	0.8269	0.6538	1.6207	3.1053	3.6346	3.4423
Estimates	(iv) UDIM (difference in means)		-0.9210	-1.2080	-1.2131	-1.2662	-1.5024	-2.2757	-1.7054	-1.7177
	(v) COLS (conditional OLS estimate)		-1.0504	-1.2373	-1.2554	-1.3126	-1.6807	-2.0733	-1.4789	-1.5260
	(vi) AIPW (augmented IPW estimate)		-0.9876	-1.1326	-1.2033	-1.2551	-1.5752	-2.0155	-1.5740	-1.6101
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0089</b>	<b>0.0028</b>	<b>0.0087</b>	<b>0.0046</b>	<b>0.0118</b>	<b>0.0165</b>	<b>0.0626</b>	<b>0.0585</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0097</b>	<b>0.0052</b>	<b>0.0182</b>	<b>0.0115</b>	<b>0.0117</b>	<b>0.0358</b>	0.1017	<b>0.0913</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0055</b>	<b>0.0039</b>	<b>0.0149</b>	<b>0.0068</b>	<b>0.0091</b>	<b>0.0278</b>	<b>0.0771</b>	<b>0.0658</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0037</b>	<b>0.0016</b>	<b>0.0097</b>	<b>0.0047</b>	<b>0.0042</b>	<b>0.0084</b>	<b>0.0596</b>	<b>0.0531</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0044</b>	<b>0.0036</b>	<b>0.0210</b>	<b>0.0121</b>	<b>0.0033</b>	<b>0.0164</b>	<b>0.0987</b>	<b>0.0857</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0042</b>	<b>0.0060</b>	<b>0.0372</b>	<b>0.0223</b>	<b>0.0049</b>	<b>0.0198</b>	<b>0.0984</b>	<b>0.0856</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0028</b>	<b>0.0016</b>	<b>0.0068</b>	<b>0.0020</b>	<b>0.0044</b>	<b>0.0076</b>	<b>0.0560</b>	<b>0.0504</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0020</b>	<b>0.0020</b>	<b>0.0148</b>	<b>0.0020</b>	<b>0.0024</b>	<b>0.0144</b>	<b>0.0964</b>	<b>0.0812</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0028</b>	<b>0.0028</b>	<b>0.0196</b>	<b>0.0044</b>	<b>0.0068</b>	<b>0.0208</b>	<b>0.0828</b>	<b>0.0712</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0112</b>	<b>0.0108</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0276</b>	<b>0.0180</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0004</b>	<b>0.0072</b>	<b>0.0036</b>	<b>0.0004</b>	<b>0.0028</b>	<b>0.0368</b>	<b>0.0312</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0052</b>	<b>0.0012</b>	<b>0.0024</b>	<b>0.0016</b>	<b>0.0148</b>	<b>0.0188</b>	<b>0.0632</b>	<b>0.0572</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0008</b>	<b>0.0004</b>	<b>0.0036</b>	<b>0.0008</b>	<b>0.0052</b>	<b>0.0284</b>	0.1004	<b>0.0916</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0040</b>	<b>0.0024</b>	<b>0.0100</b>	<b>0.0060</b>	<b>0.0076</b>	<b>0.0376</b>	<b>0.0860</b>	<b>0.0780</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0048</b>	<b>0.0012</b>	<b>0.0060</b>	<b>0.0032</b>	<b>0.0148</b>	<b>0.0192</b>	<b>0.0664</b>	<b>0.0636</b>
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0056</b>	<b>0.0036</b>	<b>0.0180</b>	<b>0.0068</b>	<b>0.0132</b>	<b>0.0436</b>	0.1188	0.1084
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0052</b>	<b>0.0048</b>	<b>0.0216</b>	<b>0.0072</b>	<b>0.0132</b>	<b>0.0452</b>	<b>0.0984</b>	<b>0.0896</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0084</b>	<b>0.0087</b>	<b>0.0105</b>	<b>0.0084</b>	<b>0.0224</b>	<b>0.0365</b>	<b>0.0758</b>	<b>0.0688</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0069</b>	<b>0.0087</b>	<b>0.0117</b>	<b>0.0053</b>	<b>0.0201</b>	<b>0.0504</b>	0.1136	<b>0.0962</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0089</b>	<b>0.0121</b>	<b>0.0226</b>	<b>0.0147</b>	<b>0.0214</b>	<b>0.0579</b>	0.1057	<b>0.0972</b>
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0115</b>	<b>0.0108</b>	<b>0.0201</b>	<b>0.0106</b>	<b>0.0242</b>	<b>0.0399</b>	<b>0.0816</b>	<b>0.0726</b>
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0180</b>	<b>0.0098</b>	<b>0.0302</b>	<b>0.0150</b>	<b>0.0248</b>	<b>0.0659</b>	0.1262	0.1236
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0121</b>	<b>0.0141</b>	<b>0.0367</b>	<b>0.0179</b>	<b>0.0248</b>	<b>0.0601</b>	0.1220	0.1071
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0085</b>	<b>0.0087</b>	<b>0.0113</b>	<b>0.0088</b>	<b>0.0224</b>	<b>0.0375</b>	<b>0.0761</b>	<b>0.0724</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0070</b>	<b>0.0087</b>	<b>0.0117</b>	<b>0.0056</b>	<b>0.0208</b>	<b>0.0555</b>	0.1156	0.1009
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0092</b>	<b>0.0132</b>	<b>0.0232</b>	<b>0.0163</b>	<b>0.0230</b>	<b>0.0654</b>	0.1072	<b>0.0979</b>
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0131</b>	<b>0.0121</b>	<b>0.0204</b>	<b>0.0118</b>	<b>0.0250</b>	<b>0.0411</b>	<b>0.0819</b>	<b>0.0763</b>
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0186</b>	<b>0.0107</b>	<b>0.0306</b>	<b>0.0160</b>	<b>0.0258</b>	<b>0.0682</b>	0.1322	0.1267
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0126</b>	<b>0.0157</b>	<b>0.0379</b>	<b>0.0185</b>	<b>0.0257</b>	<b>0.0667</b>	0.1282	0.1082
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0112</b>	<b>0.0112</b>	<b>0.0252</b>	<b>0.0117</b>	<b>0.0229</b>	<b>0.0430</b>	0.1093	0.1008
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0079</b>	<b>0.0092</b>	<b>0.0168</b>	<b>0.0082</b>	<b>0.0629</b>	<b>0.0818</b>	0.1691	0.1566
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0112</b>	<b>0.0148</b>	<b>0.0352</b>	<b>0.0307</b>	<b>0.0297</b>	0.1634	0.2001	0.1647
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0170</b>	<b>0.0264</b>	<b>0.0211</b>	<b>0.0340</b>	<b>0.0266</b>	<b>0.0470</b>	<b>0.0999</b>	0.1026
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0239</b>	<b>0.0309</b>	<b>0.0481</b>	<b>0.0289</b>	<b>0.0323</b>	0.1302	0.2112	0.1628
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0151</b>	<b>0.0242</b>	<b>0.0489</b>	<b>0.0250</b>	<b>0.0352</b>	0.1105	0.1706	0.1828

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor arrests for violent crime				One or more misdemeanor arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.2000	0.3651	0.3600	0.3200	0.4000	0.5397	0.5600	0.5000
	(iii) Mean of the treatment group		0.0862	0.1930	0.2308	0.2308	0.2931	0.4211	0.4808	0.4038
Estimates	(iv) UDIM (difference in means)		-0.1138	-0.1721	-0.1292	-0.0892	-0.1069	-0.1186	-0.0792	-0.0962
	(v) COLS (conditional OLS estimate)		-0.1493	-0.1715	-0.1331	-0.0796	-0.1083	-0.0572	0.0097	-0.0034
	(vi) AIPW (augmented IPW estimate)		-0.1459	-0.1708	-0.1280	-0.0775	-0.1190	-0.0481	0.0236	0.0191
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0383</b>	<b>0.0175</b>	<b>0.0759</b>	0.1622	<b>0.0892</b>	<b>0.0858</b>	0.2036	0.1703
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0162</b>	<b>0.0155</b>	<b>0.0749</b>	0.1975	<b>0.0934</b>	0.2451	0.4571	0.4859
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0082</b>	<b>0.0082</b>	<b>0.0650</b>	0.1795	<b>0.0615</b>	0.2516	0.3843	0.4127
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0325</b>	<b>0.0142</b>	<b>0.0639</b>	0.1424	<b>0.0959</b>	<b>0.0880</b>	0.1999	0.1546
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0113</b>	<b>0.0127</b>	<b>0.0698</b>	0.1827	<b>0.0945</b>	0.2509	0.4573	0.4853
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0072</b>	<b>0.0103</b>	<b>0.0805</b>	0.1917	<b>0.0841</b>	0.2807	0.4027	0.4234
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0332</b>	<b>0.0164</b>	<b>0.0612</b>	0.1332	<b>0.0980</b>	<b>0.0900</b>	0.2028	0.1576
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0096</b>	<b>0.0128</b>	<b>0.0640</b>	0.1812	<b>0.0992</b>	0.2576	0.4576	0.4856
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0060</b>	<b>0.0116</b>	<b>0.0700</b>	0.1884	0.1052	0.2604	0.4388	0.4588
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0052</b>	<b>0.0020</b>	<b>0.0296</b>	<b>0.0792</b>	<b>0.0388</b>	<b>0.0332</b>	0.1272	<b>0.0900</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0012</b>	<b>0.0016</b>	<b>0.0328</b>	0.1316	<b>0.0364</b>	0.1672	0.4456	0.4824
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0008</b>	<b>0.0500</b>	0.1432	<b>0.0336</b>	0.2252	0.3236	0.3680
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0476</b>	<b>0.0200</b>	<b>0.0652</b>	0.1432	<b>0.0956</b>	<b>0.0992</b>	0.2008	0.1988
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0124</b>	<b>0.0184</b>	<b>0.0568</b>	0.1776	<b>0.0924</b>	0.2760	0.4420	0.4628
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0132</b>	<b>0.0184</b>	<b>0.0712</b>	0.1948	<b>0.0716</b>	0.3104	0.3900	0.3836
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0436</b>	<b>0.0208</b>	<b>0.0688</b>	0.1428	<b>0.0908</b>	<b>0.0992</b>	0.1976	0.1972
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0180</b>	<b>0.0212</b>	<b>0.0776</b>	0.1928	0.1012	0.2728	0.4424	0.4628
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0140</b>	<b>0.0164</b>	<b>0.0804</b>	0.2040	<b>0.0796</b>	0.2892	0.3892	0.3824
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0522</b>	<b>0.0325</b>	<b>0.0509</b>	0.1249	0.1168	0.1123	0.2483	0.2360
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0273</b>	<b>0.0403</b>	<b>0.0606</b>	0.1641	0.1175	0.2620	0.7039	0.5066
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0271</b>	<b>0.0456</b>	<b>0.0896</b>	0.2132	<b>0.0829</b>	0.2876	0.6627	0.6736
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0479</b>	<b>0.0339</b>	<b>0.0594</b>	0.1234	0.1152	0.1123	0.2483	0.2310
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0357</b>	<b>0.0484</b>	<b>0.0873</b>	0.1826	0.1227	0.2600	0.7030	0.5066
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0287</b>	<b>0.0456</b>	0.1001	0.2226	<b>0.0899</b>	0.2660	0.6634	0.6675
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0531</b>	<b>0.0331</b>	<b>0.0516</b>	0.1264	0.1218	0.1162	0.2483	0.2411
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0277</b>	<b>0.0421</b>	<b>0.0615</b>	0.1665	0.1180	0.2640	0.7060	0.5073
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0279</b>	<b>0.0497</b>	<b>0.0909</b>	0.2134	<b>0.0866</b>	0.2919	0.6698	0.6805
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0533</b>	<b>0.0357</b>	<b>0.0619</b>	0.1247	0.1211	0.1162	0.2483	0.2369
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0376</b>	<b>0.0516</b>	<b>0.0900</b>	0.1871	0.1247	0.2608	0.7049	0.5073
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0287</b>	<b>0.0461</b>	0.1024	0.2266	<b>0.0932</b>	0.2679	0.6754	0.6703
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0709</b>	<b>0.0350</b>	0.1009	0.1445	0.1351	0.1501	0.2484	0.2706
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0375</b>	<b>0.0495</b>	<b>0.0869</b>	0.1943	0.1244	0.3152	0.7324	0.5312
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0360</b>	<b>0.0955</b>	0.1219	0.2802	0.1221	0.3076	0.6961	0.8156
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0759</b>	<b>0.0480</b>	<b>0.0920</b>	0.1410	0.1391	0.1426	0.2484	0.2900
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0504</b>	0.1033	0.1118	0.2098	0.2080	0.2759	0.7324	0.5312
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0446</b>	<b>0.0668</b>	0.1147	0.2450	0.1287	0.3158	0.7524	0.7522

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor arrests for any crime				One or more misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.6462	0.7460	0.7400	0.6400	0.1846	0.2698	0.2600	0.2200
	(iii) Mean of the treatment group		0.5000	0.6667	0.6923	0.6154	0.0517	0.0877	0.1346	0.1346
Estimates	(iv) UDIM (difference in means)		-0.1462	-0.0794	-0.0477	-0.0246	-0.1329	-0.1821	-0.1254	-0.0854
	(v) COLS (conditional OLS estimate)		-0.0978	-0.0020	0.0333	0.0459	-0.1669	-0.1998	-0.1363	-0.0828
	(vi) AIPW (augmented IPW estimate)		-0.1113	0.0054	0.0476	0.0699	-0.1578	-0.1830	-0.1313	-0.0808
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0508</b>	0.1622	0.2886	0.4032	<b>0.0121</b>	<b>0.0025</b>	<b>0.0483</b>	0.1249
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1248	0.4893	0.3415	0.3257	<b>0.0056</b>	<b>0.0015</b>	<b>0.0504</b>	0.1547
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0927</b>	0.4694	0.2604	0.2322	<b>0.0030</b>	<b>0.0014</b>	<b>0.0434</b>	0.1375
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0460</b>	0.1661	0.2939	0.3980	<b>0.0082</b>	<b>0.0032</b>	<b>0.0511</b>	0.1233
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1163	0.4893	0.3432	0.3148	<b>0.0030</b>	<b>0.0018</b>	<b>0.0575</b>	0.1571
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1109	0.4724	0.2897	0.2390	<b>0.0026</b>	<b>0.0025</b>	<b>0.0647</b>	0.1616
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0432</b>	0.1612	0.2864	0.3920	<b>0.0072</b>	<b>0.0048</b>	<b>0.0500</b>	0.1244
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1204	0.4868	0.3320	0.3192	<b>0.0020</b>	<b>0.0016</b>	<b>0.0568</b>	0.1536
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1284	0.4796	0.2976	0.2512	<b>0.0020</b>	<b>0.0032</b>	<b>0.0580</b>	0.1484
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0148</b>	<b>0.0880</b>	0.2308	0.3580	<b>0.0004</b>	<b>0.0004</b>	<b>0.0164</b>	<b>0.0636</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0656</b>	0.4896	0.2900	0.2624	<b>0.0004</b>	<b>0.0004</b>	<b>0.0196</b>	0.1040
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0640</b>	0.4472	0.2256	0.1816	<b>0.0004</b>	<b>0.0004</b>	<b>0.0340</b>	0.1160
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0524</b>	0.1648	0.3160	0.4292	<b>0.0168</b>	<b>0.0032</b>	<b>0.0516</b>	0.1232
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.1188	0.4784	0.3092	0.2936	<b>0.0048</b>	<b>0.0012</b>	<b>0.0344</b>	0.1280
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0900</b>	0.4452	0.2488	0.2220	<b>0.0052</b>	<b>0.0036</b>	<b>0.0476</b>	0.1456
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0520</b>	0.1612	0.2988	0.4284	<b>0.0160</b>	<b>0.0036</b>	<b>0.0512</b>	0.1340
	(17) $p_{P,S}^2$	Studentized COLS	0.1408	0.4780	0.3144	0.3008	<b>0.0084</b>	<b>0.0016</b>	<b>0.0680</b>	0.1700
	(18) $p_{P,S}^3$	Studentized AIPW	0.1208	0.4448	0.2560	0.2288	<b>0.0060</b>	<b>0.0028</b>	<b>0.0676</b>	0.1628
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0871</b>	0.2453	0.3802	0.4449	<b>0.0205</b>	<b>0.0082</b>	<b>0.0419</b>	0.1112
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1514	0.5325	0.4554	0.4894	<b>0.0131</b>	<b>0.0103</b>	<b>0.0358</b>	0.1134
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1145	0.6024	0.4218	0.4330	<b>0.0183</b>	<b>0.0120</b>	<b>0.0531</b>	0.1527
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0881</b>	0.2408	0.3544	0.4449	<b>0.0203</b>	<b>0.0082</b>	<b>0.0420</b>	0.1164
	(23) $p_{M,S}^2$	Studentized COLS	0.1707	0.5325	0.4621	0.4959	<b>0.0173</b>	<b>0.0103</b>	<b>0.0533</b>	0.1448
	(24) $p_{M,S}^3$	Studentized AIPW	0.1510	0.6024	0.4337	0.4439	<b>0.0183</b>	<b>0.0120</b>	<b>0.0714</b>	0.1671
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0896</b>	0.2545	0.3964	0.4609	<b>0.0225</b>	<b>0.0096</b>	<b>0.0442</b>	0.1123
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1538	0.5433	0.4610	0.4951	<b>0.0145</b>	<b>0.0108</b>	<b>0.0360</b>	0.1207
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1173	0.6054	0.4245	0.4381	<b>0.0194</b>	<b>0.0133</b>	<b>0.0552</b>	0.1528
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0907</b>	0.2523	0.3629	0.4609	<b>0.0226</b>	<b>0.0096</b>	<b>0.0432</b>	0.1191
	(29) $p_{R,S}^2$	Studentized COLS	0.1737	0.5433	0.4642	0.5041	<b>0.0182</b>	<b>0.0108</b>	<b>0.0550</b>	0.1465
	(30) $p_{R,S}^3$	Studentized AIPW	0.1552	0.6054	0.4345	0.4502	<b>0.0194</b>	<b>0.0133</b>	<b>0.0714</b>	0.1694
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0965</b>	0.3384	0.4920	0.5576	<b>0.0320</b>	<b>0.0186</b>	<b>0.0488</b>	0.1202
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2355	0.5962	0.5144	0.5187	<b>0.0184</b>	<b>0.0234</b>	<b>0.0625</b>	0.2357
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1515	0.7752	0.5282	0.4743	<b>0.0202</b>	<b>0.0179</b>	<b>0.0803</b>	0.1793
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0965</b>	0.3079	0.4332	0.5576	<b>0.0691</b>	<b>0.0186</b>	<b>0.0536</b>	0.1510
	(35) $p_{D,S}^2$	Studentized COLS	0.1894	0.5961	0.4924	0.5536	<b>0.0294</b>	<b>0.0234</b>	<b>0.0934</b>	0.1617
	(36) $p_{D,S}^3$	Studentized AIPW	0.2057	0.7752	0.5056	0.5341	<b>0.0260</b>	<b>0.0179</b>	<b>0.0844</b>	0.1891

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor convictions for classified crime				One or more misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.3846	0.4603	0.4800	0.4200	0.6154	0.6984	0.6800	0.5800
	(iii) Mean of the treatment group		0.2414	0.3333	0.4038	0.3269	0.4828	0.6316	0.6538	0.5769
Estimates	(iv) UDIM (difference in means)		-0.1432	-0.1270	-0.0762	-0.0931	-0.1326	-0.0668	-0.0262	-0.0031
	(v) COLS (conditional OLS estimate)		-0.1413	-0.0838	0.0054	-0.0078	-0.0898	-0.0052	0.0316	0.0443
	(vi) AIPW (augmented IPW estimate)		-0.1458	-0.0664	0.0061	0.0015	-0.1040	0.0075	0.0431	0.0653
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0331</b>	<b>0.0674</b>	0.2091	0.1746	<b>0.0649</b>	0.2171	0.3881	0.4881
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0403</b>	0.1555	0.4774	0.4699	0.1323	0.4742	0.3591	0.3340
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0294</b>	0.1782	0.4713	0.4935	<b>0.0994</b>	0.4598	0.2927	0.2413
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0351</b>	<b>0.0697</b>	0.2118	0.1577	<b>0.0694</b>	0.2179	0.3887	0.4875
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0404</b>	0.1590	0.4777	0.4674	0.1375	0.4730	0.3535	0.3240
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0444</b>	0.2087	0.4759	0.4940	0.1311	0.4623	0.3125	0.2584
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0416</b>	<b>0.0724</b>	0.2212	0.1552	<b>0.0672</b>	0.2152	0.3888	0.4992
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0500</b>	0.1620	0.4692	0.4688	0.1408	0.4648	0.3524	0.3280
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0548</b>	0.1996	0.4804	0.4772	0.1468	0.4748	0.3400	0.2716
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0064</b>	<b>0.0292</b>	0.1360	0.1008	<b>0.0268</b>	0.1408	0.3452	0.4752
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0112</b>	<b>0.0812</b>	0.4692	0.4460	<b>0.0692</b>	0.4676	0.3136	0.2800
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0152</b>	0.1492	0.4312	0.4636	<b>0.0752</b>	0.4376	0.2380	0.1824
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0468</b>	<b>0.0796</b>	0.2328	0.2120	<b>0.0648</b>	0.2384	0.4168	0.4996
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0452</b>	0.1776	0.4320	0.4580	0.1336	0.4944	0.3272	0.2984
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0424</b>	0.2416	0.4416	0.4352	0.1000	0.4348	0.2928	0.2388
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0456</b>	<b>0.0796</b>	0.2296	0.2112	<b>0.0652</b>	0.2396	0.3920	0.4928
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0524</b>	0.1848	0.4328	0.4568	0.1540	0.4944	0.3256	0.3012
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0484</b>	0.2256	0.4408	0.4356	0.1288	0.4344	0.2876	0.2352
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0587</b>	<b>0.0749</b>	0.2833	0.2712	<b>0.0754</b>	0.2408	0.4218	0.4776
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0588</b>	0.1663	0.7056	0.5185	0.1336	0.4707	0.5508	0.5653
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0589</b>	0.1976	0.7309	0.7367	<b>0.0970</b>	0.6303	0.4976	0.4827
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0555</b>	<b>0.0749</b>	0.2820	0.2688	<b>0.0754</b>	0.2403	0.3935	0.4768
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0664</b>	0.1628	0.7063	0.5216	0.1474	0.4707	0.5508	0.5763
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0622</b>	0.1830	0.7314	0.7367	0.1243	0.6303	0.5021	0.4922
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0632</b>	<b>0.0792</b>	0.2866	0.2796	<b>0.0765</b>	0.2456	0.4255	0.4798
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0613</b>	0.1683	0.7082	0.5280	0.1428	0.4734	0.5544	0.5709
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0604</b>	0.1998	0.7407	0.7470	<b>0.0980</b>	0.6328	0.5069	0.4872
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0562</b>	<b>0.0795</b>	0.2839	0.2706	<b>0.0765</b>	0.2451	0.4013	0.4806
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0668</b>	0.1648	0.7082	0.5282	0.1501	0.4734	0.5538	0.5834
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0634</b>	0.1832	0.7412	0.7463	0.1274	0.6328	0.5136	0.4978
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0883</b>	<b>0.0853</b>	0.4299	0.2981	<b>0.0849</b>	0.3096	0.4820	0.5089
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0643</b>	0.2069	0.7598	0.5936	0.1618	0.5129	0.6039	0.5804
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0697</b>	0.2290	0.8007	0.7733	0.1077	0.7388	0.5666	0.5841
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0745</b>	<b>0.0831</b>	0.3082	0.2736	0.1018	0.2519	0.4712	0.5087
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0974</b>	0.2175	0.7598	0.6014	0.1711	0.5077	0.5837	0.6656
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0943</b>	0.2256	0.7857	0.8116	0.2638	0.7388	0.5932	0.5457

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Two or more misdemeanor arrests for violent crime				Two or more misdemeanor arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.1538	0.2063	0.2200	0.2000	0.3231	0.4127	0.4000	0.3600
	(iii) Mean of the treatment group		0.0000	0.0526	0.0769	0.0769	0.1379	0.2632	0.3077	0.2692
Estimates	(iv) UDIM (difference in means)		-0.1538	-0.1537	-0.1431	-0.1231	-0.1851	-0.1495	-0.0923	-0.0908
	(v) COLS (conditional OLS estimate)		-0.1859	-0.1742	-0.1791	-0.1545	-0.2138	-0.1387	-0.0892	-0.0818
	(vi) AIPW (augmented IPW estimate)		-0.1678	-0.1629	-0.1806	-0.1552	-0.2134	-0.1406	-0.0957	-0.0890
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0008</b>	<b>0.0068</b>	<b>0.0180</b>	<b>0.0318</b>	<b>0.0054</b>	<b>0.0414</b>	0.1578	0.1665
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0007</b>	<b>0.0072</b>	<b>0.0116</b>	<b>0.0235</b>	<b>0.0022</b>	<b>0.0496</b>	0.1632	0.1939
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0004</b>	<b>0.0054</b>	<b>0.0059</b>	<b>0.0142</b>	<b>0.0006</b>	<b>0.0404</b>	0.1391	0.1588
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0002</b>	<b>0.0035</b>	<b>0.0167</b>	<b>0.0314</b>	<b>0.0043</b>	<b>0.0354</b>	0.1528	0.1476
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0002</b>	<b>0.0036</b>	<b>0.0113</b>	<b>0.0249</b>	<b>0.0014</b>	<b>0.0387</b>	0.1603	0.1772
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0002</b>	<b>0.0043</b>	<b>0.0122</b>	<b>0.0264</b>	<b>0.0008</b>	<b>0.0470</b>	0.1679	0.1770
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0004</b>	<b>0.0028</b>	<b>0.0160</b>	<b>0.0316</b>	<b>0.0056</b>	<b>0.0352</b>	0.1580	0.1464
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0004</b>	<b>0.0016</b>	<b>0.0068</b>	<b>0.0216</b>	<b>0.0012</b>	<b>0.0440</b>	0.1584	0.1624
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0004</b>	<b>0.0032</b>	<b>0.0100</b>	<b>0.0204</b>	<b>0.0004</b>	<b>0.0576</b>	0.1652	0.1744
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0032</b>	<b>0.0016</b>	<b>0.0136</b>	<b>0.0900</b>	<b>0.0884</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0024</b>	<b>0.0008</b>	<b>0.0140</b>	<b>0.0884</b>	0.1200
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0004</b>	<b>0.0040</b>	<b>0.0092</b>	<b>0.0004</b>	<b>0.0200</b>	0.1128	0.1328
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0020</b>	<b>0.0088</b>	<b>0.0148</b>	<b>0.0260</b>	<b>0.0064</b>	<b>0.0408</b>	0.1256	0.1552
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0004</b>	<b>0.0040</b>	<b>0.0044</b>	<b>0.0092</b>	<b>0.0024</b>	<b>0.0452</b>	0.1516	0.1908
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0008</b>	<b>0.0088</b>	<b>0.0072</b>	<b>0.0148</b>	<b>0.0024</b>	<b>0.0452</b>	0.1316	0.1660
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0016</b>	<b>0.0084</b>	<b>0.0160</b>	<b>0.0300</b>	<b>0.0060</b>	<b>0.0396</b>	0.1260	0.1552
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0100</b>	<b>0.0136</b>	<b>0.0244</b>	<b>0.0024</b>	<b>0.0520</b>	0.1596	0.1952
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0012</b>	<b>0.0104</b>	<b>0.0116</b>	<b>0.0212</b>	<b>0.0024</b>	<b>0.0540</b>	0.1444	0.1760
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0122</b>	<b>0.0175</b>	<b>0.0261</b>	<b>0.0419</b>	<b>0.0141</b>	<b>0.0542</b>	0.1836	0.2082
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0051</b>	<b>0.0163</b>	<b>0.0200</b>	<b>0.0321</b>	<b>0.0093</b>	<b>0.0644</b>	0.2067	0.2533
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0099</b>	<b>0.0214</b>	<b>0.0271</b>	<b>0.0414</b>	<b>0.0081</b>	<b>0.0731</b>	0.1873	0.2287
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0051</b>	<b>0.0175</b>	<b>0.0261</b>	<b>0.0493</b>	<b>0.0120</b>	<b>0.0534</b>	0.1813	0.2082
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0078</b>	<b>0.0239</b>	<b>0.0292</b>	<b>0.0594</b>	<b>0.0108</b>	<b>0.0714</b>	0.2096	0.2560
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0068</b>	<b>0.0283</b>	<b>0.0343</b>	<b>0.0586</b>	<b>0.0081</b>	<b>0.0791</b>	0.2028	0.2410
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0128</b>	<b>0.0183</b>	<b>0.0263</b>	<b>0.0450</b>	<b>0.0147</b>	<b>0.0562</b>	0.1900	0.2103
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0052</b>	<b>0.0184</b>	<b>0.0219</b>	<b>0.0343</b>	<b>0.0095</b>	<b>0.0652</b>	0.2127	0.2607
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0099</b>	<b>0.0241</b>	<b>0.0297</b>	<b>0.0432</b>	<b>0.0092</b>	<b>0.0741</b>	0.1876	0.2344
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0054</b>	<b>0.0183</b>	<b>0.0263</b>	<b>0.0500</b>	<b>0.0120</b>	<b>0.0562</b>	0.1885	0.2110
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0078</b>	<b>0.0266</b>	<b>0.0314</b>	<b>0.0597</b>	<b>0.0110</b>	<b>0.0722</b>	0.2118	0.2648
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0084</b>	<b>0.0320</b>	<b>0.0394</b>	<b>0.0621</b>	<b>0.0092</b>	<b>0.0811</b>	0.2034	0.2463
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0132</b>	<b>0.0307</b>	<b>0.0402</b>	<b>0.0601</b>	<b>0.0189</b>	<b>0.0677</b>	0.2921	0.2797
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0068</b>	<b>0.0307</b>	<b>0.0272</b>	<b>0.0392</b>	<b>0.0148</b>	<b>0.0897</b>	0.2791	0.3513
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0104</b>	<b>0.0326</b>	<b>0.0567</b>	<b>0.0567</b>	<b>0.0148</b>	0.1091	0.2772	0.2363
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0085</b>	<b>0.0307</b>	<b>0.0599</b>	<b>0.0537</b>	<b>0.0184</b>	<b>0.0678</b>	0.2575	0.2897
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0085</b>	<b>0.0592</b>	<b>0.0620</b>	<b>0.0718</b>	<b>0.0148</b>	<b>0.0875</b>	0.3577	0.3034
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0084</b>	<b>0.0490</b>	<b>0.0881</b>	<b>0.0972</b>	<b>0.0146</b>	0.1116	0.2401	0.2463

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Two or more misdemeanor arrests for any crime				Two or more misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.5077	0.6667	0.6800	0.6200	0.1538	0.1746	0.1800	0.1600
	(iii) Mean of the treatment group		0.3793	0.5263	0.5769	0.5385	0.0000	0.0000	0.0192	0.0192
Estimates	(iv) UDIM (difference in means)		-0.1284	-0.1404	-0.1031	-0.0815	-0.1538	-0.1746	-0.1608	-0.1408
	(v) COLS (conditional OLS estimate)		-0.1136	-0.0471	-0.0100	0.0009	-0.1859	-0.2089	-0.2140	-0.1894
	(vi) AIPW (augmented IPW estimate)		-0.1055	-0.0490	-0.0124	0.0006	-0.1678	-0.1904	-0.2085	-0.1831
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0818</b>	<b>0.0543</b>	0.1308	0.2023	<b>0.0008</b>	<b>0.0004</b>	<b>0.0024</b>	<b>0.0049</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1123	0.2984	0.4548	0.4963	<b>0.0007</b>	<b>0.0003</b>	<b>0.0009</b>	<b>0.0021</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1160	0.2665	0.4378	0.4970	<b>0.0004</b>	<b>0.0002</b>	<b>0.0003</b>	<b>0.0009</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0719</b>	<b>0.0524</b>	0.1332	0.1951	<b>0.0002</b>	<b>0.0001</b>	<b>0.0022</b>	<b>0.0056</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0929</b>	0.2822	0.4528	0.4959	<b>0.0002</b>	<b>0.0001</b>	<b>0.0009</b>	<b>0.0028</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1262	0.2759	0.4441	0.4972	<b>0.0002</b>	<b>0.0001</b>	<b>0.0013</b>	<b>0.0042</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0764</b>	<b>0.0592</b>	0.1304	0.1936	<b>0.0004</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0040</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0920</b>	0.2744	0.4436	0.4908	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0024</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1320	0.2456	0.4088	0.4748	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0020</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0268</b>	<b>0.0160</b>	<b>0.0652</b>	0.1332	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0440</b>	0.2188	0.4416	0.4832	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0796</b>	0.2376	0.4580	0.4684	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0808</b>	<b>0.0564</b>	0.1308	0.2012	<b>0.0020</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0028</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.1028	0.2972	0.4480	0.4952	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1156	0.2900	0.4320	0.4924	<b>0.0008</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0012</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0808</b>	<b>0.0568</b>	0.1280	0.1992	<b>0.0016</b>	<b>0.0008</b>	<b>0.0020</b>	<b>0.0040</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.1240	0.3064	0.4488	0.4952	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0024</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1428	0.2872	0.4328	0.4924	<b>0.0012</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0024</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1261	0.1442	0.2343	0.2866	<b>0.0122</b>	<b>0.0111</b>	<b>0.0122</b>	<b>0.0134</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1721	0.3734	0.5187	0.6432	<b>0.0051</b>	<b>0.0053</b>	<b>0.0070</b>	<b>0.0092</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.2107	0.3639	0.4671	0.6680	<b>0.0099</b>	<b>0.0092</b>	<b>0.0099</b>	<b>0.0099</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.1267	0.1442	0.2334	0.2819	<b>0.0051</b>	<b>0.0051</b>	<b>0.0122</b>	<b>0.0148</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.2028	0.3739	0.5187	0.6463	<b>0.0078</b>	<b>0.0078</b>	<b>0.0122</b>	<b>0.0134</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.2420	0.3557	0.4675	0.6680	<b>0.0068</b>	<b>0.0070</b>	<b>0.0122</b>	<b>0.0150</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1324	0.1474	0.2430	0.2883	<b>0.0128</b>	<b>0.0115</b>	<b>0.0128</b>	<b>0.0142</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1916	0.3824	0.5281	0.6454	<b>0.0052</b>	<b>0.0057</b>	<b>0.0072</b>	<b>0.0093</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.2134	0.3722	0.4718	0.6689	<b>0.0099</b>	<b>0.0093</b>	<b>0.0099</b>	<b>0.0099</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.1328	0.1474	0.2419	0.2853	<b>0.0054</b>	<b>0.0051</b>	<b>0.0127</b>	<b>0.0163</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.2034	0.3805	0.5281	0.6483	<b>0.0078</b>	<b>0.0078</b>	<b>0.0128</b>	<b>0.0142</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.2425	0.3660	0.4740	0.6689	<b>0.0084</b>	<b>0.0072</b>	<b>0.0128</b>	<b>0.0174</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1825	0.1638	0.2899	0.3034	<b>0.0132</b>	<b>0.0120</b>	<b>0.0196</b>	<b>0.0218</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2171	0.4446	0.6206	0.6809	<b>0.0068</b>	<b>0.0083</b>	<b>0.0082</b>	<b>0.0111</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2439	0.5068	0.5065	0.7039	<b>0.0104</b>	<b>0.0104</b>	<b>0.0145</b>	<b>0.0116</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.1479	0.1652	0.2948	0.3225	<b>0.0085</b>	<b>0.0052</b>	<b>0.0173</b>	<b>0.0252</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.2869	0.4681	0.6146	0.6962	<b>0.0085</b>	<b>0.0078</b>	<b>0.0196</b>	<b>0.0228</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.2618	0.4312	0.5085	0.7039	<b>0.0084</b>	<b>0.0082</b>	<b>0.0150</b>	<b>0.0245</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Two or more misdemeanor convictions for classified crime				Two or more misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.3077	0.3651	0.3800	0.3400	0.4769	0.6190	0.6200	0.5600
	(iii) Mean of the treatment group		0.1034	0.1754	0.1923	0.1538	0.3276	0.5088	0.5385	0.5000
Estimates	(iv) UDIM (difference in means)		-0.2042	-0.1896	-0.1877	-0.1862	-0.1493	-0.1103	-0.0815	-0.0600
	(v) COLS (conditional OLS estimate)		-0.2319	-0.1886	-0.2027	-0.1954	-0.1560	-0.0462	-0.0229	-0.0120
	(vi) AIPW (augmented IPW estimate)		-0.2281	-0.1823	-0.2086	-0.2019	-0.1534	-0.0370	-0.0278	-0.0148
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0018</b>	<b>0.0068</b>	<b>0.0125</b>	<b>0.0125</b>	<b>0.0456</b>	0.1025	0.1912	0.2694
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0008</b>	<b>0.0088</b>	<b>0.0099</b>	<b>0.0114</b>	<b>0.0358</b>	0.3011	0.4006	0.4532
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0003</b>	<b>0.0082</b>	<b>0.0059</b>	<b>0.0046</b>	<b>0.0341</b>	0.3241	0.3681	0.4332
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0011</b>	<b>0.0072</b>	<b>0.0138</b>	<b>0.0098</b>	<b>0.0394</b>	0.1051	0.1961	0.2674
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0003</b>	<b>0.0064</b>	<b>0.0111</b>	<b>0.0103</b>	<b>0.0229</b>	0.2887	0.3975	0.4502
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0002</b>	<b>0.0115</b>	<b>0.0135</b>	<b>0.0093</b>	<b>0.0339</b>	0.3300	0.3817	0.4402
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0016</b>	<b>0.0100</b>	<b>0.0124</b>	<b>0.0104</b>	<b>0.0388</b>	0.1004	0.1944	0.2568
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0004</b>	<b>0.0068</b>	<b>0.0112</b>	<b>0.0108</b>	<b>0.0244</b>	0.2760	0.3944	0.4444
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0004</b>	<b>0.0196</b>	<b>0.0168</b>	<b>0.0112</b>	<b>0.0412</b>	0.2900	0.3376	0.4120
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0012</b>	<b>0.0040</b>	<b>0.0016</b>	<b>0.0128</b>	<b>0.0424</b>	0.1200	0.2000
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0012</b>	<b>0.0012</b>	<b>0.0020</b>	<b>0.0052</b>	0.2268	0.3636	0.4440
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0036</b>	<b>0.0080</b>	<b>0.0028</b>	<b>0.0096</b>	0.3024	0.3796	0.4588
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0028</b>	<b>0.0072</b>	<b>0.0136</b>	<b>0.0152</b>	<b>0.0484</b>	0.1152	0.1948	0.2704
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0008</b>	<b>0.0080</b>	<b>0.0072</b>	<b>0.0076</b>	<b>0.0328</b>	0.3180	0.4244	0.4708
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0012</b>	<b>0.0100</b>	<b>0.0064</b>	<b>0.0060</b>	<b>0.0356</b>	0.3544	0.3944	0.4540
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0028</b>	<b>0.0076</b>	<b>0.0148</b>	<b>0.0172</b>	<b>0.0464</b>	0.1132	0.1916	0.2676
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0012</b>	<b>0.0100</b>	<b>0.0152</b>	<b>0.0132</b>	<b>0.0392</b>	0.3244	0.4240	0.4720
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0012</b>	<b>0.0124</b>	<b>0.0116</b>	<b>0.0064</b>	<b>0.0472</b>	0.3544	0.3940	0.4528
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0088</b>	<b>0.0195</b>	<b>0.0296</b>	<b>0.0325</b>	<b>0.0717</b>	0.1499	0.2189	0.2570
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0072</b>	<b>0.0238</b>	<b>0.0187</b>	<b>0.0232</b>	<b>0.0771</b>	0.3400	0.4135	0.4181
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0065</b>	<b>0.0286</b>	<b>0.0206</b>	<b>0.0213</b>	<b>0.0779</b>	0.4138	0.4244	0.4451
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0088</b>	<b>0.0209</b>	<b>0.0296</b>	<b>0.0338</b>	<b>0.0705</b>	0.1511	0.2118	0.2534
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0053</b>	<b>0.0290</b>	<b>0.0295</b>	<b>0.0350</b>	<b>0.0828</b>	0.3465	0.4069	0.4185
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0053</b>	<b>0.0357</b>	<b>0.0290</b>	<b>0.0239</b>	<b>0.0990</b>	0.4149	0.4165	0.4451
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0089</b>	<b>0.0212</b>	<b>0.0298</b>	<b>0.0346</b>	<b>0.0721</b>	0.1537	0.2271	0.2632
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0073</b>	<b>0.0240</b>	<b>0.0191</b>	<b>0.0252</b>	<b>0.0773</b>	0.3427	0.4218	0.4247
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0066</b>	<b>0.0294</b>	<b>0.0214</b>	<b>0.0219</b>	<b>0.0796</b>	0.4158	0.4401	0.4492
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0089</b>	<b>0.0216</b>	<b>0.0298</b>	<b>0.0359</b>	<b>0.0712</b>	0.1558	0.2236	0.2596
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0055</b>	<b>0.0314</b>	<b>0.0299</b>	<b>0.0362</b>	<b>0.0863</b>	0.3465	0.4165	0.4250
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0055</b>	<b>0.0385</b>	<b>0.0308</b>	<b>0.0251</b>	0.1009	0.4158	0.4290	0.4453
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0164</b>	<b>0.0285</b>	<b>0.0539</b>	<b>0.0527</b>	<b>0.0904</b>	0.2020	0.4055	0.2908
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0114</b>	<b>0.0296</b>	<b>0.0223</b>	<b>0.0442</b>	0.1257	0.4086	0.4402	0.5186
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0114</b>	<b>0.0371</b>	<b>0.0270</b>	<b>0.0264</b>	<b>0.0941</b>	0.4824	0.5588	0.5479
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0164</b>	<b>0.0464</b>	<b>0.0471</b>	<b>0.0844</b>	<b>0.0748</b>	0.1871	0.3086	0.2877
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0114</b>	<b>0.0501</b>	<b>0.0399</b>	<b>0.0459</b>	0.1107	0.3782	0.4506	0.5186
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0114</b>	<b>0.0492</b>	<b>0.0459</b>	<b>0.0489</b>	0.1210	0.4884	0.5025	0.5088

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for violent misdemeanors				Cumulative fines for classified misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		22.989	64.022	80.668	80.668	57.653	131.24	171.66	161.89
	(iii) Mean of the treatment group		3.1821	14.524	47.589	47.589	56.814	94.240	218.20	192.97
Estimates	(iv) UDIM (difference in means)		-19.807	-49.498	-33.079	-33.079	-0.8389	-36.995	46.541	31.084
	(v) COLS (conditional OLS estimate)		-29.689	-52.858	-44.697	-44.697	-3.7628	-22.220	64.775	51.686
	(vi) AIPW (augmented IPW estimate)		-30.201	-48.810	-41.425	-41.425	-11.573	-11.965	73.701	63.741
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1800	<b>0.0576</b>	0.2618	0.2618	0.4922	0.2379	0.2899	0.3504
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1697	<b>0.0955</b>	0.2330	0.2330	0.4692	0.3501	0.2493	0.2901
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1406	<b>0.0943</b>	0.2317	0.2317	0.3955	0.4088	0.2291	0.2555
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1697	<b>0.0462</b>	0.2291	0.2291	0.4920	0.2290	0.2941	0.3521
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1590	<b>0.0806</b>	0.2059	0.2059	0.4689	0.3432	0.2605	0.2978
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1571	0.1029	0.2341	0.2341	0.4041	0.4154	0.2424	0.2668
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2628	<b>0.0296</b>	0.2164	0.2164	0.4760	0.2272	0.3024	0.3556
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.2552	<b>0.0632</b>	0.1952	0.1952	0.4712	0.3384	0.2584	0.2980
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.2576	<b>0.0892</b>	0.2412	0.2412	0.4120	0.3932	0.2376	0.2668
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0008</b>	<b>0.0004</b>	0.1916	0.1916	0.4896	0.1892	0.2040	0.2984
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0012</b>	<b>0.0004</b>	0.1360	0.1360	0.4616	0.2964	0.1888	0.2408
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0080</b>	<b>0.0084</b>	0.1804	0.1804	0.3892	0.4240	0.1588	0.1924
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.4004	<b>0.0476</b>	0.2756	0.2756	0.4584	0.2384	0.3248	0.3868
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0288</b>	<b>0.0424</b>	0.2136	0.2136	0.4284	0.3280	0.2444	0.2768
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0200</b>	<b>0.0648</b>	0.2480	0.2480	0.3604	0.4028	0.2492	0.2636
	(16) $p_{P,S}^1$	Studentized UDIM	0.3916	<b>0.0464</b>	0.2784	0.2784	0.4584	0.2432	0.3180	0.3832
	(17) $p_{P,S}^2$	Studentized COLS	0.2956	<b>0.0964</b>	0.2632	0.2632	0.4308	0.3428	0.2732	0.3112
	(18) $p_{P,S}^3$	Studentized AIPW	0.2112	0.1112	0.2764	0.2764	0.3660	0.4076	0.2764	0.2944
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3865	<b>0.0803</b>	0.2894	0.2894	0.5939	0.3049	0.4766	0.5345
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1139	<b>0.0898</b>	0.2457	0.2457	0.5510	0.3937	0.3462	0.3829
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0774</b>	0.1183	0.2852	0.2852	0.4942	0.4689	0.3330	0.3798
	(22) $p_{M,S}^1$	Studentized UDIM	0.3944	<b>0.0826</b>	0.2931	0.2931	0.5939	0.3120	0.4741	0.5248
	(23) $p_{M,S}^2$	Studentized COLS	0.3432	0.1404	0.2849	0.2849	0.5559	0.4048	0.3780	0.4182
	(24) $p_{M,S}^3$	Studentized AIPW	0.2604	0.1618	0.3218	0.3218	0.4977	0.4694	0.3607	0.4221
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3878	<b>0.0855</b>	0.2947	0.2947	0.5946	0.3119	0.4794	0.5346
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1170	<b>0.0953</b>	0.2462	0.2462	0.5529	0.3979	0.3530	0.3856
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0777</b>	0.1212	0.2902	0.2902	0.5034	0.4831	0.3438	0.3814
	(28) $p_{R,S}^1$	Studentized UDIM	0.4105	<b>0.0847</b>	0.2981	0.2981	0.5946	0.3217	0.4799	0.5254
	(29) $p_{R,S}^2$	Studentized COLS	0.3458	0.1427	0.2855	0.2855	0.5568	0.4073	0.3831	0.4261
	(30) $p_{R,S}^3$	Studentized AIPW	0.2627	0.1680	0.3254	0.3254	0.5005	0.4793	0.3619	0.4299
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4616	0.1535	0.3180	0.3180	0.7557	0.4084	0.4898	0.5411
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1589	0.1283	0.3010	0.3010	0.5887	0.4186	0.4143	0.4513
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0824</b>	0.1429	0.3344	0.3344	0.5252	0.5766	0.3993	0.4115
	(34) $p_{D,S}^1$	Studentized UDIM	0.4721	0.1402	0.3526	0.3526	0.7557	0.3769	0.5416	0.6297
	(35) $p_{D,S}^2$	Studentized COLS	0.3636	0.1697	0.3569	0.3569	0.5985	0.4208	0.4490	0.5072
	(36) $p_{D,S}^3$	Studentized AIPW	0.2664	0.2287	0.3524	0.3524	0.5355	0.5702	0.4006	0.4923

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for any misdemeanors				Cumulative probation for violent misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		226.53	571.19	672.22	662.45	0.1846	2.0952	2.6400	2.6400
	(iii) Mean of the treatment group		154.31	408.63	690.49	665.26	0.0000	0.2105	1.6154	1.6154
Estimates	(iv) UDIM (difference in means)		-72.221	-162.56	18.268	2.8109	-0.1846	-1.8847	-1.0246	-1.0246
	(v) COLS (conditional OLS estimate)		-46.857	-22.417	159.86	146.77	-0.2455	-1.8994	-1.0650	-1.0650
	(vi) AIPW (augmented IPW estimate)		-43.059	-22.999	154.64	144.68	-0.2336	-1.6859	-1.0815	-1.0815
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1869	0.1451	0.4676	0.4949	0.1559	<b>0.0413</b>	0.2484	0.2484
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.2963	0.4387	0.2185	0.2305	0.1533	<b>0.0423</b>	0.2722	0.2722
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3050	0.4387	0.2272	0.2366	0.1315	<b>0.0429</b>	0.2402	0.2402
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1768	0.1324	0.4656	0.4946	0.1447	<b>0.0400</b>	0.2543	0.2543
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.2940	0.4360	0.2124	0.2238	0.1505	<b>0.0428</b>	0.2807	0.2807
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3206	0.4406	0.2356	0.2448	0.1511	<b>0.0406</b>	0.2793	0.2793
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1796	0.1296	0.4688	0.4964	0.3524	<b>0.0152</b>	0.2508	0.2508
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3096	0.4372	0.2076	0.2212	0.3524	<b>0.0168</b>	0.2708	0.2708
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3316	0.4020	0.2268	0.2360	0.3524	<b>0.0192</b>	0.2724	0.2724
	(10) $p_{B,S}^1$	Studentized UDIM	0.1156	<b>0.0664</b>	0.4484	0.4896	<b>0.0004</b>	<b>0.0004</b>	0.1536	0.1536
	(11) $p_{B,S}^2$	Studentized COLS	0.2460	0.4180	0.1352	0.1488	<b>0.0004</b>	<b>0.0004</b>	0.2152	0.2152
	(12) $p_{B,S}^3$	Studentized AIPW	0.2804	0.4544	0.1680	0.1828	<b>0.0036</b>	<b>0.0004</b>	0.2132	0.2132
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1860	0.1352	0.4948	0.4816	0.2668	<b>0.0172</b>	0.2756	0.2756
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2908	0.4300	0.2732	0.2808	<b>0.0048</b>	<b>0.0232</b>	0.2844	0.2844
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3104	0.4304	0.2848	0.2880	<b>0.0148</b>	<b>0.0520</b>	0.2932	0.2932
	(16) $p_{P,S}^1$	Studentized UDIM	0.1892	0.1364	0.4948	0.4816	0.1832	<b>0.0180</b>	0.2872	0.2872
	(17) $p_{P,S}^2$	Studentized COLS	0.3156	0.4256	0.2448	0.2528	<b>0.0136</b>	<b>0.0176</b>	0.3268	0.3268
	(18) $p_{P,S}^3$	Studentized AIPW	0.3292	0.4296	0.2716	0.2784	<b>0.0860</b>	<b>0.0268</b>	0.2996	0.2996
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.2584	0.3036	0.5956	0.6151	0.2822	<b>0.0352</b>	0.2637	0.2637
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.3616	0.5079	0.4131	0.4293	<b>0.0486</b>	<b>0.0556</b>	0.2732	0.2732
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.3829	0.5232	0.4203	0.4443	<b>0.0608</b>	<b>0.0948</b>	0.3256	0.3256
	(22) $p_{M,S}^1$	Studentized UDIM	0.2601	0.3123	0.5956	0.6151	0.2214	<b>0.0352</b>	0.2782	0.2782
	(23) $p_{M,S}^2$	Studentized COLS	0.3890	0.5063	0.3785	0.4006	<b>0.0799</b>	<b>0.0444</b>	0.3106	0.3106
	(24) $p_{M,S}^3$	Studentized AIPW	0.4064	0.5232	0.4011	0.4248	0.1606	<b>0.0657</b>	0.3206	0.3206
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.2690	0.3090	0.6050	0.6241	0.2858	<b>0.0380</b>	0.2665	0.2665
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3656	0.5092	0.4218	0.4375	<b>0.0535</b>	<b>0.0601</b>	0.2792	0.2792
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4009	0.5273	0.4298	0.4552	<b>0.0613</b>	<b>0.0981</b>	0.3329	0.3329
	(28) $p_{R,S}^1$	Studentized UDIM	0.2667	0.3153	0.6050	0.6241	0.2259	<b>0.0398</b>	0.2784	0.2784
	(29) $p_{R,S}^2$	Studentized COLS	0.3933	0.5085	0.3863	0.4112	<b>0.0813</b>	<b>0.0459</b>	0.3178	0.3178
	(30) $p_{R,S}^3$	Studentized AIPW	0.4149	0.5253	0.4133	0.4405	0.1691	<b>0.0661</b>	0.3249	0.3249
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.3234	0.3582	0.8305	0.6746	0.3322	<b>0.0557</b>	0.4112	0.4112
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4353	0.5720	0.4525	0.4970	<b>0.0815</b>	0.1141	0.3727	0.3727
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4364	0.5540	0.5250	0.4758	<b>0.0913</b>	0.1767	0.4339	0.4339
	(34) $p_{D,S}^1$	Studentized UDIM	0.3349	0.3555	0.8302	0.6746	0.2728	<b>0.0537</b>	0.3496	0.3496
	(35) $p_{D,S}^2$	Studentized COLS	0.4254	0.5302	0.4865	0.4568	<b>0.0848</b>	<b>0.0797</b>	0.4833	0.4833
	(36) $p_{D,S}^3$	Studentized AIPW	0.4543	0.5389	0.5006	0.4616	0.2225	<b>0.0870</b>	0.3990	0.3990

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value		Cumulative probabon for classified misdemeanors				Cumulative probabon for any misdemeanors			
	Statistic	Test statistic	age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.1846	2.4762	3.3600	3.3600	0.6000	4.5238	7.3800	7.3800
	(iii) Mean of the treatment group		0.6207	1.0000	2.9423	2.9423	0.6207	1.5263	3.8654	3.8654
Estimates	(iv) UDIM (difference in means)		0.4361	-1.4762	-0.4177	-0.4177	0.0207	-2.9975	-3.5146	-3.5146
	(v) COLS (conditional OLS estimate)		0.2743	-1.4828	-0.3465	-0.3465	-0.2135	-2.9533	-2.5705	-2.5705
	(vi) AIPW (augmented IPW estimate)		0.2424	-1.3185	-0.3379	-0.3379	-0.2135	-2.9078	-2.7866	-2.7866
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2511	0.1286	0.4082	0.4082	0.4889	<b>0.0339</b>	<b>0.0805</b>	<b>0.0805</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3161	0.1186	0.4311	0.4311	0.3849	<b>0.0328</b>	0.1507	0.1507
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3200	0.1186	0.4268	0.4268	0.3711	<b>0.0209</b>	0.1113	0.1113
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2419	0.1308	0.4129	0.4129	0.4884	<b>0.0330</b>	<b>0.0861</b>	<b>0.0861</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3135	0.1229	0.4360	0.4360	0.3836	<b>0.0329</b>	0.1614	0.1614
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3247	0.1211	0.4373	0.4373	0.3774	<b>0.0229</b>	0.1536	0.1536
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3596	0.1256	0.4144	0.4144	0.4928	<b>0.0244</b>	<b>0.0780</b>	<b>0.0780</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3996	0.1096	0.4376	0.4376	0.3808	<b>0.0216</b>	0.1408	0.1408
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.4108	0.1256	0.4444	0.4444	0.3732	<b>0.0180</b>	0.1436	0.1436
	(10) $p_{B,S}^1$	Studentized UDIM	0.1768	<b>0.0188</b>	0.3856	0.3856	0.4708	<b>0.0008</b>	<b>0.0100</b>	<b>0.0100</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.3484	<b>0.0176</b>	0.4116	0.4116	0.3820	<b>0.0012</b>	<b>0.0660</b>	<b>0.0660</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.3716	<b>0.0212</b>	0.4144	0.4144	0.3808	<b>0.0004</b>	<b>0.0616</b>	<b>0.0616</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3824	0.1404	0.4212	0.4212	0.4968	<b>0.0304</b>	<b>0.0664</b>	<b>0.0664</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4532	0.1452	0.4540	0.4540	0.4288	<b>0.0400</b>	0.1472	0.1472
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.4524	0.1816	0.4616	0.4616	0.4364	<b>0.0452</b>	0.1364	0.1364
	(16) $p_{P,S}^1$	Studentized UDIM	0.3824	0.1404	0.4192	0.4192	0.4968	<b>0.0316</b>	<b>0.0744</b>	<b>0.0744</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.4532	0.1360	0.4640	0.4640	0.4292	<b>0.0308</b>	0.1456	0.1456
	(18) $p_{P,S}^3$	Studentized AIPW	0.4452	0.1452	0.4628	0.4628	0.4304	<b>0.0232</b>	0.1208	0.1208
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.5296	0.1568	0.3696	0.3696	0.6726	<b>0.0525</b>	0.1135	0.1135
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.5657	0.2057	0.4393	0.4393	0.4744	<b>0.0696</b>	0.1695	0.1695
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.5532	0.2394	0.5089	0.5089	0.4732	<b>0.0904</b>	0.1894	0.1894
	(22) $p_{M,S}^1$	Studentized UDIM	0.5093	0.1568	0.3653	0.3653	0.6653	<b>0.0540</b>	0.1270	0.1270
	(23) $p_{M,S}^2$	Studentized COLS	0.5664	0.1896	0.4441	0.4441	0.4717	<b>0.0537</b>	0.1842	0.1842
	(24) $p_{M,S}^3$	Studentized AIPW	0.5405	0.1988	0.5073	0.5073	0.4646	<b>0.0530</b>	0.1843	0.1843
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.5335	0.1589	0.3762	0.3762	0.6835	<b>0.0554</b>	0.1135	0.1135
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5678	0.2120	0.4396	0.4396	0.4841	<b>0.0709</b>	0.1709	0.1709
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.5573	0.2442	0.5197	0.5197	0.4738	<b>0.0913</b>	0.1918	0.1918
	(28) $p_{R,S}^1$	Studentized UDIM	0.5137	0.1577	0.3695	0.3695	0.6723	<b>0.0556</b>	0.1278	0.1278
	(29) $p_{R,S}^2$	Studentized COLS	0.5688	0.1941	0.4523	0.4523	0.4809	<b>0.0542</b>	0.1887	0.1887
	(30) $p_{R,S}^3$	Studentized AIPW	0.5445	0.2028	0.5130	0.5130	0.4676	<b>0.0549</b>	0.1871	0.1871
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5583	0.1772	0.4896	0.4896	0.7726	<b>0.0798</b>	0.1444	0.1444
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.6729	0.2668	0.4972	0.4972	0.5168	<b>0.0793</b>	0.1815	0.1815
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.6296	0.2886	0.6111	0.6111	0.5184	0.1122	0.2146	0.2146
	(34) $p_{D,S}^1$	Studentized UDIM	0.6212	0.1702	0.4739	0.4739	0.7397	<b>0.0645</b>	0.1501	0.1501
	(35) $p_{D,S}^2$	Studentized COLS	0.6101	0.4217	0.5936	0.5936	0.5281	<b>0.0722</b>	0.2025	0.2025
	(36) $p_{D,S}^3$	Studentized AIPW	0.6696	0.2418	0.5441	0.5441	0.4982	<b>0.0867</b>	0.2456	0.2456

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative days jailed for violent misdemeanors				Cumulative days jailed for classified misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		4.7077	13.349	26.100	26.100	11.662	29.286	59.400	59.300
	(iii) Mean of the treatment group		0.0000	0.2456	3.8462	3.8462	4.7759	9.9649	22.096	20.404
Estimates	(iv) UDIM (difference in means)		-4.7077	-13.104	-22.254	-22.254	-6.8857	-19.321	-37.304	-38.896
	(v) COLS (conditional OLS estimate)		-5.6142	-14.146	-26.509	-26.509	-7.1812	-17.967	-42.894	-44.623
	(vi) AIPW (augmented IPW estimate)		-4.8113	-12.498	-27.348	-27.348	-6.6556	-15.958	-42.566	-44.290
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0547</b>	<b>0.0237</b>	0.1584	0.1584	0.1697	<b>0.0355</b>	<b>0.0773</b>	<b>0.0682</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0573</b>	<b>0.0224</b>	0.1529	0.1529	0.1931	<b>0.0508</b>	<b>0.0781</b>	<b>0.0696</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0584</b>	<b>0.0211</b>	0.1098	0.1098	0.1776	<b>0.0549</b>	<b>0.0558</b>	<b>0.0476</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0198</b>	<b>0.0201</b>	0.1577	0.1577	0.1370	<b>0.0304</b>	<b>0.0766</b>	<b>0.0671</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0221</b>	<b>0.0171</b>	0.1538	0.1538	0.1651	<b>0.0495</b>	<b>0.0775</b>	<b>0.0684</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0248</b>	<b>0.0168</b>	0.1573	0.1573	0.1656	<b>0.0618</b>	<b>0.0927</b>	<b>0.0827</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0152</b>	<b>0.0008</b>	0.1684	0.1684	0.1316	<b>0.0264</b>	<b>0.0556</b>	<b>0.0468</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0152</b>	<b>0.0012</b>	0.1364	0.1364	0.1596	<b>0.0448</b>	<b>0.0508</b>	<b>0.0440</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0152</b>	<b>0.0012</b>	0.1404	0.1404	0.1532	<b>0.0488</b>	<b>0.0652</b>	<b>0.0516</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0176</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0016</b>	<b>0.0312</b>	<b>0.0016</b>	<b>0.0008</b>	<b>0.0008</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0004</b>	<b>0.0156</b>	<b>0.0156</b>	<b>0.0404</b>	<b>0.0060</b>	<b>0.0096</b>	<b>0.0052</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0804</b>	<b>0.0016</b>	0.1560	0.1560	0.2292	<b>0.0440</b>	<b>0.0776</b>	<b>0.0608</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0116</b>	<b>0.0076</b>	<b>0.0812</b>	<b>0.0812</b>	0.2156	<b>0.0548</b>	<b>0.0512</b>	<b>0.0376</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0680</b>	<b>0.0268</b>	0.1100	0.1100	0.2540	<b>0.0904</b>	<b>0.0800</b>	<b>0.0652</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0548</b>	<b>0.0020</b>	0.2392	0.2392	0.2376	<b>0.0472</b>	<b>0.0932</b>	<b>0.0832</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.1060	<b>0.0016</b>	0.2008	0.2008	0.2720	<b>0.0676</b>	0.1032	<b>0.0896</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1380	<b>0.0044</b>	<b>0.0700</b>	<b>0.0700</b>	0.2724	<b>0.0824</b>	<b>0.0752</b>	<b>0.0608</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0988</b>	<b>0.0130</b>	0.1731	0.1731	0.2838	<b>0.0473</b>	<b>0.0996</b>	<b>0.0979</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0564</b>	<b>0.0236</b>	0.1311	0.1311	0.2937	<b>0.0815</b>	0.1037	<b>0.0904</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1223	<b>0.0612</b>	0.1810	0.1810	0.3279	0.1217	0.1180	0.1074
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0822</b>	<b>0.0141</b>	0.2623	0.2623	0.2998	<b>0.0609</b>	0.1256	0.1037
	(23) $p_{M,S}^2$	Studentized COLS	0.1472	<b>0.0109</b>	0.2577	0.2577	0.3298	<b>0.0862</b>	0.1309	0.1200
	(24) $p_{M,S}^3$	Studentized AIPW	0.1502	<b>0.0229</b>	0.1324	0.1324	0.3276	0.1113	0.1117	<b>0.0929</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0992</b>	<b>0.0145</b>	0.1733	0.1733	0.2902	<b>0.0503</b>	0.1027	0.1006
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0578</b>	<b>0.0253</b>	0.1352	0.1352	0.2962	<b>0.0846</b>	0.1086	<b>0.0925</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1246	<b>0.0623</b>	0.1859	0.1859	0.3305	0.1233	0.1205	0.1093
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0841</b>	<b>0.0150</b>	0.2696	0.2696	0.3090	<b>0.0630</b>	0.1339	0.1046
	(29) $p_{R,S}^2$	Studentized COLS	0.1507	<b>0.0120</b>	0.2649	0.2649	0.3376	<b>0.0909</b>	0.1395	0.1257
	(30) $p_{R,S}^3$	Studentized AIPW	0.1534	<b>0.0235</b>	0.1328	0.1328	0.3292	0.1130	0.1177	<b>0.0951</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1084	<b>0.0189</b>	0.1882	0.1882	0.3463	<b>0.0777</b>	0.1303	0.1385
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0706</b>	<b>0.0526</b>	0.1641	0.1641	0.3405	0.1062	0.1452	0.1245
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1709	<b>0.0698</b>	0.2452	0.2452	0.3802	0.1589	0.1422	0.1303
	(34) $p_{D,S}^1$	Studentized UDIM	0.1050	<b>0.0293</b>	0.3163	0.3163	0.3582	0.1283	0.1516	0.1124
	(35) $p_{D,S}^2$	Studentized COLS	0.1717	<b>0.0160</b>	0.2904	0.2904	0.4122	0.1349	0.1668	0.1351
	(36) $p_{D,S}^3$	Studentized AIPW	0.1822	<b>0.0347</b>	0.1733	0.1733	0.3774	0.1411	0.1326	0.1221

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative days jailed for any misdemeanors				Cumulative felony arrests for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		20.662	57.476	97.180	97.080	0.4923	0.6992	0.8150	0.7550
	(iii) Mean of the treatment group		6.2069	16.298	31.212	29.519	0.2414	0.2807	0.3462	0.2115
Estimates	(iv) UDIM (difference in means)		-14.455	-41.178	-65.968	-67.561	-0.2509	-0.4185	-0.4688	-0.5435
	(v) COLS (conditional OLS estimate)		-15.938	-40.906	-67.272	-69.002	-0.1973	-0.3413	-0.3795	-0.4583
	(vi) AIPW (augmented IPW estimate)		-14.631	-39.800	-68.313	-70.037	-0.1511	-0.2945	-0.3496	-0.4201
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0653</b>	<b>0.0047</b>	<b>0.0167</b>	<b>0.0144</b>	<b>0.0489</b>	<b>0.0115</b>	<b>0.0210</b>	<b>0.0049</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0771</b>	<b>0.0106</b>	<b>0.0243</b>	<b>0.0211</b>	<b>0.0885</b>	<b>0.0269</b>	<b>0.0353</b>	<b>0.0081</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0661</b>	<b>0.0064</b>	<b>0.0140</b>	<b>0.0115</b>	0.1315	<b>0.0353</b>	<b>0.0295</b>	<b>0.0067</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0293</b>	<b>0.0028</b>	<b>0.0173</b>	<b>0.0146</b>	<b>0.0479</b>	<b>0.0124</b>	<b>0.0207</b>	<b>0.0037</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0357</b>	<b>0.0061</b>	<b>0.0251</b>	<b>0.0215</b>	<b>0.0830</b>	<b>0.0259</b>	<b>0.0390</b>	<b>0.0077</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0367</b>	<b>0.0061</b>	<b>0.0305</b>	<b>0.0264</b>	0.1332	<b>0.0385</b>	<b>0.0419</b>	<b>0.0093</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0180</b>	<b>0.0032</b>	<b>0.0120</b>	<b>0.0100</b>	<b>0.0444</b>	<b>0.0100</b>	<b>0.0200</b>	<b>0.0024</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0204</b>	<b>0.0028</b>	<b>0.0108</b>	<b>0.0076</b>	<b>0.0736</b>	<b>0.0228</b>	<b>0.0336</b>	<b>0.0044</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0224</b>	<b>0.0036</b>	<b>0.0124</b>	<b>0.0096</b>	0.1248	<b>0.0316</b>	<b>0.0408</b>	<b>0.0076</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0044</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0156</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0016</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0008</b>	<b>0.0612</b>	<b>0.0048</b>	<b>0.0072</b>	<b>0.0004</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0596</b>	<b>0.0028</b>	<b>0.0112</b>	<b>0.0092</b>	<b>0.0568</b>	<b>0.0120</b>	<b>0.0180</b>	<b>0.0036</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0348</b>	<b>0.0032</b>	<b>0.0096</b>	<b>0.0068</b>	0.1156	<b>0.0332</b>	<b>0.0312</b>	<b>0.0096</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0664</b>	<b>0.0064</b>	<b>0.0136</b>	<b>0.0120</b>	0.1824	<b>0.0520</b>	<b>0.0492</b>	<b>0.0168</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0608</b>	<b>0.0044</b>	<b>0.0148</b>	<b>0.0120</b>	<b>0.0544</b>	<b>0.0108</b>	<b>0.0200</b>	<b>0.0060</b>
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0800</b>	<b>0.0080</b>	<b>0.0200</b>	<b>0.0192</b>	0.1044	<b>0.0312</b>	<b>0.0328</b>	<b>0.0092</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0828</b>	<b>0.0088</b>	<b>0.0140</b>	<b>0.0128</b>	0.1580	<b>0.0428</b>	<b>0.0304</b>	<b>0.0088</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0716</b>	<b>0.0098</b>	<b>0.0211</b>	<b>0.0176</b>	0.1043	<b>0.0310</b>	<b>0.0422</b>	<b>0.0155</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0651</b>	<b>0.0129</b>	<b>0.0336</b>	<b>0.0299</b>	0.1683	<b>0.0620</b>	<b>0.0605</b>	<b>0.0243</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0972</b>	<b>0.0161</b>	<b>0.0373</b>	<b>0.0311</b>	0.2500	<b>0.0907</b>	<b>0.0943</b>	<b>0.0451</b>
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0896</b>	<b>0.0166</b>	<b>0.0367</b>	<b>0.0342</b>	0.1045	<b>0.0322</b>	<b>0.0550</b>	<b>0.0185</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.1036	<b>0.0198</b>	<b>0.0455</b>	<b>0.0407</b>	0.1673	<b>0.0594</b>	<b>0.0699</b>	<b>0.0279</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.1136	<b>0.0206</b>	<b>0.0388</b>	<b>0.0321</b>	0.2323	<b>0.0747</b>	<b>0.0743</b>	<b>0.0304</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0761</b>	<b>0.0108</b>	<b>0.0213</b>	<b>0.0180</b>	0.1047	<b>0.0316</b>	<b>0.0423</b>	<b>0.0159</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0705</b>	<b>0.0133</b>	<b>0.0336</b>	<b>0.0303</b>	0.1715	<b>0.0622</b>	<b>0.0609</b>	<b>0.0258</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1009	<b>0.0166</b>	<b>0.0392</b>	<b>0.0311</b>	0.2522	<b>0.0965</b>	<b>0.0966</b>	<b>0.0471</b>
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0977</b>	<b>0.0202</b>	<b>0.0372</b>	<b>0.0344</b>	0.1065	<b>0.0323</b>	<b>0.0584</b>	<b>0.0209</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.1173	<b>0.0231</b>	<b>0.0474</b>	<b>0.0414</b>	0.1684	<b>0.0596</b>	<b>0.0701</b>	<b>0.0280</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.1141	<b>0.0207</b>	<b>0.0402</b>	<b>0.0328</b>	0.2354	<b>0.0765</b>	<b>0.0769</b>	<b>0.0319</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1242	<b>0.0355</b>	<b>0.0588</b>	<b>0.0262</b>	0.1295	<b>0.0449</b>	<b>0.0656</b>	<b>0.0263</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0971</b>	<b>0.0188</b>	<b>0.0382</b>	<b>0.0314</b>	0.2029	<b>0.0706</b>	<b>0.0852</b>	<b>0.0382</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1191	<b>0.0210</b>	<b>0.0555</b>	<b>0.0497</b>	0.2935	0.1131	0.1664	<b>0.0625</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.1363	<b>0.0299</b>	<b>0.0705</b>	<b>0.0379</b>	0.1357	<b>0.0449</b>	<b>0.0798</b>	<b>0.0301</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.1417	<b>0.0339</b>	<b>0.0980</b>	<b>0.0536</b>	0.2031	0.1278	<b>0.0808</b>	<b>0.0521</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.1652	<b>0.0286</b>	<b>0.0488</b>	<b>0.0508</b>	0.3138	0.1406	0.1026	<b>0.0522</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony arrests for classified crime				Cumulative felony arrests for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		1.5103	1.9907	2.1917	1.8917	1.6769	2.1746	2.4600	2.1600
	(iii) Mean of the treatment group		0.5718	0.8801	1.1538	0.9615	0.6897	1.2632	1.6154	1.4231
Estimates	(iv) UDIM (difference in means)		-0.9384	-1.1106	-1.0378	-0.9301	-0.9873	-0.9114	-0.8446	-0.7369
	(v) COLS (conditional OLS estimate)		-0.8610	-0.9288	-0.7745	-0.7196	-0.8806	-0.6417	-0.4622	-0.4074
	(vi) AIPW (augmented IPW estimate)		-0.8264	-0.9241	-0.7367	-0.6673	-0.8617	-0.6847	-0.4517	-0.3822
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0064</b>	<b>0.0098</b>	<b>0.0416</b>	<b>0.0388</b>	<b>0.0109</b>	<b>0.0574</b>	0.1187	0.1259
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0116</b>	<b>0.0190</b>	<b>0.0728</b>	<b>0.0517</b>	<b>0.0188</b>	0.1188	0.2396	0.2405
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0090</b>	<b>0.0151</b>	<b>0.0811</b>	<b>0.0662</b>	<b>0.0139</b>	<b>0.0897</b>	0.2417	0.2521
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0068</b>	<b>0.0106</b>	<b>0.0427</b>	<b>0.0374</b>	<b>0.0105</b>	<b>0.0557</b>	0.1192	0.1231
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0086</b>	<b>0.0164</b>	<b>0.0795</b>	<b>0.0583</b>	<b>0.0136</b>	0.1089	0.2464	0.2469
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0074</b>	<b>0.0146</b>	<b>0.0940</b>	<b>0.0764</b>	<b>0.0110</b>	<b>0.0861</b>	0.2543	0.2627
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0060</b>	<b>0.0096</b>	<b>0.0396</b>	<b>0.0348</b>	<b>0.0088</b>	<b>0.0556</b>	0.1128	0.1184
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0072</b>	<b>0.0140</b>	<b>0.0752</b>	<b>0.0524</b>	<b>0.0132</b>	0.1052	0.2320	0.2416
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0048</b>	<b>0.0136</b>	<b>0.0976</b>	<b>0.0776</b>	<b>0.0096</b>	<b>0.0932</b>	0.2668	0.2744
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0032</b>	<b>0.0012</b>	<b>0.0004</b>	<b>0.0140</b>	<b>0.0544</b>	<b>0.0616</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0008</b>	<b>0.0228</b>	<b>0.0092</b>	<b>0.0004</b>	<b>0.0532</b>	0.1904	0.1960
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0008</b>	<b>0.0360</b>	<b>0.0240</b>	<b>0.0004</b>	<b>0.0364</b>	0.1936	0.1980
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0104</b>	<b>0.0124</b>	<b>0.0368</b>	<b>0.0324</b>	<b>0.0184</b>	<b>0.0556</b>	<b>0.0976</b>	0.1020
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0184</b>	<b>0.0244</b>	<b>0.0832</b>	<b>0.0668</b>	<b>0.0332</b>	0.1236	0.2256	0.2276
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0228</b>	<b>0.0264</b>	<b>0.0924</b>	<b>0.0788</b>	<b>0.0336</b>	0.1052	0.2268	0.2316
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0108</b>	<b>0.0128</b>	<b>0.0404</b>	<b>0.0396</b>	<b>0.0172</b>	<b>0.0568</b>	0.1012	0.1056
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0168</b>	<b>0.0224</b>	<b>0.0764</b>	<b>0.0484</b>	<b>0.0304</b>	0.1248	0.2292	0.2284
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0176</b>	<b>0.0204</b>	<b>0.0908</b>	<b>0.0692</b>	<b>0.0284</b>	<b>0.0976</b>	0.2304	0.2348
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0253</b>	<b>0.0288</b>	<b>0.0823</b>	<b>0.0621</b>	<b>0.0352</b>	<b>0.0939</b>	0.1681	0.1761
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0380</b>	<b>0.0459</b>	0.1123	<b>0.0883</b>	<b>0.0611</b>	0.1735	0.2963	0.2945
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0452</b>	<b>0.0515</b>	0.1511	0.1380	<b>0.0635</b>	0.1746	0.3427	0.3205
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0262</b>	<b>0.0288</b>	<b>0.0868</b>	<b>0.0670</b>	<b>0.0350</b>	<b>0.0942</b>	0.1751	0.1836
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0451</b>	<b>0.0488</b>	0.1304	<b>0.0915</b>	<b>0.0641</b>	0.1880	0.3114	0.3005
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0452</b>	<b>0.0512</b>	0.1660	0.1486	<b>0.0604</b>	0.1761	0.3406	0.3372
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0271</b>	<b>0.0291</b>	<b>0.0848</b>	<b>0.0640</b>	<b>0.0367</b>	<b>0.0947</b>	0.1712	0.1770
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0386</b>	<b>0.0487</b>	0.1171	<b>0.0902</b>	<b>0.0628</b>	0.1750	0.2983	0.3017
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0455</b>	<b>0.0519</b>	0.1547	0.1403	<b>0.0668</b>	0.1803	0.3514	0.3254
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0273</b>	<b>0.0291</b>	<b>0.0879</b>	<b>0.0694</b>	<b>0.0369</b>	<b>0.0987</b>	0.1772	0.1863
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0453</b>	<b>0.0522</b>	0.1314	<b>0.0917</b>	<b>0.0658</b>	0.1916	0.3131	0.3051
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0455</b>	<b>0.0525</b>	0.1672	0.1486	<b>0.0622</b>	0.1849	0.3482	0.3406
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0320</b>	<b>0.0315</b>	0.1017	<b>0.0782</b>	<b>0.0524</b>	0.1353	0.1926	0.1981
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0594</b>	<b>0.0840</b>	0.1388	0.1038	<b>0.0771</b>	0.1827	0.3281	0.4298
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0535</b>	<b>0.0713</b>	0.1764	0.1723	<b>0.0976</b>	0.2173	0.4127	0.4417
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0358</b>	<b>0.0365</b>	<b>0.0960</b>	<b>0.0828</b>	<b>0.0528</b>	0.1327	0.1928	0.2029
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0672</b>	<b>0.0806</b>	0.1468	0.1115	<b>0.0840</b>	0.2716	0.3461	0.3719
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0594</b>	<b>0.0894</b>	0.1975	0.1692	<b>0.0846</b>	0.2135	0.3984	0.3805

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony convictions for violent crime				Cumulative felony convictions for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.2846	0.4762	0.6400	0.5800	0.7615	1.1429	1.3600	1.2000
	(iii) Mean of the treatment group		0.1897	0.1930	0.2115	0.0962	0.4828	0.6842	0.8654	0.6923
Estimates	(iv) UDIM (difference in means)		-0.0950	-0.2832	-0.4285	-0.4838	-0.2788	-0.4586	-0.4946	-0.5077
	(v) COLS (conditional OLS estimate)		-0.0565	-0.2169	-0.3723	-0.4341	-0.2026	-0.2852	-0.2822	-0.3158
	(vi) AIPW (augmented IPW estimate)		-0.0561	-0.2052	-0.3639	-0.4188	-0.2376	-0.3320	-0.2886	-0.3078
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2301	<b>0.0333</b>	<b>0.0129</b>	<b>0.0018</b>	0.1335	<b>0.0838</b>	0.1286	<b>0.0935</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3248	<b>0.0676</b>	<b>0.0206</b>	<b>0.0026</b>	0.2154	0.1824	0.2483	0.1781
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3174	<b>0.0664</b>	<b>0.0126</b>	<b>0.0010</b>	0.1638	0.1424	0.2478	0.1888
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2263	<b>0.0332</b>	<b>0.0132</b>	<b>0.0013</b>	0.1394	<b>0.0900</b>	0.1361	<b>0.0962</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3217	<b>0.0708</b>	<b>0.0251</b>	<b>0.0026</b>	0.2124	0.1896	0.2630	0.1959
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3217	<b>0.0778</b>	<b>0.0233</b>	<b>0.0023</b>	0.1666	0.1550	0.2643	0.2064
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2252	<b>0.0344</b>	<b>0.0144</b>	<b>0.0012</b>	0.1340	<b>0.0896</b>	0.1308	<b>0.0888</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3156	<b>0.0712</b>	<b>0.0276</b>	<b>0.0016</b>	0.2048	0.1832	0.2516	0.1980
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3264	<b>0.0868</b>	<b>0.0284</b>	<b>0.0028</b>	0.1828	0.1740	0.2808	0.2212
	(10) $p_{B,S}^1$	Studentized UDIM	0.1548	<b>0.0020</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0552</b>	<b>0.0304</b>	<b>0.0640</b>	<b>0.0296</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.2792	<b>0.0156</b>	<b>0.0012</b>	<b>0.0004</b>	0.1416	0.1212	0.2024	0.1300
	(12) $p_{B,S}^3$	Studentized AIPW	0.2688	<b>0.0196</b>	<b>0.0028</b>	<b>0.0004</b>	<b>0.0888</b>	<b>0.0872</b>	0.2160	0.1424
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2648	<b>0.0392</b>	<b>0.0104</b>	<b>0.0016</b>	0.1532	<b>0.0780</b>	0.1184	<b>0.0796</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3604	<b>0.0704</b>	<b>0.0172</b>	<b>0.0020</b>	0.2420	0.1876	0.2472	0.1888
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3556	<b>0.0792</b>	<b>0.0236</b>	<b>0.0040</b>	0.2008	0.1556	0.2416	0.1880
	(16) $p_{P,S}^1$	Studentized UDIM	0.2624	<b>0.0384</b>	<b>0.0148</b>	<b>0.0020</b>	0.1528	<b>0.0800</b>	0.1256	<b>0.0904</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.3552	<b>0.0680</b>	<b>0.0216</b>	<b>0.0028</b>	0.2448	0.1856	0.2544	0.1828
	(18) $p_{P,S}^3$	Studentized AIPW	0.3488	<b>0.0708</b>	<b>0.0148</b>	<b>0.0024</b>	0.1960	0.1548	0.2512	0.1896
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4086	<b>0.0720</b>	<b>0.0347</b>	<b>0.0124</b>	0.2306	0.1348	0.1829	0.1353
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4956	0.1488	<b>0.0438</b>	<b>0.0137</b>	0.3169	0.2483	0.3211	0.2428
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4873	0.1633	<b>0.0586</b>	<b>0.0175</b>	0.2771	0.2273	0.3367	0.2583
	(22) $p_{M,S}^1$	Studentized UDIM	0.4057	<b>0.0708</b>	<b>0.0411</b>	<b>0.0148</b>	0.2306	0.1411	0.1938	0.1456
	(23) $p_{M,S}^2$	Studentized COLS	0.4922	0.1443	<b>0.0518</b>	<b>0.0184</b>	0.3241	0.2535	0.3238	0.2571
	(24) $p_{M,S}^3$	Studentized AIPW	0.4820	0.1543	<b>0.0473</b>	<b>0.0155</b>	0.2708	0.2390	0.3540	0.2733
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4109	<b>0.0731</b>	<b>0.0361</b>	<b>0.0133</b>	0.2346	0.1363	0.1865	0.1376
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5025	0.1511	<b>0.0451</b>	<b>0.0137</b>	0.3300	0.2510	0.3220	0.2477
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4907	0.1647	<b>0.0589</b>	<b>0.0178</b>	0.2822	0.2307	0.3402	0.2639
	(28) $p_{R,S}^1$	Studentized UDIM	0.4101	<b>0.0708</b>	<b>0.0418</b>	<b>0.0156</b>	0.2346	0.1434	0.2026	0.1483
	(29) $p_{R,S}^2$	Studentized COLS	0.4956	0.1458	<b>0.0529</b>	<b>0.0197</b>	0.3405	0.2559	0.3241	0.2577
	(30) $p_{R,S}^3$	Studentized AIPW	0.4847	0.1554	<b>0.0473</b>	<b>0.0199</b>	0.2749	0.2455	0.3549	0.2757
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4679	0.1118	<b>0.0463</b>	<b>0.0152</b>	0.2495	0.1661	0.2253	0.1652
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5418	0.2043	<b>0.0702</b>	<b>0.0240</b>	0.3836	0.3174	0.3337	0.2677
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.5400	0.1894	<b>0.0829</b>	<b>0.0202</b>	0.3491	0.2633	0.3521	0.3200
	(34) $p_{D,S}^1$	Studentized UDIM	0.5318	<b>0.0900</b>	<b>0.0919</b>	<b>0.0203</b>	0.2448	0.1783	0.2236	0.1813
	(35) $p_{D,S}^2$	Studentized COLS	0.5839	0.1542	<b>0.0642</b>	<b>0.0260</b>	0.4220	0.3146	0.3369	0.2641
	(36) $p_{D,S}^3$	Studentized AIPW	0.5078	0.1754	<b>0.0535</b>	<b>0.0716</b>	0.3510	0.2549	0.3991	0.3046

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony convictions for any crime				Cumulative fines for violent felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.8923	1.3016	1.5000	1.3400	74.914	118.78	166.93	98.725
	(iii) Mean of the treatment group		0.5345	0.8421	1.0577	0.8654	32.962	33.541	36.766	0.0000
Estimates	(iv) UDIM (difference in means)		-0.3578	-0.4595	-0.4423	-0.4746	-41.952	-85.235	-130.16	-98.725
	(v) COLS (conditional OLS estimate)		-0.2639	-0.2466	-0.1858	-0.2363	-43.137	-70.555	-127.88	-86.150
	(vi) AIPW (augmented IPW estimate)		-0.3050	-0.3057	-0.1979	-0.2327	-40.534	-66.422	-132.19	-83.701
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1026	0.1082	0.1748	0.1311	0.2483	0.1043	<b>0.0593</b>	<b>0.0112</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1743	0.2375	0.3348	0.2608	0.2547	0.1510	<b>0.0853</b>	<b>0.0156</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1256	0.1814	0.3256	0.2630	0.2379	0.1361	<b>0.0512</b>	<b>0.0080</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1053	0.1142	0.1833	0.1352	0.2434	0.1024	<b>0.0582</b>	<b>0.0091</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1672	0.2423	0.3463	0.2770	0.2517	0.1514	<b>0.0839</b>	<b>0.0123</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1247	0.1949	0.3401	0.2819	0.2461	0.1428	<b>0.0824</b>	<b>0.0144</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1000	0.1076	0.1824	0.1260	0.2580	<b>0.0924</b>	<b>0.0412</b>	<b>0.0004</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1608	0.2412	0.3368	0.2692	0.2680	0.1476	<b>0.0628</b>	<b>0.0008</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1392	0.2152	0.3612	0.2992	0.2712	0.1468	<b>0.0592</b>	<b>0.0012</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0304</b>	<b>0.0468</b>	0.1056	<b>0.0608</b>	0.1172	<b>0.0036</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0920</b>	0.1844	0.2908	0.2184	0.1228	<b>0.0152</b>	<b>0.0004</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0476</b>	0.1184	0.2852	0.2076	0.1176	<b>0.0156</b>	<b>0.0040</b>	<b>0.0004</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1220	<b>0.0988</b>	0.1592	0.1140	0.3464	0.1332	<b>0.0488</b>	<b>0.0008</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2072	0.2552	0.3416	0.2668	0.3304	0.1956	<b>0.0596</b>	<b>0.0160</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1684	0.2024	0.3224	0.2644	0.3452	0.1996	<b>0.0608</b>	<b>0.0284</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.1192	0.1076	0.1636	0.1216	0.3400	0.1332	<b>0.0696</b>	<b>0.0008</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.2012	0.2488	0.3424	0.2580	0.3476	0.1900	0.1076	<b>0.0088</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1620	0.1960	0.3256	0.2628	0.3268	0.1740	<b>0.0648</b>	<b>0.0032</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.2001	0.1751	0.2658	0.2042	0.3842	0.1417	<b>0.0571</b>	<b>0.0065</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.2996	0.3404	0.4351	0.3607	0.3960	0.2092	<b>0.0637</b>	<b>0.0295</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.2739	0.3062	0.4498	0.3665	0.4004	0.2113	<b>0.0746</b>	<b>0.0386</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.2002	0.1876	0.2738	0.2215	0.3842	0.1555	<b>0.0729</b>	<b>0.0050</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.3024	0.3366	0.4379	0.3584	0.4153	0.1983	0.1051	<b>0.0202</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.2706	0.3133	0.4536	0.3799	0.3865	0.1827	<b>0.0800</b>	<b>0.0122</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.2040	0.1826	0.2739	0.2050	0.3902	0.1417	<b>0.0578</b>	<b>0.0070</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3016	0.3509	0.4376	0.3615	0.4082	0.2123	<b>0.0675</b>	<b>0.0307</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.2832	0.3072	0.4548	0.3710	0.4032	0.2155	<b>0.0752</b>	<b>0.0410</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.2026	0.1943	0.2822	0.2261	0.3902	0.1608	<b>0.0736</b>	<b>0.0051</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.3044	0.3447	0.4430	0.3621	0.4282	0.2045	0.1052	<b>0.0208</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.2708	0.3145	0.4558	0.3821	0.3883	0.1899	<b>0.0802</b>	<b>0.0132</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.2678	0.2219	0.3102	0.2368	0.4743	0.1672	<b>0.0666</b>	<b>0.0108</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4041	0.4928	0.4553	0.4738	0.4616	0.2240	0.1169	<b>0.0463</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.3585	0.3323	0.5201	0.3933	0.5177	0.2364	<b>0.0933</b>	<b>0.0470</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.2398	0.2541	0.3690	0.2735	0.4848	0.2053	<b>0.0919</b>	<b>0.0061</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.3322	0.3776	0.5052	0.4616	0.6296	0.2535	0.1451	<b>0.0305</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.2923	0.4299	0.4831	0.4075	0.4198	0.2236	0.1019	<b>0.0286</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for classified felonies				Cumulative fines for any felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		175.10	440.06	571.75	498.63	207.15	473.13	597.32	524.19
	(iii) Mean of the treatment group		114.84	290.14	327.50	280.25	150.97	425.25	509.69	422.14
Estimates	(iv) UDIM (difference in means)		-60.259	-149.92	-244.26	-218.38	-56.178	-47.879	-87.630	-102.05
	(v) COLS (conditional OLS estimate)		-32.094	19.796	-42.153	-12.598	-39.054	129.95	104.63	98.794
	(vi) AIPW (augmented IPW estimate)		-33.357	-26.447	-48.117	-10.202	-38.877	83.360	108.10	113.46
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2611	0.2322	0.1603	0.1781	0.2922	0.4150	0.3694	0.3440
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3713	0.4565	0.4242	0.4758	0.3573	0.2632	0.3332	0.3361
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3550	0.4416	0.4129	0.4803	0.3447	0.3364	0.3220	0.3077
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2582	0.2163	0.1480	0.1634	0.2920	0.4100	0.3646	0.3365
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3689	0.4556	0.4234	0.4751	0.3553	0.2590	0.3311	0.3319
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3623	0.4409	0.4155	0.4806	0.3536	0.3419	0.3329	0.3168
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2552	0.2112	0.1428	0.1600	0.2964	0.4148	0.3652	0.3396
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3620	0.4652	0.4172	0.4672	0.3696	0.2564	0.3304	0.3408
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3704	0.4576	0.4104	0.4780	0.3736	0.3140	0.3192	0.2948
	(10) $p_{B,S}^1$	Studentized UDIM	0.1848	0.1360	<b>0.0508</b>	<b>0.0652</b>	0.2324	0.3920	0.3212	0.2848
	(11) $p_{B,S}^2$	Studentized COLS	0.3388	0.4380	0.4180	0.4800	0.3172	0.1844	0.2868	0.2808
	(12) $p_{B,S}^3$	Studentized AIPW	0.3252	0.4052	0.3900	0.4760	0.3068	0.3152	0.2832	0.2548
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2608	0.2204	0.1620	0.1864	0.2936	0.3988	0.3612	0.3408
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3896	0.4912	0.4156	0.4604	0.3756	0.3236	0.3772	0.3832
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3692	0.4208	0.3996	0.4556	0.3784	0.3948	0.3676	0.3584
	(16) $p_{P,S}^1$	Studentized UDIM	0.2612	0.2232	0.1672	0.1900	0.2940	0.3988	0.3616	0.3412
	(17) $p_{P,S}^2$	Studentized COLS	0.3956	0.4864	0.4100	0.4572	0.3800	0.3000	0.3600	0.3684
	(18) $p_{P,S}^3$	Studentized AIPW	0.3676	0.4164	0.3932	0.4544	0.3708	0.3824	0.3524	0.3460
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3209	0.3259	0.2396	0.2741	0.3438	0.4932	0.4349	0.4418
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4431	0.6700	0.4408	0.5018	0.4135	0.4759	0.5388	0.5442
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4258	0.4519	0.4272	0.4972	0.4164	0.5668	0.5208	0.5151
	(22) $p_{M,S}^1$	Studentized UDIM	0.3189	0.3357	0.2455	0.2863	0.3438	0.4932	0.4374	0.4426
	(23) $p_{M,S}^2$	Studentized COLS	0.4424	0.6666	0.4390	0.5018	0.4141	0.4504	0.5163	0.5166
	(24) $p_{M,S}^3$	Studentized AIPW	0.4243	0.4546	0.4252	0.4972	0.4106	0.5473	0.5076	0.4941
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3227	0.3260	0.2433	0.2752	0.3546	0.4955	0.4393	0.4483
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4436	0.6708	0.4426	0.5036	0.4197	0.4813	0.5453	0.5514
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4273	0.4544	0.4301	0.5065	0.4174	0.5675	0.5215	0.5166
	(28) $p_{R,S}^1$	Studentized UDIM	0.3206	0.3386	0.2506	0.2878	0.3546	0.4955	0.4458	0.4448
	(29) $p_{R,S}^2$	Studentized COLS	0.4425	0.6686	0.4417	0.5036	0.4205	0.4603	0.5200	0.5211
	(30) $p_{R,S}^3$	Studentized AIPW	0.4251	0.4598	0.4264	0.5065	0.4111	0.5551	0.5082	0.5014
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4479	0.3745	0.2702	0.3294	0.3833	0.5512	0.6894	0.5273
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4818	0.6945	0.5285	0.5173	0.4510	0.6392	0.6621	0.6464
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.5284	0.5095	0.5085	0.5809	0.4490	0.6115	0.5670	0.6634
	(34) $p_{D,S}^1$	Studentized UDIM	0.3624	0.3839	0.2686	0.3530	0.3833	0.5905	0.5069	0.5191
	(35) $p_{D,S}^2$	Studentized COLS	0.5334	0.6778	0.5139	0.5176	0.5446	0.5351	0.5840	0.5598
	(36) $p_{D,S}^3$	Studentized AIPW	0.4688	0.5091	0.5162	0.5809	0.4395	0.6617	0.5292	0.6416

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative probabon for violent felonies				Cumulative probabon for classified felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		1.1077	1.6984	2.1400	1.4200	4.0615	6.7460	8.0200	6.3400
	(iii) Mean of the treatment group		0.8276	0.8421	0.9231	0.0000	2.8966	5.3684	7.5962	6.2115
Estimates	(iv) UDIM (difference in means)		-0.2801	-0.8563	-1.2169	-1.4200	-1.1650	-1.3776	-0.4238	-0.1285
	(v) COLS (conditional OLS estimate)		-0.2574	-0.5714	-1.0729	-1.2331	-0.6783	0.6611	1.9154	2.3349
	(vi) AIPW (augmented IPW estimate)		-0.2630	-0.6021	-1.1884	-1.2179	-0.9676	-0.0981	1.8382	2.4812
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.3904	0.2293	0.1904	<b>0.0737</b>	0.2839	0.3150	0.4529	0.4848
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.4023	0.3040	0.2267	<b>0.0906</b>	0.3796	0.4062	0.2888	0.2303
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3865	0.2749	0.1744	<b>0.0680</b>	0.3208	0.4856	0.2971	0.2175
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.3888	0.2272	0.1900	<b>0.0693</b>	0.2812	0.3072	0.4512	0.4838
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.4028	0.3066	0.2302	<b>0.0864</b>	0.3754	0.4034	0.2827	0.2161
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3924	0.2866	0.2122	<b>0.0982</b>	0.3314	0.4861	0.3062	0.2206
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3872	0.2280	0.1924	0.1332	0.2764	0.3032	0.4416	0.4840
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4056	0.3048	0.2312	0.1340	0.3748	0.4192	0.2888	0.2348
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.4064	0.2972	0.2104	0.1344	0.3392	0.4960	0.2992	0.2204
	(10) $p_{B,S}^1$	Studentized UDIM	0.3728	0.1356	<b>0.0824</b>	<b>0.0004</b>	0.2276	0.2532	0.4384	0.4840
	(11) $p_{B,S}^2$	Studentized COLS	0.3876	0.2548	0.1272	<b>0.0004</b>	0.3548	0.3680	0.2108	0.1292
	(12) $p_{B,S}^3$	Studentized AIPW	0.3680	0.2152	0.1128	<b>0.0028</b>	0.3064	0.4664	0.2640	0.1516
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.4744	0.3020	0.2316	<b>0.0312</b>	0.2880	0.3204	0.4528	0.4832
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4448	0.3556	0.2568	0.2080	0.3820	0.4228	0.3104	0.2660
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.4328	0.3380	0.2276	0.1736	0.3412	0.4824	0.3312	0.2616
	(16) $p_{P,S}^1$	Studentized UDIM	0.4660	0.2988	0.2348	<b>0.0216</b>	0.2860	0.3144	0.4520	0.4828
	(17) $p_{P,S}^2$	Studentized COLS	0.4492	0.3500	0.2720	0.2804	0.3904	0.4220	0.3020	0.2528
	(18) $p_{P,S}^3$	Studentized AIPW	0.4256	0.3224	0.2036	<b>0.0548</b>	0.3432	0.4824	0.3248	0.2472
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.5135	0.3275	0.2171	<b>0.0520</b>	0.3613	0.4207	0.5468	0.5845
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.5482	0.3784	0.2374	0.1039	0.4661	0.6255	0.5120	0.4448
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.5135	0.3544	0.2223	0.1250	0.3928	0.4779	0.5257	0.4545
	(22) $p_{M,S}^1$	Studentized UDIM	0.5081	0.3245	0.2266	<b>0.0518</b>	0.3585	0.4161	0.5468	0.5845
	(23) $p_{M,S}^2$	Studentized COLS	0.5482	0.3703	0.2560	0.2693	0.4729	0.6222	0.5025	0.4311
	(24) $p_{M,S}^3$	Studentized AIPW	0.5011	0.3391	0.2010	<b>0.0319</b>	0.3986	0.4779	0.5232	0.4337
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.5158	0.3398	0.2191	<b>0.0550</b>	0.3652	0.4297	0.5500	0.5904
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5526	0.3856	0.2402	0.1067	0.4674	0.6320	0.5154	0.4466
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.5181	0.3600	0.2244	0.1264	0.3958	0.4812	0.5308	0.4571
	(28) $p_{R,S}^1$	Studentized UDIM	0.5110	0.3357	0.2303	<b>0.0546</b>	0.3598	0.4249	0.5504	0.5904
	(29) $p_{R,S}^2$	Studentized COLS	0.5494	0.3762	0.2589	0.2708	0.4756	0.6335	0.5113	0.4322
	(30) $p_{R,S}^3$	Studentized AIPW	0.5017	0.3460	0.2129	<b>0.0331</b>	0.3995	0.4812	0.5320	0.4418
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5429	0.4213	0.3047	0.1302	0.4112	0.4621	0.6283	0.6507
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5677	0.4368	0.2847	0.1203	0.5374	0.6778	0.5529	0.4949
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.6225	0.3720	0.2863	0.1493	0.4844	0.5700	0.5664	0.5045
	(34) $p_{D,S}^1$	Studentized UDIM	0.5327	0.4175	0.2668	<b>0.0844</b>	0.3771	0.4731	0.6283	0.6507
	(35) $p_{D,S}^2$	Studentized COLS	0.6455	0.5006	0.2751	0.2770	0.5023	0.6743	0.6047	0.4332
	(36) $p_{D,S}^3$	Studentized AIPW	0.5439	0.4321	0.2212	<b>0.0443</b>	0.4124	0.5705	0.5476	0.5315

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative probation for any felonies				Cumulative prison sentence for violent felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		5.3538	8.0794	9.2200	7.5400	14.326	27.955	34.863	32.943
	(iii) Mean of the treatment group		3.0000	6.6316	9.3269	7.9423	10.414	10.596	11.615	7.7692
Estimates	(iv) UDIM (difference in means)		-2.3538	-1.4478	0.1069	0.4023	-3.9118	-17.359	-23.248	-25.174
	(v) COLS (conditional OLS estimate)		-2.1300	0.4380	2.1148	2.5344	-3.3911	-17.285	-24.554	-25.868
	(vi) AIPW (augmented IPW estimate)		-2.2419	-0.2179	2.2909	2.9339	-3.1505	-16.054	-22.548	-23.604
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1410	0.3258	0.4890	0.4571	0.3342	<b>0.0682</b>	<b>0.0487</b>	<b>0.0268</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1871	0.4448	0.2885	0.2420	0.3488	<b>0.0752</b>	<b>0.0504</b>	<b>0.0330</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1561	0.4712	0.2679	0.2023	0.3478	<b>0.0698</b>	<b>0.0381</b>	<b>0.0235</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1373	0.3180	0.4886	0.4537	0.3289	<b>0.0706</b>	<b>0.0526</b>	<b>0.0288</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1786	0.4431	0.2812	0.2255	0.3446	<b>0.0788</b>	<b>0.0579</b>	<b>0.0389</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1719	0.4726	0.2796	0.2052	0.3445	<b>0.0845</b>	<b>0.0520</b>	<b>0.0343</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1416	0.3108	0.4896	0.4564	0.3400	<b>0.0656</b>	<b>0.0508</b>	<b>0.0180</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1836	0.4380	0.2828	0.2380	0.3628	<b>0.0712</b>	<b>0.0520</b>	<b>0.0224</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1784	0.4968	0.2540	0.1956	0.3620	<b>0.0796</b>	<b>0.0544</b>	<b>0.0320</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0752</b>	0.2680	0.4852	0.4436	0.2796	<b>0.0028</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.1316	0.4160	0.2128	0.1508	0.2916	<b>0.0016</b>	<b>0.0008</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.1220	0.4420	0.2276	0.1360	0.2988	<b>0.0064</b>	<b>0.0020</b>	<b>0.0004</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1388	0.3188	0.4948	0.4856	0.3732	<b>0.0876</b>	<b>0.0600</b>	<b>0.0256</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.1776	0.4572	0.3148	0.2656	0.4068	<b>0.0864</b>	<b>0.0420</b>	<b>0.0228</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1628	0.4632	0.3088	0.2528	0.4100	0.1076	<b>0.0704</b>	<b>0.0452</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.1400	0.3192	0.4952	0.4848	0.3740	<b>0.0932</b>	<b>0.0696</b>	<b>0.0416</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.2000	0.4560	0.3068	0.2552	0.3952	0.1012	<b>0.0764</b>	<b>0.0480</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1756	0.4616	0.2968	0.2336	0.3956	0.1080	<b>0.0708</b>	<b>0.0440</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1665	0.4018	0.6531	0.5948	0.4660	0.1449	0.1046	<b>0.0541</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.2177	0.6497	0.5075	0.4468	0.5132	0.1465	<b>0.0898</b>	<b>0.0540</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.2080	0.4789	0.5200	0.4511	0.5319	0.1973	0.1407	<b>0.0970</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.1743	0.4018	0.6531	0.5948	0.4685	0.1445	0.1189	<b>0.0718</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.2533	0.6478	0.4901	0.4216	0.5063	0.1722	0.1361	0.1017
	(24) $p_{M,S}^3$	Studentized AIPW	0.2283	0.4789	0.5095	0.4144	0.5176	0.1845	0.1303	<b>0.0985</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1696	0.4031	0.6600	0.5974	0.4729	0.1455	0.1051	<b>0.0552</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.2179	0.6568	0.5171	0.4490	0.5168	0.1483	<b>0.0900</b>	<b>0.0555</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.2114	0.4840	0.5278	0.4513	0.5354	0.2027	0.1413	<b>0.0976</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.1754	0.4031	0.6600	0.5974	0.4753	0.1447	0.1195	<b>0.0745</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.2578	0.6512	0.4929	0.4248	0.5072	0.1728	0.1426	0.1027
	(30) $p_{R,S}^3$	Studentized AIPW	0.2377	0.4840	0.5181	0.4158	0.5195	0.1856	0.1335	<b>0.0987</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.2082	0.4224	0.7138	0.6290	0.5415	0.1543	0.1089	<b>0.0792</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2611	0.6733	0.5878	0.4840	0.6411	0.2419	0.1086	<b>0.0776</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2781	0.5346	0.5553	0.4716	0.6166	0.2180	0.1446	0.1292
	(34) $p_{D,S}^1$	Studentized UDIM	0.1896	0.4248	0.7138	0.6122	0.5565	0.1800	0.1344	0.1173
	(35) $p_{D,S}^2$	Studentized COLS	0.3084	0.6823	0.5158	0.4620	0.6798	0.2242	0.1893	0.1046
	(36) $p_{D,S}^3$	Studentized AIPW	0.3093	0.5348	0.5566	0.4406	0.5904	0.2055	0.1628	0.1206

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Cumulative prison sentence for classified felonies				Cumulative prison sentence for any felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		22.838	38.897	44.530	41.850	24.477	41.635	47.400	44.720
	(iii) Mean of the treatment group		16.483	27.930	32.077	26.154	17.345	28.842	33.077	26.462
Estimates	(iv) UDIM (difference in means)		-6.3557	-10.967	-12.453	-15.696	-7.1321	-12.793	-14.323	-18.258
	(v) COLS (conditional OLS estimate)		-5.8703	-8.2456	-9.5377	-11.949	-6.1572	-9.5945	-10.912	-13.931
	(vi) AIPW (augmented IPW estimate)		-6.3056	-8.3801	-8.5893	-10.574	-6.8075	-9.8627	-10.204	-12.749
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2924	0.2436	0.2539	0.1837	0.2771	0.2156	0.2293	0.1537
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3001	0.3041	0.3087	0.2537	0.2959	0.2792	0.2871	0.2228
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.2704	0.2804	0.3085	0.2567	0.2608	0.2514	0.2796	0.2186
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2885	0.2492	0.2603	0.1875	0.2723	0.2210	0.2359	0.1577
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.2936	0.3074	0.3172	0.2632	0.2882	0.2819	0.2958	0.2328
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.2643	0.2970	0.3220	0.2717	0.2531	0.2682	0.2947	0.2351
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2904	0.2508	0.2592	0.1940	0.2660	0.2212	0.2360	0.1596
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.2968	0.3080	0.3136	0.2692	0.2924	0.2808	0.3004	0.2376
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.2712	0.3140	0.3468	0.3060	0.2596	0.2844	0.3208	0.2636
	(10) $p_{B,S}^1$	Studentized UDIM	0.2360	0.1860	0.1844	<b>0.0996</b>	0.2128	0.1472	0.1612	<b>0.0748</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.2324	0.2556	0.2492	0.1764	0.2240	0.2180	0.2224	0.1412
	(12) $p_{B,S}^3$	Studentized AIPW	0.1908	0.2276	0.2440	0.1788	0.1724	0.1920	0.2132	0.1408
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3180	0.2568	0.2684	0.1940	0.3092	0.2296	0.2464	0.1656
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3512	0.3132	0.3220	0.2612	0.3528	0.2916	0.3040	0.2288
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3412	0.3144	0.3460	0.2980	0.3368	0.2852	0.3232	0.2600
	(16) $p_{P,S}^1$	Studentized UDIM	0.3176	0.2588	0.2704	0.1992	0.3092	0.2312	0.2504	0.1720
	(17) $p_{P,S}^2$	Studentized COLS	0.3452	0.3256	0.3320	0.2860	0.3432	0.2992	0.3136	0.2520
	(18) $p_{P,S}^3$	Studentized AIPW	0.3204	0.3104	0.3376	0.2936	0.3168	0.2772	0.3144	0.2532
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4043	0.3130	0.3351	0.2508	0.4082	0.3014	0.3187	0.2372
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4403	0.4014	0.3920	0.3169	0.4529	0.3853	0.3771	0.2962
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4362	0.4156	0.4379	0.3810	0.4435	0.3856	0.4191	0.3423
	(22) $p_{M,S}^1$	Studentized UDIM	0.4032	0.3158	0.3386	0.2643	0.4063	0.2981	0.3218	0.2423
	(23) $p_{M,S}^2$	Studentized COLS	0.4261	0.4036	0.3985	0.3452	0.4365	0.3853	0.3838	0.3197
	(24) $p_{M,S}^3$	Studentized AIPW	0.4237	0.4150	0.4378	0.3793	0.4274	0.3831	0.4083	0.3398
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4100	0.3227	0.3379	0.2618	0.4145	0.3091	0.3258	0.2470
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4466	0.4064	0.4012	0.3226	0.4603	0.3924	0.3846	0.3001
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4383	0.4176	0.4485	0.3813	0.4482	0.3871	0.4265	0.3462
	(28) $p_{R,S}^1$	Studentized UDIM	0.4063	0.3241	0.3425	0.2722	0.4093	0.3068	0.3294	0.2466
	(29) $p_{R,S}^2$	Studentized COLS	0.4264	0.4067	0.4004	0.3455	0.4381	0.3924	0.3898	0.3213
	(30) $p_{R,S}^3$	Studentized AIPW	0.4259	0.4220	0.4482	0.3868	0.4310	0.3878	0.4181	0.3463
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4429	0.4271	0.3444	0.2762	0.4483	0.4840	0.3784	0.2765
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4767	0.4631	0.5309	0.4136	0.4954	0.4556	0.4526	0.3474
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4770	0.4728	0.4758	0.4723	0.4894	0.4815	0.4986	0.3997
	(34) $p_{D,S}^1$	Studentized UDIM	0.4978	0.3751	0.3857	0.4023	0.4858	0.4490	0.4491	0.3065
	(35) $p_{D,S}^2$	Studentized COLS	0.4790	0.4166	0.4453	0.3524	0.5038	0.4555	0.4388	0.3988
	(36) $p_{D,S}^3$	Studentized AIPW	0.5078	0.4656	0.4807	0.4638	0.5399	0.4317	0.4504	0.3932

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	One or more felony arrests for violent crime				One or more felony arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.2154	0.2540	0.2800	0.2400	0.3846	0.4603	0.4800	0.3400
	(iii) Mean of the treatment group		0.1897	0.2105	0.2500	0.1346	0.2759	0.2982	0.3654	0.2308
Estimates	(iv) UDIM (difference in means)		-0.0257	-0.0434	-0.0300	-0.1054	-0.1088	-0.1621	-0.1146	-0.1092
	(v) COLS (conditional OLS estimate)		0.0105	0.0119	0.0350	-0.0483	-0.0823	-0.1189	-0.0650	-0.0787
	(vi) AIPW (augmented IPW estimate)		0.0564	0.0534	0.0621	-0.0164	-0.0417	-0.0796	-0.0270	-0.0324
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.3540	0.2723	0.3573	<b>0.0808</b>	<b>0.0874</b>	<b>0.0293</b>	0.1022	0.1028
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.4383	0.4300	0.3193	0.2611	0.1469	<b>0.0649</b>	0.2105	0.1870
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1775	0.1889	0.1695	0.4050	0.2790	0.1301	0.3554	0.3459
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.3639	0.2891	0.3665	<b>0.0751</b>	0.1002	<b>0.0307</b>	0.1204	<b>0.0999</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.4416	0.4345	0.3318	0.2539	0.1529	<b>0.0626</b>	0.2281	0.1915
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.2104	0.2275	0.2098	0.4118	0.2956	0.1479	0.3807	0.3627
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3584	0.2832	0.3628	<b>0.0776</b>	0.1028	<b>0.0304</b>	0.1188	0.1028
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4448	0.4412	0.3408	0.2416	0.1432	<b>0.0588</b>	0.2140	0.1876
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.2432	0.2524	0.2192	0.3600	0.2664	0.1336	0.3524	0.3220
	(10) $p_{B,S}^1$	Studentized UDIM	0.3224	0.2168	0.3224	<b>0.0268</b>	<b>0.0360</b>	<b>0.0076</b>	<b>0.0568</b>	<b>0.0396</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.4184	0.4044	0.2768	0.2044	<b>0.0808</b>	<b>0.0236</b>	0.1512	0.1272
	(12) $p_{B,S}^3$	Studentized AIPW	0.1136	0.1352	0.1284	0.4260	0.2616	0.1024	0.3608	0.3736
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3636	0.2668	0.3216	<b>0.0760</b>	<b>0.0880</b>	<b>0.0364</b>	<b>0.0996</b>	0.1024
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4284	0.4488	0.3372	0.2236	0.1444	<b>0.0680</b>	0.2336	0.1704
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.2056	0.2328	0.2204	0.3716	0.3016	0.1664	0.3804	0.3552
	(16) $p_{P,S}^1$	Studentized UDIM	0.3408	0.2552	0.3140	<b>0.0724</b>	<b>0.0800</b>	<b>0.0324</b>	<b>0.0976</b>	<b>0.0984</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.4304	0.4508	0.3508	0.2456	0.1536	<b>0.0728</b>	0.2272	0.1828
	(18) $p_{P,S}^3$	Studentized AIPW	0.1988	0.2252	0.2164	0.3756	0.2980	0.1564	0.3728	0.3520
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4567	0.3250	0.4114	0.1189	0.1095	<b>0.0468</b>	0.1038	<b>0.0927</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.5757	0.6226	0.5259	0.2748	0.1659	<b>0.0782</b>	0.1929	0.1321
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.3334	0.3885	0.3694	0.4258	0.3509	0.1695	0.3373	0.2779
	(22) $p_{M,S}^1$	Studentized UDIM	0.4317	0.3157	0.4054	0.1155	0.1095	<b>0.0414</b>	0.1038	<b>0.0985</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.5757	0.6252	0.5428	0.2969	0.1753	<b>0.0838</b>	0.1864	0.1437
	(24) $p_{M,S}^3$	Studentized AIPW	0.3277	0.3781	0.3611	0.4322	0.3439	0.1572	0.3349	0.2762
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4603	0.3295	0.4168	0.1222	0.1100	<b>0.0493</b>	0.1048	0.1026
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5824	0.6235	0.5318	0.2852	0.1679	<b>0.0795</b>	0.1959	0.1367
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.3473	0.3887	0.3804	0.4330	0.3601	0.1754	0.3512	0.2804
	(28) $p_{R,S}^1$	Studentized UDIM	0.4330	0.3192	0.4120	0.1217	0.1100	<b>0.0432</b>	0.1048	0.1137
	(29) $p_{R,S}^2$	Studentized COLS	0.5824	0.6284	0.5429	0.3062	0.1775	<b>0.0853</b>	0.1883	0.1511
	(30) $p_{R,S}^3$	Studentized AIPW	0.3399	0.3797	0.3629	0.4400	0.3530	0.1608	0.3489	0.2810
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5094	0.3936	0.4470	0.1596	0.1331	<b>0.0614</b>	0.1175	0.1714
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5949	0.6535	0.5979	0.3551	0.2146	0.1076	0.2638	0.1899
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4061	0.4838	0.4140	0.5033	0.4992	0.2021	0.3840	0.3145
	(34) $p_{D,S}^1$	Studentized UDIM	0.4747	0.3314	0.4371	0.1825	0.1232	<b>0.0675</b>	0.1146	0.1666
	(35) $p_{D,S}^2$	Studentized COLS	0.6035	0.7525	0.5670	0.3489	0.2378	0.1231	0.2058	0.1906
	(36) $p_{D,S}^3$	Studentized AIPW	0.4204	0.4552	0.3841	0.5896	0.5559	0.1981	0.4244	0.3495

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	One or more felony arrests for any crime				One or more felony convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.3846	0.4603	0.4800	0.3400	0.1385	0.1905	0.2400	0.2000
	(iii) Mean of the treatment group		0.2931	0.3158	0.3846	0.2500	0.1207	0.1228	0.1346	0.0385
Estimates	(iv) UDIM (difference in means)		-0.0915	-0.1445	-0.0954	-0.0900	-0.0178	-0.0677	-0.1054	-0.1615
	(v) COLS (conditional OLS estimate)		-0.0632	-0.0993	-0.0441	-0.0578	0.0019	-0.0307	-0.0695	-0.1358
	(vi) AIPW (augmented IPW estimate)		-0.0240	-0.0616	-0.0082	-0.0136	0.0094	-0.0218	-0.0622	-0.1251
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1369	<b>0.0521</b>	0.1531	0.1489	0.3791	0.1348	<b>0.0692</b>	<b>0.0034</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.2152	0.1075	0.2936	0.2524	0.4877	0.3129	0.1738	<b>0.0129</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3710	0.1965	0.4558	0.4325	0.4415	0.3720	0.2046	<b>0.0134</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1427	<b>0.0488</b>	0.1651	0.1505	0.3837	0.1521	<b>0.0879</b>	<b>0.0040</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.2121	<b>0.0962</b>	0.3020	0.2619	0.4878	0.3216	0.1956	<b>0.0165</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3768	0.2059	0.4627	0.4416	0.4466	0.3863	0.2381	<b>0.0236</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1380	<b>0.0460</b>	0.1584	0.1580	0.3760	0.1496	<b>0.0876</b>	<b>0.0036</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1964	<b>0.0884</b>	0.2936	0.2648	0.4892	0.3204	0.1936	<b>0.0176</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3440	0.1880	0.4384	0.4040	0.4536	0.3888	0.2560	<b>0.0240</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0772</b>	<b>0.0176</b>	<b>0.0992</b>	<b>0.0776</b>	0.3592	<b>0.0760</b>	<b>0.0256</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.1428	<b>0.0440</b>	0.2448	0.2020	0.4640	0.2824	0.1236	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.3744	0.1636	0.4652	0.4616	0.4436	0.3736	0.1912	<b>0.0028</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1368	<b>0.0540</b>	0.1612	0.1484	0.3904	0.1196	<b>0.0580</b>	<b>0.0016</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2168	0.1092	0.3160	0.2568	0.4784	0.2876	0.1364	<b>0.0080</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3928	0.2328	0.4676	0.4376	0.4324	0.3420	0.1772	<b>0.0188</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.1336	<b>0.0496</b>	0.1564	0.1472	0.3628	0.1192	<b>0.0564</b>	<b>0.0016</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.2244	0.1168	0.3104	0.2644	0.4804	0.2980	0.1672	<b>0.0108</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.3896	0.2228	0.4648	0.4360	0.4396	0.3648	0.2064	<b>0.0148</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1643	<b>0.0666</b>	0.1635	0.1341	0.5690	0.2243	0.1119	<b>0.0181</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.2351	0.1203	0.2609	0.1751	0.5631	0.3602	0.1688	<b>0.0271</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4541	0.2359	0.4235	0.3455	0.5168	0.4053	0.2203	<b>0.0399</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.1674	<b>0.0645</b>	0.1592	0.1319	0.5470	0.2215	0.1105	<b>0.0181</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.2566	0.1269	0.2609	0.1865	0.5631	0.3715	0.2128	<b>0.0378</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.4455	0.2232	0.4235	0.3460	0.5243	0.4283	0.2572	<b>0.0415</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1647	<b>0.0679</b>	0.1680	0.1349	0.5718	0.2248	0.1139	<b>0.0203</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.2408	0.1263	0.2659	0.1821	0.5672	0.3631	0.1699	<b>0.0284</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4635	0.2366	0.4252	0.3535	0.5202	0.4076	0.2235	<b>0.0418</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.1710	<b>0.0679</b>	0.1644	0.1341	0.5472	0.2220	0.1117	<b>0.0203</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.2626	0.1331	0.2659	0.1918	0.5672	0.3735	0.2174	<b>0.0398</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.4539	0.2248	0.4267	0.3504	0.5254	0.4335	0.2582	<b>0.0425</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1892	<b>0.0840</b>	0.2130	0.1711	0.6048	0.3179	0.1147	<b>0.0246</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2911	0.1396	0.2890	0.2280	0.6119	0.4291	0.1893	<b>0.0458</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.5334	0.3267	0.4446	0.4079	0.7261	0.4664	0.2622	<b>0.0742</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.1959	<b>0.0767</b>	0.1950	0.1481	0.5493	0.3179	0.1177	<b>0.0275</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.3286	0.1539	0.3213	0.2324	0.6119	0.4623	0.2489	<b>0.0948</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.5401	0.2656	0.4844	0.4507	0.6521	0.4786	0.2888	<b>0.0912</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	One or more felony convictions for classified crime				One or more felony convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.2615	0.3333	0.3600	0.2400	0.2769	0.3492	0.3600	0.2400
	(iii) Mean of the treatment group		0.2069	0.2456	0.2692	0.1538	0.2241	0.2632	0.3077	0.1731
Estimates	(iv) UDIM (difference in means)		-0.0546	-0.0877	-0.0908	-0.0862	-0.0528	-0.0860	-0.0523	-0.0669
	(v) COLS (conditional OLS estimate)		-0.0278	-0.0390	-0.0400	-0.0621	-0.0327	-0.0443	-0.0125	-0.0515
	(vi) AIPW (augmented IPW estimate)		-0.0286	-0.0404	-0.0366	-0.0477	-0.0341	-0.0466	-0.0044	-0.0310
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2289	0.1367	0.1506	0.1380	0.2420	0.1454	0.2759	0.2013
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3579	0.3115	0.3226	0.2211	0.3377	0.2907	0.4428	0.2628
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3553	0.3100	0.3379	0.2560	0.3322	0.2855	0.4799	0.3366
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2353	0.1407	0.1601	0.1231	0.2506	0.1515	0.2890	0.1900
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3548	0.3068	0.3253	0.2120	0.3351	0.2852	0.4441	0.2562
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3642	0.3254	0.3590	0.2760	0.3432	0.3020	0.4827	0.3527
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2328	0.1288	0.1540	0.1324	0.2432	0.1312	0.2896	0.1980
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3396	0.2952	0.3328	0.2116	0.3192	0.2716	0.4548	0.2556
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3708	0.3324	0.3712	0.2732	0.3476	0.3096	0.4948	0.3544
	(10) $p_{B,S}^1$	Studentized UDIM	0.1676	<b>0.0764</b>	<b>0.0892</b>	<b>0.0572</b>	0.1752	<b>0.0872</b>	0.2140	0.1196
	(11) $p_{B,S}^2$	Studentized COLS	0.3208	0.2608	0.2784	0.1448	0.2908	0.2332	0.4280	0.1968
	(12) $p_{B,S}^3$	Studentized AIPW	0.3292	0.2824	0.3240	0.2136	0.3052	0.2528	0.4656	0.3076
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2264	0.1280	0.1476	0.1256	0.2512	0.1436	0.2892	0.1768
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3512	0.3016	0.3048	0.1996	0.3220	0.2800	0.4348	0.2496
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3504	0.2920	0.3128	0.2648	0.3264	0.2720	0.4636	0.3380
	(16) $p_{P,S}^1$	Studentized UDIM	0.2108	0.1208	0.1456	0.1204	0.2152	0.1344	0.2820	0.1808
	(17) $p_{P,S}^2$	Studentized COLS	0.3564	0.3048	0.3108	0.2144	0.3268	0.2836	0.4364	0.2536
	(18) $p_{P,S}^3$	Studentized AIPW	0.3612	0.3108	0.3240	0.2524	0.3380	0.2864	0.4652	0.3292
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3761	0.1987	0.2374	0.1717	0.3674	0.1960	0.3946	0.2029
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4620	0.3471	0.3643	0.2212	0.4479	0.3353	0.4721	0.2548
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4721	0.3661	0.3969	0.2846	0.4676	0.3339	0.5346	0.3533
	(22) $p_{M,S}^1$	Studentized UDIM	0.3542	0.1810	0.2374	0.1642	0.3371	0.1879	0.3792	0.2158
	(23) $p_{M,S}^2$	Studentized COLS	0.4673	0.3498	0.3702	0.2288	0.4541	0.3403	0.4775	0.2603
	(24) $p_{M,S}^3$	Studentized AIPW	0.4816	0.3760	0.4056	0.2832	0.4775	0.3476	0.5346	0.3444
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3838	0.2029	0.2469	0.1819	0.3681	0.2013	0.4191	0.2132
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4652	0.3510	0.3742	0.2269	0.4569	0.3411	0.4812	0.2574
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4782	0.3761	0.4103	0.2939	0.4753	0.3476	0.5414	0.3616
	(28) $p_{R,S}^1$	Studentized UDIM	0.3604	0.1816	0.2469	0.1728	0.3428	0.1898	0.3984	0.2187
	(29) $p_{R,S}^2$	Studentized COLS	0.4731	0.3539	0.3778	0.2320	0.4606	0.3464	0.4887	0.2630
	(30) $p_{R,S}^3$	Studentized AIPW	0.4844	0.3892	0.4088	0.2957	0.4839	0.3557	0.5414	0.3509
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4812	0.2363	0.2798	0.2333	0.3836	0.2573	0.5383	0.3293
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4818	0.3634	0.4136	0.2436	0.6217	0.3984	0.6647	0.2814
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.5275	0.4226	0.5182	0.3073	0.5879	0.3942	0.6710	0.4066
	(34) $p_{D,S}^1$	Studentized UDIM	0.5363	0.2817	0.2798	0.2036	0.3935	0.2228	0.5000	0.2609
	(35) $p_{D,S}^2$	Studentized COLS	0.5255	0.3580	0.4180	0.2852	0.4945	0.3999	0.8717	0.2721
	(36) $p_{D,S}^3$	Studentized AIPW	0.5102	0.5247	0.4504	0.3380	0.5211	0.6335	0.5575	0.4085

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony arrests for violent crime				Two or more felony arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.1385	0.1905	0.2400	0.2200	0.2308	0.3175	0.3400	0.2600
	(iii) Mean of the treatment group		0.0345	0.0526	0.0769	0.0577	0.1207	0.1754	0.2308	0.1731
Estimates	(iv) UDIM (difference in means)		-0.1040	-0.1378	-0.1631	-0.1623	-0.1101	-0.1420	-0.1092	-0.0869
	(v) COLS (conditional OLS estimate)		-0.1025	-0.1320	-0.1690	-0.1646	-0.1184	-0.1353	-0.1047	-0.0904
	(vi) AIPW (augmented IPW estimate)		-0.1001	-0.1307	-0.1703	-0.1623	-0.1226	-0.1375	-0.1103	-0.0917
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0161</b>	<b>0.0067</b>	<b>0.0098</b>	<b>0.0069</b>	<b>0.0433</b>	<b>0.0307</b>	0.1119	0.1542
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0192</b>	<b>0.0097</b>	<b>0.0081</b>	<b>0.0076</b>	<b>0.0406</b>	<b>0.0381</b>	0.1150	0.1564
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0133</b>	<b>0.0052</b>	<b>0.0024</b>	<b>0.0027</b>	<b>0.0228</b>	<b>0.0260</b>	<b>0.0854</b>	0.1331
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0123</b>	<b>0.0063</b>	<b>0.0099</b>	<b>0.0066</b>	<b>0.0486</b>	<b>0.0331</b>	0.1080	0.1335
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0140</b>	<b>0.0081</b>	<b>0.0078</b>	<b>0.0068</b>	<b>0.0354</b>	<b>0.0328</b>	0.1012	0.1309
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0106</b>	<b>0.0061</b>	<b>0.0044</b>	<b>0.0046</b>	<b>0.0238</b>	<b>0.0272</b>	<b>0.0884</b>	0.1311
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0116</b>	<b>0.0080</b>	<b>0.0112</b>	<b>0.0060</b>	<b>0.0516</b>	<b>0.0316</b>	0.1096	0.1404
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0092</b>	<b>0.0080</b>	<b>0.0112</b>	<b>0.0064</b>	<b>0.0340</b>	<b>0.0272</b>	<b>0.0936</b>	0.1356
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0072</b>	<b>0.0072</b>	<b>0.0072</b>	<b>0.0048</b>	<b>0.0280</b>	<b>0.0264</b>	<b>0.0928</b>	0.1340
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0004</b>	<b>0.0084</b>	<b>0.0072</b>	<b>0.0528</b>	<b>0.0684</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0056</b>	<b>0.0096</b>	<b>0.0500</b>	<b>0.0724</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0040</b>	<b>0.0096</b>	<b>0.0456</b>	<b>0.0728</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0244</b>	<b>0.0092</b>	<b>0.0092</b>	<b>0.0056</b>	<b>0.0548</b>	<b>0.0300</b>	<b>0.0960</b>	0.1332
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0236</b>	<b>0.0104</b>	<b>0.0040</b>	<b>0.0032</b>	<b>0.0444</b>	<b>0.0368</b>	<b>0.0948</b>	0.1320
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0272</b>	<b>0.0108</b>	<b>0.0068</b>	<b>0.0048</b>	<b>0.0364</b>	<b>0.0336</b>	<b>0.0884</b>	0.1368
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0224</b>	<b>0.0080</b>	<b>0.0100</b>	<b>0.0048</b>	<b>0.0544</b>	<b>0.0288</b>	<b>0.0964</b>	0.1296
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0236</b>	<b>0.0108</b>	<b>0.0080</b>	<b>0.0048</b>	<b>0.0504</b>	<b>0.0424</b>	0.1132	0.1500
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0208</b>	<b>0.0072</b>	<b>0.0040</b>	<b>0.0028</b>	<b>0.0368</b>	<b>0.0332</b>	<b>0.0920</b>	0.1384
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0583</b>	<b>0.0275</b>	<b>0.0295</b>	<b>0.0252</b>	<b>0.0796</b>	<b>0.0557</b>	0.1525	0.1617
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0670</b>	<b>0.0318</b>	<b>0.0276</b>	<b>0.0283</b>	<b>0.0691</b>	<b>0.0572</b>	0.1476	0.1585
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0708</b>	<b>0.0360</b>	<b>0.0302</b>	<b>0.0391</b>	<b>0.0720</b>	<b>0.0679</b>	0.1756	0.1948
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0583</b>	<b>0.0266</b>	<b>0.0328</b>	<b>0.0252</b>	<b>0.0802</b>	<b>0.0544</b>	0.1550	0.1617
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0630</b>	<b>0.0338</b>	<b>0.0377</b>	<b>0.0350</b>	<b>0.0790</b>	<b>0.0690</b>	0.1716	0.1779
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0653</b>	<b>0.0288</b>	<b>0.0264</b>	<b>0.0241</b>	<b>0.0703</b>	<b>0.0681</b>	0.1691	0.1997
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0584</b>	<b>0.0276</b>	<b>0.0324</b>	<b>0.0278</b>	<b>0.0829</b>	<b>0.0609</b>	0.1527	0.1619
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0696</b>	<b>0.0322</b>	<b>0.0284</b>	<b>0.0298</b>	<b>0.0702</b>	<b>0.0595</b>	0.1492	0.1586
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0736</b>	<b>0.0391</b>	<b>0.0345</b>	<b>0.0410</b>	<b>0.0776</b>	<b>0.0709</b>	0.1759	0.1953
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0604</b>	<b>0.0279</b>	<b>0.0342</b>	<b>0.0278</b>	<b>0.0856</b>	<b>0.0587</b>	0.1552	0.1619
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0648</b>	<b>0.0360</b>	<b>0.0399</b>	<b>0.0396</b>	<b>0.0804</b>	<b>0.0711</b>	0.1747	0.1783
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0666</b>	<b>0.0332</b>	<b>0.0273</b>	<b>0.0253</b>	<b>0.0757</b>	<b>0.0684</b>	0.1703	0.2001
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0659</b>	<b>0.0318</b>	<b>0.0530</b>	<b>0.0402</b>	0.1145	0.1177	0.1540	0.1780
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0865</b>	<b>0.0452</b>	<b>0.0901</b>	<b>0.0592</b>	<b>0.0816</b>	<b>0.0846</b>	0.2182	0.2127
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1056	<b>0.0766</b>	<b>0.0842</b>	<b>0.0514</b>	0.1032	<b>0.0863</b>	0.1773	0.2068
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0726</b>	<b>0.0321</b>	<b>0.0436</b>	<b>0.0400</b>	0.1129	0.1140	0.1662	0.1876
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0823</b>	<b>0.0619</b>	<b>0.0728</b>	<b>0.0566</b>	0.1125	0.1302	0.2162	0.1968
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0751</b>	0.1173	<b>0.0375</b>	<b>0.0372</b>	<b>0.0871</b>	0.1074	0.2041	0.2912

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony arrests for any crime				Two or more felony convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.2462	0.3333	0.3600	0.2800	0.0923	0.1587	0.2000	0.1800
	(iii) Mean of the treatment group		0.1379	0.2105	0.2692	0.2115	0.0345	0.0351	0.0385	0.0192
Estimates	(iv) UDIM (difference in means)		-0.1082	-0.1228	-0.0908	-0.0685	-0.0578	-0.1236	-0.1615	-0.1608
	(v) COLS (conditional OLS estimate)		-0.1164	-0.1082	-0.0928	-0.0785	-0.0521	-0.1144	-0.1619	-0.1574
	(vi) AIPW (augmented IPW estimate)		-0.1226	-0.1079	-0.0864	-0.0678	-0.0567	-0.1152	-0.1602	-0.1523
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0596</b>	<b>0.0630</b>	0.1565	0.2158	<b>0.0919</b>	<b>0.0075</b>	<b>0.0041</b>	<b>0.0020</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0564</b>	<b>0.0799</b>	0.1339	0.1895	0.1096	<b>0.0105</b>	<b>0.0037</b>	<b>0.0024</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0309</b>	<b>0.0587</b>	0.1241	0.1998	<b>0.0746</b>	<b>0.0055</b>	<b>0.0011</b>	<b>0.0009</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0592</b>	<b>0.0636</b>	0.1586	0.2008	<b>0.0795</b>	<b>0.0051</b>	<b>0.0033</b>	<b>0.0014</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0463</b>	<b>0.0743</b>	0.1315	0.1747	<b>0.0964</b>	<b>0.0078</b>	<b>0.0036</b>	<b>0.0021</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0300</b>	<b>0.0667</b>	0.1503	0.2163	<b>0.0709</b>	<b>0.0051</b>	<b>0.0020</b>	<b>0.0016</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0636</b>	<b>0.0620</b>	0.1580	0.2072	<b>0.0764</b>	<b>0.0040</b>	<b>0.0024</b>	<b>0.0008</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0444</b>	<b>0.0676</b>	0.1216	0.1732	<b>0.0952</b>	<b>0.0052</b>	<b>0.0016</b>	<b>0.0008</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0296</b>	<b>0.0664</b>	0.1424	0.2124	<b>0.0712</b>	<b>0.0040</b>	<b>0.0024</b>	<b>0.0024</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0140</b>	<b>0.0200</b>	<b>0.0892</b>	0.1308	<b>0.0148</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0124</b>	<b>0.0300</b>	<b>0.0788</b>	0.1080	<b>0.0188</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0060</b>	<b>0.0228</b>	<b>0.0896</b>	0.1568	<b>0.0096</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0772</b>	<b>0.0636</b>	0.1424	0.2016	0.1244	<b>0.0124</b>	<b>0.0060</b>	<b>0.0024</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0600</b>	<b>0.0816</b>	0.1272	0.1692	0.1468	<b>0.0156</b>	<b>0.0044</b>	<b>0.0040</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0512</b>	<b>0.0804</b>	0.1480	0.2236	0.1228	<b>0.0160</b>	<b>0.0056</b>	<b>0.0048</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0752</b>	<b>0.0592</b>	0.1428	0.2012	0.1160	<b>0.0104</b>	<b>0.0056</b>	<b>0.0020</b>
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0732</b>	<b>0.0884</b>	0.1368	0.1888	0.1364	<b>0.0156</b>	<b>0.0072</b>	<b>0.0048</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0500</b>	<b>0.0756</b>	0.1412	0.2208	<b>0.0948</b>	<b>0.0120</b>	<b>0.0048</b>	<b>0.0040</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0964</b>	<b>0.0875</b>	0.1723	0.2139	0.2284	<b>0.0318</b>	<b>0.0194</b>	<b>0.0143</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0899</b>	0.1107	0.1623	0.1890	0.2407	<b>0.0447</b>	<b>0.0228</b>	<b>0.0167</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0815</b>	0.1276	0.2296	0.2477	0.2127	<b>0.0460</b>	<b>0.0197</b>	<b>0.0257</b>
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0925</b>	<b>0.0860</b>	0.1723	0.2139	0.2208	<b>0.0303</b>	<b>0.0204</b>	<b>0.0115</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.1042	0.1218	0.1716	0.2030	0.2477	<b>0.0425</b>	<b>0.0253</b>	<b>0.0205</b>
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0909</b>	0.1178	0.2167	0.2499	0.1756	<b>0.0358</b>	<b>0.0178</b>	<b>0.0220</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1007	<b>0.0877</b>	0.1766	0.2178	0.2314	<b>0.0354</b>	<b>0.0220</b>	<b>0.0150</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0922</b>	0.1127	0.1688	0.2031	0.2426	<b>0.0460</b>	<b>0.0233</b>	<b>0.0172</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0828</b>	0.1334	0.2327	0.2514	0.2139	<b>0.0471</b>	<b>0.0198</b>	<b>0.0290</b>
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0973</b>	<b>0.0871</b>	0.1766	0.2178	0.2238	<b>0.0314</b>	<b>0.0212</b>	<b>0.0118</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.1062	0.1238	0.1757	0.2166	0.2525	<b>0.0440</b>	<b>0.0257</b>	<b>0.0213</b>
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0946</b>	0.1227	0.2200	0.2539	0.1783	<b>0.0375</b>	<b>0.0193</b>	<b>0.0228</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1318	<b>0.0929</b>	0.2223	0.2299	0.2574	0.1004	<b>0.0920</b>	<b>0.0167</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1215	0.3115	0.1865	0.3164	0.2867	<b>0.0536</b>	<b>0.0268</b>	<b>0.0237</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1426	0.1844	0.3013	0.2862	0.2237	<b>0.0588</b>	<b>0.0229</b>	<b>0.0564</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.1258	0.1112	0.2223	0.2299	0.2817	<b>0.0676</b>	<b>0.0256</b>	<b>0.0248</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.1469	0.1773	0.2096	0.2506	0.2876	<b>0.0593</b>	<b>0.0314</b>	<b>0.0291</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.1201	0.1359	0.2489	0.3509	0.2760	<b>0.0555</b>	<b>0.0332</b>	<b>0.0342</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 8: Treatment Effects on the Crime Outcomes of the Pooled Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony convictions for classified crime				Two or more felony convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		123	120	102	102	123	120	102	102
	(ii) Mean of the control group		0.1538	0.2698	0.3000	0.2600	0.1692	0.2857	0.3200	0.2800
	(iii) Mean of the treatment group		0.1034	0.1404	0.1731	0.1154	0.1207	0.1579	0.1923	0.1346
Estimates	(iv) UDIM (difference in means)		-0.0504	-0.1295	-0.1269	-0.1446	-0.0485	-0.1278	-0.1277	-0.1454
	(v) COLS (conditional OLS estimate)		-0.0429	-0.1125	-0.1100	-0.1215	-0.0435	-0.1068	-0.1087	-0.1202
	(vi) AIPW (augmented IPW estimate)		-0.0516	-0.1175	-0.1051	-0.1133	-0.0512	-0.1062	-0.0979	-0.1061
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1907	<b>0.0341</b>	<b>0.0630</b>	<b>0.0320</b>	0.2239	<b>0.0441</b>	<b>0.0650</b>	<b>0.0352</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.2386	<b>0.0579</b>	<b>0.0905</b>	<b>0.0687</b>	0.2610	<b>0.0753</b>	<b>0.0880</b>	<b>0.0735</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1730	<b>0.0356</b>	<b>0.0828</b>	<b>0.0644</b>	0.1999	<b>0.0556</b>	<b>0.0860</b>	<b>0.0762</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1984	<b>0.0343</b>	<b>0.0610</b>	<b>0.0231</b>	0.2171	<b>0.0401</b>	<b>0.0643</b>	<b>0.0270</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.2342	<b>0.0527</b>	<b>0.0872</b>	<b>0.0513</b>	0.2429	<b>0.0664</b>	<b>0.0915</b>	<b>0.0596</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1790	<b>0.0392</b>	<b>0.0979</b>	<b>0.0669</b>	0.1940	<b>0.0605</b>	0.1166	<b>0.0909</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1828	<b>0.0356</b>	<b>0.0552</b>	<b>0.0236</b>	0.2076	<b>0.0428</b>	<b>0.0644</b>	<b>0.0308</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.2240	<b>0.0512</b>	<b>0.0792</b>	<b>0.0496</b>	0.2460	<b>0.0620</b>	<b>0.0816</b>	<b>0.0548</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1824	<b>0.0452</b>	<b>0.0980</b>	<b>0.0720</b>	0.2120	<b>0.0636</b>	0.1096	<b>0.0884</b>
	(10) $p_{B,S}^1$	Studentized UDIM	0.1260	<b>0.0064</b>	<b>0.0180</b>	<b>0.0032</b>	0.1528	<b>0.0084</b>	<b>0.0208</b>	<b>0.0052</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.1644	<b>0.0196</b>	<b>0.0436</b>	<b>0.0144</b>	0.1776	<b>0.0236</b>	<b>0.0384</b>	<b>0.0160</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.1092	<b>0.0124</b>	<b>0.0444</b>	<b>0.0204</b>	0.1216	<b>0.0188</b>	<b>0.0540</b>	<b>0.0348</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2204	<b>0.0356</b>	<b>0.0528</b>	<b>0.0276</b>	0.2540	<b>0.0436</b>	<b>0.0548</b>	<b>0.0300</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2616	<b>0.0572</b>	<b>0.0712</b>	<b>0.0568</b>	0.2708	<b>0.0712</b>	<b>0.0768</b>	<b>0.0604</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.2176	<b>0.0500</b>	<b>0.0948</b>	<b>0.0736</b>	0.2388	<b>0.0764</b>	0.1028	<b>0.0940</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.2204	<b>0.0336</b>	<b>0.0532</b>	<b>0.0304</b>	0.2480	<b>0.0424</b>	<b>0.0596</b>	<b>0.0352</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.2636	<b>0.0624</b>	<b>0.0920</b>	<b>0.0692</b>	0.2772	<b>0.0772</b>	<b>0.0904</b>	<b>0.0736</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.2108	<b>0.0444</b>	<b>0.0940</b>	<b>0.0740</b>	0.2292	<b>0.0668</b>	<b>0.0964</b>	<b>0.0892</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3173	<b>0.0702</b>	0.1064	<b>0.0698</b>	0.3585	<b>0.0825</b>	0.1046	<b>0.0688</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.3391	<b>0.0870</b>	0.1302	<b>0.0981</b>	0.3742	0.1036	0.1147	0.1030
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.3052	<b>0.0908</b>	0.1653	0.1426	0.3443	0.1233	0.1702	0.1417
	(22) $p_{M,S}^1$	Studentized UDIM	0.3173	<b>0.0684</b>	0.1100	<b>0.0748</b>	0.3484	<b>0.0797</b>	0.1087	<b>0.0798</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.3371	<b>0.0908</b>	0.1514	0.1192	0.3765	0.1085	0.1348	0.1197
	(24) $p_{M,S}^3$	Studentized AIPW	0.2918	<b>0.0861</b>	0.1585	0.1470	0.3331	0.1154	0.1645	0.1494
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3193	<b>0.0751</b>	0.1079	<b>0.0717</b>	0.3650	<b>0.0856</b>	0.1053	<b>0.0695</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3428	<b>0.0923</b>	0.1328	<b>0.0984</b>	0.3762	0.1065	0.1152	0.1039
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.3131	<b>0.0909</b>	0.1677	0.1473	0.3455	0.1265	0.1733	0.1454
	(28) $p_{R,S}^1$	Studentized UDIM	0.3193	<b>0.0740</b>	0.1102	<b>0.0757</b>	0.3558	<b>0.0825</b>	0.1087	<b>0.0819</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.3436	<b>0.0960</b>	0.1550	0.1203	0.3776	0.1120	0.1365	0.1215
	(30) $p_{R,S}^3$	Studentized AIPW	0.2953	<b>0.0862</b>	0.1651	0.1501	0.3372	0.1165	0.1656	0.1501
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.3426	0.1155	0.1461	0.1203	0.3814	0.1147	0.1830	<b>0.0989</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.3774	0.1581	0.2399	0.1429	0.4019	0.1463	0.1904	0.1147
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.3359	0.1015	0.1799	0.1891	0.4037	0.1527	0.2614	0.1669
	(34) $p_{D,S}^1$	Studentized UDIM	0.3362	0.1111	0.1337	<b>0.0779</b>	0.3992	0.1745	0.1533	0.1003
	(35) $p_{D,S}^2$	Studentized COLS	0.3782	0.1442	0.1767	0.1246	0.3826	0.1323	0.1636	0.1551
	(36) $p_{D,S}^3$	Studentized AIPW	0.3190	0.1493	0.2187	0.1791	0.3594	0.1265	0.2161	0.1769

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor arrests for violent crime				Cumulative misdemeanor arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.6923	1.1316	1.2667	1.2000	1.6923	2.7632	3.1667	3.1000
	(iii) Mean of the treatment group		0.1515	0.4063	0.5172	0.5172	0.8788	1.5000	1.8966	1.6207
Estimates	(iv) UDIM (difference in means)		-0.5408	-0.7253	-0.7494	-0.6828	-0.8135	-1.2632	-1.2701	-1.4793
	(v) COLS (conditional OLS estimate)		-0.7244	-0.9499	-1.0998	-1.0139	-1.0230	-1.3324	-1.3343	-1.5705
	(vi) AIPW (augmented IPW estimate)		-0.6634	-0.8652	-1.0562	-0.9693	-0.9891	-1.2045	-1.2436	-1.4667
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0116</b>	<b>0.0087</b>	<b>0.0215</b>	<b>0.0285</b>	<b>0.0311</b>	<b>0.0146</b>	<b>0.0572</b>	<b>0.0173</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0065</b>	<b>0.0048</b>	<b>0.0072</b>	<b>0.0103</b>	<b>0.0162</b>	<b>0.0147</b>	<b>0.0652</b>	<b>0.0178</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0037</b>	<b>0.0028</b>	<b>0.0032</b>	<b>0.0051</b>	<b>0.0103</b>	<b>0.0169</b>	<b>0.0786</b>	<b>0.0197</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0093</b>	<b>0.0061</b>	<b>0.0137</b>	<b>0.0202</b>	<b>0.0234</b>	<b>0.0116</b>	<b>0.0518</b>	<b>0.0153</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0058</b>	<b>0.0030</b>	<b>0.0043</b>	<b>0.0072</b>	<b>0.0122</b>	<b>0.0113</b>	<b>0.0596</b>	<b>0.0177</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0047</b>	<b>0.0033</b>	<b>0.0049</b>	<b>0.0081</b>	<b>0.0096</b>	<b>0.0176</b>	<b>0.0837</b>	<b>0.0258</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0040</b>	<b>0.0040</b>	<b>0.0096</b>	<b>0.0140</b>	<b>0.0248</b>	<b>0.0144</b>	<b>0.0504</b>	<b>0.0156</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0008</b>	<b>0.0012</b>	<b>0.0020</b>	<b>0.0020</b>	<b>0.0116</b>	<b>0.0116</b>	<b>0.0588</b>	<b>0.0172</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0008</b>	<b>0.0024</b>	<b>0.0024</b>	<b>0.0024</b>	<b>0.0132</b>	<b>0.0260</b>	<b>0.0956</b>	<b>0.0312</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0084</b>	<b>0.0028</b>	<b>0.0240</b>	<b>0.0024</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0036</b>	<b>0.0040</b>	<b>0.0400</b>	<b>0.0032</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0020</b>	<b>0.0028</b>	<b>0.0076</b>	<b>0.0732</b>	<b>0.0136</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0160</b>	<b>0.0108</b>	<b>0.0180</b>	<b>0.0240</b>	<b>0.0388</b>	<b>0.0200</b>	<b>0.0616</b>	<b>0.0196</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0024</b>	<b>0.0024</b>	<b>0.0024</b>	<b>0.0024</b>	<b>0.0116</b>	<b>0.0128</b>	<b>0.0500</b>	<b>0.0156</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0036</b>	<b>0.0036</b>	<b>0.0032</b>	<b>0.0044</b>	<b>0.0124</b>	<b>0.0224</b>	<b>0.0652</b>	<b>0.0196</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0136</b>	<b>0.0100</b>	<b>0.0200</b>	<b>0.0276</b>	<b>0.0392</b>	<b>0.0188</b>	<b>0.0612</b>	<b>0.0196</b>
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0064</b>	<b>0.0064</b>	<b>0.0084</b>	<b>0.0092</b>	<b>0.0200</b>	<b>0.0196</b>	<b>0.0712</b>	<b>0.0172</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0048</b>	<b>0.0060</b>	<b>0.0060</b>	<b>0.0076</b>	<b>0.0156</b>	<b>0.0260</b>	<b>0.0968</b>	<b>0.0272</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0278</b>	<b>0.0245</b>	<b>0.0254</b>	<b>0.0304</b>	<b>0.0412</b>	<b>0.0285</b>	<b>0.0691</b>	<b>0.0251</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0170</b>	<b>0.0120</b>	<b>0.0134</b>	<b>0.0170</b>	<b>0.0332</b>	<b>0.0251</b>	<b>0.0754</b>	<b>0.0274</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0223</b>	<b>0.0178</b>	<b>0.0170</b>	<b>0.0200</b>	<b>0.0304</b>	<b>0.0332</b>	0.1130	<b>0.0348</b>
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0281</b>	<b>0.0156</b>	<b>0.0318</b>	<b>0.0398</b>	<b>0.0394</b>	<b>0.0250</b>	<b>0.0690</b>	<b>0.0272</b>
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0249</b>	<b>0.0173</b>	<b>0.0222</b>	<b>0.0267</b>	<b>0.0349</b>	<b>0.0322</b>	0.1121	<b>0.0369</b>
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0219</b>	<b>0.0182</b>	<b>0.0195</b>	<b>0.0246</b>	<b>0.0304</b>	<b>0.0385</b>	0.1607	<b>0.0559</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0289</b>	<b>0.0257</b>	<b>0.0256</b>	<b>0.0331</b>	<b>0.0430</b>	<b>0.0307</b>	<b>0.0737</b>	<b>0.0267</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0179</b>	<b>0.0141</b>	<b>0.0134</b>	<b>0.0171</b>	<b>0.0347</b>	<b>0.0258</b>	<b>0.0763</b>	<b>0.0295</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0229</b>	<b>0.0189</b>	<b>0.0171</b>	<b>0.0217</b>	<b>0.0316</b>	<b>0.0352</b>	0.1209	<b>0.0387</b>
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0306</b>	<b>0.0161</b>	<b>0.0318</b>	<b>0.0413</b>	<b>0.0430</b>	<b>0.0267</b>	<b>0.0724</b>	<b>0.0282</b>
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0252</b>	<b>0.0194</b>	<b>0.0244</b>	<b>0.0308</b>	<b>0.0385</b>	<b>0.0342</b>	0.1174	<b>0.0392</b>
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0237</b>	<b>0.0202</b>	<b>0.0200</b>	<b>0.0247</b>	<b>0.0309</b>	<b>0.0404</b>	0.1608	<b>0.0570</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0420</b>	<b>0.0373</b>	<b>0.0265</b>	<b>0.0554</b>	<b>0.0576</b>	<b>0.0490</b>	<b>0.0916</b>	<b>0.0433</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0345</b>	<b>0.0331</b>	<b>0.0254</b>	<b>0.0340</b>	<b>0.0461</b>	<b>0.0791</b>	<b>0.0856</b>	<b>0.0389</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0315</b>	<b>0.0376</b>	<b>0.0325</b>	<b>0.0284</b>	<b>0.0485</b>	0.1005	0.1491	<b>0.0742</b>
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0428</b>	<b>0.0469</b>	<b>0.0508</b>	<b>0.0480</b>	<b>0.0530</b>	<b>0.0820</b>	0.1075	<b>0.0431</b>
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0391</b>	<b>0.0491</b>	<b>0.0272</b>	<b>0.0407</b>	<b>0.0577</b>	<b>0.0477</b>	0.1473	<b>0.0552</b>
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0392</b>	<b>0.0385</b>	<b>0.0296</b>	<b>0.0317</b>	<b>0.0459</b>	<b>0.0509</b>	0.1611	<b>0.0773</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor arrests for any crime				Cumulative misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		4.4359	8.2368	8.3333	8.1667	0.5897	0.8421	0.9000	0.8333
	(iii) Mean of the treatment group		2.8182	5.4063	6.3103	6.0000	0.0909	0.1563	0.2414	0.2414
Estimates	(iv) UDIM (difference in means)		-1.6177	-2.8306	-2.0230	-2.1667	-0.4988	-0.6859	-0.6586	-0.5920
	(v) COLS (conditional OLS estimate)		-1.8964	-2.7417	-1.6470	-1.8662	-0.6525	-0.8529	-0.9072	-0.8214
	(vi) AIPW (augmented IPW estimate)		-1.8371	-2.6425	-1.7130	-1.9093	-0.5961	-0.7750	-0.8739	-0.7870
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0421</b>	<b>0.0450</b>	0.1432	0.1190	<b>0.0081</b>	<b>0.0019</b>	<b>0.0095</b>	<b>0.0144</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0410</b>	<b>0.0685</b>	0.2059	0.1666	<b>0.0062</b>	<b>0.0025</b>	<b>0.0058</b>	<b>0.0096</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0312</b>	<b>0.0554</b>	0.1837	0.1459	<b>0.0036</b>	<b>0.0013</b>	<b>0.0025</b>	<b>0.0048</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0265</b>	<b>0.0359</b>	0.1324	0.1076	<b>0.0061</b>	<b>0.0013</b>	<b>0.0065</b>	<b>0.0116</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0253</b>	<b>0.0520</b>	0.1911	0.1524	<b>0.0052</b>	<b>0.0016</b>	<b>0.0040</b>	<b>0.0080</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0257</b>	<b>0.0537</b>	0.1848	0.1477	<b>0.0044</b>	<b>0.0019</b>	<b>0.0050</b>	<b>0.0099</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0272</b>	<b>0.0336</b>	0.1244	<b>0.0972</b>	<b>0.0016</b>	<b>0.0008</b>	<b>0.0044</b>	<b>0.0084</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0276</b>	<b>0.0500</b>	0.1952	0.1540	<b>0.0004</b>	<b>0.0008</b>	<b>0.0020</b>	<b>0.0040</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0344</b>	<b>0.0588</b>	0.2056	0.1668	<b>0.0008</b>	<b>0.0004</b>	<b>0.0024</b>	<b>0.0040</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0052</b>	<b>0.0088</b>	<b>0.0632</b>	<b>0.0452</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0020</b>	<b>0.0116</b>	0.1216	<b>0.0824</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0024</b>	<b>0.0136</b>	0.1148	<b>0.0792</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0016</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0576</b>	<b>0.0528</b>	0.1360	0.1180	<b>0.0116</b>	<b>0.0040</b>	<b>0.0084</b>	<b>0.0108</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0320</b>	<b>0.0668</b>	0.1968	0.1676	<b>0.0012</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0344</b>	<b>0.0748</b>	0.1784	0.1464	<b>0.0028</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0016</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0576</b>	<b>0.0540</b>	0.1408	0.1188	<b>0.0104</b>	<b>0.0028</b>	<b>0.0108</b>	<b>0.0156</b>
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0616</b>	<b>0.0864</b>	0.2096	0.1792	<b>0.0072</b>	<b>0.0020</b>	<b>0.0076</b>	<b>0.0100</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0520</b>	<b>0.0780</b>	0.1964	0.1636	<b>0.0060</b>	<b>0.0016</b>	<b>0.0060</b>	<b>0.0084</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0667</b>	<b>0.0634</b>	0.1478	0.1218	<b>0.0220</b>	<b>0.0103</b>	<b>0.0134</b>	<b>0.0170</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0604</b>	<b>0.0778</b>	0.2182	0.1691	<b>0.0117</b>	<b>0.0103</b>	<b>0.0099</b>	<b>0.0099</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0609</b>	<b>0.0875</b>	0.2105	0.1683	<b>0.0167</b>	<b>0.0103</b>	<b>0.0148</b>	<b>0.0170</b>
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0677</b>	<b>0.0656</b>	0.1478	0.1275	<b>0.0199</b>	<b>0.0083</b>	<b>0.0164</b>	<b>0.0211</b>
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0778</b>	<b>0.0942</b>	0.2282	0.1826	<b>0.0220</b>	<b>0.0108</b>	<b>0.0182</b>	<b>0.0249</b>
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0778</b>	0.1024	0.2277	0.1854	<b>0.0241</b>	<b>0.0108</b>	<b>0.0198</b>	<b>0.0245</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0689</b>	<b>0.0646</b>	0.1519	0.1267	<b>0.0236</b>	<b>0.0108</b>	<b>0.0134</b>	<b>0.0171</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0640</b>	<b>0.0821</b>	0.2198	0.1792	<b>0.0141</b>	<b>0.0108</b>	<b>0.0099</b>	<b>0.0110</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0624</b>	<b>0.0926</b>	0.2122	0.1713	<b>0.0176</b>	<b>0.0108</b>	<b>0.0148</b>	<b>0.0171</b>
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0689</b>	<b>0.0657</b>	0.1519	0.1321	<b>0.0199</b>	<b>0.0086</b>	<b>0.0172</b>	<b>0.0229</b>
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0818</b>	<b>0.0960</b>	0.2291	0.1870	<b>0.0236</b>	<b>0.0116</b>	<b>0.0195</b>	<b>0.0264</b>
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0825</b>	0.1073	0.2308	0.1864	<b>0.0259</b>	<b>0.0116</b>	<b>0.0205</b>	<b>0.0248</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0790</b>	<b>0.0978</b>	0.1835	0.1862	<b>0.0313</b>	<b>0.0154</b>	<b>0.0222</b>	<b>0.0194</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0742</b>	<b>0.0900</b>	0.2599	0.2087	<b>0.0353</b>	<b>0.0118</b>	<b>0.0103</b>	<b>0.0234</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0730</b>	0.1184	0.2764	0.2007	<b>0.0347</b>	<b>0.0190</b>	<b>0.0219</b>	<b>0.0176</b>
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0756</b>	<b>0.0768</b>	0.1825	0.1729	<b>0.0311</b>	<b>0.0154</b>	<b>0.0317</b>	<b>0.0449</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.1061	0.1105	0.2719	0.2302	<b>0.0371</b>	<b>0.0169</b>	<b>0.0296</b>	<b>0.0784</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.1201	0.1260	0.2492	0.1960	<b>0.0468</b>	<b>0.0169</b>	<b>0.0217</b>	<b>0.0625</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor convictions for classified crime				Cumulative misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		1.4615	2.2632	2.5333	2.4667	3.8205	6.8421	6.6667	6.5000
	(iii) Mean of the treatment group		0.6667	1.0000	1.2069	0.9310	2.3939	4.2813	5.0345	4.7241
Estimates	(iv) UDIM (difference in means)		-0.7949	-1.2632	-1.3264	-1.5356	-1.4266	-2.5609	-1.6322	-1.7759
	(v) COLS (conditional OLS estimate)		-0.9111	-1.2520	-1.3256	-1.5618	-1.6170	-2.4747	-1.3661	-1.5854
	(vi) AIPW (augmented IPW estimate)		-0.8864	-1.1308	-1.2534	-1.4766	-1.5545	-2.3859	-1.4651	-1.6614
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0188</b>	<b>0.0049</b>	<b>0.0155</b>	<b>0.0016</b>	<b>0.0382</b>	<b>0.0339</b>	0.1535	0.1256
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0185</b>	<b>0.0088</b>	<b>0.0264</b>	<b>0.0029</b>	<b>0.0422</b>	<b>0.0542</b>	0.2085	0.1640
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0119</b>	<b>0.0100</b>	<b>0.0305</b>	<b>0.0021</b>	<b>0.0352</b>	<b>0.0439</b>	0.1774	0.1357
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0128</b>	<b>0.0035</b>	<b>0.0133</b>	<b>0.0013</b>	<b>0.0220</b>	<b>0.0255</b>	0.1416	0.1123
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0130</b>	<b>0.0065</b>	<b>0.0242</b>	<b>0.0033</b>	<b>0.0248</b>	<b>0.0395</b>	0.1951	0.1508
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0100</b>	<b>0.0098</b>	<b>0.0365</b>	<b>0.0046</b>	<b>0.0292</b>	<b>0.0428</b>	0.1808	0.1392
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0148</b>	<b>0.0048</b>	<b>0.0144</b>	<b>0.0020</b>	<b>0.0236</b>	<b>0.0244</b>	0.1368	0.1088
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0160</b>	<b>0.0080</b>	<b>0.0272</b>	<b>0.0040</b>	<b>0.0252</b>	<b>0.0380</b>	0.2076	0.1576
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0184</b>	<b>0.0160</b>	<b>0.0424</b>	<b>0.0044</b>	<b>0.0360</b>	<b>0.0500</b>	0.2016	0.1552
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0040</b>	<b>0.0004</b>	<b>0.0024</b>	<b>0.0004</b>	<b>0.0040</b>	<b>0.0052</b>	<b>0.0780</b>	<b>0.0512</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0028</b>	<b>0.0016</b>	<b>0.0128</b>	<b>0.0008</b>	<b>0.0048</b>	<b>0.0092</b>	0.1272	<b>0.0828</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0044</b>	<b>0.0028</b>	<b>0.0304</b>	<b>0.0012</b>	<b>0.0068</b>	<b>0.0120</b>	0.1124	<b>0.0784</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0308</b>	<b>0.0040</b>	<b>0.0140</b>	<b>0.0016</b>	<b>0.0484</b>	<b>0.0408</b>	0.1476	0.1232
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0124</b>	<b>0.0068</b>	<b>0.0172</b>	<b>0.0024</b>	<b>0.0360</b>	<b>0.0504</b>	0.2028	0.1636
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0156</b>	<b>0.0144</b>	<b>0.0268</b>	<b>0.0052</b>	<b>0.0416</b>	<b>0.0604</b>	0.1760	0.1400
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0280</b>	<b>0.0040</b>	<b>0.0136</b>	<b>0.0016</b>	<b>0.0512</b>	<b>0.0404</b>	0.1508	0.1268
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0252</b>	<b>0.0108</b>	<b>0.0268</b>	<b>0.0052</b>	<b>0.0628</b>	<b>0.0708</b>	0.2140	0.1740
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0224</b>	<b>0.0172</b>	<b>0.0420</b>	<b>0.0056</b>	<b>0.0580</b>	<b>0.0676</b>	0.1920	0.1548
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0305</b>	<b>0.0141</b>	<b>0.0276</b>	<b>0.0096</b>	<b>0.0653</b>	<b>0.0500</b>	0.1565	0.1312
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0265</b>	<b>0.0194</b>	<b>0.0333</b>	<b>0.0087</b>	<b>0.0616</b>	<b>0.0629</b>	0.2284	0.1783
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0233</b>	<b>0.0265</b>	<b>0.0456</b>	<b>0.0137</b>	<b>0.0591</b>	<b>0.0728</b>	0.2021	0.1664
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0329</b>	<b>0.0141</b>	<b>0.0333</b>	<b>0.0126</b>	<b>0.0653</b>	<b>0.0567</b>	0.1633	0.1357
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0338</b>	<b>0.0217</b>	<b>0.0451</b>	<b>0.0146</b>	<b>0.0729</b>	<b>0.0828</b>	0.2336	0.1894
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0297</b>	<b>0.0331</b>	<b>0.0709</b>	<b>0.0185</b>	<b>0.0741</b>	<b>0.0844</b>	0.2292	0.1781
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0319</b>	<b>0.0146</b>	<b>0.0308</b>	<b>0.0106</b>	<b>0.0660</b>	<b>0.0530</b>	0.1616	0.1319
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0305</b>	<b>0.0209</b>	<b>0.0359</b>	<b>0.0099</b>	<b>0.0618</b>	<b>0.0643</b>	0.2405	0.1866
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0250</b>	<b>0.0273</b>	<b>0.0459</b>	<b>0.0137</b>	<b>0.0598</b>	<b>0.0728</b>	0.2098	0.1729
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0358</b>	<b>0.0152</b>	<b>0.0347</b>	<b>0.0147</b>	<b>0.0660</b>	<b>0.0577</b>	0.1651	0.1372
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0356</b>	<b>0.0232</b>	<b>0.0473</b>	<b>0.0147</b>	<b>0.0772</b>	<b>0.0848</b>	0.2396	0.1903
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0311</b>	<b>0.0357</b>	<b>0.0728</b>	<b>0.0222</b>	<b>0.0816</b>	<b>0.0853</b>	0.2376	0.1823
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0426</b>	<b>0.0236</b>	<b>0.0475</b>	<b>0.0204</b>	<b>0.0679</b>	0.1081	0.1799	0.1573
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0521</b>	<b>0.0376</b>	<b>0.0422</b>	<b>0.0283</b>	<b>0.0908</b>	<b>0.0794</b>	0.3300	0.2509
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0361</b>	<b>0.0460</b>	<b>0.0533</b>	<b>0.0225</b>	<b>0.0745</b>	<b>0.0733</b>	0.2483	0.1978
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0589</b>	<b>0.0287</b>	<b>0.0627</b>	<b>0.0340</b>	<b>0.0679</b>	0.1081	0.2192	0.1633
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0623</b>	<b>0.0565</b>	<b>0.0692</b>	<b>0.0277</b>	<b>0.0891</b>	<b>0.0936</b>	0.3046	0.2225
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0509</b>	<b>0.0576</b>	<b>0.0827</b>	<b>0.0252</b>	<b>0.0950</b>	<b>0.0999</b>	0.2868	0.1857

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor arrests for violent crime				One or more misdemeanor arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.2564	0.4474	0.4667	0.4333	0.5385	0.6579	0.7000	0.6667
	(iii) Mean of the treatment group		0.1515	0.3125	0.3448	0.3448	0.3636	0.5313	0.5862	0.4828
Estimates	(iv) UDIM (difference in means)		-0.1049	-0.1349	-0.1218	-0.0885	-0.1748	-0.1266	-0.1138	-0.1839
	(v) COLS (conditional OLS estimate)		-0.1656	-0.1886	-0.2002	-0.1573	-0.1792	-0.0784	-0.0214	-0.0889
	(vi) AIPW (augmented IPW estimate)		-0.1633	-0.1791	-0.1902	-0.1467	-0.1857	-0.0420	-0.0057	-0.0626
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1331	0.1235	0.1776	0.2504	<b>0.0593</b>	0.1397	0.1797	<b>0.0764</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0474</b>	<b>0.0551</b>	<b>0.0652</b>	0.1207	<b>0.0628</b>	0.2536	0.4313	0.2537
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0307</b>	<b>0.0438</b>	<b>0.0576</b>	0.1147	<b>0.0550</b>	0.3407	0.4793	0.2994
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1296	0.1124	0.1497	0.2271	<b>0.0590</b>	0.1302	0.1687	<b>0.0703</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0475</b>	<b>0.0464</b>	<b>0.0500</b>	0.1060	<b>0.0614</b>	0.2454	0.4285	0.2528
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0342</b>	<b>0.0477</b>	<b>0.0576</b>	0.1197	<b>0.0707</b>	0.3474	0.4804	0.3165
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1260	0.1088	0.1388	0.2168	<b>0.0596</b>	0.1328	0.1660	<b>0.0736</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0452</b>	<b>0.0464</b>	<b>0.0432</b>	<b>0.0988</b>	<b>0.0684</b>	0.2436	0.4188	0.2404
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0360</b>	<b>0.0548</b>	<b>0.0580</b>	0.1244	<b>0.0892</b>	0.3280	0.4520	0.2848
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0696</b>	<b>0.0624</b>	0.1020	0.1744	<b>0.0272</b>	<b>0.0776</b>	0.1064	<b>0.0388</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0164</b>	<b>0.0232</b>	<b>0.0288</b>	<b>0.0576</b>	<b>0.0248</b>	0.1912	0.4188	0.2092
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0100</b>	<b>0.0216</b>	<b>0.0356</b>	<b>0.0732</b>	<b>0.0304</b>	0.3216	0.4976	0.2896
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1444	0.1220	0.1888	0.2492	<b>0.0604</b>	0.1612	0.2092	0.1064
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0388</b>	<b>0.0512</b>	<b>0.0688</b>	0.1220	<b>0.0480</b>	0.2728	0.4472	0.2980
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0396</b>	<b>0.0620</b>	<b>0.0832</b>	0.1448	<b>0.0428</b>	0.3868	0.4992	0.3704
	(16) $p_{P,S}^1$	Studentized UDIM	0.1360	0.1220	0.1880	0.2492	<b>0.0576</b>	0.1640	0.2084	0.1056
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0488</b>	<b>0.0592</b>	<b>0.0780</b>	0.1316	<b>0.0588</b>	0.2780	0.4484	0.3052
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0372</b>	<b>0.0548</b>	<b>0.0820</b>	0.1392	<b>0.0588</b>	0.3732	0.5000	0.3672
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1369	<b>0.0999</b>	0.1223	0.1675	<b>0.0806</b>	0.1307	0.2154	0.1197
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0729</b>	<b>0.0806</b>	0.1025	0.1558	<b>0.0733</b>	0.2358	0.4245	0.2600
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0714</b>	<b>0.0902</b>	0.1111	0.1641	<b>0.0674</b>	0.2933	0.4750	0.3210
	(22) $p_{M,S}^1$	Studentized UDIM	0.1363	<b>0.0999</b>	0.1223	0.1675	<b>0.0806</b>	0.1281	0.2154	0.1177
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0895</b>	<b>0.0828</b>	0.1013	0.1544	<b>0.0803</b>	0.2358	0.4245	0.2528
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0684</b>	<b>0.0848</b>	0.1065	0.1570	<b>0.0821</b>	0.2875	0.4726	0.3196
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1393	0.1078	0.1271	0.1682	<b>0.0879</b>	0.1424	0.2214	0.1205
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0746</b>	<b>0.0847</b>	0.1052	0.1636	<b>0.0744</b>	0.2367	0.4377	0.2601
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0720</b>	<b>0.0941</b>	0.1133	0.1716	<b>0.0676</b>	0.2991	0.4774	0.3222
	(28) $p_{R,S}^1$	Studentized UDIM	0.1386	0.1078	0.1271	0.1682	<b>0.0879</b>	0.1318	0.2238	0.1193
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0896</b>	<b>0.0901</b>	0.1015	0.1544	<b>0.0841</b>	0.2367	0.4377	0.2538
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0698</b>	<b>0.0887</b>	0.1106	0.1587	<b>0.0836</b>	0.2936	0.4773	0.3197
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1504	0.2063	0.1322	0.1879	0.1551	0.2205	0.2897	0.1322
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1111	0.1176	0.1173	0.2335	<b>0.0964</b>	0.2459	0.5961	0.2875
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0780</b>	0.2432	0.1184	0.1740	<b>0.0750</b>	0.3597	0.5538	0.3352
	(34) $p_{D,S}^1$	Studentized UDIM	0.1509	0.2063	0.1324	0.1883	0.1358	0.1896	0.2740	0.1362
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0948</b>	0.1842	0.1170	0.1797	0.1440	0.2956	0.5583	0.2898
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0956</b>	0.1316	0.1534	0.2169	0.1035	0.3379	0.5429	0.3331

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor arrests for any crime				One or more misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.8462	0.8947	0.8667	0.7667	0.2308	0.3684	0.3667	0.3333
	(iii) Mean of the treatment group		0.6364	0.7813	0.7931	0.6897	0.0909	0.1563	0.2069	0.2069
Estimates	(iv) UDIM (difference in means)		-0.2098	-0.1135	-0.0736	-0.0770	-0.1399	-0.2122	-0.1598	-0.1264
	(v) COLS (conditional OLS estimate)		-0.1630	-0.0299	0.0354	0.0134	-0.1924	-0.2448	-0.2124	-0.1694
	(vi) AIPW (augmented IPW estimate)		-0.1975	-0.0217	0.0455	0.0344	-0.1836	-0.2217	-0.2016	-0.1582
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0233</b>	0.1039	0.2309	0.2604	<b>0.0487</b>	<b>0.0161</b>	<b>0.0914</b>	0.1429
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0831</b>	0.3664	0.3648	0.4586	<b>0.0182</b>	<b>0.0088</b>	<b>0.0385</b>	<b>0.0809</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0508</b>	0.3919	0.3119	0.3838	<b>0.0111</b>	<b>0.0084</b>	<b>0.0341</b>	<b>0.0776</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0189</b>	<b>0.0994</b>	0.2282	0.2557	<b>0.0448</b>	<b>0.0171</b>	<b>0.0793</b>	0.1317
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0639</b>	0.3518	0.3493	0.4575	<b>0.0183</b>	<b>0.0096</b>	<b>0.0369</b>	<b>0.0814</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0554</b>	0.3934	0.3182	0.3927	<b>0.0144</b>	<b>0.0125</b>	<b>0.0427</b>	<b>0.0935</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0164</b>	<b>0.0964</b>	0.2204	0.2480	<b>0.0512</b>	<b>0.0224</b>	<b>0.0876</b>	0.1360
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0664</b>	0.3284	0.3596	0.4724	<b>0.0168</b>	<b>0.0104</b>	<b>0.0364</b>	<b>0.0772</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0760</b>	0.3808	0.3396	0.4208	<b>0.0120</b>	<b>0.0188</b>	<b>0.0436</b>	<b>0.0948</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0036</b>	<b>0.0316</b>	0.1636	0.1940	<b>0.0064</b>	<b>0.0044</b>	<b>0.0416</b>	<b>0.0828</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0276</b>	0.3320	0.2952	0.4288	<b>0.0012</b>	<b>0.0020</b>	<b>0.0148</b>	<b>0.0392</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0236</b>	0.3796	0.2424	0.3352	<b>0.0016</b>	<b>0.0024</b>	<b>0.0220</b>	<b>0.0556</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0268</b>	0.1236	0.2552	0.2956	<b>0.0716</b>	<b>0.0180</b>	<b>0.0956</b>	0.1372
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0740</b>	0.3960	0.3388	0.4288	<b>0.0140</b>	<b>0.0068</b>	<b>0.0308</b>	<b>0.0684</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0372</b>	0.4288	0.3100	0.3620	<b>0.0204</b>	<b>0.0168</b>	<b>0.0436</b>	<b>0.0892</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0292</b>	0.1256	0.2508	0.2932	<b>0.0692</b>	<b>0.0172</b>	<b>0.0948</b>	0.1464
	(17) $p_{P,S}^2$	Studentized COLS	0.1084	0.3984	0.3460	0.4308	<b>0.0248</b>	<b>0.0128</b>	<b>0.0468</b>	<b>0.0872</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0736</b>	0.4248	0.3144	0.3612	<b>0.0200</b>	<b>0.0164</b>	<b>0.0484</b>	<b>0.0968</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0559</b>	0.1349	0.3097	0.2997	<b>0.0622</b>	<b>0.0185</b>	<b>0.0630</b>	<b>0.0962</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0972</b>	0.3446	0.5269	0.6875	<b>0.0372</b>	<b>0.0217</b>	<b>0.0530</b>	<b>0.0860</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0741</b>	0.3662	0.5056	0.6046	<b>0.0391</b>	<b>0.0257</b>	<b>0.0655</b>	0.1138
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0559</b>	0.1323	0.2945	0.2997	<b>0.0583</b>	<b>0.0185</b>	<b>0.0630</b>	0.1133
	(23) $p_{M,S}^2$	Studentized COLS	0.1217	0.3495	0.5269	0.6875	<b>0.0429</b>	<b>0.0242</b>	<b>0.0634</b>	0.1123
	(24) $p_{M,S}^3$	Studentized AIPW	0.1112	0.3623	0.5141	0.6057	<b>0.0372</b>	<b>0.0269</b>	<b>0.0643</b>	0.1228
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0600</b>	0.1392	0.3140	0.3133	<b>0.0710</b>	<b>0.0205</b>	<b>0.0630</b>	0.1000
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0983</b>	0.3531	0.5283	0.6935	<b>0.0390</b>	<b>0.0228</b>	<b>0.0531</b>	<b>0.0883</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0771</b>	0.3730	0.5145	0.6104	<b>0.0400</b>	<b>0.0271</b>	<b>0.0711</b>	0.1218
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0600</b>	0.1381	0.2951	0.3133	<b>0.0661</b>	<b>0.0205</b>	<b>0.0630</b>	0.1186
	(29) $p_{R,S}^2$	Studentized COLS	0.1249	0.3548	0.5289	0.6935	<b>0.0466</b>	<b>0.0258</b>	<b>0.0648</b>	0.1146
	(30) $p_{R,S}^3$	Studentized AIPW	0.1127	0.3724	0.5236	0.6117	<b>0.0390</b>	<b>0.0284</b>	<b>0.0651</b>	0.1296
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0792</b>	0.2127	0.4620	0.3765	<b>0.0967</b>	<b>0.0280</b>	<b>0.0816</b>	0.1918
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1134	0.4854	0.5672	0.7339	<b>0.0995</b>	<b>0.0328</b>	<b>0.0596</b>	0.1176
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0823</b>	0.4366	0.5891	0.6964	<b>0.0870</b>	<b>0.0434</b>	<b>0.0723</b>	0.1819
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0792</b>	0.1653	0.3484	0.3774	0.1553	<b>0.0280</b>	<b>0.0897</b>	0.1769
	(35) $p_{D,S}^2$	Studentized COLS	0.1577	0.4308	0.6380	0.7294	<b>0.0743</b>	<b>0.0434</b>	<b>0.0749</b>	0.1739
	(36) $p_{D,S}^3$	Studentized AIPW	0.1658	0.4476	0.5785	0.6357	<b>0.0873</b>	<b>0.0434</b>	<b>0.0763</b>	0.2004

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor convictions for classified crime				One or more misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.5128	0.6316	0.6667	0.6333	0.8205	0.8421	0.8000	0.7000
	(iii) Mean of the treatment group		0.3030	0.4375	0.4828	0.3793	0.6364	0.7813	0.7931	0.6897
Estimates	(iv) UDIM (difference in means)		-0.2098	-0.1941	-0.1839	-0.2540	-0.1841	-0.0609	-0.0069	-0.0103
	(v) COLS (conditional OLS estimate)		-0.2060	-0.1304	-0.0692	-0.1367	-0.1548	-0.0056	0.0615	0.0396
	(vi) AIPW (augmented IPW estimate)		-0.2060	-0.0900	-0.0621	-0.1190	-0.1837	0.0121	0.0722	0.0611
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0273</b>	<b>0.0472</b>	<b>0.0716</b>	<b>0.0229</b>	<b>0.0433</b>	0.2617	0.4744	0.4670
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0413</b>	0.1350	0.2915	0.1527	<b>0.0926</b>	0.4753	0.2795	0.3828
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0385</b>	0.1939	0.2925	0.1622	<b>0.0638</b>	0.4418	0.2246	0.3031
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0272</b>	<b>0.0450</b>	<b>0.0717</b>	<b>0.0225</b>	<b>0.0388</b>	0.2614	0.4745	0.4665
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0411</b>	0.1369	0.2973	0.1597	<b>0.0733</b>	0.4725	0.2558	0.3796
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0524</b>	0.2151	0.3151	0.1914	<b>0.0704</b>	0.4425	0.2324	0.3182
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0336</b>	<b>0.0448</b>	<b>0.0712</b>	<b>0.0240</b>	<b>0.0368</b>	0.2672	0.4716	0.4648
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0496</b>	0.1376	0.2960	0.1644	<b>0.0776</b>	0.4420	0.2768	0.3952
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0704</b>	0.1892	0.2980	0.1696	<b>0.0944</b>	0.4552	0.2488	0.3452
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0088</b>	<b>0.0148</b>	<b>0.0340</b>	<b>0.0128</b>	<b>0.0116</b>	0.1952	0.4676	0.4552
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0184</b>	<b>0.0656</b>	0.2304	<b>0.0912</b>	<b>0.0336</b>	0.4980	0.1840	0.3240
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0236</b>	0.1720	0.2756	0.1632	<b>0.0316</b>	0.4136	0.1472	0.2488
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0332</b>	<b>0.0548</b>	<b>0.0840</b>	<b>0.0440</b>	<b>0.0520</b>	0.2900	0.5156	0.5056
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0352</b>	0.1436	0.3056	0.1636	<b>0.0984</b>	0.4988	0.2720	0.3452
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0360</b>	0.2440	0.3244	0.2096	<b>0.0536</b>	0.4268	0.2344	0.2864
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0292</b>	<b>0.0588</b>	<b>0.0832</b>	<b>0.0432</b>	<b>0.0568</b>	0.2896	0.4944	0.5016
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0444</b>	0.1572	0.3132	0.1856	0.1236	0.4984	0.2744	0.3476
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0484</b>	0.2340	0.3240	0.2184	<b>0.0960</b>	0.4228	0.2340	0.2860
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0480</b>	<b>0.0523</b>	0.1102	<b>0.0617</b>	<b>0.0559</b>	0.2132	0.4423	0.3855
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0538</b>	0.1110	0.2740	0.1458	<b>0.0919</b>	0.4126	0.4859	0.6357
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0501</b>	0.1674	0.2921	0.1731	<b>0.0732</b>	0.6995	0.4492	0.5641
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0448</b>	<b>0.0567</b>	0.1102	<b>0.0617</b>	<b>0.0559</b>	0.2132	0.4333	0.3820
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0622</b>	0.1246	0.2762	0.1524	0.1060	0.4119	0.4848	0.6372
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0596</b>	0.1662	0.2919	0.1810	<b>0.0978</b>	0.6962	0.4630	0.5660
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0507</b>	<b>0.0527</b>	0.1129	<b>0.0632</b>	<b>0.0600</b>	0.2191	0.4507	0.4038
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0586</b>	0.1208	0.2748	0.1493	<b>0.0930</b>	0.4144	0.4860	0.6405
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0539</b>	0.1737	0.2940	0.1823	<b>0.0761</b>	0.7186	0.4573	0.5819
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0456</b>	<b>0.0601</b>	0.1129	<b>0.0632</b>	<b>0.0600</b>	0.2191	0.4414	0.3978
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0661</b>	0.1402	0.2771	0.1573	0.1128	0.4142	0.4868	0.6388
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0687</b>	0.1733	0.2925	0.1900	<b>0.0983</b>	0.7148	0.4645	0.5831
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0906</b>	<b>0.0691</b>	0.1403	<b>0.0869</b>	<b>0.0792</b>	0.3177	0.5468	0.4877
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0685</b>	0.2076	0.3516	0.1673	0.1066	0.4898	0.6038	0.6653
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0570</b>	0.2236	0.3176	0.2618	<b>0.0810</b>	0.8295	0.5231	0.7675
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0542</b>	<b>0.0693</b>	0.1156	<b>0.0934</b>	<b>0.0792</b>	0.2799	0.5889	0.4804
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0873</b>	0.2380	0.2999	0.2040	0.1611	0.4898	0.5254	0.6472
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0907</b>	0.2784	0.3372	0.2361	0.1215	0.8180	0.5106	0.7368

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Two or more misdemeanor arrests for violent crime				Two or more misdemeanor arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.1795	0.2368	0.2667	0.2333	0.4359	0.5526	0.5333	0.5000
	(iii) Mean of the treatment group		0.0000	0.0938	0.1379	0.1379	0.2121	0.4375	0.4483	0.3793
Estimates	(iv) UDIM (difference in means)		-0.1795	-0.1431	-0.1287	-0.0954	-0.2238	-0.1151	-0.0851	-0.1207
	(v) COLS (conditional OLS estimate)		-0.2237	-0.1902	-0.2121	-0.1691	-0.2726	-0.1313	-0.0899	-0.1256
	(vi) AIPW (augmented IPW estimate)		-0.2007	-0.1688	-0.2039	-0.1604	-0.2751	-0.1312	-0.1016	-0.1329
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0018</b>	<b>0.0491</b>	0.1029	0.1668	<b>0.0198</b>	0.1691	0.2539	0.1721
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0016</b>	<b>0.0305</b>	<b>0.0404</b>	<b>0.0782</b>	<b>0.0069</b>	0.1466	0.2585	0.1850
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0010</b>	<b>0.0310</b>	<b>0.0309</b>	<b>0.0674</b>	<b>0.0029</b>	0.1439	0.2264	0.1638
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0012</b>	<b>0.0402</b>	<b>0.0967</b>	0.1643	<b>0.0137</b>	0.1550	0.2401	0.1570
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0014</b>	<b>0.0240</b>	<b>0.0373</b>	<b>0.0779</b>	<b>0.0043</b>	0.1322	0.2493	0.1811
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0014</b>	<b>0.0314</b>	<b>0.0424</b>	<b>0.0861</b>	<b>0.0024</b>	0.1501	0.2391	0.1791
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0004</b>	<b>0.0376</b>	0.1028	0.1720	<b>0.0136</b>	0.1500	0.2388	0.1468
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0004</b>	<b>0.0168</b>	<b>0.0316</b>	<b>0.0704</b>	<b>0.0048</b>	0.1336	0.2372	0.1692
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0004</b>	<b>0.0256</b>	<b>0.0416</b>	<b>0.0848</b>	<b>0.0048</b>	0.1636	0.2472	0.1876
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0092</b>	<b>0.0396</b>	<b>0.0896</b>	<b>0.0068</b>	<b>0.0928</b>	0.1756	0.1024
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0060</b>	<b>0.0116</b>	<b>0.0268</b>	<b>0.0024</b>	<b>0.0736</b>	0.2032	0.1296
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0116</b>	<b>0.0196</b>	<b>0.0444</b>	<b>0.0020</b>	<b>0.0992</b>	0.1832	0.1372
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0044</b>	<b>0.0560</b>	0.1092	0.1756	<b>0.0260</b>	0.1692	0.2472	0.1744
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0012</b>	<b>0.0208</b>	<b>0.0156</b>	<b>0.0416</b>	<b>0.0088</b>	0.1308	0.2316	0.1744
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0016</b>	<b>0.0344</b>	<b>0.0260</b>	<b>0.0604</b>	<b>0.0084</b>	0.1360	0.2000	0.1596
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0052</b>	<b>0.0548</b>	0.1080	0.1728	<b>0.0236</b>	0.1836	0.2476	0.1736
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0020</b>	<b>0.0364</b>	<b>0.0444</b>	<b>0.0828</b>	<b>0.0092</b>	0.1444	0.2472	0.1880
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0028</b>	<b>0.0436</b>	<b>0.0432</b>	<b>0.0864</b>	<b>0.0064</b>	0.1508	0.2212	0.1808
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0189</b>	<b>0.0647</b>	<b>0.0848</b>	0.1362	<b>0.0319</b>	0.1767	0.2747	0.2164
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0096</b>	<b>0.0476</b>	<b>0.0504</b>	<b>0.0865</b>	<b>0.0208</b>	0.1693	0.2929	0.2203
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0124</b>	<b>0.0615</b>	<b>0.0567</b>	0.1107	<b>0.0196</b>	0.1725	0.2657	0.2171
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0189</b>	<b>0.0638</b>	<b>0.0848</b>	0.1351	<b>0.0274</b>	0.1859	0.2747	0.2164
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0145</b>	<b>0.0668</b>	<b>0.0831</b>	0.1299	<b>0.0191</b>	0.1786	0.3027	0.2378
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0134</b>	<b>0.0749</b>	<b>0.0784</b>	0.1323	<b>0.0162</b>	0.2006	0.2911	0.2373
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0196</b>	<b>0.0704</b>	<b>0.0883</b>	0.1381	<b>0.0319</b>	0.1812	0.2793	0.2177
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0102</b>	<b>0.0512</b>	<b>0.0514</b>	<b>0.0868</b>	<b>0.0243</b>	0.1696	0.2951	0.2230
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0125</b>	<b>0.0615</b>	<b>0.0618</b>	0.1206	<b>0.0196</b>	0.1741	0.2706	0.2246
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0196</b>	<b>0.0703</b>	<b>0.0879</b>	0.1374	<b>0.0295</b>	0.1907	0.2793	0.2177
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0149</b>	<b>0.0708</b>	<b>0.0951</b>	0.1340	<b>0.0194</b>	0.1800	0.3080	0.2413
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0160</b>	<b>0.0750</b>	<b>0.0813</b>	0.1388	<b>0.0165</b>	0.2080	0.2952	0.2385
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0233</b>	0.1056	0.1355	0.2199	<b>0.0342</b>	0.2347	0.3453	0.2227
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0175</b>	<b>0.0697</b>	<b>0.0533</b>	0.1555	<b>0.0380</b>	0.2144	0.3719	0.2555
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0151</b>	0.1007	0.1021	0.1448	<b>0.0361</b>	0.2759	0.3278	0.2703
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0270</b>	<b>0.0748</b>	0.1355	0.2199	<b>0.0651</b>	0.1992	0.3146	0.2196
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0155</b>	0.1132	0.1450	0.2643	<b>0.0252</b>	0.2532	0.3197	0.2754
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0214</b>	0.1416	0.1307	0.1544	<b>0.0265</b>	0.2612	0.3316	0.3196

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Two or more misdemeanor arrests for any crime				Two or more misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.6923	0.8158	0.8333	0.7667	0.1795	0.2105	0.2333	0.2000
	(iii) Mean of the treatment group		0.5152	0.6250	0.6897	0.6207	0.0000	0.0000	0.0345	0.0345
Estimates	(iv) UDIM (difference in means)		-0.1772	-0.1908	-0.1437	-0.1460	-0.1795	-0.2105	-0.1989	-0.1655
	(v) COLS (conditional OLS estimate)		-0.1724	-0.0985	-0.0291	-0.0591	-0.2237	-0.2588	-0.2829	-0.2400
	(vi) AIPW (augmented IPW estimate)		-0.1768	-0.0884	-0.0296	-0.0501	-0.2007	-0.2343	-0.2728	-0.2293
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0739</b>	<b>0.0426</b>	0.1002	0.1164	<b>0.0018</b>	<b>0.0008</b>	<b>0.0093</b>	<b>0.0197</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0953</b>	0.1957	0.3985	0.3243	<b>0.0016</b>	<b>0.0007</b>	<b>0.0032</b>	<b>0.0080</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0854</b>	0.1860	0.3865	0.3344	<b>0.0010</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0030</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0538</b>	<b>0.0346</b>	<b>0.0961</b>	0.1107	<b>0.0012</b>	<b>0.0004</b>	<b>0.0076</b>	<b>0.0198</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0674</b>	0.1599	0.3854	0.3146	<b>0.0014</b>	<b>0.0005</b>	<b>0.0029</b>	<b>0.0094</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0802</b>	0.1799	0.3862	0.3417	<b>0.0014</b>	<b>0.0005</b>	<b>0.0025</b>	<b>0.0087</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0528</b>	<b>0.0388</b>	<b>0.0908</b>	0.1036	<b>0.0004</b>	<b>0.0004</b>	<b>0.0064</b>	<b>0.0196</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0752</b>	0.1596	0.3644	0.3060	<b>0.0004</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0044</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0964</b>	0.1744	0.3648	0.3196	<b>0.0004</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0044</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0220</b>	<b>0.0092</b>	<b>0.0420</b>	<b>0.0596</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0312</b>	0.1068	0.3660	0.2832	<b>0.0004</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0020</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0404</b>	0.1280	0.3728	0.3296	<b>0.0004</b>	<b>0.0004</b>	<b>0.0020</b>	<b>0.0032</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0792</b>	<b>0.0472</b>	<b>0.0980</b>	0.1164	<b>0.0044</b>	<b>0.0024</b>	<b>0.0072</b>	<b>0.0160</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0848</b>	0.1872	0.3796	0.3204	<b>0.0012</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0020</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0796</b>	0.2120	0.3792	0.3436	<b>0.0016</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0052</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0792</b>	<b>0.0520</b>	<b>0.0988</b>	0.1164	<b>0.0052</b>	<b>0.0032</b>	<b>0.0080</b>	<b>0.0152</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.1060	0.2084	0.3868	0.3292	<b>0.0020</b>	<b>0.0008</b>	<b>0.0036</b>	<b>0.0092</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1072	0.2096	0.3828	0.3452	<b>0.0028</b>	<b>0.0016</b>	<b>0.0024</b>	<b>0.0076</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1456	0.1155	0.1755	0.1558	<b>0.0189</b>	<b>0.0156</b>	<b>0.0191</b>	<b>0.0314</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1768	0.2336	0.4441	0.3169	<b>0.0096</b>	<b>0.0096</b>	<b>0.0122</b>	<b>0.0176</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1789	0.2641	0.4402	0.3214	<b>0.0124</b>	<b>0.0134</b>	<b>0.0147</b>	<b>0.0202</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.1427	0.1155	0.1755	0.1558	<b>0.0189</b>	<b>0.0156</b>	<b>0.0200</b>	<b>0.0314</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.1981	0.2511	0.4441	0.3210	<b>0.0145</b>	<b>0.0122</b>	<b>0.0166</b>	<b>0.0232</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.2119	0.2619	0.4507	0.3256	<b>0.0134</b>	<b>0.0099</b>	<b>0.0166</b>	<b>0.0250</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1508	0.1171	0.1772	0.1562	<b>0.0196</b>	<b>0.0162</b>	<b>0.0236</b>	<b>0.0332</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1803	0.2367	0.4467	0.3239	<b>0.0102</b>	<b>0.0102</b>	<b>0.0127</b>	<b>0.0201</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1814	0.2674	0.4421	0.3349	<b>0.0125</b>	<b>0.0148</b>	<b>0.0148</b>	<b>0.0203</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.1474	0.1171	0.1772	0.1562	<b>0.0196</b>	<b>0.0162</b>	<b>0.0236</b>	<b>0.0332</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.2010	0.2591	0.4473	0.3308	<b>0.0149</b>	<b>0.0128</b>	<b>0.0198</b>	<b>0.0248</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.2140	0.2652	0.4559	0.3365	<b>0.0160</b>	<b>0.0099</b>	<b>0.0169</b>	<b>0.0267</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1843	0.1913	0.2299	0.1649	<b>0.0233</b>	<b>0.0165</b>	<b>0.0635</b>	<b>0.0638</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2677	0.3182	0.5304	0.3967	<b>0.0175</b>	<b>0.0118</b>	<b>0.0222</b>	<b>0.0452</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2118	0.3400	0.6153	0.3642	<b>0.0151</b>	<b>0.0200</b>	<b>0.0205</b>	<b>0.0383</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.2090	0.1679	0.2795	0.1654	<b>0.0270</b>	<b>0.0165</b>	<b>0.0629</b>	<b>0.0654</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.2532	0.3260	0.4913	0.4057	<b>0.0155</b>	<b>0.0206</b>	<b>0.0305</b>	<b>0.0403</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.2813	0.2886	0.4995	0.3793	<b>0.0214</b>	<b>0.0178</b>	<b>0.0266</b>	<b>0.0468</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Two or more misdemeanor convictions for classified crime				Two or more misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.4103	0.5263	0.5333	0.5000	0.6410	0.7368	0.7333	0.6667
	(iii) Mean of the treatment group		0.1818	0.3125	0.3103	0.2414	0.5152	0.6250	0.6552	0.5862
Estimates	(iv) UDIM (difference in means)		-0.2284	-0.2138	-0.2230	-0.2586	-0.1259	-0.1118	-0.0782	-0.0805
	(v) COLS (conditional OLS estimate)		-0.2717	-0.2276	-0.2471	-0.2828	-0.1290	-0.0681	-0.0278	-0.0579
	(vi) AIPW (augmented IPW estimate)		-0.2725	-0.2205	-0.2580	-0.2893	-0.1332	-0.0406	-0.0255	-0.0460
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0148</b>	<b>0.0378</b>	<b>0.0420</b>	<b>0.0196</b>	0.1542	0.1654	0.2616	0.2677
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0066</b>	<b>0.0382</b>	<b>0.0389</b>	<b>0.0181</b>	0.1673	0.2841	0.4090	0.3378
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0027</b>	<b>0.0356</b>	<b>0.0243</b>	<b>0.0093</b>	0.1533	0.3467	0.4059	0.3529
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0099</b>	<b>0.0281</b>	<b>0.0332</b>	<b>0.0132</b>	0.1283	0.1531	0.2581	0.2627
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0043</b>	<b>0.0310</b>	<b>0.0369</b>	<b>0.0188</b>	0.1327	0.2549	0.3987	0.3296
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0026</b>	<b>0.0414</b>	<b>0.0335</b>	<b>0.0149</b>	0.1458	0.3423	0.4079	0.3616
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0136</b>	<b>0.0300</b>	<b>0.0328</b>	<b>0.0128</b>	0.1252	0.1516	0.2580	0.2560
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0068</b>	<b>0.0368</b>	<b>0.0408</b>	<b>0.0192</b>	0.1396	0.2468	0.3928	0.3240
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0048</b>	<b>0.0580</b>	<b>0.0436</b>	<b>0.0180</b>	0.1696	0.3232	0.3956	0.3368
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0048</b>	<b>0.0152</b>	<b>0.0172</b>	<b>0.0084</b>	<b>0.0732</b>	<b>0.0872</b>	0.2012	0.2084
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0016</b>	<b>0.0124</b>	<b>0.0200</b>	<b>0.0080</b>	<b>0.0784</b>	0.2120	0.3792	0.2936
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0016</b>	<b>0.0188</b>	<b>0.0212</b>	<b>0.0072</b>	<b>0.0872</b>	0.3140	0.4100	0.3512
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0220</b>	<b>0.0328</b>	<b>0.0400</b>	<b>0.0200</b>	0.1652	0.1804	0.2716	0.2932
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0092</b>	<b>0.0304</b>	<b>0.0280</b>	<b>0.0116</b>	0.1560	0.3048	0.4352	0.3552
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0084</b>	<b>0.0320</b>	<b>0.0228</b>	<b>0.0112</b>	0.1516	0.3948	0.4332	0.3932
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0204</b>	<b>0.0328</b>	<b>0.0416</b>	<b>0.0248</b>	0.1636	0.1752	0.2712	0.2932
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0092</b>	<b>0.0380</b>	<b>0.0444</b>	<b>0.0216</b>	0.1908	0.3180	0.4376	0.3636
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0068</b>	<b>0.0408</b>	<b>0.0348</b>	<b>0.0160</b>	0.1852	0.3896	0.4328	0.3932
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0287</b>	<b>0.0601</b>	<b>0.0601</b>	<b>0.0396</b>	0.1947	0.1861	0.2650	0.2406
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0200</b>	<b>0.0529</b>	<b>0.0555</b>	<b>0.0320</b>	0.2258	0.3167	0.4487	0.3202
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0200</b>	<b>0.0645</b>	<b>0.0567</b>	<b>0.0305</b>	0.2238	0.4037	0.4574	0.3495
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0255</b>	<b>0.0601</b>	<b>0.0676</b>	<b>0.0477</b>	0.1947	0.1790	0.2650	0.2406
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0209</b>	<b>0.0626</b>	<b>0.0675</b>	<b>0.0432</b>	0.2456	0.3227	0.4487	0.3253
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0165</b>	<b>0.0701</b>	<b>0.0608</b>	<b>0.0369</b>	0.2476	0.4004	0.4574	0.3501
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0308</b>	<b>0.0604</b>	<b>0.0657</b>	<b>0.0418</b>	0.1989	0.1903	0.2679	0.2443
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0219</b>	<b>0.0538</b>	<b>0.0575</b>	<b>0.0323</b>	0.2414	0.3182	0.4556	0.3244
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0222</b>	<b>0.0654</b>	<b>0.0569</b>	<b>0.0308</b>	0.2285	0.4084	0.4719	0.3519
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0280</b>	<b>0.0604</b>	<b>0.0740</b>	<b>0.0506</b>	0.1989	0.1844	0.2679	0.2443
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0211</b>	<b>0.0644</b>	<b>0.0686</b>	<b>0.0435</b>	0.2556	0.3252	0.4533	0.3407
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0172</b>	<b>0.0772</b>	<b>0.0609</b>	<b>0.0372</b>	0.2622	0.4041	0.4739	0.3503
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0508</b>	<b>0.0978</b>	<b>0.0832</b>	<b>0.0525</b>	0.2528	0.2142	0.3690	0.2715
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0324</b>	<b>0.0866</b>	<b>0.0710</b>	<b>0.0450</b>	0.2987	0.3391	0.4949	0.3565
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0322</b>	0.1374	<b>0.0848</b>	<b>0.0427</b>	0.3006	0.5361	0.5442	0.3842
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0508</b>	<b>0.0978</b>	<b>0.0832</b>	<b>0.0825</b>	0.2265	0.2236	0.3012	0.2715
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0302</b>	<b>0.1000</b>	0.1118	<b>0.0515</b>	0.3766	0.4021	0.5153	0.4626
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0282</b>	<b>0.0995</b>	<b>0.0969</b>	<b>0.0436</b>	0.3316	0.4542	0.5232	0.3794

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for violent misdemeanors				Cumulative fines for classified misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		38.314	106.14	134.45	134.45	77.371	185.30	237.41	237.41
	(iii) Mean of the treatment group		5.5928	25.871	85.331	85.331	83.347	150.84	322.78	289.18
Estimates	(iv) UDIM (difference in means)		−32.722	−80.271	−49.115	−49.115	5.9753	−34.462	85.373	51.774
	(v) COLS (conditional OLS estimate)		−52.962	−93.350	−79.669	−79.669	−0.8939	−16.906	113.57	81.253
	(vi) AIPW (augmented IPW estimate)		−51.594	−83.384	−70.768	−70.768	−12.314	1.0228	128.48	101.35
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1824	<b>0.0620</b>	0.2890	0.2890	0.4672	0.3476	0.2808	0.3571
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1682	0.1009	0.2366	0.2366	0.4958	0.4342	0.2589	0.3175
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1405	<b>0.0953</b>	0.2334	0.2334	0.4337	0.4954	0.2243	0.2716
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1738	<b>0.0494</b>	0.2563	0.2563	0.4665	0.3383	0.2713	0.3495
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1585	<b>0.0847</b>	0.2084	0.2084	0.4958	0.4308	0.2510	0.3096
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1571	0.1029	0.2341	0.2341	0.4389	0.4957	0.2295	0.2746
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2696	<b>0.0340</b>	0.2432	0.2432	0.4856	0.3244	0.2792	0.3600
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.2548	<b>0.0676</b>	0.1996	0.1996	0.4932	0.4288	0.2460	0.3080
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.2576	<b>0.0892</b>	0.2412	0.2412	0.4472	0.4800	0.2204	0.2732
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0012</b>	<b>0.0004</b>	0.2368	0.2368	0.4488	0.3156	0.1828	0.3040
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0024</b>	<b>0.0012</b>	0.1420	0.1420	0.4820	0.4112	0.1844	0.2676
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0092</b>	<b>0.0108</b>	0.1840	0.1840	0.4236	0.4724	0.1556	0.2080
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3924	<b>0.0580</b>	0.3076	0.3076	0.4972	0.3372	0.3116	0.3892
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0196</b>	<b>0.0404</b>	0.2032	0.2032	0.4616	0.4172	0.2480	0.3080
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0200</b>	<b>0.0648</b>	0.2480	0.2480	0.3904	0.4956	0.2308	0.2756
	(16) $p_{P,S}^1$	Studentized UDIM	0.3848	<b>0.0516</b>	0.3092	0.3092	0.4984	0.3408	0.3100	0.3852
	(17) $p_{P,S}^2$	Studentized COLS	0.2948	0.1016	0.2672	0.2672	0.4640	0.4260	0.2840	0.3388
	(18) $p_{P,S}^3$	Studentized AIPW	0.2108	0.1120	0.2784	0.2784	0.3936	0.4956	0.2708	0.3140
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3937	<b>0.0897</b>	0.2921	0.2921	0.5546	0.4030	0.4415	0.5298
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1019	<b>0.0924</b>	0.2533	0.2533	0.5906	0.4884	0.3215	0.3997
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0774</b>	0.1183	0.2852	0.2852	0.5280	0.6006	0.3003	0.3635
	(22) $p_{M,S}^1$	Studentized UDIM	0.4036	<b>0.0914</b>	0.2977	0.2977	0.5542	0.4050	0.4284	0.5175
	(23) $p_{M,S}^2$	Studentized COLS	0.3451	0.1572	0.3038	0.3038	0.5906	0.4992	0.3542	0.4358
	(24) $p_{M,S}^3$	Studentized AIPW	0.2633	0.1618	0.3263	0.3263	0.5299	0.6006	0.3443	0.4061
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3951	<b>0.0936</b>	0.2969	0.2969	0.5563	0.4059	0.4439	0.5304
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1082	<b>0.0940</b>	0.2559	0.2559	0.5991	0.4962	0.3219	0.4058
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0777</b>	0.1212	0.2902	0.2902	0.5283	0.6078	0.3016	0.3729
	(28) $p_{R,S}^1$	Studentized UDIM	0.4191	<b>0.0975</b>	0.2984	0.2984	0.5564	0.4072	0.4295	0.5193
	(29) $p_{R,S}^2$	Studentized COLS	0.3534	0.1606	0.3088	0.3088	0.5991	0.5129	0.3573	0.4389
	(30) $p_{R,S}^3$	Studentized AIPW	0.2660	0.1662	0.3279	0.3279	0.5311	0.6078	0.3487	0.4138
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5039	0.1074	0.3353	0.3353	0.5975	0.4645	0.4795	0.5392
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1808	0.1125	0.3058	0.3058	0.6721	0.5457	0.3566	0.4543
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0824</b>	0.1429	0.3344	0.3344	0.5593	0.6510	0.3484	0.4451
	(34) $p_{D,S}^1$	Studentized UDIM	0.4968	0.1122	0.3365	0.3365	0.5891	0.4411	0.4552	0.5656
	(35) $p_{D,S}^2$	Studentized COLS	0.4040	0.1952	0.3350	0.3350	0.6652	0.5808	0.4228	0.4596
	(36) $p_{D,S}^3$	Studentized AIPW	0.2671	0.2005	0.3384	0.3384	0.5682	0.6510	0.3553	0.6287

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for any misdemeanors				Cumulative probation for violent misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		319.67	688.86	686.17	686.17	0.3077	3.4737	4.4000	4.4000
	(iii) Mean of the treatment group		235.30	518.08	956.93	923.33	0.0000	0.3750	2.0690	2.0690
Estimates	(iv) UDIM (difference in means)		−84.369	−170.78	270.76	237.16	−0.3077	−3.0987	−2.3310	−2.3310
	(v) COLS (conditional OLS estimate)		−38.084	−22.688	438.34	406.03	−0.4361	−3.2327	−3.3505	−3.3505
	(vi) AIPW (augmented IPW estimate)		−36.749	6.1946	444.65	417.52	−0.3990	−2.8801	−3.3057	−3.3057
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2593	0.2117	0.1951	0.2185	0.1533	<b>0.0406</b>	0.1692	0.1692
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3983	0.4599	<b>0.0891</b>	<b>0.0995</b>	0.1505	<b>0.0404</b>	0.1085	0.1085
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3970	0.4889	<b>0.0775</b>	<b>0.0863</b>	0.1299	<b>0.0404</b>	<b>0.0759</b>	<b>0.0759</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2522	0.2091	0.1793	0.2020	0.1461	<b>0.0397</b>	0.1762	0.1762
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3977	0.4595	<b>0.0749</b>	<b>0.0833</b>	0.1522	<b>0.0405</b>	0.1218	0.1218
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.4058	0.4896	<b>0.0759</b>	<b>0.0836</b>	0.1511	<b>0.0406</b>	0.1271	0.1271
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2604	0.1952	0.1776	0.2068	0.3524	<b>0.0164</b>	0.1700	0.1700
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4132	0.4624	<b>0.0652</b>	<b>0.0736</b>	0.3524	<b>0.0148</b>	<b>0.0988</b>	<b>0.0988</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.4248	0.4756	<b>0.0652</b>	<b>0.0744</b>	0.3524	<b>0.0192</b>	0.1068	0.1068
	(10) $p_{B,S}^1$	Studentized UDIM	0.2052	0.1484	<b>0.0968</b>	0.1236	<b>0.0008</b>	<b>0.0004</b>	<b>0.0556</b>	<b>0.0556</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.3692	0.4524	<b>0.0228</b>	<b>0.0312</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0124</b>	<b>0.0124</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.3768	0.4544	<b>0.0396</b>	<b>0.0456</b>	<b>0.0044</b>	<b>0.0004</b>	<b>0.0224</b>	<b>0.0224</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2624	0.2208	0.2172	0.2380	0.3288	<b>0.0256</b>	0.1840	0.1840
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3896	0.4636	0.1116	0.1212	<b>0.0056</b>	<b>0.0284</b>	<b>0.0896</b>	<b>0.0896</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.4008	0.4844	0.1088	0.1152	<b>0.0148</b>	<b>0.0520</b>	0.1144	0.1144
	(16) $p_{P,S}^1$	Studentized UDIM	0.2672	0.2244	0.2124	0.2344	0.2964	<b>0.0196</b>	0.1864	0.1864
	(17) $p_{P,S}^2$	Studentized COLS	0.4064	0.4656	0.1080	0.1212	<b>0.0148</b>	<b>0.0148</b>	0.1276	0.1276
	(18) $p_{P,S}^3$	Studentized AIPW	0.4116	0.4848	0.1116	0.1208	<b>0.0880</b>	<b>0.0256</b>	<b>0.0984</b>	<b>0.0984</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3314	0.2751	0.3212	0.3554	0.3210	<b>0.0421</b>	0.1727	0.1727
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4659	0.4372	0.2082	0.2264	<b>0.0478</b>	<b>0.0751</b>	0.1404	0.1404
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4688	0.6849	0.2246	0.2262	<b>0.0608</b>	<b>0.0948</b>	0.1519	0.1519
	(22) $p_{M,S}^1$	Studentized UDIM	0.3316	0.2750	0.3137	0.3444	0.3036	<b>0.0381</b>	0.1738	0.1738
	(23) $p_{M,S}^2$	Studentized COLS	0.4803	0.4372	0.1997	0.2133	<b>0.0680</b>	<b>0.0425</b>	0.1663	0.1663
	(24) $p_{M,S}^3$	Studentized AIPW	0.4794	0.6851	0.2143	0.2337	0.1606	<b>0.0590</b>	0.1390	0.1390
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3372	0.2752	0.3326	0.3637	0.3251	<b>0.0437</b>	0.1756	0.1756
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4691	0.4382	0.2101	0.2288	<b>0.0479</b>	<b>0.0792</b>	0.1416	0.1416
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4822	0.6853	0.2305	0.2308	<b>0.0613</b>	<b>0.0981</b>	0.1521	0.1521
	(28) $p_{R,S}^1$	Studentized UDIM	0.3377	0.2780	0.3248	0.3545	0.3069	<b>0.0391</b>	0.1812	0.1812
	(29) $p_{R,S}^2$	Studentized COLS	0.4804	0.4382	0.2045	0.2146	<b>0.0704</b>	<b>0.0448</b>	0.1710	0.1710
	(30) $p_{R,S}^3$	Studentized AIPW	0.4888	0.6871	0.2168	0.2389	0.1683	<b>0.0605</b>	0.1401	0.1401
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.3695	0.2765	0.4217	0.4128	0.4349	<b>0.0543</b>	0.2037	0.2037
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4917	0.5014	0.2281	0.3046	<b>0.0960</b>	<b>0.0972</b>	0.2618	0.2618
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.5341	0.9752	0.3104	0.3008	<b>0.0913</b>	0.1767	0.1960	0.1960
	(34) $p_{D,S}^1$	Studentized UDIM	0.3796	0.3192	0.3959	0.4378	0.3437	<b>0.0523</b>	0.2420	0.2420
	(35) $p_{D,S}^2$	Studentized COLS	0.7124	0.5149	0.2104	0.2299	0.1090	<b>0.0746</b>	0.2259	0.2259
	(36) $p_{D,S}^3$	Studentized AIPW	0.5462	0.8332	0.2930	0.3191	0.2179	0.1040	0.1674	0.1674

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative probabon for classified misdemeanors				Cumulative probabon for any misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.3077	4.1053	5.2000	5.2000	1.0000	6.7105	10.300	10.300
	(iii) Mean of the treatment group		1.0909	1.7813	4.4483	4.4483	1.0909	1.9688	5.2759	5.2759
Estimates	(iv) UDIM (difference in means)		0.7832	-2.3240	-0.7517	-0.7517	0.0909	-4.7418	-5.0241	-5.0241
	(v) COLS (conditional OLS estimate)		0.4493	-2.5462	-1.7118	-1.7118	-0.4029	-5.4988	-5.7415	-5.7415
	(vi) AIPW (augmented IPW estimate)		0.4140	-2.2524	-1.6168	-1.6168	-0.3647	-5.0130	-5.4598	-5.4598
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2449	0.1423	0.4020	0.4020	0.4717	<b>0.0303</b>	<b>0.0922</b>	<b>0.0922</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3248	0.1168	0.2992	0.2992	0.3751	<b>0.0164</b>	<b>0.0737</b>	<b>0.0737</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3204	0.1167	0.2896	0.2896	0.3713	<b>0.0140</b>	<b>0.0640</b>	<b>0.0640</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2352	0.1426	0.4051	0.4051	0.4705	<b>0.0302</b>	<b>0.0962</b>	<b>0.0962</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3236	0.1187	0.3094	0.3094	0.3752	<b>0.0179</b>	<b>0.0840</b>	<b>0.0840</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3247	0.1211	0.3188	0.3188	0.3774	<b>0.0166</b>	<b>0.0961</b>	<b>0.0961</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3604	0.1388	0.4060	0.4060	0.5080	<b>0.0212</b>	<b>0.0948</b>	<b>0.0948</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4060	0.1124	0.3124	0.3124	0.3688	<b>0.0048</b>	<b>0.0720</b>	<b>0.0720</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.4108	0.1256	0.3376	0.3376	0.3732	<b>0.0072</b>	<b>0.0876</b>	<b>0.0876</b>
	(10) $p_{B,S}^1$	Studentized UDIM	0.1724	<b>0.0412</b>	0.3844	0.3844	0.4644	<b>0.0004</b>	<b>0.0240</b>	<b>0.0240</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.3824	<b>0.0192</b>	0.2520	0.2520	0.3712	<b>0.0008</b>	<b>0.0180</b>	<b>0.0180</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.3724	<b>0.0248</b>	0.2724	0.2724	0.3808	<b>0.0004</b>	<b>0.0280</b>	<b>0.0280</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3348	0.1588	0.4120	0.4120	0.4504	<b>0.0312</b>	0.1000	0.1000
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4524	0.1520	0.3096	0.3096	0.4300	<b>0.0152</b>	<b>0.0764</b>	<b>0.0764</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.4524	0.1816	0.3312	0.3312	0.4364	<b>0.0300</b>	<b>0.0924</b>	<b>0.0924</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.3280	0.1568	0.4120	0.4120	0.4468	<b>0.0284</b>	0.1028	0.1028
	(17) $p_{P,S}^2$	Studentized COLS	0.4536	0.1328	0.3236	0.3236	0.4280	<b>0.0112</b>	<b>0.0844</b>	<b>0.0844</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.4452	0.1432	0.3256	0.3256	0.4300	<b>0.0136</b>	<b>0.0820</b>	<b>0.0820</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4960	0.1732	0.3529	0.3529	0.6370	<b>0.0331</b>	<b>0.0972</b>	<b>0.0972</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.5602	0.2264	0.3842	0.3842	0.4643	<b>0.0428</b>	0.1011	0.1011
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.5532	0.2394	0.4103	0.4103	0.4732	<b>0.0514</b>	0.1159	0.1159
	(22) $p_{M,S}^1$	Studentized UDIM	0.4866	0.1698	0.3529	0.3529	0.6335	<b>0.0407</b>	0.1123	0.1123
	(23) $p_{M,S}^2$	Studentized COLS	0.5602	0.1835	0.3970	0.3970	0.4624	<b>0.0262</b>	0.1019	0.1019
	(24) $p_{M,S}^3$	Studentized AIPW	0.5405	0.1966	0.3956	0.3956	0.4646	<b>0.0317</b>	0.1157	0.1157
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4960	0.1791	0.3558	0.3558	0.6408	<b>0.0341</b>	0.1011	0.1011
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5627	0.2266	0.3934	0.3934	0.4700	<b>0.0439</b>	0.1026	0.1026
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.5573	0.2442	0.4123	0.4123	0.4738	<b>0.0528</b>	0.1201	0.1201
	(28) $p_{R,S}^1$	Studentized UDIM	0.4903	0.1757	0.3529	0.3529	0.6364	<b>0.0445</b>	0.1162	0.1162
	(29) $p_{R,S}^2$	Studentized COLS	0.5627	0.1882	0.4041	0.4041	0.4655	<b>0.0283</b>	0.1031	0.1031
	(30) $p_{R,S}^3$	Studentized AIPW	0.5445	0.2000	0.3981	0.3981	0.4676	<b>0.0326</b>	0.1169	0.1169
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5133	0.1842	0.3801	0.3801	0.6697	<b>0.0524</b>	0.1559	0.1559
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5986	0.2502	0.4151	0.4151	0.5331	<b>0.0750</b>	0.1605	0.1605
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.6296	0.2886	0.4648	0.4648	0.5184	<b>0.0670</b>	0.1573	0.1573
	(34) $p_{D,S}^1$	Studentized UDIM	0.5134	0.2444	0.3800	0.3800	0.6709	<b>0.0897</b>	0.1571	0.1571
	(35) $p_{D,S}^2$	Studentized COLS	0.6222	0.2361	0.4738	0.4738	0.5064	<b>0.0551</b>	0.1537	0.1537
	(36) $p_{D,S}^3$	Studentized AIPW	0.6500	0.2325	0.4108	0.4108	0.4982	<b>0.0592</b>	0.1694	0.1694

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative days jailed for violent misdemeanors				Cumulative days jailed for classified misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		3.1795	17.342	40.667	40.667	8.1026	36.737	82.267	82.267
	(iii) Mean of the treatment group		0.0000	0.4375	6.8966	6.8966	7.4848	15.406	24.448	22.448
Estimates	(iv) UDIM (difference in means)		-3.1795	-16.905	-33.770	-33.770	-0.6177	-21.331	-57.818	-59.818
	(v) COLS (conditional OLS estimate)		-3.9022	-18.119	-42.373	-42.373	0.9667	-17.875	-65.046	-67.586
	(vi) AIPW (augmented IPW estimate)		-3.3017	-16.109	-43.265	-43.265	0.1357	-15.577	-64.685	-67.248
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0853</b>	<b>0.0492</b>	0.1810	0.1810	0.4602	<b>0.0783</b>	<b>0.0759</b>	<b>0.0676</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0939</b>	<b>0.0477</b>	0.1743	0.1743	0.4421	0.1181	<b>0.0940</b>	<b>0.0842</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0876</b>	<b>0.0456</b>	0.1269	0.1269	0.4910	0.1302	<b>0.0635</b>	<b>0.0541</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0768</b>	<b>0.0456</b>	0.1783	0.1783	0.4593	<b>0.0714</b>	<b>0.0737</b>	<b>0.0655</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0875</b>	<b>0.0416</b>	0.1737	0.1737	0.4403	0.1107	<b>0.0934</b>	<b>0.0837</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0854</b>	<b>0.0416</b>	0.1748	0.1748	0.4909	0.1263	<b>0.0990</b>	<b>0.0887</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1392	<b>0.0016</b>	0.2576	0.2576	0.4548	<b>0.0692</b>	<b>0.0416</b>	<b>0.0320</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1392	<b>0.0020</b>	0.2384	0.2384	0.4516	0.1028	<b>0.0656</b>	<b>0.0528</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1392	<b>0.0028</b>	0.2424	0.2424	0.4828	0.1252	<b>0.0676</b>	<b>0.0520</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0020</b>	<b>0.0020</b>	0.4592	<b>0.0052</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0088</b>	<b>0.0088</b>	0.4124	<b>0.0180</b>	<b>0.0012</b>	<b>0.0008</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0016</b>	<b>0.0004</b>	<b>0.0244</b>	<b>0.0244</b>	0.4972	<b>0.0400</b>	<b>0.0060</b>	<b>0.0048</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1868	<b>0.0236</b>	0.3108	0.3108	0.4256	<b>0.0848</b>	<b>0.0608</b>	<b>0.0488</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0300</b>	<b>0.0232</b>	0.1348	0.1348	0.4796	0.1340	<b>0.0528</b>	<b>0.0396</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1264	<b>0.0516</b>	0.1504	0.1504	0.4744	0.1652	<b>0.0692</b>	<b>0.0536</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.1816	<b>0.0068</b>	0.3592	0.3592	0.4260	<b>0.0796</b>	<b>0.0660</b>	<b>0.0496</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.2644	<b>0.0052</b>	0.3152	0.3152	0.4836	0.1300	<b>0.0964</b>	<b>0.0800</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1976	<b>0.0136</b>	0.1172	0.1172	0.4744	0.1496	<b>0.0644</b>	<b>0.0444</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.2161	<b>0.0293</b>	0.2865	0.2865	0.5256	0.1062	0.1063	<b>0.0802</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1104	<b>0.0656</b>	0.2461	0.2461	0.5477	0.1677	0.1078	<b>0.0842</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.2262	<b>0.0913</b>	0.2291	0.2291	0.5905	0.2034	0.1217	0.1028
	(22) $p_{M,S}^1$	Studentized UDIM	0.2287	<b>0.0219</b>	0.3896	0.3896	0.5256	0.1086	0.1170	<b>0.0944</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.3095	<b>0.0225</b>	0.3941	0.3941	0.5490	0.1550	0.1463	0.1261
	(24) $p_{M,S}^3$	Studentized AIPW	0.2764	<b>0.0427</b>	0.2068	0.2068	0.5896	0.1977	0.1154	<b>0.0937</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.2206	<b>0.0300</b>	0.2886	0.2886	0.5266	0.1097	0.1235	<b>0.0923</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1136	<b>0.0657</b>	0.2499	0.2499	0.5491	0.1692	0.1179	<b>0.0862</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.2299	<b>0.0946</b>	0.2377	0.2377	0.5928	0.2051	0.1266	0.1029
	(28) $p_{R,S}^1$	Studentized UDIM	0.2366	<b>0.0243</b>	0.3997	0.3997	0.5266	0.1143	0.1195	<b>0.0984</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.3129	<b>0.0251</b>	0.4100	0.4100	0.5514	0.1593	0.1473	0.1347
	(30) $p_{R,S}^3$	Studentized AIPW	0.2803	<b>0.0435</b>	0.2111	0.2111	0.5928	0.2010	0.1180	0.1014
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.2427	<b>0.0372</b>	0.3236	0.3236	0.5357	0.1282	0.2249	0.1160
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1476	<b>0.0756</b>	0.3457	0.3457	0.6173	0.2077	0.1594	0.1834
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2367	0.1126	0.3432	0.3432	0.6406	0.2778	0.1492	0.1473
	(34) $p_{D,S}^1$	Studentized UDIM	0.2758	<b>0.0399</b>	0.4767	0.4767	0.5403	0.1317	0.1540	0.1360
	(35) $p_{D,S}^2$	Studentized COLS	0.3293	<b>0.0493</b>	0.5047	0.5047	0.6037	0.2125	0.1855	0.1685
	(36) $p_{D,S}^3$	Studentized AIPW	0.2997	<b>0.0512</b>	0.2262	0.2262	0.6406	0.2535	0.1519	0.1417

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative days jailed for any misdemeanors				Cumulative felony arrests for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		22.128	75.947	138.57	138.57	0.7692	1.1066	1.2917	1.1917
	(iii) Mean of the treatment group		9.7576	24.250	38.103	36.103	0.4242	0.5000	0.6207	0.3793
Estimates	(iv) UDIM (difference in means)		-12.371	-51.697	-100.46	-102.46	-0.3450	-0.6066	-0.6710	-0.8124
	(v) COLS (conditional OLS estimate)		-13.334	-57.077	-108.35	-110.89	-0.2837	-0.5289	-0.6056	-0.7399
	(vi) AIPW (augmented IPW estimate)		-12.633	-52.652	-106.54	-109.10	-0.2084	-0.4493	-0.5275	-0.6479
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0896</b>	<b>0.0099</b>	<b>0.0195</b>	<b>0.0170</b>	<b>0.0786</b>	<b>0.0219</b>	<b>0.0344</b>	<b>0.0083</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1092	<b>0.0147</b>	<b>0.0289</b>	<b>0.0252</b>	0.1313	<b>0.0477</b>	<b>0.0534</b>	<b>0.0138</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0882</b>	<b>0.0112</b>	<b>0.0171</b>	<b>0.0141</b>	0.1800	<b>0.0540</b>	<b>0.0474</b>	<b>0.0125</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0827</b>	<b>0.0092</b>	<b>0.0178</b>	<b>0.0152</b>	<b>0.0687</b>	<b>0.0162</b>	<b>0.0276</b>	<b>0.0046</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0992</b>	<b>0.0126</b>	<b>0.0283</b>	<b>0.0246</b>	0.1216	<b>0.0398</b>	<b>0.0513</b>	<b>0.0108</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0864</b>	<b>0.0146</b>	<b>0.0325</b>	<b>0.0282</b>	0.1797	<b>0.0539</b>	<b>0.0584</b>	<b>0.0142</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0800</b>	<b>0.0076</b>	<b>0.0076</b>	<b>0.0056</b>	<b>0.0616</b>	<b>0.0180</b>	<b>0.0260</b>	<b>0.0032</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0956</b>	<b>0.0076</b>	<b>0.0100</b>	<b>0.0072</b>	0.1132	<b>0.0328</b>	<b>0.0436</b>	<b>0.0060</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0904</b>	<b>0.0084</b>	<b>0.0116</b>	<b>0.0080</b>	0.1644	<b>0.0488</b>	<b>0.0528</b>	<b>0.0108</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0164</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0172</b>	<b>0.0012</b>	<b>0.0024</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0224</b>	<b>0.0012</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0456</b>	<b>0.0052</b>	<b>0.0112</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0144</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0012</b>	0.1040	<b>0.0116</b>	<b>0.0180</b>	<b>0.0008</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0988</b>	<b>0.0112</b>	<b>0.0120</b>	<b>0.0092</b>	<b>0.0988</b>	<b>0.0272</b>	<b>0.0264</b>	<b>0.0064</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0812</b>	<b>0.0064</b>	<b>0.0080</b>	<b>0.0060</b>	0.1500	<b>0.0444</b>	<b>0.0368</b>	<b>0.0092</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0928</b>	<b>0.0088</b>	<b>0.0104</b>	<b>0.0092</b>	0.2220	<b>0.0720</b>	<b>0.0664</b>	<b>0.0212</b>
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0980</b>	<b>0.0100</b>	<b>0.0120</b>	<b>0.0116</b>	<b>0.0916</b>	<b>0.0240</b>	<b>0.0272</b>	<b>0.0072</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.1184	<b>0.0148</b>	<b>0.0220</b>	<b>0.0156</b>	0.1468	<b>0.0476</b>	<b>0.0456</b>	<b>0.0116</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1056	<b>0.0164</b>	<b>0.0108</b>	<b>0.0072</b>	0.2016	<b>0.0640</b>	<b>0.0436</b>	<b>0.0120</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1150	<b>0.0201</b>	<b>0.0247</b>	<b>0.0201</b>	0.1570	<b>0.0505</b>	<b>0.0528</b>	<b>0.0198</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1291	<b>0.0207</b>	<b>0.0299</b>	<b>0.0246</b>	0.2001	<b>0.0748</b>	<b>0.0823</b>	<b>0.0282</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1321	<b>0.0258</b>	<b>0.0352</b>	<b>0.0308</b>	0.3037	0.1112	0.1220	<b>0.0576</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.1158	<b>0.0181</b>	<b>0.0396</b>	<b>0.0355</b>	0.1418	<b>0.0487</b>	<b>0.0599</b>	<b>0.0199</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.1490	<b>0.0290</b>	<b>0.0504</b>	<b>0.0474</b>	0.2011	<b>0.0813</b>	<b>0.0950</b>	<b>0.0357</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.1508	<b>0.0308</b>	<b>0.0424</b>	<b>0.0373</b>	0.2840	0.1007	0.1009	<b>0.0420</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1169	<b>0.0204</b>	<b>0.0248</b>	<b>0.0201</b>	0.1685	<b>0.0512</b>	<b>0.0572</b>	<b>0.0212</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1323	<b>0.0228</b>	<b>0.0326</b>	<b>0.0294</b>	0.2015	<b>0.0797</b>	<b>0.0829</b>	<b>0.0303</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1327	<b>0.0277</b>	<b>0.0357</b>	<b>0.0336</b>	0.3046	0.1139	0.1237	<b>0.0580</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.1172	<b>0.0183</b>	<b>0.0404</b>	<b>0.0356</b>	0.1498	<b>0.0514</b>	<b>0.0625</b>	<b>0.0212</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.1528	<b>0.0318</b>	<b>0.0529</b>	<b>0.0481</b>	0.2058	<b>0.0824</b>	<b>0.0973</b>	<b>0.0367</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.1550	<b>0.0325</b>	<b>0.0435</b>	<b>0.0388</b>	0.2886	0.1028	0.1045	<b>0.0423</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1570	<b>0.0261</b>	<b>0.0327</b>	<b>0.0348</b>	0.1915	<b>0.0679</b>	<b>0.0873</b>	<b>0.0261</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1734	<b>0.0394</b>	<b>0.0483</b>	<b>0.0599</b>	0.2607	<b>0.0989</b>	0.1209	<b>0.0397</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1629	<b>0.0370</b>	<b>0.0424</b>	<b>0.0520</b>	0.3101	0.1353	0.1250	<b>0.0877</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.1498	<b>0.0293</b>	<b>0.0760</b>	<b>0.0408</b>	0.1917	<b>0.0678</b>	<b>0.0900</b>	<b>0.0265</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.2125	<b>0.0391</b>	<b>0.0876</b>	<b>0.0887</b>	0.2691	0.1175	0.1101	<b>0.0721</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.2817	<b>0.0649</b>	<b>0.0509</b>	<b>0.0438</b>	0.3181	0.1355	0.1562	<b>0.0830</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony arrests for classified crime				Cumulative felony arrests for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		2.3120	3.0373	3.3528	2.8861	2.5385	3.2895	3.7333	3.2667
	(iii) Mean of the treatment group		0.9747	1.5365	2.0172	1.6724	1.1818	2.2188	2.8276	2.4828
Estimates	(iv) UDIM (difference in means)		-1.3372	-1.5008	-1.3355	-1.2137	-1.3566	-1.0707	-0.9057	-0.7839
	(v) COLS (conditional OLS estimate)		-1.3051	-1.3834	-1.1314	-1.0403	-1.2764	-0.8271	-0.5399	-0.4488
	(vi) AIPW (augmented IPW estimate)		-1.2301	-1.3482	-1.0190	-0.9266	-1.2381	-0.8818	-0.4702	-0.3778
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0147</b>	<b>0.0266</b>	<b>0.0841</b>	<b>0.0772</b>	<b>0.0250</b>	0.1275	0.2188	0.2279
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0237</b>	<b>0.0411</b>	0.1200	<b>0.0958</b>	<b>0.0392</b>	0.1902	0.3223	0.3312
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0185</b>	<b>0.0312</b>	0.1282	0.1091	<b>0.0292</b>	0.1533	0.3345	0.3490
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0111</b>	<b>0.0205</b>	<b>0.0757</b>	<b>0.0668</b>	<b>0.0191</b>	0.1133	0.2089	0.2162
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0182</b>	<b>0.0324</b>	0.1163	<b>0.0921</b>	<b>0.0306</b>	0.1742	0.3192	0.3279
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0156</b>	<b>0.0294</b>	0.1381	0.1155	<b>0.0247</b>	0.1478	0.3404	0.3529
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0076</b>	<b>0.0196</b>	<b>0.0688</b>	<b>0.0592</b>	<b>0.0148</b>	0.1020	0.1880	0.2032
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0140</b>	<b>0.0304</b>	0.1128	<b>0.0904</b>	<b>0.0268</b>	0.1668	0.3000	0.3104
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0112</b>	<b>0.0304</b>	0.1472	0.1244	<b>0.0208</b>	0.1596	0.3520	0.3640
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0020</b>	<b>0.0212</b>	<b>0.0136</b>	<b>0.0008</b>	<b>0.0640</b>	0.1424	0.1516
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0012</b>	<b>0.0060</b>	<b>0.0512</b>	<b>0.0364</b>	<b>0.0036</b>	0.1108	0.2808	0.2924
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0012</b>	<b>0.0044</b>	<b>0.0688</b>	<b>0.0524</b>	<b>0.0028</b>	<b>0.0824</b>	0.2796	0.3048
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0264</b>	<b>0.0316</b>	<b>0.0780</b>	<b>0.0676</b>	<b>0.0356</b>	0.1204	0.1916	0.1908
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0324</b>	<b>0.0468</b>	0.1168	0.1028	<b>0.0532</b>	0.1844	0.2964	0.2948
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0420</b>	<b>0.0500</b>	0.1372	0.1184	<b>0.0596</b>	0.1700	0.3104	0.3136
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0220</b>	<b>0.0308</b>	<b>0.0776</b>	<b>0.0700</b>	<b>0.0348</b>	0.1188	0.1908	0.1916
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0352</b>	<b>0.0460</b>	0.1208	<b>0.0932</b>	<b>0.0544</b>	0.1844	0.2976	0.2992
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0328</b>	<b>0.0460</b>	0.1348	0.1084	<b>0.0520</b>	0.1632	0.3104	0.3160
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0441</b>	<b>0.0526</b>	0.1323	0.1048	<b>0.0625</b>	0.1823	0.2787	0.2628
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0506</b>	<b>0.0709</b>	0.1817	0.1565	<b>0.0811</b>	0.2846	0.4105	0.4071
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0679</b>	<b>0.0822</b>	0.2130	0.1771	<b>0.0983</b>	0.2688	0.4348	0.4395
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0441</b>	<b>0.0523</b>	0.1371	0.1087	<b>0.0611</b>	0.1831	0.2809	0.2652
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0561</b>	<b>0.0827</b>	0.1986	0.1681	<b>0.0906</b>	0.2946	0.4165	0.4103
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0629</b>	<b>0.0806</b>	0.2143	0.1847	<b>0.0933</b>	0.2688	0.4382	0.4368
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0450</b>	<b>0.0547</b>	0.1349	0.1052	<b>0.0641</b>	0.1853	0.2806	0.2655
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0512</b>	<b>0.0729</b>	0.1838	0.1566	<b>0.0817</b>	0.2902	0.4137	0.4162
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0700</b>	<b>0.0834</b>	0.2217	0.1865	<b>0.0986</b>	0.2696	0.4368	0.4537
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0481</b>	<b>0.0540</b>	0.1397	0.1112	<b>0.0614</b>	0.1879	0.2827	0.2660
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0571</b>	<b>0.0847</b>	0.2119	0.1691	<b>0.0912</b>	0.2968	0.4223	0.4208
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0639</b>	<b>0.0820</b>	0.2188	0.1924	<b>0.0939</b>	0.2696	0.4402	0.4508
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0509</b>	<b>0.0671</b>	0.1441	0.1082	<b>0.0775</b>	0.2197	0.3046	0.2847
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0617</b>	<b>0.0853</b>	0.2005	0.1633	<b>0.0888</b>	0.3233	0.5124	0.4523
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0878</b>	0.1010	0.2989	0.2664	0.1044	0.3037	0.4657	0.5235
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0594</b>	<b>0.0618</b>	0.1493	0.1417	<b>0.0732</b>	0.2095	0.2971	0.2691
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0850</b>	0.1053	0.3536	0.1999	0.1171	0.3168	0.4493	0.4802
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0834</b>	<b>0.0981</b>	0.2249	0.3412	0.1108	0.3168	0.5627	0.5613

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony convictions for violent crime				Cumulative felony convictions for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.4487	0.7632	1.0333	0.9333	1.1410	1.7368	2.0667	1.8333
	(iii) Mean of the treatment group		0.3333	0.3438	0.3793	0.1724	0.8182	1.1875	1.5172	1.2069
Estimates	(iv) UDIM (difference in means)		-0.1154	-0.4194	-0.6540	-0.7609	-0.3228	-0.5493	-0.5494	-0.6264
	(v) COLS (conditional OLS estimate)		-0.0694	-0.3420	-0.6303	-0.7348	-0.2524	-0.3834	-0.3686	-0.4356
	(vi) AIPW (augmented IPW estimate)		-0.0711	-0.3236	-0.5867	-0.6806	-0.3004	-0.4418	-0.3393	-0.3984
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2915	<b>0.0486</b>	<b>0.0183</b>	<b>0.0025</b>	0.2214	0.1608	0.2255	0.1626
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3742	<b>0.0892</b>	<b>0.0274</b>	<b>0.0037</b>	0.2889	0.2488	0.3134	0.2422
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3618	<b>0.0831</b>	<b>0.0179</b>	<b>0.0018</b>	0.2344	0.2011	0.3188	0.2499
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2863	<b>0.0439</b>	<b>0.0158</b>	<b>0.0013</b>	0.2152	0.1543	0.2222	0.1563
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3719	<b>0.0899</b>	<b>0.0291</b>	<b>0.0031</b>	0.2829	0.2465	0.3155	0.2454
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3650	<b>0.0936</b>	<b>0.0290</b>	<b>0.0031</b>	0.2354	0.2123	0.3303	0.2641
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2776	<b>0.0468</b>	<b>0.0164</b>	<b>0.0012</b>	0.2124	0.1468	0.2048	0.1476
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3704	<b>0.0936</b>	<b>0.0304</b>	<b>0.0024</b>	0.2728	0.2316	0.2992	0.2380
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3720	0.1020	<b>0.0356</b>	<b>0.0028</b>	0.2476	0.2296	0.3480	0.2776
	(10) $p_{B,S}^1$	Studentized UDIM	0.2348	<b>0.0068</b>	<b>0.0012</b>	<b>0.0004</b>	0.1412	<b>0.0940</b>	0.1628	<b>0.0932</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.3364	<b>0.0276</b>	<b>0.0052</b>	<b>0.0004</b>	0.2248	0.1872	0.2776	0.1916
	(12) $p_{B,S}^3$	Studentized AIPW	0.3176	<b>0.0308</b>	<b>0.0064</b>	<b>0.0008</b>	0.1576	0.1376	0.2804	0.2040
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3256	<b>0.0512</b>	<b>0.0136</b>	<b>0.0020</b>	0.2516	0.1508	0.2064	0.1472
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4016	<b>0.0880</b>	<b>0.0156</b>	<b>0.0024</b>	0.3156	0.2412	0.2948	0.2280
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3956	0.1000	<b>0.0272</b>	<b>0.0052</b>	0.2684	0.2108	0.3004	0.2408
	(16) $p_{P,S}^1$	Studentized UDIM	0.3208	<b>0.0508</b>	<b>0.0180</b>	<b>0.0024</b>	0.2464	0.1540	0.2112	0.1492
	(17) $p_{P,S}^2$	Studentized COLS	0.3980	<b>0.0880</b>	<b>0.0276</b>	<b>0.0044</b>	0.3200	0.2464	0.3016	0.2312
	(18) $p_{P,S}^3$	Studentized AIPW	0.3876	<b>0.0928</b>	<b>0.0220</b>	<b>0.0044</b>	0.2680	0.2096	0.3088	0.2420
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4905	0.1128	<b>0.0376</b>	<b>0.0134</b>	0.3334	0.2347	0.2814	0.2068
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.5545	0.1804	<b>0.0488</b>	<b>0.0110</b>	0.3946	0.3248	0.3870	0.3179
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.5629	0.1878	<b>0.0629</b>	<b>0.0266</b>	0.3688	0.3020	0.3974	0.3315
	(22) $p_{M,S}^1$	Studentized UDIM	0.4890	0.1151	<b>0.0461</b>	<b>0.0166</b>	0.3320	0.2347	0.2876	0.2149
	(23) $p_{M,S}^2$	Studentized COLS	0.5492	0.1732	<b>0.0584</b>	<b>0.0191</b>	0.3946	0.3354	0.3893	0.3326
	(24) $p_{M,S}^3$	Studentized AIPW	0.5514	0.1821	<b>0.0554</b>	<b>0.0207</b>	0.3655	0.3131	0.4080	0.3488
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4909	0.1136	<b>0.0402</b>	<b>0.0135</b>	0.3414	0.2361	0.2857	0.2116
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5589	0.1806	<b>0.0508</b>	<b>0.0117</b>	0.3985	0.3295	0.3950	0.3320
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.5661	0.1923	<b>0.0645</b>	<b>0.0271</b>	0.3800	0.3049	0.4016	0.3369
	(28) $p_{R,S}^1$	Studentized UDIM	0.4945	0.1159	<b>0.0505</b>	<b>0.0169</b>	0.3396	0.2361	0.2891	0.2175
	(29) $p_{R,S}^2$	Studentized COLS	0.5519	0.1767	<b>0.0593</b>	<b>0.0211</b>	0.3951	0.3360	0.3908	0.3466
	(30) $p_{R,S}^3$	Studentized AIPW	0.5526	0.1885	<b>0.0559</b>	<b>0.0229</b>	0.3767	0.3179	0.4128	0.3502
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5264	0.1184	<b>0.0931</b>	<b>0.0148</b>	0.3920	0.3680	0.3336	0.2504
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.6736	0.2170	<b>0.0813</b>	<b>0.0198</b>	0.4706	0.3696	0.4710	0.3956
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.5707	0.2656	<b>0.0785</b>	<b>0.0347</b>	0.4100	0.3251	0.4271	0.3646
	(34) $p_{D,S}^1$	Studentized UDIM	0.5022	0.1203	0.1680	<b>0.0225</b>	0.3814	0.2395	0.3182	0.2506
	(35) $p_{D,S}^2$	Studentized COLS	0.6101	0.2091	<b>0.0885</b>	<b>0.0290</b>	0.6078	0.3645	0.4252	0.4191
	(36) $p_{D,S}^3$	Studentized AIPW	0.5743	0.2728	<b>0.0878</b>	<b>0.0542</b>	0.4854	0.3713	0.4481	0.3810

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony convictions for any crime				Cumulative fines for violent felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		1.3077	1.9474	2.2333	2.0000	124.86	196.92	278.22	164.54
	(iii) Mean of the treatment group		0.9091	1.4688	1.8621	1.5172	57.934	59.744	65.925	0.0000
Estimates	(iv) UDIM (difference in means)		-0.3986	-0.4786	-0.3713	-0.4828	-66.923	-137.17	-212.29	-164.54
	(v) COLS (conditional OLS estimate)		-0.2949	-0.2441	-0.1077	-0.2045	-74.011	-116.77	-224.80	-150.54
	(vi) AIPW (augmented IPW estimate)		-0.3633	-0.3396	-0.1089	-0.1946	-69.246	-113.47	-225.82	-142.99
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1949	0.2165	0.3170	0.2432	0.2585	0.1108	<b>0.0615</b>	<b>0.0099</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.2722	0.3451	0.4458	0.3789	0.2564	0.1595	<b>0.0840</b>	<b>0.0153</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.2086	0.2750	0.4417	0.3764	0.2380	0.1357	<b>0.0504</b>	<b>0.0076</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1874	0.2109	0.3159	0.2397	0.2524	0.1075	<b>0.0594</b>	<b>0.0082</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.2649	0.3437	0.4472	0.3827	0.2538	0.1600	<b>0.0838</b>	<b>0.0127</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.2071	0.2848	0.4461	0.3856	0.2461	0.1428	<b>0.0824</b>	<b>0.0144</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1852	0.1972	0.2984	0.2316	0.2692	<b>0.0976</b>	<b>0.0436</b>	<b>0.0004</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.2572	0.3308	0.4364	0.3756	0.2724	0.1560	<b>0.0616</b>	<b>0.0012</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.2216	0.2996	0.4728	0.4116	0.2712	0.1468	<b>0.0592</b>	<b>0.0012</b>
	(10) $p_{B,S}^1$	Studentized UDIM	0.1164	0.1512	0.2748	0.1756	0.1340	<b>0.0068</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.2036	0.3032	0.4360	0.3472	0.1236	<b>0.0244</b>	<b>0.0008</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.1272	0.2040	0.4088	0.3288	0.1188	<b>0.0168</b>	<b>0.0052</b>	<b>0.0008</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2292	0.2040	0.2920	0.2188	0.3484	0.1480	<b>0.0644</b>	<b>0.0028</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3112	0.3340	0.4308	0.3628	0.3288	0.2028	<b>0.0508</b>	<b>0.0160</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.2540	0.2824	0.4256	0.3572	0.3452	0.1996	<b>0.0608</b>	<b>0.0284</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.2256	0.2032	0.2972	0.2192	0.3436	0.1416	<b>0.0768</b>	<b>0.0004</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.3096	0.3344	0.4312	0.3600	0.3452	0.1964	0.1056	<b>0.0092</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.2428	0.2788	0.4268	0.3556	0.3272	0.1752	<b>0.0656</b>	<b>0.0032</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3609	0.3193	0.3886	0.3443	0.3842	0.1542	<b>0.0576</b>	<b>0.0119</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4014	0.4712	0.5636	0.4803	0.3944	0.2209	<b>0.0676</b>	<b>0.0209</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.3656	0.4252	0.5670	0.4911	0.4004	0.2113	<b>0.0746</b>	<b>0.0386</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.3484	0.3182	0.3987	0.3454	0.3899	0.1559	<b>0.0747</b>	<b>0.0050</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.4042	0.4691	0.5636	0.4766	0.4143	0.1950	0.1062	<b>0.0182</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.3689	0.4199	0.5659	0.4927	0.3865	0.1836	<b>0.0859</b>	<b>0.0122</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3618	0.3207	0.3948	0.3495	0.3902	0.1607	<b>0.0597</b>	<b>0.0129</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4042	0.4810	0.5697	0.4830	0.3982	0.2252	<b>0.0730</b>	<b>0.0221</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.3721	0.4320	0.5686	0.4943	0.4032	0.2155	<b>0.0752</b>	<b>0.0410</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.3485	0.3201	0.4008	0.3500	0.3952	0.1585	<b>0.0800</b>	<b>0.0051</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.4086	0.4791	0.5697	0.4775	0.4277	0.1976	0.1097	<b>0.0196</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.3759	0.4201	0.5673	0.4958	0.3883	0.1899	<b>0.0863</b>	<b>0.0131</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5168	0.3318	0.4359	0.3671	0.4192	0.2415	<b>0.0741</b>	<b>0.0178</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4295	0.6010	0.6970	0.5020	0.4557	0.3138	0.1077	<b>0.0299</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4037	0.5163	0.5697	0.4994	0.5177	0.2364	<b>0.0933</b>	<b>0.0470</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.4411	0.4070	0.4494	0.3924	0.4472	0.1762	0.1145	<b>0.0051</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.4606	0.5834	0.6970	0.4939	0.5090	0.2353	0.1137	<b>0.0324</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.3877	0.4780	0.6165	0.5764	0.4210	0.2236	<b>0.0962</b>	<b>0.0227</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for classified felonies				Cumulative fines for any felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		261.11	588.78	774.58	660.91	281.75	609.97	774.58	660.91
	(iii) Mean of the treatment group		166.81	480.69	547.38	462.66	230.32	721.36	874.07	717.08
Estimates	(iv) UDIM (difference in means)		-94.299	-108.09	-227.21	-198.25	-51.437	111.39	99.485	56.174
	(v) COLS (conditional OLS estimate)		-45.667	132.77	43.501	93.602	-17.847	373.76	365.72	353.36
	(vi) AIPW (augmented IPW estimate)		-52.377	47.165	20.591	78.914	-27.537	272.46	337.53	340.23
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.2749	0.3718	0.2830	0.3008	0.3801	0.3790	0.4075	0.4457
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3923	0.3285	0.4519	0.3894	0.4600	0.1368	0.1772	0.1735
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3638	0.4359	0.4770	0.4071	0.4313	0.1993	0.1879	0.1769
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.2688	0.3626	0.2703	0.2879	0.3770	0.3713	0.4024	0.4423
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3886	0.3229	0.4510	0.3866	0.4585	0.1301	0.1746	0.1692
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3712	0.4343	0.4766	0.4034	0.4349	0.2029	0.1907	0.1742
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2724	0.3608	0.2628	0.2888	0.3744	0.3724	0.3932	0.4448
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3932	0.3236	0.4572	0.3944	0.4632	0.1228	0.1624	0.1580
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3812	0.4140	0.4664	0.3948	0.4468	0.1856	0.1632	0.1484
	(10) $p_{B,S}^1$	Studentized UDIM	0.2184	0.3352	0.2040	0.2352	0.3544	0.3404	0.3880	0.4284
	(11) $p_{B,S}^2$	Studentized COLS	0.3648	0.2776	0.4276	0.3452	0.4444	<b>0.0616</b>	0.1048	<b>0.0772</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.3408	0.4392	0.4764	0.3708	0.4124	0.1556	0.1348	<b>0.0944</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2764	0.3416	0.2568	0.2764	0.3876	0.4244	0.4492	0.4952
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3792	0.4064	0.4928	0.4524	0.4664	0.1916	0.2500	0.2572
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3672	0.4988	0.4748	0.4600	0.4436	0.2848	0.2628	0.2560
	(16) $p_{P,S}^1$	Studentized UDIM	0.2764	0.3400	0.2632	0.2768	0.3876	0.4236	0.4492	0.4952
	(17) $p_{P,S}^2$	Studentized COLS	0.3876	0.3912	0.4908	0.4388	0.4676	0.1736	0.2228	0.2256
	(18) $p_{P,S}^3$	Studentized AIPW	0.3648	0.4964	0.4760	0.4528	0.4432	0.2536	0.2368	0.2288
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3202	0.4805	0.3531	0.4220	0.4177	0.4969	0.5307	0.5444
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4352	0.5116	0.6047	0.5756	0.5184	0.2990	0.3642	0.3679
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4273	0.5992	0.6107	0.5647	0.4955	0.4176	0.3900	0.3873
	(22) $p_{M,S}^1$	Studentized UDIM	0.3202	0.4835	0.3565	0.4228	0.4177	0.4960	0.5319	0.5444
	(23) $p_{M,S}^2$	Studentized COLS	0.4419	0.4868	0.6012	0.5734	0.5184	0.2507	0.3116	0.3070
	(24) $p_{M,S}^3$	Studentized AIPW	0.4273	0.5985	0.6096	0.5661	0.4905	0.3665	0.3522	0.3255
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3222	0.4889	0.3633	0.4324	0.4188	0.5023	0.5307	0.5459
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4465	0.5127	0.6180	0.5769	0.5226	0.3061	0.3679	0.3817
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4381	0.6097	0.6165	0.5704	0.5037	0.4308	0.3982	0.4103
	(28) $p_{R,S}^1$	Studentized UDIM	0.3222	0.4928	0.3633	0.4294	0.4216	0.5016	0.5356	0.5459
	(29) $p_{R,S}^2$	Studentized COLS	0.4532	0.4913	0.6110	0.5746	0.5198	0.2585	0.3193	0.3164
	(30) $p_{R,S}^3$	Studentized AIPW	0.4329	0.6129	0.6165	0.5704	0.4991	0.3720	0.3652	0.3362
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4582	0.5522	0.4441	0.4331	0.5422	0.5493	0.5745	0.5537
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.6332	0.5472	0.7212	0.6193	0.6499	0.3101	0.3890	0.4273
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4994	0.6568	0.6609	0.7114	0.5732	0.5033	0.5069	0.6265
	(34) $p_{D,S}^1$	Studentized UDIM	0.4422	0.5587	0.4434	0.4749	0.5252	0.6015	0.5741	0.5677
	(35) $p_{D,S}^2$	Studentized COLS	0.5059	0.5094	0.6671	0.5775	0.6537	0.3361	0.3506	0.3845
	(36) $p_{D,S}^3$	Studentized AIPW	0.5657	0.6758	0.6596	0.5784	0.5694	0.4342	0.4098	0.3920

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative probabon for violent felonies				Cumulative probabon for classified felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		1.8462	2.8158	3.5667	2.3667	5.2308	9.6053	11.367	8.9667
	(iii) Mean of the treatment group		1.4545	1.5000	1.6552	0.0000	4.3636	8.8125	12.793	10.310
Estimates	(iv) UDIM (difference in means)		-0.3916	-1.3158	-1.9115	-2.3667	-0.8671	-0.7928	1.4264	1.3437
	(v) COLS (conditional OLS estimate)		-0.4395	-0.9204	-1.8543	-2.1049	0.0190	2.0157	4.6241	5.2497
	(vi) AIPW (augmented IPW estimate)		-0.4494	-1.0285	-2.0302	-2.0806	-0.5063	0.6595	4.1035	4.8874
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.4090	0.2469	0.2034	<b>0.0695</b>	0.3969	0.4325	0.4039	0.4040
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.4039	0.3165	0.2294	<b>0.0944</b>	0.4979	0.3383	0.2185	0.1655
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3868	0.2749	0.1740	<b>0.0667</b>	0.4404	0.4425	0.2401	0.1805
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.4070	0.2451	0.2041	<b>0.0679</b>	0.3943	0.4296	0.3994	0.3971
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.4042	0.3200	0.2349	<b>0.0921</b>	0.4979	0.3344	0.2127	0.1517
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3924	0.2866	0.2122	<b>0.0982</b>	0.4444	0.4443	0.2465	0.1767
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.4080	0.2424	0.2000	0.1332	0.3936	0.4208	0.3992	0.4064
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4088	0.3172	0.2344	0.1376	0.4996	0.3344	0.2216	0.1636
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.4064	0.2972	0.2104	0.1344	0.4520	0.4248	0.2368	0.1740
	(10) $p_{B,S}^1$	Studentized UDIM	0.3992	0.1712	0.1100	<b>0.0004</b>	0.3784	0.4176	0.3600	0.3740
	(11) $p_{B,S}^2$	Studentized COLS	0.3868	0.2816	0.1380	<b>0.0004</b>	0.4980	0.2744	0.1468	<b>0.0664</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.3684	0.2172	0.1172	<b>0.0040</b>	0.4308	0.4420	0.2012	0.1152
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.4692	0.3064	0.2472	<b>0.0896</b>	0.4124	0.4228	0.4244	0.4424
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4416	0.3600	0.2568	0.2180	0.4804	0.3732	0.2616	0.2080
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.4328	0.3380	0.2276	0.1736	0.4528	0.4808	0.2824	0.2316
	(16) $p_{P,S}^1$	Studentized UDIM	0.4508	0.3052	0.2572	<b>0.0712</b>	0.4076	0.4220	0.4244	0.4416
	(17) $p_{P,S}^2$	Studentized COLS	0.4448	0.3548	0.2736	0.2724	0.4808	0.3740	0.2500	0.1948
	(18) $p_{P,S}^3$	Studentized AIPW	0.4252	0.3220	0.2040	<b>0.0596</b>	0.4564	0.4808	0.2800	0.2216
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.5000	0.3244	0.2207	<b>0.0850</b>	0.4871	0.5188	0.5466	0.5091
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.5291	0.3793	0.2455	0.1066	0.6364	0.5153	0.4036	0.3536
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.5135	0.3544	0.2223	0.1250	0.4956	0.6367	0.4311	0.3916
	(22) $p_{M,S}^1$	Studentized UDIM	0.4855	0.3237	0.2322	<b>0.0906</b>	0.4776	0.5183	0.5495	0.5079
	(23) $p_{M,S}^2$	Studentized COLS	0.5283	0.3734	0.2440	0.2127	0.6364	0.5117	0.3905	0.3337
	(24) $p_{M,S}^3$	Studentized AIPW	0.5011	0.3391	0.2010	<b>0.0336</b>	0.5003	0.6276	0.4294	0.3550
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.5007	0.3273	0.2271	<b>0.0900</b>	0.4889	0.5189	0.5528	0.5216
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5317	0.3858	0.2463	0.1123	0.6564	0.5207	0.4094	0.3557
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.5181	0.3600	0.2244	0.1264	0.4962	0.6397	0.4331	0.3932
	(28) $p_{R,S}^1$	Studentized UDIM	0.4858	0.3270	0.2397	<b>0.0925</b>	0.4780	0.5187	0.5586	0.5204
	(29) $p_{R,S}^2$	Studentized COLS	0.5307	0.3786	0.2450	0.2166	0.6564	0.5182	0.3913	0.3343
	(30) $p_{R,S}^3$	Studentized AIPW	0.5017	0.3460	0.2129	<b>0.0353</b>	0.5006	0.6288	0.4330	0.3582
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5157	0.4599	0.2762	0.1156	0.5069	0.6292	0.6880	0.6488
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.6259	0.4473	0.2646	0.1181	0.7138	0.5506	0.4852	0.3768
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.6225	0.3720	0.2863	0.1493	0.5137	0.6596	0.4596	0.4187
	(34) $p_{D,S}^1$	Studentized UDIM	0.5174	0.6730	0.3060	0.1029	0.5044	0.5683	0.6390	0.5387
	(35) $p_{D,S}^2$	Studentized COLS	0.5340	0.4130	0.2644	0.2764	0.7138	0.5427	0.3938	0.3382
	(36) $p_{D,S}^3$	Studentized AIPW	0.5439	0.4325	0.2212	<b>0.0431</b>	0.5313	0.6480	0.4663	0.4328

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative probation for any felonies				Cumulative prison sentence for violent felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		5.8462	10.237	11.367	8.9667	22.645	45.083	56.506	53.306
	(iii) Mean of the treatment group		4.5455	11.063	15.897	13.414	18.303	18.875	20.828	13.931
Estimates	(iv) UDIM (difference in means)		-1.3007	0.8257	4.5299	4.4471	-4.3423	-26.208	-35.678	-39.375
	(v) COLS (conditional OLS estimate)		-0.6663	3.6064	7.6452	8.2708	-4.6988	-29.475	-42.979	-45.151
	(vi) AIPW (augmented IPW estimate)		-1.1623	2.1107	7.0388	7.8227	-4.1911	-26.134	-36.846	-38.649
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.3490	0.4359	0.2326	0.2276	0.3874	<b>0.0838</b>	<b>0.0584</b>	<b>0.0309</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.4298	0.2469	0.1085	<b>0.0761</b>	0.3784	<b>0.0818</b>	<b>0.0529</b>	<b>0.0349</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3678	0.3327	0.1182	<b>0.0806</b>	0.3800	<b>0.0791</b>	<b>0.0450</b>	<b>0.0285</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.3456	0.4334	0.2234	0.2119	0.3836	<b>0.0862</b>	<b>0.0621</b>	<b>0.0333</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.4272	0.2439	0.1070	<b>0.0672</b>	0.3755	<b>0.0870</b>	<b>0.0618</b>	<b>0.0422</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.3761	0.3395	0.1262	<b>0.0770</b>	0.3774	<b>0.0947</b>	<b>0.0596</b>	<b>0.0400</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3452	0.4380	0.2168	0.2144	0.3960	<b>0.0860</b>	<b>0.0636</b>	<b>0.0272</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4268	0.2476	0.1060	<b>0.0648</b>	0.3968	<b>0.0804</b>	<b>0.0576</b>	<b>0.0272</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3856	0.3144	0.1104	<b>0.0616</b>	0.3944	<b>0.0920</b>	<b>0.0616</b>	<b>0.0380</b>
	(10) $p_{B,S}^1$	Studentized UDIM	0.3188	0.4032	0.1504	0.1392	0.3536	<b>0.0088</b>	<b>0.0020</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.4220	0.1620	<b>0.0380</b>	<b>0.0104</b>	0.3356	<b>0.0024</b>	<b>0.0012</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.3488	0.3108	<b>0.0792</b>	<b>0.0280</b>	0.3360	<b>0.0112</b>	<b>0.0028</b>	<b>0.0008</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3604	0.4712	0.2648	0.2648	0.4304	0.1128	<b>0.0780</b>	<b>0.0412</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4396	0.2812	0.1472	0.1132	0.4276	<b>0.0864</b>	<b>0.0384</b>	<b>0.0204</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3812	0.3836	0.1780	0.1276	0.4380	0.1216	<b>0.0800</b>	<b>0.0504</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.3592	0.4704	0.2588	0.2608	0.4284	0.1124	<b>0.0840</b>	<b>0.0480</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.4452	0.2856	0.1380	<b>0.0972</b>	0.4240	0.1124	<b>0.0824</b>	<b>0.0516</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.3912	0.3764	0.1576	0.1080	0.4276	0.1224	<b>0.0792</b>	<b>0.0548</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4181	0.5562	0.3813	0.3437	0.5183	0.1643	0.1151	<b>0.0671</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4748	0.4139	0.2595	0.2237	0.5343	0.1658	0.1031	<b>0.0603</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4297	0.5680	0.3098	0.2573	0.5475	0.2038	0.1512	0.1117
	(22) $p_{M,S}^1$	Studentized UDIM	0.4165	0.5566	0.3772	0.3382	0.5146	0.1658	0.1251	<b>0.0865</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.4835	0.4212	0.2267	0.1952	0.5262	0.1776	0.1401	0.1031
	(24) $p_{M,S}^3$	Studentized AIPW	0.4430	0.5596	0.2718	0.2061	0.5419	0.2028	0.1491	0.1206
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4221	0.5598	0.3889	0.3470	0.5257	0.1659	0.1156	<b>0.0671</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4860	0.4156	0.2612	0.2248	0.5355	0.1666	0.1054	<b>0.0620</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4341	0.5762	0.3129	0.2595	0.5514	0.2059	0.1515	0.1129
	(28) $p_{R,S}^1$	Studentized UDIM	0.4202	0.5602	0.3834	0.3428	0.5253	0.1669	0.1259	<b>0.0869</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.4873	0.4230	0.2298	0.2022	0.5325	0.1825	0.1428	0.1062
	(30) $p_{R,S}^3$	Studentized AIPW	0.4577	0.5596	0.2847	0.2093	0.5502	0.2080	0.1503	0.1243
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4585	0.5865	0.4342	0.3855	0.6840	0.1754	0.1208	<b>0.0688</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5345	0.4327	0.2963	0.2803	0.6080	0.1713	0.1068	0.1904
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4673	0.6427	0.4028	0.2812	0.6377	0.2193	0.1719	0.1544
	(34) $p_{D,S}^1$	Studentized UDIM	0.4504	0.5865	0.4235	0.3869	0.6635	0.1729	0.1610	0.1113
	(35) $p_{D,S}^2$	Studentized COLS	0.5855	0.4366	0.2400	0.2522	0.5909	0.2087	0.1555	0.1239
	(36) $p_{D,S}^3$	Studentized AIPW	0.6598	0.5907	0.2847	0.2458	0.6589	0.2571	0.1570	0.1513

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Cumulative prison sentence for classified felonies				Cumulative prison sentence for any felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		36.538	61.816	70.833	66.400	39.000	66.079	75.267	70.833
	(iii) Mean of the treatment group		28.970	49.750	57.517	46.897	30.485	51.375	59.310	47.448
Estimates	(iv) UDIM (difference in means)		-7.5688	-12.066	-13.316	-19.503	-8.5152	-14.704	-15.956	-23.385
	(v) COLS (conditional OLS estimate)		-9.0916	-12.509	-15.660	-19.695	-9.1949	-14.376	-17.538	-22.646
	(vi) AIPW (augmented IPW estimate)		-9.2724	-11.832	-11.680	-15.097	-9.8411	-14.046	-14.012	-18.385
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.3490	0.3236	0.3353	0.2504	0.3363	0.2932	0.3093	0.2152
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3214	0.3303	0.3228	0.2695	0.3234	0.3099	0.3060	0.2423
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.2995	0.3152	0.3452	0.2921	0.2938	0.2880	0.3192	0.2554
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.3431	0.3226	0.3354	0.2481	0.3294	0.2915	0.3092	0.2130
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3148	0.3320	0.3282	0.2749	0.3163	0.3112	0.3117	0.2486
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.2937	0.3295	0.3563	0.3054	0.2869	0.3028	0.3320	0.2708
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3452	0.3164	0.3288	0.2508	0.3252	0.2880	0.3068	0.2144
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3160	0.3340	0.3288	0.2804	0.3152	0.3124	0.3104	0.2532
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3008	0.3436	0.3864	0.3388	0.2920	0.3168	0.3600	0.3024
	(10) $p_{B,S}^1$	Studentized UDIM	0.3096	0.2744	0.2848	0.1808	0.2864	0.2380	0.2528	0.1460
	(11) $p_{B,S}^2$	Studentized COLS	0.2584	0.2916	0.2708	0.1932	0.2540	0.2608	0.2464	0.1660
	(12) $p_{B,S}^3$	Studentized AIPW	0.2288	0.2704	0.2916	0.2140	0.2168	0.2364	0.2568	0.1792
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3832	0.3380	0.3396	0.2656	0.3736	0.3092	0.3212	0.2388
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3688	0.3344	0.3320	0.2760	0.3748	0.3152	0.3184	0.2416
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3660	0.3492	0.3792	0.3284	0.3612	0.3228	0.3552	0.2944
	(16) $p_{P,S}^1$	Studentized UDIM	0.3816	0.3396	0.3392	0.2680	0.3736	0.3084	0.3220	0.2404
	(17) $p_{P,S}^2$	Studentized COLS	0.3644	0.3500	0.3448	0.2996	0.3648	0.3252	0.3312	0.2696
	(18) $p_{P,S}^3$	Studentized AIPW	0.3528	0.3424	0.3712	0.3236	0.3448	0.3184	0.3504	0.2892
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4647	0.3722	0.3823	0.2927	0.4778	0.3629	0.3655	0.2703
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4765	0.4321	0.4290	0.3526	0.4815	0.4200	0.4175	0.3347
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4746	0.4486	0.4674	0.4273	0.4812	0.4284	0.4530	0.3894
	(22) $p_{M,S}^1$	Studentized UDIM	0.4600	0.3700	0.3798	0.2972	0.4721	0.3629	0.3655	0.2709
	(23) $p_{M,S}^2$	Studentized COLS	0.4545	0.4416	0.4421	0.3871	0.4721	0.4251	0.4235	0.3610
	(24) $p_{M,S}^3$	Studentized AIPW	0.4557	0.4442	0.4673	0.4264	0.4651	0.4254	0.4413	0.3828
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4772	0.3729	0.3868	0.2961	0.4827	0.3634	0.3739	0.2749
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4803	0.4327	0.4325	0.3611	0.4840	0.4211	0.4236	0.3429
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4811	0.4487	0.4749	0.4375	0.4831	0.4293	0.4647	0.3960
	(28) $p_{R,S}^1$	Studentized UDIM	0.4721	0.3707	0.3837	0.3005	0.4781	0.3634	0.3739	0.2817
	(29) $p_{R,S}^2$	Studentized COLS	0.4610	0.4421	0.4450	0.3999	0.4798	0.4257	0.4283	0.3674
	(30) $p_{R,S}^3$	Studentized AIPW	0.4615	0.4444	0.4765	0.4366	0.4667	0.4263	0.4518	0.3828
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5278	0.4013	0.4067	0.3337	0.5647	0.3789	0.4266	0.3230
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5273	0.5208	0.4601	0.4166	0.5230	0.4449	0.4573	0.4355
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.5563	0.4779	0.5923	0.5390	0.5008	0.5528	0.5923	0.4811
	(34) $p_{D,S}^1$	Studentized UDIM	0.5686	0.3800	0.4166	0.3592	0.5947	0.3789	0.4254	0.3271
	(35) $p_{D,S}^2$	Studentized COLS	0.4927	0.4870	0.4609	0.4750	0.5317	0.4633	0.5891	0.3805
	(36) $p_{D,S}^3$	Studentized AIPW	0.5899	0.4452	0.6066	0.5253	0.6337	0.4365	0.5486	0.4755

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	One or more felony arrests for violent crime				One or more felony arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.3333	0.3947	0.4333	0.3667	0.5128	0.6053	0.6333	0.4333
	(iii) Mean of the treatment group		0.3333	0.3750	0.4483	0.2414	0.4545	0.5000	0.5862	0.3448
Estimates	(iv) UDIM (difference in means)		0.0000	-0.0197	0.0149	-0.1253	-0.0583	-0.1053	-0.0471	-0.0885
	(v) COLS (conditional OLS estimate)		0.0487	0.0582	0.0944	-0.0477	-0.0312	-0.0647	0.0027	-0.0315
	(vi) AIPW (augmented IPW estimate)		0.1211	0.1181	0.1409	0.0069	0.0360	-0.0064	0.0545	0.0191
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.5000	0.4296	0.4511	0.1418	0.3044	0.1788	0.3510	0.2276
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3364	0.3056	0.2191	0.3434	0.3973	0.2878	0.4909	0.4002
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1149	0.1189	<b>0.0898</b>	0.4751	0.3675	0.4751	0.3039	0.4354
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.5000	0.4328	0.4539	0.1331	0.3112	0.1847	0.3550	0.2289
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3421	0.3144	0.2381	0.3446	0.4016	0.2904	0.4916	0.4047
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1507	0.1611	0.1324	0.4771	0.3819	0.4774	0.3302	0.4429
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.4972	0.4240	0.4712	0.1340	0.3024	0.1820	0.3468	0.2356
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3544	0.3156	0.2480	0.3256	0.3852	0.2692	0.4940	0.4024
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1844	0.1856	0.1516	0.4688	0.4212	0.4404	0.3524	0.4916
	(10) $p_{B,S}^1$	Studentized UDIM	0.4920	0.4112	0.4348	<b>0.0748</b>	0.2656	0.1168	0.3144	0.1544
	(11) $p_{B,S}^2$	Studentized COLS	0.2748	0.2472	0.1636	0.2960	0.3948	0.2508	0.4692	0.3768
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0644</b>	<b>0.0832</b>	<b>0.0664</b>	0.4188	0.3104	0.4856	0.2484	0.3780
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.4868	0.4120	0.5096	0.1276	0.3064	0.1808	0.3524	0.2140
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3344	0.3268	0.2420	0.2840	0.4032	0.2740	0.4976	0.3688
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1432	0.1588	0.1372	0.4764	0.3688	0.4724	0.3336	0.4520
	(16) $p_{P,S}^1$	Studentized UDIM	0.4868	0.3880	0.4936	0.1184	0.2900	0.1672	0.3444	0.1980
	(17) $p_{P,S}^2$	Studentized COLS	0.3444	0.3380	0.2572	0.2964	0.4076	0.2864	0.4976	0.3732
	(18) $p_{P,S}^3$	Studentized AIPW	0.1376	0.1520	0.1336	0.4752	0.3672	0.4708	0.3284	0.4528
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.6063	0.4663	0.6604	0.1684	0.3157	0.1622	0.2741	0.1697
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4484	0.4668	0.3669	0.3469	0.4344	0.2669	0.7418	0.2908
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.2465	0.2919	0.2509	0.6796	0.5505	0.4528	0.6175	0.7406
	(22) $p_{M,S}^1$	Studentized UDIM	0.6045	0.4442	0.6433	0.1654	0.2794	0.1484	0.2676	0.1613
	(23) $p_{M,S}^2$	Studentized COLS	0.4583	0.4715	0.3779	0.3537	0.4377	0.2768	0.7407	0.2908
	(24) $p_{M,S}^3$	Studentized AIPW	0.2380	0.2845	0.2419	0.6804	0.5514	0.4528	0.6138	0.7411
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.6081	0.4695	0.6731	0.1734	0.3177	0.1661	0.2744	0.1766
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4603	0.4679	0.3669	0.3507	0.4516	0.2734	0.7497	0.2966
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.2505	0.2966	0.2572	0.6798	0.5533	0.4558	0.6229	0.7419
	(28) $p_{R,S}^1$	Studentized UDIM	0.6072	0.4455	0.6534	0.1724	0.2803	0.1489	0.2687	0.1741
	(29) $p_{R,S}^2$	Studentized COLS	0.4638	0.4747	0.3847	0.3560	0.4560	0.2896	0.7491	0.2966
	(30) $p_{R,S}^3$	Studentized AIPW	0.2447	0.2900	0.2490	0.6811	0.5548	0.4558	0.6177	0.7415
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.6421	0.5309	0.7524	0.2007	0.3177	0.2381	0.3082	0.2303
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5481	0.5020	0.3795	0.3695	0.6401	0.4174	0.7741	0.3096
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2691	0.3498	0.3142	0.7356	0.5999	0.4925	0.6603	0.7741
	(34) $p_{D,S}^1$	Studentized UDIM	0.6626	0.5188	0.7439	0.1998	0.3186	0.2080	0.2781	0.2351
	(35) $p_{D,S}^2$	Studentized COLS	0.5644	0.5157	0.4363	0.4956	0.5641	0.3909	0.7846	0.3466
	(36) $p_{D,S}^3$	Studentized AIPW	0.2948	0.3133	0.4135	0.7864	0.5883	0.4925	0.6556	0.8087

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	One or more felony arrests for any crime				One or more felony convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.5128	0.6053	0.6333	0.4333	0.2051	0.2895	0.3667	0.3000
	(iii) Mean of the treatment group		0.4848	0.5313	0.6207	0.3793	0.2121	0.2188	0.2414	0.0690
Estimates	(iv) UDIM (difference in means)		−0.0280	−0.0740	−0.0126	−0.0540	0.0070	−0.0707	−0.1253	−0.2310
	(v) COLS (conditional OLS estimate)		0.0021	−0.0295	0.0395	0.0054	0.0318	−0.0223	−0.0872	−0.1995
	(vi) AIPW (augmented IPW estimate)		0.0662	0.0244	0.0866	0.0512	0.0409	−0.0103	−0.0714	−0.1788
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.4065	0.2659	0.4600	0.3208	0.4698	0.2364	0.1309	<b>0.0065</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.4932	0.4010	0.3677	0.4818	0.3808	0.4181	0.2498	<b>0.0242</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.2719	0.4077	0.2093	0.3246	0.3515	0.4635	0.2860	<b>0.0257</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.4068	0.2638	0.4600	0.3293	0.4704	0.2463	0.1491	<b>0.0077</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.4932	0.3975	0.3716	0.4835	0.3801	0.4200	0.2623	<b>0.0297</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.2868	0.4126	0.2372	0.3503	0.3637	0.4674	0.3106	<b>0.0388</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3804	0.2544	0.4484	0.3236	0.4956	0.2512	0.1400	<b>0.0092</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4876	0.3612	0.3824	0.4824	0.4044	0.4064	0.2516	<b>0.0296</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3192	0.4552	0.2560	0.3944	0.3772	0.4648	0.3264	<b>0.0428</b>
	(10) $p_{B,S}^1$	Studentized UDIM	0.3840	0.1932	0.4600	0.2724	0.4400	0.1792	<b>0.0844</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.4676	0.3980	0.3072	0.4796	0.3376	0.4192	0.2124	<b>0.0032</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.2048	0.3488	0.1512	0.2628	0.3416	0.4680	0.2740	<b>0.0084</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.4196	0.2760	0.4812	0.3112	0.4868	0.2344	0.1176	<b>0.0056</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4788	0.4032	0.3808	0.4924	0.3704	0.3932	0.1972	<b>0.0132</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.2776	0.4132	0.2408	0.3452	0.3384	0.4368	0.2344	<b>0.0236</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.4024	0.2652	0.4788	0.3020	0.4604	0.2080	0.1176	<b>0.0056</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.4792	0.4064	0.3728	0.4924	0.3804	0.3980	0.2260	<b>0.0188</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.2760	0.4116	0.2368	0.3464	0.3564	0.4424	0.2676	<b>0.0240</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4024	0.2336	0.3860	0.2293	0.5407	0.3574	0.1621	<b>0.0222</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.6491	0.4009	0.6455	0.7886	0.4409	0.4758	0.2476	<b>0.0328</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4476	0.6614	0.5142	0.6593	0.3994	0.5227	0.3108	<b>0.0501</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.3814	0.2255	0.3804	0.2281	0.5031	0.3160	0.1621	<b>0.0262</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.6491	0.4064	0.6430	0.7886	0.4444	0.4829	0.2808	<b>0.0501</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.4491	0.6614	0.5067	0.6629	0.4089	0.5240	0.3394	<b>0.0658</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4040	0.2361	0.3905	0.2305	0.5608	0.3614	0.1629	<b>0.0240</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.6498	0.4029	0.6464	0.7916	0.4507	0.4764	0.2512	<b>0.0352</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4492	0.6614	0.5159	0.6608	0.4037	0.5313	0.3157	<b>0.0526</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.3853	0.2283	0.3845	0.2287	0.5213	0.3168	0.1629	<b>0.0277</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.6498	0.4110	0.6483	0.7916	0.4543	0.4852	0.2821	<b>0.0510</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.4570	0.6639	0.5111	0.6632	0.4114	0.5325	0.3420	<b>0.0756</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4648	0.2695	0.4122	0.2495	0.6879	0.3984	0.1909	<b>0.0306</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.6579	0.4246	0.7391	0.8644	0.5334	0.5135	0.3153	<b>0.0644</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4838	0.6789	0.5255	0.6773	0.4401	0.5738	0.4792	<b>0.0745</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.4357	0.2474	0.4293	0.2309	0.6001	0.3352	0.1909	<b>0.0469</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.6784	0.4256	0.6869	0.8644	0.4852	0.5296	0.3393	<b>0.0775</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.4934	0.7014	0.5691	0.7482	0.5173	0.5974	0.4269	0.1381

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	One or more felony convictions for classified crime				One or more felony convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.3333	0.4474	0.4667	0.3000	0.3590	0.4737	0.4667	0.3000
	(iii) Mean of the treatment group		0.3333	0.4063	0.4483	0.2414	0.3636	0.4375	0.5172	0.2759
Estimates	(iv) UDIM (difference in means)		0.0000	-0.0411	-0.0184	-0.0586	0.0047	-0.0362	0.0506	-0.0241
	(v) COLS (conditional OLS estimate)		0.0290	0.0069	0.0314	-0.0196	0.0199	-0.0032	0.0825	0.0017
	(vi) AIPW (augmented IPW estimate)		0.0317	0.0091	0.0356	-0.0095	0.0224	-0.0015	0.0906	0.0189
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.5000	0.3626	0.4448	0.3095	0.4832	0.3794	0.3510	0.4205
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.4030	0.4780	0.4122	0.4366	0.4352	0.4901	0.2802	0.4945
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.3960	0.4716	0.3991	0.4652	0.4276	0.4954	0.2569	0.4321
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.5000	0.3625	0.4435	0.2957	0.4835	0.3793	0.3503	0.4149
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.4029	0.4774	0.4100	0.4325	0.4350	0.4898	0.2770	0.4942
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.4040	0.4740	0.4082	0.4664	0.4332	0.4958	0.2782	0.4356
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.4872	0.3512	0.4220	0.3000	0.4940	0.3736	0.3632	0.4140
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4196	0.4996	0.4220	0.4272	0.4580	0.4668	0.2900	0.4972
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3984	0.4716	0.3908	0.4776	0.4328	0.4948	0.2568	0.4220
	(10) $p_{B,S}^1$	Studentized UDIM	0.4824	0.3188	0.4368	0.2380	0.4628	0.3452	0.2984	0.3872
	(11) $p_{B,S}^2$	Studentized COLS	0.3572	0.4460	0.3788	0.4164	0.3872	0.4876	0.2260	0.4936
	(12) $p_{B,S}^3$	Studentized AIPW	0.3972	0.4720	0.4156	0.4472	0.4240	0.4984	0.2824	0.4292
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.4864	0.3460	0.4204	0.2748	0.4964	0.3544	0.3908	0.4040
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4012	0.4936	0.4460	0.3936	0.4252	0.4576	0.3040	0.4656
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3932	0.4984	0.4460	0.4244	0.4224	0.4608	0.2864	0.4800
	(16) $p_{P,S}^1$	Studentized UDIM	0.4864	0.3164	0.4088	0.2592	0.4748	0.3352	0.3728	0.3828
	(17) $p_{P,S}^2$	Studentized COLS	0.4052	0.4932	0.4524	0.3928	0.4312	0.4588	0.3188	0.4644
	(18) $p_{P,S}^3$	Studentized AIPW	0.4036	0.4952	0.4568	0.4228	0.4364	0.4612	0.3084	0.4776
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.5850	0.4158	0.4889	0.2948	0.6167	0.3978	0.5359	0.3970
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.5051	0.6166	0.5704	0.4149	0.5352	0.5451	0.4102	0.6801
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.5076	0.6385	0.5569	0.4510	0.5330	0.5419	0.4039	0.6138
	(22) $p_{M,S}^1$	Studentized UDIM	0.5842	0.3811	0.4731	0.2817	0.5882	0.3805	0.5148	0.3761
	(23) $p_{M,S}^2$	Studentized COLS	0.5051	0.6166	0.5727	0.4146	0.5396	0.5451	0.4135	0.6801
	(24) $p_{M,S}^3$	Studentized AIPW	0.5120	0.6402	0.5735	0.4503	0.5411	0.5423	0.4293	0.6097
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.5859	0.4197	0.4931	0.2980	0.6174	0.3986	0.5362	0.4041
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5123	0.6189	0.5782	0.4192	0.5409	0.5544	0.4221	0.6954
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.5104	0.6394	0.5677	0.4532	0.5397	0.5502	0.4042	0.6191
	(28) $p_{R,S}^1$	Studentized UDIM	0.5848	0.3832	0.4746	0.2876	0.5958	0.3853	0.5169	0.3815
	(29) $p_{R,S}^2$	Studentized COLS	0.5123	0.6194	0.5778	0.4164	0.5462	0.5544	0.4258	0.6954
	(30) $p_{R,S}^3$	Studentized AIPW	0.5157	0.6418	0.5859	0.4526	0.5480	0.5507	0.4306	0.6124
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.6269	0.4556	0.5371	0.3221	0.6659	0.4075	0.6021	0.4497
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5863	0.6568	0.6237	0.4340	0.5749	0.6080	0.4413	0.8342
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.5288	0.6455	0.6118	0.5397	0.6177	0.6714	0.4737	0.7028
	(34) $p_{D,S}^1$	Studentized UDIM	0.6682	0.4473	0.4866	0.3546	0.6448	0.4140	0.5399	0.4419
	(35) $p_{D,S}^2$	Studentized COLS	0.5556	0.6568	0.5903	0.4340	0.5503	0.6080	0.5106	0.8342
	(36) $p_{D,S}^3$	Studentized AIPW	0.5157	0.6565	0.6613	0.5257	0.6155	0.7035	0.4429	0.6365

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony arrests for violent crime				Two or more felony arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.2051	0.2895	0.3667	0.3333	0.3590	0.4737	0.5000	0.3667
	(iii) Mean of the treatment group		0.0606	0.0938	0.1379	0.1034	0.2121	0.3125	0.4138	0.3103
Estimates	(iv) UDIM (difference in means)		-0.1445	-0.1957	-0.2287	-0.2299	-0.1469	-0.1612	-0.0862	-0.0563
	(v) COLS (conditional OLS estimate)		-0.1490	-0.1999	-0.2618	-0.2539	-0.1793	-0.1819	-0.1249	-0.0953
	(vi) AIPW (augmented IPW estimate)		-0.1461	-0.1963	-0.2560	-0.2425	-0.1846	-0.1877	-0.1328	-0.1011
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0334</b>	<b>0.0156</b>	<b>0.0190</b>	<b>0.0145</b>	<b>0.0803</b>	<b>0.0894</b>	0.2696	0.3409
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0371</b>	<b>0.0191</b>	<b>0.0121</b>	<b>0.0120</b>	<b>0.0595</b>	<b>0.0800</b>	0.1935	0.2614
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0249</b>	<b>0.0103</b>	<b>0.0047</b>	<b>0.0053</b>	<b>0.0356</b>	<b>0.0522</b>	0.1550	0.2270
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0218</b>	<b>0.0108</b>	<b>0.0165</b>	<b>0.0119</b>	<b>0.0747</b>	<b>0.0784</b>	0.2483	0.3169
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0251</b>	<b>0.0145</b>	<b>0.0122</b>	<b>0.0114</b>	<b>0.0517</b>	<b>0.0653</b>	0.1657	0.2328
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0186</b>	<b>0.0105</b>	<b>0.0073</b>	<b>0.0080</b>	<b>0.0362</b>	<b>0.0524</b>	0.1521	0.2186
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0184</b>	<b>0.0136</b>	<b>0.0164</b>	<b>0.0132</b>	<b>0.0704</b>	<b>0.0748</b>	0.2372	0.3160
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0172</b>	<b>0.0168</b>	<b>0.0136</b>	<b>0.0112</b>	<b>0.0508</b>	<b>0.0588</b>	0.1612	0.2392
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0124</b>	<b>0.0112</b>	<b>0.0104</b>	<b>0.0092</b>	<b>0.0384</b>	<b>0.0556</b>	0.1712	0.2312
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0008</b>	<b>0.0016</b>	<b>0.0052</b>	<b>0.0020</b>	<b>0.0380</b>	<b>0.0424</b>	0.1968	0.2748
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0016</b>	<b>0.0020</b>	<b>0.0032</b>	<b>0.0032</b>	<b>0.0232</b>	<b>0.0436</b>	0.1268	0.1744
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0012</b>	<b>0.0012</b>	<b>0.0016</b>	<b>0.0020</b>	<b>0.0116</b>	<b>0.0300</b>	<b>0.0948</b>	0.1572
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0476</b>	<b>0.0188</b>	<b>0.0192</b>	<b>0.0132</b>	0.1052	<b>0.0912</b>	0.2488	0.3088
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0448</b>	<b>0.0152</b>	<b>0.0052</b>	<b>0.0040</b>	<b>0.0632</b>	<b>0.0608</b>	0.1596	0.2164
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0472</b>	<b>0.0144</b>	<b>0.0084</b>	<b>0.0092</b>	<b>0.0552</b>	<b>0.0540</b>	0.1460	0.2092
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0468</b>	<b>0.0184</b>	<b>0.0188</b>	<b>0.0116</b>	0.1008	<b>0.0876</b>	0.2432	0.3120
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0492</b>	<b>0.0184</b>	<b>0.0100</b>	<b>0.0084</b>	<b>0.0744</b>	<b>0.0740</b>	0.1716	0.2348
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0392</b>	<b>0.0132</b>	<b>0.0056</b>	<b>0.0056</b>	<b>0.0556</b>	<b>0.0572</b>	0.1488	0.2100
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0926</b>	<b>0.0456</b>	<b>0.0417</b>	<b>0.0424</b>	0.1400	0.1097	0.2552	0.2959
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0940</b>	<b>0.0453</b>	<b>0.0387</b>	<b>0.0386</b>	0.1085	0.1173	0.2870	0.2924
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0981</b>	<b>0.0487</b>	<b>0.0429</b>	<b>0.0420</b>	0.1015	0.1090	0.2721	0.2851
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0926</b>	<b>0.0436</b>	<b>0.0445</b>	<b>0.0427</b>	0.1383	0.1057	0.2519	0.2961
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0966</b>	<b>0.0545</b>	<b>0.0598</b>	<b>0.0447</b>	0.1261	0.1387	0.2983	0.3117
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0906</b>	<b>0.0472</b>	<b>0.0390</b>	<b>0.0363</b>	0.1031	0.1174	0.2770	0.2830
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0973</b>	<b>0.0471</b>	<b>0.0428</b>	<b>0.0424</b>	0.1406	0.1121	0.2596	0.2992
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0983</b>	<b>0.0500</b>	<b>0.0421</b>	<b>0.0411</b>	0.1094	0.1199	0.2903	0.2935
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1021	<b>0.0500</b>	<b>0.0451</b>	<b>0.0436</b>	0.1065	0.1104	0.2783	0.2886
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0973</b>	<b>0.0491</b>	<b>0.0459</b>	<b>0.0430</b>	0.1401	0.1063	0.2562	0.2996
	(29) $p_{R,S}^2$	Studentized COLS	0.1007	<b>0.0548</b>	<b>0.0609</b>	<b>0.0477</b>	0.1336	0.1391	0.2994	0.3134
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0961</b>	<b>0.0500</b>	<b>0.0417</b>	<b>0.0391</b>	0.1059	0.1214	0.2803	0.2867
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1150	<b>0.0603</b>	<b>0.0636</b>	<b>0.0738</b>	0.2456	0.1388	0.2801	0.3253
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1123	<b>0.0784</b>	<b>0.0491</b>	<b>0.0569</b>	0.1493	0.1387	0.3370	0.4500
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1162	<b>0.0875</b>	<b>0.0557</b>	<b>0.0664</b>	0.1566	0.1423	0.3078	0.3324
	(34) $p_{D,S}^1$	Studentized UDIM	0.1150	<b>0.0900</b>	<b>0.0634</b>	<b>0.0738</b>	0.2456	0.1250	0.2902	0.4148
	(35) $p_{D,S}^2$	Studentized COLS	0.1337	<b>0.0752</b>	<b>0.0648</b>	<b>0.0620</b>	0.1920	0.1887	0.3632	0.3605
	(36) $p_{D,S}^3$	Studentized AIPW	0.1182	<b>0.0678</b>	<b>0.0693</b>	<b>0.0553</b>	0.1264	0.1899	0.3169	0.3481

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony arrests for any crime				Two or more felony convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.3590	0.4737	0.5000	0.3667	0.1538	0.2632	0.3333	0.3000
	(iii) Mean of the treatment group		0.2424	0.3750	0.4828	0.3793	0.0606	0.0625	0.0690	0.0345
Estimates	(iv) UDIM (difference in means)		-0.1166	-0.0987	-0.0172	0.0126	-0.0932	-0.2007	-0.2644	-0.2655
	(v) COLS (conditional OLS estimate)		-0.1452	-0.1006	-0.0553	-0.0257	-0.0905	-0.2004	-0.2912	-0.2834
	(vi) AIPW (augmented IPW estimate)		-0.1571	-0.1069	-0.0514	-0.0197	-0.0969	-0.1968	-0.2737	-0.2601
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1379	0.2043	0.4499	0.4632	<b>0.0991</b>	<b>0.0085</b>	<b>0.0039</b>	<b>0.0019</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1069	0.2015	0.3367	0.4280	0.1132	<b>0.0106</b>	<b>0.0031</b>	<b>0.0021</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0656</b>	0.1587	0.3290	0.4381	<b>0.0762</b>	<b>0.0057</b>	<b>0.0012</b>	<b>0.0009</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1343	0.1996	0.4463	0.4580	<b>0.0827</b>	<b>0.0045</b>	<b>0.0023</b>	<b>0.0010</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1005	0.1968	0.3289	0.4217	<b>0.0987</b>	<b>0.0077</b>	<b>0.0027</b>	<b>0.0016</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0692</b>	0.1718	0.3395	0.4393	<b>0.0709</b>	<b>0.0051</b>	<b>0.0020</b>	<b>0.0016</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1308	0.1916	0.4424	0.4684	<b>0.0832</b>	<b>0.0040</b>	<b>0.0016</b>	<b>0.0008</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1024	0.1768	0.3172	0.4236	<b>0.0980</b>	<b>0.0060</b>	<b>0.0020</b>	<b>0.0012</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0772</b>	0.1792	0.3632	0.4696	<b>0.0712</b>	<b>0.0040</b>	<b>0.0024</b>	<b>0.0024</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0760</b>	0.1428	0.4384	0.4464	<b>0.0240</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0516</b>	0.1544	0.2936	0.3976	<b>0.0224</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0008</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0284</b>	0.1148	0.2768	0.4036	<b>0.0112</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1752	0.2004	0.4320	0.5100	0.1328	<b>0.0152</b>	<b>0.0068</b>	<b>0.0036</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.1228	0.1824	0.3092	0.3872	0.1424	<b>0.0144</b>	<b>0.0028</b>	<b>0.0020</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0980</b>	0.1720	0.3108	0.4080	0.1228	<b>0.0160</b>	<b>0.0056</b>	<b>0.0048</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.1704	0.1796	0.4160	0.4944	0.1308	<b>0.0132</b>	<b>0.0072</b>	<b>0.0036</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.1404	0.1900	0.3092	0.3920	0.1384	<b>0.0144</b>	<b>0.0060</b>	<b>0.0044</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0976</b>	0.1616	0.3052	0.4064	<b>0.0992</b>	<b>0.0132</b>	<b>0.0052</b>	<b>0.0044</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.2141	0.2082	0.4411	0.7117	0.2552	<b>0.0398</b>	<b>0.0203</b>	<b>0.0158</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1703	0.2757	0.4313	0.4778	0.2437	<b>0.0390</b>	<b>0.0149</b>	<b>0.0105</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1468	0.2609	0.4472	0.4912	0.2127	<b>0.0460</b>	<b>0.0197</b>	<b>0.0257</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.2136	0.1910	0.4269	0.6943	0.2521	<b>0.0385</b>	<b>0.0202</b>	<b>0.0156</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.1993	0.2876	0.4390	0.4778	0.2566	<b>0.0432</b>	<b>0.0210</b>	<b>0.0202</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.1533	0.2578	0.4330	0.4912	0.1832	<b>0.0412</b>	<b>0.0208</b>	<b>0.0220</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.2173	0.2095	0.4462	0.7126	0.2602	<b>0.0400</b>	<b>0.0204</b>	<b>0.0158</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1776	0.2817	0.4408	0.4805	0.2440	<b>0.0414</b>	<b>0.0150</b>	<b>0.0109</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1474	0.2611	0.4532	0.5010	0.2139	<b>0.0471</b>	<b>0.0198</b>	<b>0.0290</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.2153	0.1937	0.4314	0.7016	0.2540	<b>0.0391</b>	<b>0.0205</b>	<b>0.0156</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.2131	0.2899	0.4492	0.4805	0.2568	<b>0.0447</b>	<b>0.0229</b>	<b>0.0204</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.1608	0.2599	0.4371	0.5010	0.1861	<b>0.0419</b>	<b>0.0217</b>	<b>0.0228</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.2831	0.2724	0.5390	0.7368	0.2878	<b>0.0555</b>	<b>0.0206</b>	<b>0.0232</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2110	0.4995	0.5978	0.5703	0.2594	<b>0.0686</b>	<b>0.0165</b>	<b>0.0144</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2039	0.3113	0.4922	0.6390	0.2237	<b>0.0588</b>	<b>0.0229</b>	<b>0.0564</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.3135	0.2701	0.5002	0.7968	0.2652	<b>0.0539</b>	<b>0.0259</b>	<b>0.0189</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.3194	0.4175	0.5423	0.5578	0.2571	<b>0.0555</b>	<b>0.0358</b>	<b>0.0301</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.1912	0.2907	0.4785	0.6391	0.2312	<b>0.0687</b>	<b>0.0295</b>	<b>0.0299</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 9: Treatment Effects on the Crime Outcomes of the Male Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony convictions for classified crime				Two or more felony convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		72	70	59	59	72	70	59	59
	(ii) Mean of the control group		0.2308	0.3947	0.4333	0.3667	0.2308	0.3947	0.4333	0.3667
	(iii) Mean of the treatment group		0.1818	0.2500	0.3103	0.2069	0.2121	0.2813	0.3448	0.2414
Estimates	(iv) UDIM (difference in means)		-0.0490	-0.1447	-0.1230	-0.1598	-0.0186	-0.1135	-0.0885	-0.1253
	(v) COLS (conditional OLS estimate)		-0.0463	-0.1465	-0.1318	-0.1477	-0.0152	-0.1010	-0.0835	-0.0995
	(vi) AIPW (augmented IPW estimate)		-0.0634	-0.1535	-0.1241	-0.1381	-0.0352	-0.1040	-0.0711	-0.0851
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.3041	0.1029	0.1723	<b>0.0978</b>	0.4247	0.1595	0.2454	0.1560
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3257	0.1113	0.1666	0.1357	0.4429	0.1913	0.2521	0.2186
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.2443	<b>0.0738</b>	0.1559	0.1267	0.3542	0.1559	0.2595	0.2281
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.3006	<b>0.0884</b>	0.1561	<b>0.0733</b>	0.4230	0.1490	0.2373	0.1337
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3218	<b>0.0986</b>	0.1514	0.1088	0.4413	0.1854	0.2513	0.2014
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.2482	<b>0.0776</b>	0.1673	0.1233	0.3566	0.1679	0.2816	0.2341
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.2892	<b>0.0840</b>	0.1560	<b>0.0740</b>	0.4164	0.1452	0.2276	0.1260
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3100	<b>0.0936</b>	0.1412	0.1132	0.4352	0.1732	0.2284	0.2068
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.2488	<b>0.0824</b>	0.1896	0.1408	0.3696	0.1736	0.3068	0.2592
	(10) $p_{B,S}^1$	Studentized UDIM	0.2572	<b>0.0512</b>	0.1044	<b>0.0344</b>	0.4164	<b>0.0928</b>	0.1848	<b>0.0760</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.2800	<b>0.0556</b>	0.1084	<b>0.0628</b>	0.4192	0.1216	0.2124	0.1404
	(12) $p_{B,S}^3$	Studentized AIPW	0.1768	<b>0.0368</b>	0.1100	<b>0.0656</b>	0.2976	0.1020	0.2188	0.1660
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3480	<b>0.0976</b>	0.1560	<b>0.0924</b>	0.4560	0.1576	0.2180	0.1464
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3540	<b>0.0900</b>	0.1320	0.1020	0.4636	0.1660	0.2120	0.1876
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.2896	<b>0.0820</b>	0.1532	0.1244	0.3812	0.1584	0.2440	0.2196
	(16) $p_{P,S}^1$	Studentized UDIM	0.3276	<b>0.0948</b>	0.1508	<b>0.0872</b>	0.4320	0.1380	0.2108	0.1416
	(17) $p_{P,S}^2$	Studentized COLS	0.3580	0.1040	0.1532	0.1232	0.4652	0.1744	0.2256	0.1980
	(18) $p_{P,S}^3$	Studentized AIPW	0.2808	<b>0.0760</b>	0.1500	0.1244	0.3748	0.1480	0.2408	0.2156
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4443	0.1616	0.1931	0.1442	0.5665	0.2121	0.2594	0.1944
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4396	0.1795	0.2227	0.1877	0.5623	0.2945	0.3275	0.2911
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.3759	0.1629	0.2501	0.2139	0.4997	0.2840	0.3747	0.3313
	(22) $p_{M,S}^1$	Studentized UDIM	0.4158	0.1552	0.1888	0.1409	0.5287	0.1852	0.2503	0.1944
	(23) $p_{M,S}^2$	Studentized COLS	0.4410	0.1993	0.2505	0.2128	0.5654	0.3025	0.3332	0.3082
	(24) $p_{M,S}^3$	Studentized AIPW	0.3723	0.1582	0.2506	0.2172	0.4997	0.2785	0.3627	0.3242
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4463	0.1655	0.1948	0.1501	0.5667	0.2183	0.2611	0.1974
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4505	0.1844	0.2279	0.1922	0.5658	0.2994	0.3403	0.2963
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.3844	0.1648	0.2628	0.2177	0.5090	0.2846	0.3802	0.3370
	(28) $p_{R,S}^1$	Studentized UDIM	0.4161	0.1586	0.1911	0.1424	0.5317	0.1857	0.2522	0.1965
	(29) $p_{R,S}^2$	Studentized COLS	0.4499	0.2023	0.2630	0.2129	0.5655	0.3067	0.3480	0.3140
	(30) $p_{R,S}^3$	Studentized AIPW	0.3814	0.1608	0.2782	0.2224	0.5090	0.2800	0.3651	0.3283
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4585	0.2075	0.2380	0.1624	0.6362	0.2378	0.2801	0.2290
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4930	0.2578	0.2603	0.2392	0.6272	0.3513	0.4424	0.3425
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4612	0.1790	0.4328	0.2740	0.5497	0.4095	0.4041	0.3883
	(34) $p_{D,S}^1$	Studentized UDIM	0.4519	0.2173	0.2284	0.1618	0.5733	0.1899	0.2632	0.2101
	(35) $p_{D,S}^2$	Studentized COLS	0.4839	0.2120	0.3525	0.2580	0.6273	0.3253	0.4573	0.3722
	(36) $p_{D,S}^3$	Studentized AIPW	0.4556	0.2487	0.4234	0.3126	0.5542	0.3171	0.4214	0.3947

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor arrests for violent crime				Cumulative misdemeanor arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.4231	0.6000	0.6000	0.5500	1.2308	1.4800	1.5500	1.3500
	(iii) Mean of the treatment group		0.0000	0.0400	0.0870	0.0870	0.2400	0.3200	0.4783	0.4348
Estimates	(iv) UDIM (difference in means)		-0.4231	-0.5600	-0.5130	-0.4630	-0.9908	-1.1600	-1.0717	-0.9152
	(v) COLS (conditional OLS estimate)		-0.4900	-0.5667	-0.5124	-0.4472	-1.1937	-1.3109	-1.3005	-1.0994
	(vi) AIPW (augmented IPW estimate)		-0.4367	-0.5281	-0.4748	-0.4145	-1.0553	-1.1842	-1.1676	-0.9776
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0672</b>	<b>0.0319</b>	<b>0.0806</b>	0.1013	<b>0.0817</b>	<b>0.0647</b>	0.1312	0.1709
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0673</b>	<b>0.0493</b>	0.1185	0.1491	<b>0.0733</b>	<b>0.0747</b>	0.1320	0.1743
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0601</b>	<b>0.0330</b>	0.1081	0.1381	<b>0.0665</b>	<b>0.0580</b>	0.1274	0.1716
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0663</b>	<b>0.0285</b>	<b>0.0798</b>	<b>0.0995</b>	<b>0.0780</b>	<b>0.0614</b>	0.1315	0.1680
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0760</b>	<b>0.0577</b>	0.1339	0.1621	<b>0.0785</b>	<b>0.0813</b>	0.1423	0.1812
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0770</b>	<b>0.0552</b>	0.1693	0.1960	<b>0.0805</b>	<b>0.0839</b>	0.1863	0.2237
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0400</b>	<b>0.0036</b>	<b>0.0428</b>	<b>0.0608</b>	<b>0.0516</b>	<b>0.0216</b>	0.1120	0.1892
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0400</b>	<b>0.0076</b>	<b>0.0968</b>	0.1328	<b>0.0304</b>	<b>0.0280</b>	0.1044	0.1912
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0400</b>	<b>0.0080</b>	0.1096	0.1500	<b>0.0332</b>	<b>0.0320</b>	0.1296	0.2248
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0036</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0056</b>	<b>0.0104</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0056</b>	<b>0.0208</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0052</b>	<b>0.0044</b>	<b>0.0536</b>	<b>0.0648</b>	<b>0.0072</b>	<b>0.0120</b>	<b>0.0588</b>	<b>0.0744</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0508</b>	<b>0.0068</b>	<b>0.0284</b>	<b>0.0464</b>	<b>0.0920</b>	<b>0.0320</b>	<b>0.0808</b>	0.1688
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0228</b>	<b>0.0116</b>	<b>0.0480</b>	<b>0.0800</b>	<b>0.0400</b>	<b>0.0248</b>	<b>0.0508</b>	0.1156
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0524</b>	<b>0.0236</b>	0.1032	0.1540	<b>0.0800</b>	<b>0.0572</b>	0.1288	0.2360
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0452</b>	<b>0.0116</b>	<b>0.0652</b>	<b>0.0884</b>	0.1044	<b>0.0600</b>	0.1400	0.2780
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0524</b>	<b>0.0304</b>	0.1228	0.1812	<b>0.0832</b>	<b>0.0732</b>	0.1484	0.2752
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0704</b>	<b>0.0300</b>	0.1616	0.2324	0.1060	<b>0.0752</b>	0.2212	0.3384
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0706</b>	<b>0.0424</b>	<b>0.0657</b>	<b>0.0900</b>	0.1202	<b>0.0680</b>	0.1087	0.2124
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0512</b>	<b>0.0449</b>	<b>0.0922</b>	0.1448	<b>0.0814</b>	<b>0.0652</b>	<b>0.0889</b>	0.1701
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0906</b>	<b>0.0774</b>	0.1722	0.2642	0.1237	0.1010	0.1917	0.2782
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0600</b>	<b>0.0597</b>	0.1467	0.1937	0.1193	<b>0.0959</b>	0.1783	0.3283
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0836</b>	<b>0.0920</b>	0.1876	0.2749	0.1029	0.1070	0.1708	0.3040
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0876</b>	<b>0.0847</b>	0.2254	0.3293	0.1177	0.1123	0.2210	0.3527
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0728</b>	<b>0.0435</b>	<b>0.0709</b>	<b>0.0937</b>	0.1230	<b>0.0748</b>	0.1105	0.2186
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0530</b>	<b>0.0453</b>	<b>0.0922</b>	0.1509	<b>0.0825</b>	<b>0.0653</b>	<b>0.0894</b>	0.1845
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0972</b>	<b>0.0791</b>	0.1782	0.2757	0.1242	0.1032	0.1958	0.2837
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0606</b>	<b>0.0615</b>	0.1502	0.2010	0.1226	<b>0.0973</b>	0.1793	0.3333
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0979</b>	<b>0.0933</b>	0.1920	0.2883	0.1072	0.1099	0.1719	0.3044
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0882</b>	<b>0.0895</b>	0.2260	0.3330	0.1183	0.1136	0.2250	0.3528
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1030	<b>0.0520</b>	<b>0.0866</b>	0.1428	0.1624	0.1409	0.1243	0.2961
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0731</b>	<b>0.0485</b>	0.1172	0.1655	<b>0.0985</b>	<b>0.0728</b>	<b>0.0964</b>	0.2502
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1588	0.1018	0.2164	0.3091	0.1377	0.1179	0.2525	0.3221
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0852</b>	0.1126	0.2101	0.2010	0.1389	0.1188	0.1978	0.3807
	(35) $p_{D,S}^2$	Studentized COLS	0.1688	0.1204	0.2195	0.3289	0.1184	0.1470	0.1970	0.3502
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0998</b>	0.1312	0.2378	0.3736	0.1386	0.1210	0.3242	0.3877

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor arrests for any crime				Cumulative misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		2.1923	3.8400	4.1500	3.9500	0.4231	0.4400	0.4500	0.4000
	(iii) Mean of the treatment group		0.7600	2.1200	2.4348	2.3913	0.0000	0.0000	0.0435	0.0435
Estimates	(iv) UDIM (difference in means)		-1.4323	-1.7200	-1.1752	-1.5587	-0.4231	-0.4400	-0.4065	-0.3565
	(v) COLS (conditional OLS estimate)		-1.7623	-1.6037	-1.8127	-1.6115	-0.4900	-0.5228	-0.4796	-0.4143
	(vi) AIPW (augmented IPW estimate)		-1.5091	-1.4569	-1.6857	-1.4956	-0.4367	-0.4713	-0.4365	-0.3762
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0602</b>	<b>0.0967</b>	0.1436	0.1669	<b>0.0672</b>	<b>0.0670</b>	0.1278	0.1561
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0426</b>	0.1337	0.1494	0.1767	<b>0.0673</b>	<b>0.0692</b>	0.1420	0.1742
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0434</b>	0.1255	0.1403	0.1675	<b>0.0601</b>	<b>0.0543</b>	0.1343	0.1665
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0585</b>	<b>0.0871</b>	0.1391	0.1589	<b>0.0663</b>	<b>0.0649</b>	0.1300	0.1576
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0483</b>	0.1381	0.1647	0.1878	<b>0.0760</b>	<b>0.0762</b>	0.1554	0.1857
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0574</b>	0.1507	0.1970	0.2187	<b>0.0770</b>	<b>0.0789</b>	0.1950	0.2233
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0452</b>	<b>0.0748</b>	0.1296	0.1540	<b>0.0400</b>	<b>0.0400</b>	0.1436	0.1856
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0240</b>	0.1076	0.1456	0.1760	<b>0.0400</b>	<b>0.0400</b>	0.1536	0.2212
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0312</b>	0.1232	0.1400	0.1648	<b>0.0400</b>	<b>0.0400</b>	0.1668	0.2240
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0016</b>	<b>0.0112</b>	<b>0.0348</b>	<b>0.0436</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0012</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0016</b>	<b>0.0412</b>	<b>0.0472</b>	<b>0.0684</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0144</b>	<b>0.0212</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0068</b>	<b>0.0660</b>	<b>0.0972</b>	0.1184	<b>0.0052</b>	<b>0.0096</b>	<b>0.0664</b>	<b>0.0772</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0648</b>	<b>0.0896</b>	0.1292	0.1488	<b>0.0508</b>	<b>0.0428</b>	<b>0.0964</b>	0.1396
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0244</b>	0.1320	0.1320	0.1628	<b>0.0228</b>	<b>0.0152</b>	<b>0.0580</b>	0.1056
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0616</b>	0.1592	0.1704	0.2068	<b>0.0524</b>	<b>0.0416</b>	0.1412	0.2144
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0704</b>	<b>0.0964</b>	0.1424	0.1704	<b>0.0452</b>	<b>0.0408</b>	0.1700	0.1952
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0464</b>	0.1432	0.1568	0.1908	<b>0.0524</b>	<b>0.0672</b>	0.2096	0.2976
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0676</b>	0.1632	0.1860	0.2160	<b>0.0704</b>	<b>0.0568</b>	0.2620	0.3520
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0813</b>	0.1945	0.2300	0.2645	<b>0.0706</b>	<b>0.0635</b>	0.1337	0.1978
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0525</b>	0.2277	0.2058	0.2696	<b>0.0512</b>	<b>0.0404</b>	<b>0.0858</b>	0.1554
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0881</b>	0.2727	0.2837	0.3364	<b>0.0906</b>	<b>0.0759</b>	0.1940	0.2690
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0889</b>	0.2123	0.2806	0.3136	<b>0.0600</b>	<b>0.0583</b>	0.1665	0.2015
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0739</b>	0.2437	0.2565	0.3073	<b>0.0836</b>	0.1049	0.2173	0.3185
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0879</b>	0.2739	0.2948	0.3388	<b>0.0876</b>	<b>0.0684</b>	0.2581	0.3597
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0827</b>	0.2026	0.2312	0.2656	<b>0.0728</b>	<b>0.0645</b>	0.1364	0.2019
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0567</b>	0.2331	0.2064	0.2739	<b>0.0530</b>	<b>0.0433</b>	<b>0.0906</b>	0.1634
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0920</b>	0.2742	0.2838	0.3424	<b>0.0972</b>	<b>0.0790</b>	0.1977	0.2729
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0897</b>	0.2124	0.2812	0.3202	<b>0.0606</b>	<b>0.0621</b>	0.1666	0.2040
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0782</b>	0.2454	0.2567	0.3101	<b>0.0979</b>	0.1179	0.2236	0.3190
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0922</b>	0.2751	0.2982	0.3427	<b>0.0882</b>	<b>0.0697</b>	0.2589	0.3725
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0945</b>	0.2286	0.2909	0.2813	0.1030	<b>0.0907</b>	0.1938	0.2229
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0946</b>	0.3194	0.2106	0.3174	<b>0.0731</b>	<b>0.0507</b>	0.1182	0.2118
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1361	0.2986	0.3163	0.4092	0.1588	<b>0.0926</b>	0.2430	0.3067
	(34) $p_{D,S}^1$	Studentized UDIM	0.1344	0.2124	0.2994	0.3931	<b>0.0852</b>	<b>0.0875</b>	0.1937	0.2248
	(35) $p_{D,S}^2$	Studentized COLS	0.1071	0.2570	0.2830	0.3535	0.1688	0.2187	0.2489	0.3360
	(36) $p_{D,S}^3$	Studentized AIPW	0.1153	0.2776	0.3202	0.4057	<b>0.0998</b>	0.1429	0.2936	0.3906

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative misdemeanor convictions for classified crime				Cumulative misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		1.2308	1.2400	1.3000	1.1000	2.0769	3.1600	3.3500	3.1500
	(iii) Mean of the treatment group		0.1600	0.2000	0.3478	0.3043	0.6000	1.6000	1.8696	1.8261
Estimates	(iv) UDIM (difference in means)		-1.0708	-1.0400	-0.9522	-0.7957	-1.4769	-1.5600	-1.4804	-1.3239
	(v) COLS (conditional OLS estimate)		-1.2662	-1.2608	-1.2407	-1.0396	-1.8191	-1.6792	-1.8617	-1.6606
	(vi) AIPW (augmented IPW estimate)		-1.1304	-1.1351	-1.1325	-0.9425	-1.6044	-1.4927	-1.7278	-1.5377
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0653</b>	<b>0.0879</b>	0.1598	0.2030	<b>0.0485</b>	<b>0.0956</b>	0.1544	0.1805
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0610</b>	<b>0.0855</b>	0.1465	0.1900	<b>0.0329</b>	0.1108	0.1311	0.1571
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0535</b>	<b>0.0693</b>	0.1376	0.1824	<b>0.0297</b>	0.1036	0.1210	0.1468
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0628</b>	<b>0.0857</b>	0.1614	0.2021	<b>0.0463</b>	<b>0.0917</b>	0.1548	0.1776
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0667</b>	<b>0.0921</b>	0.1569	0.1974	<b>0.0365</b>	0.1164	0.1480	0.1705
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0664</b>	<b>0.0944</b>	0.1958	0.2338	<b>0.0387</b>	0.1298	0.1800	0.2013
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0264</b>	<b>0.0508</b>	0.1872	0.3128	<b>0.0312</b>	<b>0.0768</b>	0.1432	0.1748
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0192</b>	<b>0.0384</b>	0.1416	0.2632	<b>0.0176</b>	<b>0.0824</b>	0.1256	0.1504
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0192</b>	<b>0.0424</b>	0.1536	0.2772	<b>0.0188</b>	0.1020	0.1220	0.1444
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0032</b>	<b>0.0176</b>	<b>0.0012</b>	<b>0.0096</b>	<b>0.0356</b>	<b>0.0452</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0012</b>	<b>0.0108</b>	<b>0.0272</b>	<b>0.0008</b>	<b>0.0204</b>	<b>0.0272</b>	<b>0.0396</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0036</b>	<b>0.0144</b>	<b>0.0596</b>	<b>0.0792</b>	<b>0.0036</b>	<b>0.0432</b>	<b>0.0788</b>	<b>0.0948</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0572</b>	<b>0.0952</b>	0.1532	0.3016	<b>0.0524</b>	<b>0.0960</b>	0.1500	0.1876
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0288</b>	<b>0.0388</b>	<b>0.0664</b>	0.1552	<b>0.0184</b>	<b>0.0952</b>	<b>0.0996</b>	0.1328
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0532</b>	<b>0.0776</b>	0.1576	0.2620	<b>0.0412</b>	0.1396	0.1436	0.1816
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0744</b>	0.1380	0.2436	0.4380	<b>0.0552</b>	0.1068	0.1744	0.2104
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0600</b>	0.1148	0.1900	0.3600	<b>0.0352</b>	0.1276	0.1424	0.1848
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0712</b>	0.1096	0.2572	0.3856	<b>0.0484</b>	0.1508	0.1768	0.2172
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0736</b>	0.1043	0.1963	0.3421	<b>0.0668</b>	0.1607	0.2224	0.2605
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0573</b>	<b>0.0778</b>	0.1289	0.2114	<b>0.0450</b>	0.1584	0.1543	0.2111
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0938</b>	0.1198	0.2119	0.3109	<b>0.0742</b>	0.2179	0.2319	0.2775
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0819</b>	0.1434	0.2831	0.4684	<b>0.0718</b>	0.1853	0.2511	0.3081
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0819</b>	0.1410	0.2357	0.4118	<b>0.0634</b>	0.1900	0.2004	0.2562
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0915</b>	0.1269	0.2748	0.4257	<b>0.0695</b>	0.2194	0.2436	0.2926
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0742</b>	0.1088	0.1975	0.3484	<b>0.0706</b>	0.1657	0.2272	0.2630
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0584</b>	<b>0.0799</b>	0.1323	0.2141	<b>0.0458</b>	0.1588	0.1548	0.2123
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0973</b>	0.1212	0.2190	0.3109	<b>0.0798</b>	0.2191	0.2321	0.2782
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0836</b>	0.1499	0.2841	0.4690	<b>0.0746</b>	0.1867	0.2523	0.3081
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0867</b>	0.1494	0.2385	0.4129	<b>0.0656</b>	0.1906	0.2013	0.2580
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0951</b>	0.1350	0.2844	0.4284	<b>0.0733</b>	0.2197	0.2475	0.2937
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0754</b>	0.1539	0.1994	0.3771	0.1063	0.2307	0.2962	0.3949
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0776</b>	0.1346	0.1418	0.2393	<b>0.0545</b>	0.1922	0.1897	0.2586
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1131	0.1350	0.3055	0.3731	0.1242	0.2350	0.2724	0.2827
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0976</b>	0.1945	0.2939	0.5139	0.1378	0.2257	0.3043	0.3370
	(35) $p_{D,S}^2$	Studentized COLS	0.1209	0.2065	0.2480	0.4585	0.1153	0.2415	0.2196	0.2884
	(36) $p_{D,S}^3$	Studentized AIPW	0.1148	0.1774	0.3149	0.4638	<b>0.0872</b>	0.2201	0.2709	0.3453

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor arrests for violent crime				One or more misdemeanor arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.1154	0.2400	0.2000	0.1500	0.1923	0.3600	0.3500	0.2500
	(iii) Mean of the treatment group		0.0000	0.0400	0.0870	0.0870	0.2000	0.2800	0.3478	0.3043
Estimates	(iv) UDIM (difference in means)		-0.1154	-0.2000	-0.1130	-0.0630	0.0077	-0.0800	-0.0022	0.0543
	(v) COLS (conditional OLS estimate)		-0.1355	-0.1678	-0.0581	0.0071	-0.0307	-0.0569	0.0328	0.1034
	(vi) AIPW (augmented IPW estimate)		-0.1213	-0.1591	-0.0402	0.0202	-0.0249	-0.0568	0.0650	0.1343
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0317</b>	<b>0.0169</b>	0.1385	0.2639	0.4709	0.2563	0.4938	0.3519
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0303</b>	<b>0.0169</b>	0.3018	0.4726	0.3896	0.3134	0.4073	0.2289
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0293</b>	<b>0.0161</b>	0.3509	0.4191	0.3983	0.2862	0.3064	0.1415
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0318</b>	<b>0.0152</b>	0.1448	0.2640	0.4713	0.2662	0.4940	0.3424
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0383</b>	<b>0.0395</b>	0.3287	0.4750	0.3916	0.3343	0.4138	0.2258
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0394</b>	<b>0.0436</b>	0.3901	0.4373	0.4081	0.3297	0.3482	0.1833
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0400</b>	<b>0.0144</b>	0.1440	0.2612	0.4708	0.2700	0.4976	0.3388
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0400</b>	<b>0.0300</b>	0.2964	0.4988	0.3896	0.3292	0.3984	0.2252
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0400</b>	<b>0.0356</b>	0.3500	0.4740	0.4088	0.3344	0.3652	0.1828
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0564</b>	0.1968	0.4684	0.1964	0.4904	0.3148
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0060</b>	0.3116	0.4412	0.3552	0.2732	0.3880	0.1708
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0028</b>	<b>0.0076</b>	0.4068	0.3928	0.3768	0.2592	0.2824	0.1196
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0504</b>	<b>0.0184</b>	0.1200	0.2284	0.4772	0.2584	0.4644	0.3588
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0168</b>	<b>0.0264</b>	0.2656	0.4900	0.4000	0.3220	0.4040	0.2344
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0340</b>	<b>0.0384</b>	0.3316	0.4484	0.4224	0.3260	0.3304	0.1832
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0440</b>	<b>0.0184</b>	0.1288	0.2276	0.4648	0.2568	0.4548	0.3512
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0348</b>	<b>0.0220</b>	0.2988	0.4928	0.4012	0.3176	0.4016	0.2260
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0884</b>	<b>0.0300</b>	0.3568	0.4572	0.4164	0.3048	0.3340	0.1748
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0706</b>	<b>0.0651</b>	0.2071	0.3729	0.6643	0.4085	0.5510	0.4760
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0462</b>	<b>0.0958</b>	0.3009	0.6244	0.4842	0.4594	0.5523	0.3476
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0661</b>	0.1056	0.3876	0.5565	0.5120	0.4610	0.4890	0.3233
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0612</b>	<b>0.0651</b>	0.2186	0.3729	0.6583	0.4070	0.5354	0.4672
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0566</b>	<b>0.0906</b>	0.3308	0.6244	0.4829	0.4523	0.5505	0.3461
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0968</b>	0.1060	0.4045	0.5680	0.5060	0.4367	0.4863	0.2917
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0728</b>	<b>0.0727</b>	0.2106	0.3744	0.6644	0.4133	0.5534	0.4778
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0470</b>	<b>0.0987</b>	0.3073	0.6248	0.4974	0.4614	0.5542	0.3518
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0681</b>	0.1101	0.3967	0.5604	0.5128	0.4718	0.4916	0.3312
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0629</b>	<b>0.0727</b>	0.2201	0.3744	0.6657	0.4116	0.5412	0.4682
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0598</b>	<b>0.0928</b>	0.3370	0.6248	0.4962	0.4552	0.5522	0.3475
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0983</b>	0.1121	0.4123	0.5706	0.5150	0.4413	0.4880	0.2995
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1030	0.1364	0.2420	0.4521	0.6836	0.4837	0.5708	0.5323
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0666</b>	0.1233	0.3499	0.6302	0.6090	0.4753	0.5720	0.3749
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0694</b>	0.1635	0.4916	0.5980	0.5381	0.5567	0.5011	0.3644
	(34) $p_{D,S}^1$	Studentized UDIM	0.1082	0.1364	0.2368	0.4553	0.7008	0.4566	0.5478	0.5278
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0842</b>	0.1264	0.3841	0.6778	0.6045	0.4757	0.5673	0.3603
	(36) $p_{D,S}^3$	Studentized AIPW	0.1284	0.1144	0.5312	0.6358	0.5404	0.4646	0.4938	0.3638

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor arrests for any crime				One or more misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.3462	0.5200	0.5500	0.4500	0.1154	0.1200	0.1000	0.0500
	(iii) Mean of the treatment group		0.3200	0.5200	0.5652	0.5217	0.0000	0.0000	0.0435	0.0435
Estimates	(iv) UDIM (difference in means)		-0.0262	0.0000	0.0152	0.0717	-0.1154	-0.1200	-0.0565	-0.0065
	(v) COLS (conditional OLS estimate)		-0.0179	0.0322	0.0305	0.1012	-0.1355	-0.1426	-0.0483	0.0170
	(vi) AIPW (augmented IPW estimate)		0.0104	0.0436	0.0507	0.1200	-0.1213	-0.1284	-0.0320	0.0284
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.4210	0.5000	0.4576	0.3266	<b>0.0317</b>	<b>0.0313</b>	0.2340	0.4603
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.4447	0.4115	0.4166	0.2649	<b>0.0303</b>	<b>0.0299</b>	0.3372	0.4307
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.4648	0.3725	0.3500	0.2083	<b>0.0293</b>	<b>0.0274</b>	0.3796	0.3739
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.4186	0.5000	0.4600	0.3183	<b>0.0318</b>	<b>0.0306</b>	0.2428	0.4610
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.4456	0.4125	0.4218	0.2505	<b>0.0383</b>	<b>0.0375</b>	0.3462	0.4324
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.4682	0.3828	0.3728	0.2206	<b>0.0394</b>	<b>0.0387</b>	0.4034	0.3946
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.4168	0.4904	0.4716	0.3264	<b>0.0400</b>	<b>0.0400</b>	0.2736	0.5376
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4380	0.4080	0.4004	0.2408	<b>0.0400</b>	<b>0.0400</b>	0.3696	0.4768
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.4916	0.3836	0.3656	0.2020	<b>0.0400</b>	<b>0.0400</b>	0.3872	0.4736
	(10) $p_{B,S}^1$	Studentized UDIM	0.4048	0.4904	0.4436	0.2704	<b>0.0004</b>	<b>0.0004</b>	0.1468	0.3948
	(11) $p_{B,S}^2$	Studentized COLS	0.4428	0.3892	0.4212	0.2244	<b>0.0004</b>	<b>0.0004</b>	0.3372	0.4964
	(12) $p_{B,S}^3$	Studentized AIPW	0.4436	0.3452	0.3492	0.1888	<b>0.0028</b>	<b>0.0044</b>	0.4364	0.4736
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.4232	0.4984	0.4640	0.2960	<b>0.0504</b>	<b>0.0424</b>	0.2156	0.4104
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4348	0.3892	0.3948	0.2488	<b>0.0168</b>	<b>0.0112</b>	0.2836	0.3244
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.4888	0.3656	0.3444	0.2220	<b>0.0340</b>	<b>0.0252</b>	0.4116	0.2832
	(16) $p_{P,S}^1$	Studentized UDIM	0.4140	0.4984	0.4508	0.2860	<b>0.0440</b>	<b>0.0388</b>	0.2104	0.4060
	(17) $p_{P,S}^2$	Studentized COLS	0.4344	0.3892	0.3932	0.2460	<b>0.0348</b>	<b>0.0316</b>	0.3972	0.3660
	(18) $p_{P,S}^3$	Studentized AIPW	0.4888	0.3640	0.3416	0.2232	<b>0.0884</b>	<b>0.0704</b>	0.4736	0.3196
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4746	0.6025	0.6334	0.4515	<b>0.0706</b>	<b>0.0635</b>	0.2408	0.4581
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.4843	0.4647	0.5158	0.3917	<b>0.0462</b>	<b>0.0394</b>	0.3080	0.6429
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.6019	0.4391	0.4620	0.3542	<b>0.0661</b>	<b>0.0516</b>	0.4383	0.5439
	(22) $p_{M,S}^1$	Studentized UDIM	0.4599	0.6025	0.6230	0.4425	<b>0.0612</b>	<b>0.0563</b>	0.2328	0.4539
	(23) $p_{M,S}^2$	Studentized COLS	0.4850	0.4608	0.5158	0.3942	<b>0.0566</b>	<b>0.0558</b>	0.4236	0.6802
	(24) $p_{M,S}^3$	Studentized AIPW	0.6033	0.4342	0.4592	0.3496	<b>0.0968</b>	<b>0.0906</b>	0.4956	0.6065
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4780	0.6123	0.6352	0.4721	<b>0.0728</b>	<b>0.0645</b>	0.2454	0.4587
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.4952	0.4669	0.5181	0.4050	<b>0.0470</b>	<b>0.0416</b>	0.3092	0.6509
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.6067	0.4437	0.4665	0.3659	<b>0.0681</b>	<b>0.0517</b>	0.4453	0.5591
	(28) $p_{R,S}^1$	Studentized UDIM	0.4643	0.6123	0.6243	0.4683	<b>0.0629</b>	<b>0.0574</b>	0.2343	0.4553
	(29) $p_{R,S}^2$	Studentized COLS	0.4951	0.4625	0.5160	0.4080	<b>0.0598</b>	<b>0.0574</b>	0.4256	0.6858
	(30) $p_{R,S}^3$	Studentized AIPW	0.6046	0.4378	0.4655	0.3581	<b>0.0983</b>	<b>0.0943</b>	0.4961	0.6109
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5224	0.7665	0.6776	0.5147	0.1030	<b>0.0907</b>	0.3038	0.4866
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5336	0.4915	0.5476	0.4723	<b>0.0666</b>	<b>0.0562</b>	0.3936	0.6705
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.6758	0.4836	0.5348	0.4411	<b>0.0694</b>	<b>0.0543</b>	0.4720	0.6268
	(34) $p_{D,S}^1$	Studentized UDIM	0.5513	0.7665	0.6308	0.7361	0.1082	<b>0.0648</b>	0.2651	0.5026
	(35) $p_{D,S}^2$	Studentized COLS	0.5435	0.4803	0.5505	0.4367	<b>0.0842</b>	<b>0.0629</b>	0.4612	0.7207
	(36) $p_{D,S}^3$	Studentized AIPW	0.6591	0.5620	0.5027	0.3830	0.1284	0.1123	0.5372	0.6261

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	One or more misdemeanor convictions for classified crime				One or more misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.1923	0.2000	0.2000	0.1000	0.3077	0.4800	0.5000	0.4000
	(iii) Mean of the treatment group		0.1600	0.2000	0.3043	0.2609	0.2800	0.4400	0.4783	0.4348
Estimates	(iv) UDIM (difference in means)		-0.0323	0.0000	0.1043	0.1609	-0.0277	-0.0400	-0.0217	0.0348
	(v) COLS (conditional OLS estimate)		-0.0649	-0.0336	0.0826	0.1532	-0.0118	-0.0140	-0.0230	0.0476
	(vi) AIPW (augmented IPW estimate)		-0.0607	-0.0331	0.1023	0.1717	0.0085	0.0010	0.0019	0.0712
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.3775	0.5000	0.2175	<b>0.0970</b>	0.4072	0.3865	0.4404	0.4127
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.2723	0.3861	0.2923	0.1439	0.4573	0.4620	0.4376	0.3803
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.2599	0.3707	0.2301	<b>0.0957</b>	0.4669	0.4970	0.4943	0.3092
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.3780	0.5000	0.2069	<b>0.0730</b>	0.4136	0.3843	0.4417	0.4066
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.2762	0.3848	0.2855	0.1176	0.4640	0.4621	0.4414	0.3762
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.2807	0.3810	0.2571	0.1034	0.4750	0.4972	0.4952	0.3228
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3632	0.5016	0.1896	<b>0.0700</b>	0.4124	0.3900	0.4404	0.3988
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.2736	0.3876	0.2752	0.1180	0.4524	0.4568	0.4608	0.3656
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.2804	0.4012	0.2600	<b>0.0992</b>	0.4992	0.4864	0.4980	0.3268
	(10) $p_{B,S}^1$	Studentized UDIM	0.3420	0.5016	0.1496	<b>0.0300</b>	0.4004	0.3432	0.4180	0.3820
	(11) $p_{B,S}^2$	Studentized COLS	0.2240	0.3396	0.2436	<b>0.0768</b>	0.4620	0.4408	0.4056	0.3632
	(12) $p_{B,S}^3$	Studentized AIPW	0.2296	0.3180	0.1908	<b>0.0756</b>	0.4452	0.4808	0.4856	0.2920
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3984	0.4996	0.2304	<b>0.0980</b>	0.3992	0.4072	0.4816	0.4104
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2844	0.4076	0.2600	0.1188	0.4540	0.4856	0.4632	0.3608
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.2976	0.4072	0.2392	0.1068	0.4804	0.4796	0.4788	0.3092
	(16) $p_{P,S}^1$	Studentized UDIM	0.3768	0.4996	0.2084	<b>0.0832</b>	0.3872	0.4052	0.4704	0.4036
	(17) $p_{P,S}^2$	Studentized COLS	0.2820	0.4052	0.2732	0.1356	0.4532	0.4860	0.4592	0.3564
	(18) $p_{P,S}^3$	Studentized AIPW	0.2864	0.3988	0.2504	0.1212	0.4788	0.4796	0.4788	0.3020
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4586	0.6704	0.3829	0.2242	0.4459	0.5637	0.5830	0.5598
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.3857	0.4747	0.4366	0.2367	0.4688	0.5584	0.5034	0.5155
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4112	0.4906	0.3886	0.2287	0.6115	0.5621	0.6057	0.4701
	(22) $p_{M,S}^1$	Studentized UDIM	0.4422	0.6704	0.3546	0.1976	0.4419	0.5615	0.5628	0.5521
	(23) $p_{M,S}^2$	Studentized COLS	0.3891	0.4742	0.4532	0.2337	0.4686	0.5598	0.4990	0.5070
	(24) $p_{M,S}^3$	Studentized AIPW	0.3976	0.4820	0.3974	0.2323	0.6127	0.5621	0.6057	0.4530
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4604	0.6732	0.3839	0.2330	0.4650	0.5684	0.5875	0.5681
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3872	0.4805	0.4425	0.2431	0.4692	0.5684	0.5038	0.5252
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4192	0.4951	0.3915	0.2324	0.6120	0.5685	0.6091	0.4766
	(28) $p_{R,S}^1$	Studentized UDIM	0.4454	0.6732	0.3562	0.1991	0.4449	0.5662	0.5659	0.5605
	(29) $p_{R,S}^2$	Studentized COLS	0.3905	0.4796	0.4574	0.2381	0.4701	0.5705	0.4991	0.5096
	(30) $p_{R,S}^3$	Studentized AIPW	0.3987	0.4868	0.3987	0.2351	0.6134	0.5685	0.6091	0.4541
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.4773	0.7366	0.3995	0.2939	0.5202	0.5876	0.5909	0.6291
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.3875	0.5440	0.4945	0.3099	0.4840	0.6556	0.5557	0.5759
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4553	0.5519	0.4093	0.2875	0.6509	0.6666	0.6835	0.5059
	(34) $p_{D,S}^1$	Studentized UDIM	0.4855	0.7366	0.3703	0.2516	0.4974	0.5823	0.5906	0.6285
	(35) $p_{D,S}^2$	Studentized COLS	0.4590	0.5564	0.4890	0.3080	0.5619	0.7278	0.5636	0.5444
	(36) $p_{D,S}^3$	Studentized AIPW	0.4111	0.5420	0.4173	0.2752	0.6509	0.6666	0.6835	0.4996

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Two or more misdemeanor arrests for any crime				Two or more misdemeanor convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.2308	0.4400	0.4500	0.4000	0.1154	0.1200	0.1000	0.1000
	(iii) Mean of the treatment group		0.2000	0.4000	0.4348	0.4348	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-0.0308	-0.0400	-0.0152	0.0348	-0.1154	-0.1200	-0.1000	-0.1000
	(v) COLS (conditional OLS estimate)		-0.0471	-0.0066	-0.0088	0.0565	-0.1355	-0.1426	-0.1263	-0.1263
	(vi) AIPW (augmented IPW estimate)		-0.0048	0.0066	0.0119	0.0722	-0.1213	-0.1284	-0.1177	-0.1177
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.3893	0.3856	0.4582	0.4088	<b>0.0317</b>	<b>0.0313</b>	<b>0.0639</b>	<b>0.0639</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.3336	0.4811	0.4741	0.3412	<b>0.0303</b>	<b>0.0299</b>	<b>0.0624</b>	<b>0.0624</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.4813	0.4796	0.4619	0.2839	<b>0.0293</b>	<b>0.0274</b>	<b>0.0591</b>	<b>0.0591</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.3940	0.3831	0.4591	0.4066	<b>0.0318</b>	<b>0.0306</b>	<b>0.0658</b>	<b>0.0658</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.3565	0.4814	0.4762	0.3376	<b>0.0383</b>	<b>0.0375</b>	<b>0.0770</b>	<b>0.0770</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.4854	0.4818	0.4693	0.3033	<b>0.0394</b>	<b>0.0387</b>	0.1117	0.1117
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3952	0.3852	0.4568	0.4252	<b>0.0400</b>	<b>0.0400</b>	0.1284	0.1284
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3364	0.4704	0.4800	0.3336	<b>0.0400</b>	<b>0.0400</b>	0.1284	0.1284
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.4420	0.4980	0.4912	0.3176	<b>0.0400</b>	<b>0.0400</b>	0.1292	0.1292
	(10) $p_{B,S}^1$	Studentized UDIM	0.3728	0.3468	0.4552	0.3684	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0008</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.3388	0.4884	0.4644	0.2912	<b>0.0004</b>	<b>0.0004</b>	<b>0.0048</b>	<b>0.0048</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.4816	0.4488	0.4440	0.2308	<b>0.0028</b>	<b>0.0044</b>	<b>0.0368</b>	<b>0.0368</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.3940	0.3836	0.4600	0.4256	<b>0.0504</b>	<b>0.0424</b>	<b>0.0388</b>	<b>0.0388</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.3264	0.4952	0.4916	0.3460	<b>0.0168</b>	<b>0.0112</b>	<b>0.0088</b>	<b>0.0088</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.4976	0.4696	0.4556	0.3060	<b>0.0340</b>	<b>0.0252</b>	<b>0.0316</b>	<b>0.0316</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.3940	0.3820	0.4436	0.4148	<b>0.0440</b>	<b>0.0388</b>	<b>0.0328</b>	<b>0.0328</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.3400	0.4948	0.4900	0.3336	<b>0.0348</b>	<b>0.0316</b>	<b>0.0332</b>	<b>0.0332</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.5000	0.4692	0.4536	0.2960	<b>0.0884</b>	<b>0.0704</b>	0.1608	0.1608
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.4182	0.5734	0.5731	0.5151	<b>0.0706</b>	<b>0.0635</b>	<b>0.0672</b>	<b>0.0672</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.3687	0.5761	0.5314	0.4932	<b>0.0462</b>	<b>0.0394</b>	<b>0.0378</b>	<b>0.0378</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.5309	0.5339	0.5798	0.4279	<b>0.0661</b>	<b>0.0516</b>	<b>0.0610</b>	<b>0.0610</b>
	(22) $p_{M,S}^1$	Studentized UDIM	0.4182	0.5734	0.5641	0.5091	<b>0.0612</b>	<b>0.0563</b>	<b>0.0516</b>	<b>0.0516</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.3773	0.5761	0.5291	0.4633	<b>0.0566</b>	<b>0.0558</b>	<b>0.0725</b>	<b>0.0725</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.5320	0.5339	0.5785	0.4109	<b>0.0968</b>	<b>0.0906</b>	0.1539	0.1539
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.4332	0.5771	0.5802	0.5262	<b>0.0728</b>	<b>0.0645</b>	<b>0.0679</b>	<b>0.0679</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3801	0.5809	0.5332	0.5028	<b>0.0470</b>	<b>0.0416</b>	<b>0.0410</b>	<b>0.0410</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.5425	0.5373	0.5885	0.4282	<b>0.0681</b>	<b>0.0517</b>	<b>0.0619</b>	<b>0.0619</b>
	(28) $p_{R,S}^1$	Studentized UDIM	0.4332	0.5771	0.5666	0.5128	<b>0.0629</b>	<b>0.0574</b>	<b>0.0516</b>	<b>0.0516</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.3861	0.5809	0.5311	0.4680	<b>0.0598</b>	<b>0.0574</b>	<b>0.0787</b>	<b>0.0787</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.5428	0.5373	0.5873	0.4166	<b>0.0983</b>	<b>0.0943</b>	0.1593	0.1593
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.5103	0.7118	0.5992	0.6669	0.1030	<b>0.0907</b>	<b>0.0839</b>	<b>0.0839</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.4533	0.6077	0.5588	0.5299	<b>0.0666</b>	<b>0.0562</b>	<b>0.0458</b>	<b>0.0458</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.6099	0.5644	0.6611	0.4681	<b>0.0694</b>	<b>0.0543</b>	<b>0.0928</b>	<b>0.0928</b>
	(34) $p_{D,S}^1$	Studentized UDIM	0.5103	0.6525	0.5884	0.5551	0.1082	<b>0.0648</b>	<b>0.0625</b>	<b>0.0625</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.4201	0.6077	0.5356	0.5942	<b>0.0842</b>	<b>0.0629</b>	0.1281	0.1281
	(36) $p_{D,S}^3$	Studentized AIPW	0.5947	0.5639	0.6461	0.4483	0.1284	0.1123	0.2093	0.2093

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Two or more misdemeanor convictions for classified crime				Two or more misdemeanor convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.1538	0.1200	0.1500	0.1000	0.2308	0.4400	0.4500	0.4000
	(iii) Mean of the treatment group		0.0000	0.0000	0.0435	0.0435	0.0800	0.3600	0.3913	0.3913
Estimates	(iv) UDIM (difference in means)		-0.1538	-0.1200	-0.1065	-0.0565	-0.1508	-0.0800	-0.0587	-0.0087
	(v) COLS (conditional OLS estimate)		-0.1834	-0.1426	-0.1556	-0.0904	-0.2022	-0.0420	-0.0460	0.0192
	(vi) AIPW (augmented IPW estimate)		-0.1655	-0.1284	-0.1389	-0.0785	-0.1819	-0.0320	-0.0311	0.0293
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0145</b>	<b>0.0313</b>	0.1180	0.2460	<b>0.0662</b>	0.2856	0.3476	0.4777
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0139</b>	<b>0.0299</b>	<b>0.0541</b>	0.1487	<b>0.0265</b>	0.3854	0.3757	0.4484
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0113</b>	<b>0.0274</b>	<b>0.0547</b>	0.1534	<b>0.0222</b>	0.4078	0.4101	0.4168
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0121</b>	<b>0.0306</b>	0.1204	0.2380	<b>0.0568</b>	0.2760	0.3458	0.4764
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0154</b>	<b>0.0375</b>	<b>0.0690</b>	0.1494	<b>0.0246</b>	0.3832	0.3808	0.4457
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0161</b>	<b>0.0387</b>	0.1009	0.1841	<b>0.0262</b>	0.4131	0.4227	0.4210
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0148</b>	<b>0.0400</b>	0.1188	0.2520	<b>0.0576</b>	0.2704	0.3488	0.4752
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0148</b>	<b>0.0400</b>	<b>0.0576</b>	0.1560	<b>0.0228</b>	0.3696	0.3764	0.4448
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0148</b>	<b>0.0400</b>	<b>0.0664</b>	0.1728	<b>0.0208</b>	0.3888	0.4000	0.4428
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0256</b>	0.1484	<b>0.0120</b>	0.2136	0.3036	0.4760
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0092</b>	<b>0.0380</b>	<b>0.0092</b>	0.3592	0.3424	0.4320
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0016</b>	<b>0.0044</b>	<b>0.0464</b>	<b>0.0896</b>	<b>0.0064</b>	0.4112	0.4328	0.3804
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0216</b>	<b>0.0424</b>	0.1072	0.2156	<b>0.0708</b>	0.2832	0.3340	0.4724
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0048</b>	<b>0.0112</b>	<b>0.0520</b>	0.1496	<b>0.0208</b>	0.3852	0.3840	0.4524
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0116</b>	<b>0.0252</b>	<b>0.0808</b>	0.1860	<b>0.0340</b>	0.4156	0.4192	0.4384
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0192</b>	<b>0.0388</b>	<b>0.0988</b>	0.2096	<b>0.0684</b>	0.2804	0.3176	0.4576
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0160</b>	<b>0.0316</b>	<b>0.0720</b>	0.1448	<b>0.0320</b>	0.3832	0.3772	0.4492
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0312</b>	<b>0.0704</b>	<b>0.0852</b>	0.1692	<b>0.0368</b>	0.4148	0.4148	0.4340
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0393</b>	<b>0.0635</b>	0.1448	0.2910	<b>0.0877</b>	0.4587	0.4506	0.6164
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0246</b>	<b>0.0394</b>	<b>0.0849</b>	0.2210	<b>0.0512</b>	0.4765	0.4231	0.5675
	(21) $p_{M,N}^3$	Nonstudentized AIPW	<b>0.0327</b>	<b>0.0516</b>	0.1284	0.2708	<b>0.0717</b>	0.5061	0.4708	0.5471
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0301</b>	<b>0.0563</b>	0.1248	0.2720	<b>0.0848</b>	0.4506	0.4331	0.6082
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0371</b>	<b>0.0558</b>	<b>0.0936</b>	0.1998	<b>0.0585</b>	0.4735	0.4183	0.5670
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0456</b>	<b>0.0906</b>	0.1159	0.2288	<b>0.0609</b>	0.5061	0.4652	0.5415
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0397</b>	<b>0.0645</b>	0.1464	0.2910	<b>0.0899</b>	0.4591	0.4550	0.6169
	(26) $p_{R,N}^2$	Nonstudentized COLS	<b>0.0296</b>	<b>0.0416</b>	<b>0.0855</b>	0.2282	<b>0.0532</b>	0.4814	0.4333	0.5740
	(27) $p_{R,N}^3$	Nonstudentized AIPW	<b>0.0344</b>	<b>0.0517</b>	0.1362	0.2739	<b>0.0771</b>	0.5126	0.4741	0.5555
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0322</b>	<b>0.0574</b>	0.1275	0.2720	<b>0.0918</b>	0.4530	0.4342	0.6101
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0429</b>	<b>0.0574</b>	<b>0.1000</b>	0.2074	<b>0.0600</b>	0.4754	0.4261	0.5722
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0502</b>	<b>0.0943</b>	0.1244	0.2296	<b>0.0660</b>	0.5126	0.4688	0.5492
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	<b>0.0627</b>	<b>0.0907</b>	0.1479	0.3204	0.1312	0.4834	0.4856	0.7419
	(32) $p_{D,N}^2$	Nonstudentized COLS	<b>0.0711</b>	<b>0.0562</b>	0.1329	0.2840	<b>0.0833</b>	0.5097	0.5965	0.6222
	(33) $p_{D,N}^3$	Nonstudentized AIPW	<b>0.0443</b>	<b>0.0543</b>	0.2249	0.3159	0.1770	0.5627	0.5344	0.6008
	(34) $p_{D,S}^1$	Studentized UDIM	<b>0.0494</b>	<b>0.0648</b>	0.1426	0.3543	0.1548	0.4679	0.4415	0.6375
	(35) $p_{D,S}^2$	Studentized COLS	<b>0.0664</b>	<b>0.0629</b>	0.1535	0.2357	<b>0.0950</b>	0.4846	0.5349	0.6268
	(36) $p_{D,S}^3$	Studentized AIPW	<b>0.0649</b>	0.1123	0.1358	0.3487	0.1294	0.5794	0.5079	0.6105

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for violent misdemeanors				Cumulative fines for classified misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.0000	0.0000	0.0000	0.0000	28.076	49.053	73.035	48.601
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	21.792	21.792	86.336	71.658
Estimates	(iv) UDIM (difference in means)		0.0000	0.0000	0.0000	0.0000	-6.2844	-27.261	13.301	23.057
	(v) COLS (conditional OLS estimate)		0.0000	0.0000	0.0000	0.0000	-10.289	-32.604	-21.167	-6.2952
	(vi) AIPW (augmented IPW estimate)		0.0000	0.0000	0.0000	0.0000	-10.526	-30.302	-3.6318	10.648
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.5000	0.5000	0.5000	0.5000	0.3822	0.1321	0.4194	0.3500
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.5000	0.5000	0.5000	0.5000	0.3080	0.1009	0.3538	0.4523
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.5000	0.5000	0.5000	0.5000	0.2874	<b>0.0865</b>	0.4739	0.4174
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.5000	0.5000	0.5000	0.5000	0.3841	0.1399	0.4218	0.3525
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.5000	0.5000	0.5000	0.5000	0.3145	0.1079	0.3630	0.4544
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.5000	0.5000	0.5000	0.5000	0.3057	0.1198	0.4789	0.4327
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3840	0.1464	0.4432	0.3788
	(08) $p_{B,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.3092	<b>0.0936</b>	0.3128	0.4124
	(09) $p_{B,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.3004	0.1080	0.4268	0.4864
	(10) $p_{B,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3676	<b>0.0712</b>	0.3856	0.2984
	(11) $p_{B,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.2632	<b>0.0360</b>	0.3888	0.4932
	(12) $p_{B,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.2556	<b>0.0480</b>	0.4756	0.3720
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3808	0.1404	0.4272	0.3688
	(14) $p_{P,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.3264	0.1180	0.4060	0.4908
	(15) $p_{P,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.3220	0.1424	0.4944	0.4248
	(16) $p_{P,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3812	0.1492	0.4224	0.3632
	(17) $p_{P,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.3180	0.1176	0.3768	0.4880
	(18) $p_{P,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.3068	0.1252	0.4924	0.4168
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.4746	0.1942	0.5750	0.5151
	(20) $p_{M,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.4197	0.1671	0.4615	0.5543
	(21) $p_{M,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.4240	0.2018	0.5727	0.5642
	(22) $p_{M,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.4735	0.2070	0.5548	0.5105
	(23) $p_{M,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.4190	0.1554	0.4383	0.5521
	(24) $p_{M,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.4103	0.1651	0.5663	0.5576
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.4880	0.2167	0.5797	0.5226
	(26) $p_{R,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.4288	0.1718	0.4629	0.5590
	(27) $p_{R,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.4330	0.2145	0.5770	0.5660
	(28) $p_{R,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.4832	0.2269	0.5574	0.5189
	(29) $p_{R,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.4250	0.1584	0.4418	0.5564
	(30) $p_{R,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.4197	0.1653	0.5712	0.5577
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.6077	0.4670	0.6141	0.5600
	(32) $p_{D,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.5210	0.1925	0.4800	0.6129
	(33) $p_{D,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.5266	0.2372	0.5978	0.6115
	(34) $p_{D,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.5840	0.2951	0.5826	0.5821
	(35) $p_{D,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.4694	0.1807	0.4907	0.6032
	(36) $p_{D,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.4510	0.2173	0.6136	0.5809

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for any misdemeanors				Cumulative probation for violent misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		86.832	392.34	651.30	626.86	0.0000	0.0000	0.0000	0.0000
	(iii) Mean of the treatment group		47.410	268.54	354.54	339.86	0.0000	0.0000	1.0435	1.0435
Estimates	(iv) UDIM (difference in means)		-39.422	-123.80	-296.76	-287.00	0.0000	0.0000	1.0435	1.0435
	(v) COLS (conditional OLS estimate)		-56.705	-20.103	-228.33	-213.46	0.0000	0.0000	1.8723	1.8723
	(vi) AIPW (augmented IPW estimate)		-51.966	-64.213	-254.79	-240.51	0.0000	0.0000	2.0586	2.0586
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1867	0.2749	0.1857	0.1930	0.5000	0.5000	0.1495	0.1495
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1101	0.4508	0.1794	0.1910	0.5000	0.5000	0.1448	0.1448
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0969</b>	0.3451	0.1353	0.1447	0.5000	0.5000	0.1067	0.1067
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1793	0.2619	0.1784	0.1834	0.5000	0.5000	0.1417	0.1417
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1018	0.4499	0.1908	0.1998	0.5000	0.5000	0.1325	0.1325
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1099	0.3453	0.1759	0.1837	0.5000	0.5000	0.1292	0.1292
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1732	0.2720	0.1680	0.1760	1.0000	1.0000	0.3400	0.3400
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0884</b>	0.4452	0.1856	0.1932	1.0000	1.0000	0.3400	0.3400
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0936</b>	0.3324	0.1504	0.1596	1.0000	1.0000	0.3400	0.3400
	(10) $p_{B,S}^1$	Studentized UDIM	0.1192	0.1808	<b>0.0536</b>	<b>0.0540</b>	1.0000	1.0000	0.3400	0.3400
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0452</b>	0.4396	<b>0.0988</b>	0.1124	1.0000	1.0000	0.3484	0.3484
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0524</b>	0.3220	<b>0.0912</b>	<b>0.0972</b>	1.0000	1.0000	0.4136	0.4136
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2008	0.2636	0.1776	0.1856	1.0000	1.0000	0.3616	0.3616
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.1348	0.4336	0.2592	0.2756	1.0000	1.0000	<b>0.0148</b>	<b>0.0148</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1572	0.3636	0.2324	0.2424	1.0000	1.0000	<b>0.0104</b>	<b>0.0104</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.2008	0.2660	0.1936	0.2072	1.0000	1.0000	0.3444	0.3444
	(17) $p_{P,S}^2$	Studentized COLS	0.1412	0.4260	0.1876	0.2096	1.0000	1.0000	<b>0.0780</b>	<b>0.0780</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1456	0.3436	0.1792	0.1968	1.0000	1.0000	0.1100	0.1100
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.2452	0.6927	0.3649	0.3841	1.0000	1.0000	0.5229	0.5229
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1836	0.7703	0.4227	0.4456	1.0000	1.0000	0.1567	0.1567
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.2084	0.7492	0.4134	0.4442	1.0000	1.0000	0.1674	0.1674
	(22) $p_{M,S}^1$	Studentized UDIM	0.2452	0.6996	0.4097	0.4234	1.0000	1.0000	0.5051	0.5051
	(23) $p_{M,S}^2$	Studentized COLS	0.1875	0.7645	0.3704	0.4034	1.0000	1.0000	0.3234	0.3234
	(24) $p_{M,S}^3$	Studentized AIPW	0.1883	0.7352	0.3774	0.3934	1.0000	1.0000	0.2320	0.2320
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.2577	0.6993	0.3677	0.3869	1.0000	1.0000	0.5288	0.5288
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1866	0.7768	0.4265	0.4473	1.0000	1.0000	0.1574	0.1574
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.2135	0.7549	0.4149	0.4469	1.0000	1.0000	0.1699	0.1699
	(28) $p_{R,S}^1$	Studentized UDIM	0.2534	0.7051	0.4156	0.4243	1.0000	1.0000	0.5119	0.5119
	(29) $p_{R,S}^2$	Studentized COLS	0.1889	0.7706	0.3754	0.4095	1.0000	1.0000	0.3297	0.3297
	(30) $p_{R,S}^3$	Studentized AIPW	0.1938	0.7441	0.3823	0.3955	1.0000	1.0000	0.2456	0.2456
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.3807	0.7474	0.3883	0.3980	1.0000	1.0000	0.5865	0.5865
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2388	0.7900	0.5301	0.4687	1.0000	1.0000	0.1694	0.1694
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2677	0.8178	0.4250	0.5055	1.0000	1.0000	0.2053	0.2053
	(34) $p_{D,S}^1$	Studentized UDIM	0.3090	0.7706	0.4543	0.4285	1.0000	1.0000	0.5397	0.5397
	(35) $p_{D,S}^2$	Studentized COLS	0.2526	0.7862	0.4307	0.4807	1.0000	1.0000	0.3505	0.3505
	(36) $p_{D,S}^3$	Studentized AIPW	0.2258	0.8133	0.4275	0.4511	1.0000	1.0000	0.3492	0.3492

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative probabon for classified misdemeanors				Cumulative probabon for any misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.0000	0.0000	0.6000	0.6000	0.0000	1.2000	3.0000	3.0000
	(iii) Mean of the treatment group		0.0000	0.0000	1.0435	1.0435	0.0000	0.9600	2.0870	2.0870
Estimates	(iv) UDIM (difference in means)		0.0000	0.0000	0.4435	0.4435	0.0000	-0.2400	-0.9130	-0.9130
	(v) COLS (conditional OLS estimate)		0.0000	0.0000	1.2204	1.2204	0.0000	0.4922	1.3478	1.3478
	(vi) AIPW (augmented IPW estimate)		0.0000	0.0000	1.4677	1.4677	0.0000	0.0641	0.9874	0.9874
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.5000	0.5000	0.3525	0.3525	0.5000	0.4311	0.3735	0.3735
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.5000	0.5000	0.2616	0.2616	0.5000	0.3441	0.2942	0.2942
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.5000	0.5000	0.2034	0.2034	0.5000	0.4768	0.3431	0.3431
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.5000	0.5000	0.3435	0.3435	0.5000	0.4252	0.3697	0.3697
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.5000	0.5000	0.2485	0.2485	0.5000	0.3388	0.2887	0.2887
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.5000	0.5000	0.2196	0.2196	0.5000	0.4760	0.3623	0.3623
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	1.0000	1.0000	0.4148	0.4148	1.0000	0.4316	0.3876	0.3876
	(08) $p_{B,N}^2$	Nonstudentized COLS	1.0000	1.0000	0.3544	0.3544	1.0000	0.4028	0.2928	0.2928
	(09) $p_{B,N}^3$	Nonstudentized AIPW	1.0000	1.0000	0.3556	0.3556	1.0000	0.5096	0.3780	0.3780
	(10) $p_{B,S}^1$	Studentized UDIM	1.0000	1.0000	0.4528	0.4528	1.0000	0.4064	0.3076	0.3076
	(11) $p_{B,S}^2$	Studentized COLS	1.0000	1.0000	0.2560	0.2560	1.0000	0.3268	0.2396	0.2396
	(12) $p_{B,S}^3$	Studentized AIPW	1.0000	1.0000	0.2600	0.2600	1.0000	0.4596	0.3392	0.3392
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	1.0000	1.0000	0.4152	0.4152	1.0000	0.3208	0.3488	0.3488
	(14) $p_{P,N}^2$	Nonstudentized COLS	1.0000	1.0000	0.2024	0.2024	1.0000	0.3636	0.3716	0.3716
	(15) $p_{P,N}^3$	Nonstudentized AIPW	1.0000	1.0000	0.1512	0.1512	1.0000	0.4656	0.4136	0.4136
	(16) $p_{P,S}^1$	Studentized UDIM	1.0000	1.0000	0.4068	0.4068	1.0000	0.3152	0.3592	0.3592
	(17) $p_{P,S}^2$	Studentized COLS	1.0000	1.0000	0.2540	0.2540	1.0000	0.3420	0.3492	0.3492
	(18) $p_{P,S}^3$	Studentized AIPW	1.0000	1.0000	0.2308	0.2308	1.0000	0.4692	0.4104	0.4104
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	1.0000	1.0000	0.5437	0.5437	1.0000	0.6759	0.7370	0.7370
	(20) $p_{M,N}^2$	Nonstudentized COLS	1.0000	1.0000	0.3573	0.3573	1.0000	0.3848	0.4893	0.4893
	(21) $p_{M,N}^3$	Nonstudentized AIPW	1.0000	1.0000	0.3342	0.3342	1.0000	0.5371	0.5135	0.5135
	(22) $p_{M,S}^1$	Studentized UDIM	1.0000	1.0000	0.5310	0.5310	1.0000	0.6696	0.7704	0.7704
	(23) $p_{M,S}^2$	Studentized COLS	1.0000	1.0000	0.4362	0.4362	1.0000	0.3696	0.4696	0.4696
	(24) $p_{M,S}^3$	Studentized AIPW	1.0000	1.0000	0.3667	0.3667	1.0000	0.5321	0.4982	0.4982
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	1.0000	1.0000	0.5518	0.5518	1.0000	0.6801	0.7416	0.7416
	(26) $p_{R,N}^2$	Nonstudentized COLS	1.0000	1.0000	0.3621	0.3621	1.0000	0.3889	0.4897	0.4897
	(27) $p_{R,N}^3$	Nonstudentized AIPW	1.0000	1.0000	0.3389	0.3389	1.0000	0.5384	0.5178	0.5178
	(28) $p_{R,S}^1$	Studentized UDIM	1.0000	1.0000	0.5359	0.5359	1.0000	0.6730	0.7756	0.7756
	(29) $p_{R,S}^2$	Studentized COLS	1.0000	1.0000	0.4386	0.4386	1.0000	0.3722	0.4725	0.4725
	(30) $p_{R,S}^3$	Studentized AIPW	1.0000	1.0000	0.3766	0.3766	1.0000	0.5342	0.4985	0.4985
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	1.0000	1.0000	0.6115	0.6115	1.0000	0.7076	0.7856	0.7856
	(32) $p_{D,N}^2$	Nonstudentized COLS	1.0000	1.0000	0.3912	0.3912	1.0000	0.4232	0.4897	0.4897
	(33) $p_{D,N}^3$	Nonstudentized AIPW	1.0000	1.0000	0.3916	0.3916	1.0000	0.5624	0.5553	0.5553
	(34) $p_{D,S}^1$	Studentized UDIM	1.0000	1.0000	0.5549	0.5549	1.0000	0.6863	0.8183	0.8183
	(35) $p_{D,S}^2$	Studentized COLS	1.0000	1.0000	0.4489	0.4489	1.0000	0.3943	0.4763	0.4763
	(36) $p_{D,S}^3$	Studentized AIPW	1.0000	1.0000	0.4299	0.4299	1.0000	0.6313	0.5033	0.5033

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative days jailed for violent misdemeanors				Cumulative days jailed for classified misdemeanors			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		7.0000	7.2800	4.2500	4.2500	17.000	17.960	25.100	24.850
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	1.2000	3.0000	19.130	17.826
Estimates	(iv) UDIM (difference in means)		-7.0000	-7.2800	-4.2500	-4.2500	-15.800	-14.960	-5.9696	-7.0239
	(v) COLS (conditional OLS estimate)		-7.9116	-8.3721	-5.1858	-5.1858	-18.487	-18.303	-16.036	-16.459
	(vi) AIPW (augmented IPW estimate)		-6.9425	-7.4011	-4.8761	-4.8761	-16.243	-16.496	-11.339	-11.879
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0772</b>	<b>0.0772</b>	0.1599	0.1599	0.1229	0.1516	0.4082	0.3925
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0815</b>	<b>0.0810</b>	0.1644	0.1644	0.1215	0.1479	0.2861	0.2812
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0821</b>	<b>0.0786</b>	0.1486	0.1486	0.1156	0.1292	0.3286	0.3212
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0690</b>	<b>0.0686</b>	0.1588	0.1588	0.1214	0.1474	0.4077	0.3917
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0815</b>	<b>0.0821</b>	0.1720	0.1720	0.1292	0.1532	0.2864	0.2810
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0782</b>	<b>0.0783</b>	0.2007	0.2007	0.1316	0.1543	0.3573	0.3508
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1224	0.1224	0.3620	0.3620	<b>0.0952</b>	0.1512	0.4224	0.4036
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1224	0.1224	0.3620	0.3620	<b>0.0884</b>	0.1320	0.2928	0.2900
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1224	0.1224	0.3624	0.3624	<b>0.0908</b>	0.1380	0.3500	0.3464
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0012</b>	<b>0.0004</b>	<b>0.0016</b>	0.3716	0.3564
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0024</b>	<b>0.0024</b>	<b>0.0100</b>	<b>0.0100</b>	<b>0.0016</b>	<b>0.0068</b>	0.2044	0.1980
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0056</b>	<b>0.0084</b>	<b>0.0524</b>	<b>0.0524</b>	<b>0.0124</b>	<b>0.0268</b>	0.3192	0.3112
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1172	<b>0.0996</b>	0.1092	0.1092	0.1628	0.2260	0.3700	0.3532
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0728</b>	<b>0.0568</b>	<b>0.0760</b>	<b>0.0760</b>	<b>0.0944</b>	0.1236	0.3172	0.3140
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1216	<b>0.0948</b>	0.1568	0.1568	0.1556	0.1820	0.3776	0.3748
	(16) $p_{P,S}^1$	Studentized UDIM	0.1228	0.1152	0.1168	0.1168	0.1820	0.2528	0.3676	0.3528
	(17) $p_{P,S}^2$	Studentized COLS	0.1136	<b>0.0940</b>	0.1332	0.1332	0.1604	0.2292	0.3248	0.3208
	(18) $p_{P,S}^3$	Studentized AIPW	0.2136	0.1856	0.2960	0.2960	0.1992	0.2328	0.3764	0.3680
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1428	0.1224	0.1527	0.1527	0.1969	0.2588	0.4212	0.4057
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1221	0.1110	0.1277	0.1277	0.1460	0.1799	0.3661	0.3673
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1708	0.1485	0.2156	0.2156	0.2104	0.2449	0.4244	0.4185
	(22) $p_{M,S}^1$	Studentized UDIM	0.1486	0.1380	0.1568	0.1568	0.1976	0.2716	0.4185	0.4057
	(23) $p_{M,S}^2$	Studentized COLS	0.1612	0.1476	0.2003	0.2003	0.1942	0.2645	0.3840	0.3739
	(24) $p_{M,S}^3$	Studentized AIPW	0.2196	0.1978	0.2836	0.2836	0.2144	0.2553	0.4248	0.4163
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1459	0.1227	0.1536	0.1536	0.1986	0.2679	0.4271	0.4080
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1250	0.1125	0.1285	0.1285	0.1509	0.1814	0.3721	0.3675
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1723	0.1515	0.2181	0.2181	0.2159	0.2465	0.4279	0.4232
	(28) $p_{R,S}^1$	Studentized UDIM	0.1501	0.1381	0.1575	0.1575	0.1990	0.2739	0.4245	0.4068
	(29) $p_{R,S}^2$	Studentized COLS	0.1648	0.1516	0.2018	0.2018	0.2019	0.2687	0.3894	0.3746
	(30) $p_{R,S}^3$	Studentized AIPW	0.2215	0.2009	0.2839	0.2839	0.2209	0.2620	0.4280	0.4189
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1606	0.1704	0.2096	0.2096	0.2386	0.2854	0.4805	0.4118
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1411	0.1722	0.1483	0.1483	0.2079	0.2321	0.4242	0.4248
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1819	0.1942	0.2537	0.2537	0.3111	0.2778	0.5067	0.4421
	(34) $p_{D,S}^1$	Studentized UDIM	0.1809	0.1735	0.1776	0.1776	0.2614	0.2954	0.4818	0.4118
	(35) $p_{D,S}^2$	Studentized COLS	0.2280	0.2065	0.2426	0.2426	0.2826	0.2903	0.4368	0.4002
	(36) $p_{D,S}^3$	Studentized AIPW	0.3401	0.2342	0.3226	0.3226	0.2743	0.3191	0.5039	0.4583

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative days jailed for any misdemeanors				Cumulative felony arrests for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		18.462	29.400	35.100	34.850	0.0769	0.0800	0.1000	0.1000
	(iii) Mean of the treatment group		1.5200	6.1200	22.522	21.217	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-16.942	-23.280	-12.578	-13.633	-0.0769	-0.0800	-0.1000	-0.1000
	(v) COLS (conditional OLS estimate)		-19.903	-21.422	-17.156	-17.578	-0.0814	-0.0872	-0.1086	-0.1086
	(vi) AIPW (augmented IPW estimate)		-17.451	-21.656	-14.347	-14.887	-0.0701	-0.0760	-0.0985	-0.0985
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1144	<b>0.0849</b>	0.3216	0.3081	0.1602	0.1602	0.1599	0.1599
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1116	0.1274	0.2757	0.2710	0.1662	0.1657	0.1670	0.1670
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1070	<b>0.0894</b>	0.2906	0.2838	0.1707	0.1630	0.1569	0.1569
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1123	<b>0.0705</b>	0.3164	0.3018	0.1431	0.1434	0.1400	0.1400
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1186	0.1250	0.2754	0.2701	0.1520	0.1529	0.1530	0.1530
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1207	0.1004	0.3222	0.3160	0.1452	0.1460	0.1585	0.1585
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0944</b>	<b>0.0488</b>	0.3228	0.3088	0.3412	0.3412	0.3412	0.3412
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0912</b>	<b>0.0924</b>	0.2664	0.2592	0.3412	0.3412	0.3412	0.3412
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0924</b>	<b>0.0580</b>	0.3060	0.3000	0.3416	0.3416	0.3444	0.3444
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0012</b>	0.2608	0.2456	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0024</b>	<b>0.0076</b>	0.1856	0.1780	<b>0.0016</b>	<b>0.0024</b>	<b>0.0040</b>	<b>0.0040</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0112</b>	<b>0.0144</b>	0.2596	0.2544	<b>0.0100</b>	<b>0.0164</b>	<b>0.0332</b>	<b>0.0332</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.1728	<b>0.0840</b>	0.3304	0.3168	0.2028	0.1688	<b>0.0976</b>	<b>0.0976</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0972</b>	0.1252	0.2912	0.2880	0.2176	0.1744	0.1456	0.1456
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1564	0.1272	0.3380	0.3384	0.3084	0.2616	0.2580	0.2580
	(16) $p_{P,S}^1$	Studentized UDIM	0.1848	<b>0.0904</b>	0.3360	0.3232	0.2148	0.1992	0.1064	0.1064
	(17) $p_{P,S}^2$	Studentized COLS	0.1620	0.1420	0.3036	0.3016	0.2936	0.2456	0.2432	0.2432
	(18) $p_{P,S}^3$	Studentized AIPW	0.2008	0.1240	0.3368	0.3344	0.3724	0.3224	0.3312	0.3312
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.2082	0.2078	0.4103	0.3951	0.3190	0.2931	0.1941	0.1941
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1463	0.2726	0.3911	0.3799	0.3201	0.2804	0.2417	0.2417
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.2093	0.2871	0.4430	0.4255	0.4065	0.3741	0.3578	0.3578
	(22) $p_{M,S}^1$	Studentized UDIM	0.2023	0.2347	0.4090	0.3990	0.3418	0.3280	0.1835	0.1835
	(23) $p_{M,S}^2$	Studentized COLS	0.1975	0.3064	0.3901	0.3846	0.4101	0.3684	0.3685	0.3685
	(24) $p_{M,S}^3$	Studentized AIPW	0.2201	0.2895	0.4318	0.4208	0.3909	0.3319	0.3221	0.3221
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.2135	0.2103	0.4168	0.3986	0.3275	0.3054	0.1958	0.1958
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1496	0.2870	0.3928	0.3831	0.3206	0.2805	0.2435	0.2435
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.2117	0.2879	0.4508	0.4297	0.4120	0.3819	0.3584	0.3584
	(28) $p_{R,S}^1$	Studentized UDIM	0.2048	0.2388	0.4149	0.4023	0.3469	0.3362	0.1866	0.1866
	(29) $p_{R,S}^2$	Studentized COLS	0.2055	0.3190	0.3920	0.3867	0.4192	0.3686	0.3713	0.3713
	(30) $p_{R,S}^3$	Studentized AIPW	0.2225	0.2965	0.4355	0.4226	0.3949	0.3362	0.3287	0.3287
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.2189	0.2274	0.4809	0.4128	0.3794	0.4016	0.2038	0.2038
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2059	0.3617	0.3977	0.4274	0.3301	0.3095	0.2673	0.2673
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2399	0.2927	0.4948	0.4780	0.4395	0.4520	0.4748	0.4748
	(34) $p_{D,S}^1$	Studentized UDIM	0.2872	0.2971	0.4660	0.4717	0.3626	0.3805	0.2067	0.2067
	(35) $p_{D,S}^2$	Studentized COLS	0.2437	0.3545	0.4833	0.4316	0.5532	0.4033	0.3807	0.3807
	(36) $p_{D,S}^3$	Studentized AIPW	0.2802	0.3197	0.5621	0.4534	0.4841	0.3864	0.3421	0.3421

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony arrests for classified crime				Cumulative felony arrests for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.3077	0.4000	0.4500	0.4000	0.3846	0.4800	0.5500	0.5000
	(iii) Mean of the treatment group		0.0400	0.0400	0.0652	0.0652	0.0400	0.0400	0.0870	0.0870
Estimates	(iv) UDIM (difference in means)		-0.2677	-0.3600	-0.3848	-0.3348	-0.3446	-0.4400	-0.4630	-0.4130
	(v) COLS (conditional OLS estimate)		-0.2829	-0.3571	-0.3919	-0.3616	-0.3674	-0.4483	-0.4923	-0.4620
	(vi) AIPW (augmented IPW estimate)		-0.2565	-0.3255	-0.3382	-0.3012	-0.3304	-0.4064	-0.4255	-0.3885
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0568</b>	<b>0.0277</b>	<b>0.0455</b>	<b>0.0736</b>	<b>0.0526</b>	<b>0.0278</b>	<b>0.0506</b>	<b>0.0749</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0610</b>	<b>0.0385</b>	<b>0.0576</b>	<b>0.0742</b>	<b>0.0563</b>	<b>0.0383</b>	<b>0.0595</b>	<b>0.0730</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0527</b>	<b>0.0310</b>	<b>0.0569</b>	<b>0.0813</b>	<b>0.0494</b>	<b>0.0302</b>	<b>0.0588</b>	<b>0.0781</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0524</b>	<b>0.0249</b>	<b>0.0430</b>	<b>0.0656</b>	<b>0.0480</b>	<b>0.0249</b>	<b>0.0482</b>	<b>0.0681</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0544</b>	<b>0.0361</b>	<b>0.0559</b>	<b>0.0708</b>	<b>0.0502</b>	<b>0.0357</b>	<b>0.0571</b>	<b>0.0694</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0454</b>	<b>0.0334</b>	<b>0.0787</b>	0.1025	<b>0.0428</b>	<b>0.0330</b>	<b>0.0810</b>	0.1001
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0296</b>	<b>0.0100</b>	<b>0.0272</b>	<b>0.0524</b>	<b>0.0240</b>	<b>0.0076</b>	<b>0.0300</b>	<b>0.0540</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0268</b>	<b>0.0100</b>	<b>0.0212</b>	<b>0.0356</b>	<b>0.0240</b>	<b>0.0080</b>	<b>0.0252</b>	<b>0.0368</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0244</b>	<b>0.0128</b>	<b>0.0416</b>	<b>0.0680</b>	<b>0.0220</b>	<b>0.0116</b>	<b>0.0412</b>	<b>0.0660</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0016</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0020</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0020</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0020</b>	<b>0.0028</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0004</b>	<b>0.0024</b>	<b>0.0124</b>	<b>0.0184</b>	<b>0.0020</b>	<b>0.0024</b>	<b>0.0188</b>	<b>0.0256</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0408</b>	<b>0.0176</b>	<b>0.0236</b>	<b>0.0632</b>	<b>0.0356</b>	<b>0.0140</b>	<b>0.0288</b>	<b>0.0620</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0504</b>	<b>0.0340</b>	<b>0.0488</b>	<b>0.0696</b>	<b>0.0420</b>	<b>0.0288</b>	<b>0.0420</b>	<b>0.0552</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0760</b>	<b>0.0620</b>	0.1144	0.1536	<b>0.0660</b>	<b>0.0544</b>	0.1144	0.1432
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0388</b>	<b>0.0216</b>	<b>0.0520</b>	<b>0.0972</b>	<b>0.0364</b>	<b>0.0200</b>	<b>0.0608</b>	0.1000
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0512</b>	<b>0.0364</b>	<b>0.0588</b>	<b>0.0836</b>	<b>0.0456</b>	<b>0.0344</b>	<b>0.0640</b>	<b>0.0872</b>
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0632</b>	<b>0.0468</b>	0.1040	0.1428	<b>0.0608</b>	<b>0.0444</b>	0.1048	0.1400
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0910</b>	<b>0.0619</b>	<b>0.0648</b>	<b>0.0898</b>	<b>0.0831</b>	<b>0.0500</b>	<b>0.0710</b>	<b>0.0927</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1065	<b>0.0609</b>	<b>0.0817</b>	<b>0.0999</b>	<b>0.0823</b>	<b>0.0540</b>	<b>0.0702</b>	<b>0.0876</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1537	<b>0.0940</b>	0.1618	0.1859	0.1193	<b>0.0868</b>	0.1599	0.1772
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0879</b>	<b>0.0600</b>	0.1035	0.1201	<b>0.0815</b>	<b>0.0477</b>	<b>0.0900</b>	0.1182
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0907</b>	<b>0.0676</b>	<b>0.0965</b>	0.1002	<b>0.0800</b>	<b>0.0650</b>	<b>0.0878</b>	0.1089
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0938</b>	<b>0.0746</b>	0.1237	0.1519	<b>0.0880</b>	<b>0.0638</b>	0.1217	0.1463
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	<b>0.0933</b>	<b>0.0633</b>	<b>0.0666</b>	<b>0.0903</b>	<b>0.0869</b>	<b>0.0505</b>	<b>0.0722</b>	<b>0.0934</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1066	<b>0.0642</b>	<b>0.0849</b>	0.1009	<b>0.0866</b>	<b>0.0582</b>	<b>0.0759</b>	<b>0.0899</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1537	<b>0.0977</b>	0.1651	0.1915	0.1264	<b>0.0901</b>	0.1656	0.1787
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0905</b>	<b>0.0614</b>	0.1058	0.1289	<b>0.0834</b>	<b>0.0488</b>	<b>0.0923</b>	0.1213
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0957</b>	<b>0.0688</b>	0.1007	0.1002	<b>0.0811</b>	<b>0.0685</b>	<b>0.0882</b>	0.1171
	(30) $p_{R,S}^3$	Studentized AIPW	<b>0.0957</b>	<b>0.0769</b>	0.1240	0.1532	<b>0.0896</b>	<b>0.0660</b>	0.1271	0.1501
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1236	<b>0.0660</b>	<b>0.0823</b>	0.1265	0.1082	<b>0.0777</b>	<b>0.0838</b>	0.1101
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1364	<b>0.0780</b>	0.1440	0.1155	0.1328	<b>0.0810</b>	<b>0.0962</b>	0.1199
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1872	0.1382	0.2026	0.2332	0.1404	0.1004	0.1791	0.2025
	(34) $p_{D,S}^1$	Studentized UDIM	0.1336	<b>0.0889</b>	0.1124	0.1882	0.1019	<b>0.0595</b>	0.1215	0.1559
	(35) $p_{D,S}^2$	Studentized COLS	0.1754	<b>0.0784</b>	0.1287	0.1215	<b>0.0859</b>	<b>0.0832</b>	0.1317	0.2432
	(36) $p_{D,S}^3$	Studentized AIPW	0.1145	<b>0.0907</b>	0.1872	0.1868	0.1040	0.1117	0.1756	0.1813

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony convictions for violent crime				Cumulative felony convictions for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.0385	0.0400	0.0500	0.0500	0.1923	0.2400	0.3000	0.2500
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	0.0400	0.0400	0.0435	0.0435
Estimates	(iv) UDIM (difference in means)		-0.0385	-0.0400	-0.0500	-0.0500	-0.1523	-0.2000	-0.2565	-0.2065
	(v) COLS (conditional OLS estimate)		-0.0407	-0.0436	-0.0543	-0.0543	-0.1584	-0.1842	-0.2488	-0.2185
	(vi) AIPW (augmented IPW estimate)		-0.0350	-0.0380	-0.0492	-0.0492	-0.1489	-0.1769	-0.2169	-0.1799
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1602	0.1602	0.1599	0.1599	<b>0.0704</b>	<b>0.0552</b>	<b>0.0449</b>	<b>0.0865</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1662	0.1657	0.1670	0.1670	<b>0.0733</b>	<b>0.0692</b>	<b>0.0522</b>	<b>0.0780</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1707	0.1630	0.1569	0.1569	<b>0.0565</b>	<b>0.0533</b>	<b>0.0516</b>	<b>0.0906</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1431	0.1434	0.1400	0.1400	<b>0.0688</b>	<b>0.0550</b>	<b>0.0459</b>	<b>0.0794</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1520	0.1529	0.1530	0.1530	<b>0.0667</b>	<b>0.0694</b>	<b>0.0551</b>	<b>0.0794</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1452	0.1460	0.1585	0.1585	<b>0.0588</b>	<b>0.0725</b>	<b>0.0989</b>	0.1388
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3412	0.3412	0.3412	0.3412	<b>0.0588</b>	<b>0.0460</b>	<b>0.0368</b>	<b>0.0800</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3412	0.3412	0.3412	0.3412	<b>0.0504</b>	<b>0.0520</b>	<b>0.0400</b>	<b>0.0648</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3416	0.3416	0.3444	0.3444	<b>0.0484</b>	<b>0.0512</b>	<b>0.0544</b>	<b>0.0976</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0032</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0036</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0016</b>	<b>0.0024</b>	<b>0.0040</b>	<b>0.0040</b>	<b>0.0068</b>	<b>0.0028</b>	<b>0.0024</b>	<b>0.0040</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0100</b>	<b>0.0164</b>	<b>0.0332</b>	<b>0.0332</b>	<b>0.0100</b>	<b>0.0116</b>	<b>0.0292</b>	<b>0.0432</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2028	0.1688	<b>0.0976</b>	<b>0.0976</b>	<b>0.0688</b>	<b>0.0728</b>	<b>0.0508</b>	0.1144
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2176	0.1744	0.1456	0.1456	<b>0.0804</b>	0.1108	<b>0.0788</b>	0.1148
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3084	0.2616	0.2580	0.2580	<b>0.0944</b>	0.1264	0.1220	0.1796
	(16) $p_{P,S}^1$	Studentized UDIM	0.2148	0.1992	0.1064	0.1064	<b>0.0628</b>	<b>0.0672</b>	<b>0.0568</b>	0.1128
	(17) $p_{P,S}^2$	Studentized COLS	0.2936	0.2456	0.2432	0.2432	<b>0.0800</b>	<b>0.0920</b>	<b>0.0748</b>	<b>0.0972</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.3724	0.3224	0.3312	0.3312	<b>0.0800</b>	<b>0.0952</b>	0.1016	0.1560
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3190	0.2931	0.1941	0.1941	0.1537	0.1237	<b>0.0977</b>	0.1292
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.3201	0.2804	0.2417	0.2417	0.1574	0.1342	0.1198	0.1266
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4065	0.3741	0.3578	0.3578	0.1744	0.1611	0.1586	0.1880
	(22) $p_{M,S}^1$	Studentized UDIM	0.3418	0.3280	0.1835	0.1835	0.1453	0.1159	<b>0.0919</b>	0.1278
	(23) $p_{M,S}^2$	Studentized COLS	0.4101	0.3684	0.3685	0.3685	0.1361	0.1186	0.1055	0.1036
	(24) $p_{M,S}^3$	Studentized AIPW	0.3909	0.3319	0.3221	0.3221	0.1403	0.1235	0.1370	0.1619
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3275	0.3054	0.1958	0.1958	0.1579	0.1242	<b>0.0987</b>	0.1309
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3206	0.2805	0.2435	0.2435	0.1592	0.1373	0.1258	0.1298
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4120	0.3819	0.3584	0.3584	0.1764	0.1623	0.1681	0.1943
	(28) $p_{R,S}^1$	Studentized UDIM	0.3469	0.3362	0.1866	0.1866	0.1470	0.1160	<b>0.0926</b>	0.1296
	(29) $p_{R,S}^2$	Studentized COLS	0.4192	0.3686	0.3713	0.3713	0.1381	0.1189	0.1072	0.1044
	(30) $p_{R,S}^3$	Studentized AIPW	0.3949	0.3362	0.3287	0.3287	0.1415	0.1239	0.1428	0.1696
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.3794	0.4016	0.2038	0.2038	0.1908	0.2095	0.1054	0.1407
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.3301	0.3095	0.2673	0.2673	0.1685	0.1528	0.1520	0.1500
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4395	0.4520	0.4748	0.4748	0.1834	0.1743	0.2224	0.2356
	(34) $p_{D,S}^1$	Studentized UDIM	0.3626	0.3805	0.2067	0.2067	0.2030	0.1253	0.1230	0.1346
	(35) $p_{D,S}^2$	Studentized COLS	0.5532	0.4033	0.3807	0.3807	0.1917	0.1410	0.1382	0.1243
	(36) $p_{D,S}^3$	Studentized AIPW	0.4841	0.3864	0.3421	0.3421	0.1649	0.1470	0.1714	0.3226

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative felony convictions for any crime				Cumulative fines for violent felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.2692	0.3200	0.4000	0.3500	0.0000	0.0000	0.0000	0.0000
	(iii) Mean of the treatment group		0.0400	0.0400	0.0435	0.0435	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-0.2292	-0.2800	-0.3565	-0.3065	0.0000	0.0000	0.0000	0.0000
	(v) COLS (conditional OLS estimate)		-0.2429	-0.2754	-0.3642	-0.3338	0.0000	0.0000	0.0000	0.0000
	(vi) AIPW (augmented IPW estimate)		-0.2228	-0.2578	-0.3235	-0.2865	0.0000	0.0000	0.0000	0.0000
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0599</b>	<b>0.0453</b>	<b>0.0381</b>	<b>0.0662</b>	0.5000	0.5000	0.5000	0.5000
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0646</b>	<b>0.0612</b>	<b>0.0492</b>	<b>0.0663</b>	0.5000	0.5000	0.5000	0.5000
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0527</b>	<b>0.0461</b>	<b>0.0460</b>	<b>0.0696</b>	0.5000	0.5000	0.5000	0.5000
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0573</b>	<b>0.0439</b>	<b>0.0372</b>	<b>0.0594</b>	0.5000	0.5000	0.5000	0.5000
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0597</b>	<b>0.0606</b>	<b>0.0501</b>	<b>0.0664</b>	0.5000	0.5000	0.5000	0.5000
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0528</b>	<b>0.0611</b>	<b>0.0835</b>	0.1088	0.5000	0.5000	0.5000	0.5000
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0404</b>	<b>0.0312</b>	<b>0.0264</b>	<b>0.0536</b>	1.0000	1.0000	1.0000	1.0000
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0404</b>	<b>0.0416</b>	<b>0.0344</b>	<b>0.0556</b>	1.0000	1.0000	1.0000	1.0000
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0368</b>	<b>0.0400</b>	<b>0.0460</b>	<b>0.0800</b>	1.0000	1.0000	1.0000	1.0000
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0020</b>	1.0000	1.0000	1.0000	1.0000
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0028</b>	<b>0.0028</b>	<b>0.0028</b>	<b>0.0040</b>	1.0000	1.0000	1.0000	1.0000
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0056</b>	<b>0.0084</b>	<b>0.0240</b>	<b>0.0300</b>	1.0000	1.0000	1.0000	1.0000
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0616</b>	<b>0.0608</b>	<b>0.0372</b>	<b>0.0872</b>	1.0000	1.0000	1.0000	1.0000
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0648</b>	<b>0.0828</b>	<b>0.0492</b>	<b>0.0760</b>	1.0000	1.0000	1.0000	1.0000
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0804</b>	0.1040	0.1004	0.1376	1.0000	1.0000	1.0000	1.0000
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0572</b>	<b>0.0596</b>	<b>0.0532</b>	0.1020	1.0000	1.0000	1.0000	1.0000
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0716</b>	<b>0.0868</b>	<b>0.0732</b>	<b>0.0992</b>	1.0000	1.0000	1.0000	1.0000
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0812</b>	<b>0.0876</b>	<b>0.0992</b>	0.1372	1.0000	1.0000	1.0000	1.0000
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1158	<b>0.0985</b>	<b>0.0755</b>	0.1081	1.0000	1.0000	1.0000	1.0000
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1222	0.1142	<b>0.0802</b>	<b>0.0904</b>	1.0000	1.0000	1.0000	1.0000
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1519	0.1325	0.1378	0.1520	1.0000	1.0000	1.0000	1.0000
	(22) $p_{M,S}^1$	Studentized UDIM	0.1092	<b>0.0903</b>	<b>0.0813</b>	0.1099	1.0000	1.0000	1.0000	1.0000
	(23) $p_{M,S}^2$	Studentized COLS	0.1140	0.1115	<b>0.0987</b>	0.1055	1.0000	1.0000	1.0000	1.0000
	(24) $p_{M,S}^3$	Studentized AIPW	0.1259	0.1058	0.1210	0.1373	1.0000	1.0000	1.0000	1.0000
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1177	<b>0.0994</b>	<b>0.0776</b>	0.1108	1.0000	1.0000	1.0000	1.0000
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1243	0.1148	<b>0.0820</b>	<b>0.0953</b>	1.0000	1.0000	1.0000	1.0000
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1526	0.1334	0.1383	0.1522	1.0000	1.0000	1.0000	1.0000
	(28) $p_{R,S}^1$	Studentized UDIM	0.1095	<b>0.0910</b>	<b>0.0818</b>	0.1107	1.0000	1.0000	1.0000	1.0000
	(29) $p_{R,S}^2$	Studentized COLS	0.1179	0.1138	<b>0.0989</b>	0.1072	1.0000	1.0000	1.0000	1.0000
	(30) $p_{R,S}^3$	Studentized AIPW	0.1279	0.1062	0.1252	0.1380	1.0000	1.0000	1.0000	1.0000
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1665	0.1186	0.1149	0.1248	1.0000	1.0000	1.0000	1.0000
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1544	0.1198	<b>0.0896</b>	0.1349	1.0000	1.0000	1.0000	1.0000
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1996	0.1802	0.1489	0.1593	1.0000	1.0000	1.0000	1.0000
	(34) $p_{D,S}^1$	Studentized UDIM	0.1885	0.1105	<b>0.0968</b>	0.1268	1.0000	1.0000	1.0000	1.0000
	(35) $p_{D,S}^2$	Studentized COLS	0.2525	0.1694	0.1562	0.1187	1.0000	1.0000	1.0000	1.0000
	(36) $p_{D,S}^3$	Studentized AIPW	0.1391	0.1480	0.1522	0.1493	1.0000	1.0000	1.0000	1.0000

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative fines for classified felonies				Cumulative fines for any felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		46.081	214.01	267.51	255.21	95.244	265.14	331.43	319.12
	(iii) Mean of the treatment group		46.236	46.236	50.257	50.257	46.236	46.236	50.257	50.257
Estimates	(iv) UDIM (difference in means)		0.1552	-167.77	-217.26	-204.96	-49.008	-218.90	-281.17	-268.87
	(v) COLS (conditional OLS estimate)		-8.1584	-135.44	-195.45	-187.99	-63.143	-194.93	-271.26	-263.80
	(vi) AIPW (augmented IPW estimate)		-6.5045	-130.37	-145.12	-136.01	-54.887	-183.60	-215.80	-206.69
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.4990	0.1702	0.1584	0.1737	0.2878	0.1205	0.1106	0.1224
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.4452	0.1716	0.1481	0.1587	0.2547	0.1182	0.1018	0.1092
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.4508	0.1742	0.1862	0.2035	0.2535	0.1178	0.1253	0.1372
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.4989	0.1637	0.1554	0.1693	0.2852	0.1146	0.1082	0.1186
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.4446	0.1662	0.1522	0.1622	0.2587	0.1165	0.1087	0.1157
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.4539	0.1953	0.2577	0.2714	0.2701	0.1451	0.2033	0.2138
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.4992	0.1728	0.1584	0.2076	0.3012	0.1064	<b>0.0972</b>	0.1152
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.4480	0.1712	0.1456	0.1848	0.2732	0.1028	<b>0.0888</b>	0.1052
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.4492	0.1700	0.1772	0.2236	0.2780	0.1124	0.1212	0.1388
	(10) $p_{B,S}^1$	Studentized UDIM	0.4900	<b>0.0060</b>	<b>0.0032</b>	<b>0.0076</b>	0.2096	<b>0.0012</b>	<b>0.0008</b>	<b>0.0020</b>
	(11) $p_{B,S}^2$	Studentized COLS	0.4176	<b>0.0184</b>	<b>0.0144</b>	<b>0.0192</b>	0.1308	<b>0.0036</b>	<b>0.0032</b>	<b>0.0052</b>
	(12) $p_{B,S}^3$	Studentized AIPW	0.4528	<b>0.0628</b>	0.1096	0.1208	0.1592	<b>0.0300</b>	<b>0.0724</b>	<b>0.0780</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.4904	0.2580	0.2112	0.2512	0.3112	0.1848	0.1384	0.1724
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.4280	0.3468	0.2620	0.2804	0.3072	0.2392	0.1752	0.1860
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.4436	0.3476	0.3216	0.3436	0.3232	0.2484	0.2380	0.2468
	(16) $p_{P,S}^1$	Studentized UDIM	0.4832	0.2668	0.2332	0.2952	0.3056	0.1828	0.1776	0.1880
	(17) $p_{P,S}^2$	Studentized COLS	0.4216	0.2732	0.2112	0.2328	0.3036	0.1844	0.1736	0.1768
	(18) $p_{P,S}^3$	Studentized AIPW	0.4368	0.2956	0.3088	0.3340	0.3156	0.2184	0.2352	0.2456
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.6394	0.2988	0.2515	0.2769	0.3634	0.2104	0.1919	0.2052
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.5074	0.3285	0.2799	0.2967	0.3507	0.2388	0.1900	0.1970
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.5373	0.3411	0.3417	0.3544	0.3712	0.2493	0.2532	0.2605
	(22) $p_{M,S}^1$	Studentized UDIM	0.6343	0.3314	0.2837	0.3227	0.3584	0.2072	0.1975	0.2054
	(23) $p_{M,S}^2$	Studentized COLS	0.5039	0.2926	0.2314	0.2396	0.3439	0.1989	0.1862	0.1924
	(24) $p_{M,S}^3$	Studentized AIPW	0.5288	0.3407	0.3687	0.3864	0.3574	0.2496	0.2741	0.2770
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.6444	0.3098	0.2549	0.2827	0.3677	0.2141	0.1967	0.2113
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.5108	0.3308	0.2847	0.3051	0.3551	0.2474	0.1911	0.1992
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.5422	0.3414	0.3450	0.3641	0.3828	0.2500	0.2541	0.2613
	(28) $p_{R,S}^1$	Studentized UDIM	0.6407	0.3466	0.2850	0.3311	0.3628	0.2100	0.2006	0.2113
	(29) $p_{R,S}^2$	Studentized COLS	0.5102	0.2981	0.2314	0.2455	0.3508	0.2028	0.1871	0.1941
	(30) $p_{R,S}^3$	Studentized AIPW	0.5378	0.3452	0.3711	0.3894	0.3619	0.2526	0.2747	0.2786
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.6807	0.3986	0.2596	0.3707	0.4304	0.2698	0.2233	0.2900
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.5361	0.3511	0.3246	0.3284	0.3899	0.2752	0.3719	0.3648
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.6160	0.3536	0.4498	0.4394	0.4522	0.2870	0.3921	0.2668
	(34) $p_{D,S}^1$	Studentized UDIM	0.6961	0.4166	0.3421	0.3737	0.4247	0.2664	0.2694	0.2602
	(35) $p_{D,S}^2$	Studentized COLS	0.5775	0.3378	0.2622	0.3497	0.3832	0.2951	0.2398	0.2614
	(36) $p_{D,S}^3$	Studentized AIPW	0.5701	0.4135	0.4187	0.4007	0.4344	0.2951	0.3973	0.3747

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative probabon for violent felonies				Cumulative probabon for classified felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.0000	0.0000	0.0000	0.0000	2.3077	2.4000	3.0000	2.4000
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	0.9600	0.9600	1.0435	1.0435
Estimates	(iv) UDIM (difference in means)		0.0000	0.0000	0.0000	0.0000	-1.3477	-1.4400	-1.9565	-1.3565
	(v) COLS (conditional OLS estimate)		0.0000	0.0000	0.0000	0.0000	-1.6782	-1.1363	-1.7895	-1.4256
	(vi) AIPW (augmented IPW estimate)		0.0000	0.0000	0.0000	0.0000	-1.6189	-1.1677	-1.3599	-0.9158
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.5000	0.5000	0.5000	0.5000	0.2230	0.2140	0.1836	0.2647
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.5000	0.5000	0.5000	0.5000	0.1962	0.2295	0.1691	0.2229
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.5000	0.5000	0.5000	0.5000	0.1662	0.2118	0.2075	0.2941
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.5000	0.5000	0.5000	0.5000	0.2097	0.2091	0.1838	0.2593
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.5000	0.5000	0.5000	0.5000	0.1810	0.2224	0.1745	0.2263
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.5000	0.5000	0.5000	0.5000	0.1818	0.2348	0.2734	0.3409
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.2112	0.2236	0.1876	0.2872
	(08) $p_{B,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.1800	0.2372	0.1804	0.2536
	(09) $p_{B,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.1736	0.2276	0.2248	0.3248
	(10) $p_{B,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.1136	0.1032	<b>0.0600</b>	0.1600
	(11) $p_{B,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	<b>0.0668</b>	0.1220	<b>0.0480</b>	0.1048
	(12) $p_{B,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	<b>0.0816</b>	0.1392	0.1584	0.2292
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.2460	0.2984	0.2608	0.3452
	(14) $p_{P,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.1992	0.3384	0.2828	0.3348
	(15) $p_{P,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.2144	0.3324	0.3212	0.3900
	(16) $p_{P,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.2388	0.2896	0.2660	0.3492
	(17) $p_{P,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.2248	0.3092	0.2592	0.3208
	(18) $p_{P,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.2172	0.3064	0.2984	0.3776
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3433	0.3551	0.3346	0.3656
	(20) $p_{M,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.3057	0.3497	0.3195	0.3382
	(21) $p_{M,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.3143	0.3486	0.3464	0.3977
	(22) $p_{M,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3334	0.3417	0.3227	0.3624
	(23) $p_{M,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.3182	0.3321	0.3004	0.3224
	(24) $p_{M,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.3099	0.3376	0.3362	0.3907
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3448	0.3673	0.3484	0.3731
	(26) $p_{R,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.3071	0.3529	0.3279	0.3415
	(27) $p_{R,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.3176	0.3497	0.3473	0.3988
	(28) $p_{R,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3352	0.3543	0.3262	0.3701
	(29) $p_{R,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.3207	0.3338	0.3074	0.3263
	(30) $p_{R,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.3117	0.3448	0.3454	0.3943
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3898	0.4507	0.4967	0.4132
	(32) $p_{D,N}^2$	Nonstudentized COLS	1.0000	1.0000	1.0000	1.0000	0.3329	0.3952	0.4230	0.3955
	(33) $p_{D,N}^3$	Nonstudentized AIPW	1.0000	1.0000	1.0000	1.0000	0.4944	0.3693	0.4061	0.4109
	(34) $p_{D,S}^1$	Studentized UDIM	1.0000	1.0000	1.0000	1.0000	0.3618	0.4303	0.3435	0.4703
	(35) $p_{D,S}^2$	Studentized COLS	1.0000	1.0000	1.0000	1.0000	0.3453	0.3777	0.3342	0.3777
	(36) $p_{D,S}^3$	Studentized AIPW	1.0000	1.0000	1.0000	1.0000	0.3131	0.4062	0.4304	0.5988

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Cumulative probation for any felonies				Cumulative prison sentence for violent felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		4.6154	4.8000	6.0000	5.4000	1.8462	1.9200	2.4000	2.4000
	(iii) Mean of the treatment group		0.9600	0.9600	1.0435	1.0435	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-3.6554	-3.8400	-4.9565	-4.3565	-1.8462	-1.9200	-2.4000	-2.4000
	(v) COLS (conditional OLS estimate)		-4.1568	-3.8004	-5.1292	-4.7653	-1.9528	-2.0936	-2.6076	-2.6076
	(vi) AIPW (augmented IPW estimate)		-3.7661	-3.5054	-4.4120	-3.9680	-1.6814	-1.8228	-2.3638	-2.3638
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0801</b>	<b>0.0766</b>	<b>0.0638</b>	<b>0.0931</b>	0.1602	0.1602	0.1599	0.1599
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0731</b>	<b>0.0866</b>	<b>0.0673</b>	<b>0.0837</b>	0.1662	0.1657	0.1670	0.1670
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0610</b>	<b>0.0750</b>	<b>0.0702</b>	<b>0.0945</b>	0.1707	0.1630	0.1569	0.1569
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0743</b>	<b>0.0739</b>	<b>0.0614</b>	<b>0.0859</b>	0.1431	0.1434	0.1400	0.1400
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0647</b>	<b>0.0856</b>	<b>0.0686</b>	<b>0.0842</b>	0.1520	0.1529	0.1530	0.1530
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0632</b>	<b>0.0905</b>	0.1117	0.1362	0.1452	0.1460	0.1585	0.1585
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0668</b>	<b>0.0708</b>	<b>0.0536</b>	<b>0.0868</b>	0.3412	0.3412	0.3412	0.3412
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0528</b>	<b>0.0712</b>	<b>0.0516</b>	<b>0.0712</b>	0.3412	0.3412	0.3412	0.3412
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0532</b>	<b>0.0716</b>	<b>0.0724</b>	0.1028	0.3416	0.3416	0.3444	0.3444
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0028</b>	<b>0.0020</b>	<b>0.0024</b>	<b>0.0044</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0076</b>	<b>0.0060</b>	<b>0.0040</b>	<b>0.0056</b>	<b>0.0016</b>	<b>0.0024</b>	<b>0.0040</b>	<b>0.0040</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0096</b>	<b>0.0136</b>	<b>0.0320</b>	<b>0.0436</b>	<b>0.0100</b>	<b>0.0164</b>	<b>0.0332</b>	<b>0.0332</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0784</b>	<b>0.0988</b>	<b>0.0764</b>	0.1168	0.2028	0.1688	<b>0.0976</b>	<b>0.0976</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0664</b>	0.1268	<b>0.0892</b>	0.1096	0.2176	0.1744	0.1456	0.1456
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0944</b>	0.1516	0.1464	0.1784	0.3084	0.2616	0.2580	0.2580
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0776</b>	0.1032	<b>0.0940</b>	0.1136	0.2148	0.1992	0.1064	0.1064
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0804</b>	0.1088	<b>0.0928</b>	<b>0.0988</b>	0.2936	0.2456	0.2432	0.2432
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0896</b>	0.1236	0.1248	0.1552	0.3724	0.3224	0.3312	0.3312
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1553	0.1329	0.1074	0.1323	0.3190	0.2931	0.1941	0.1941
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1471	0.1378	0.1142	0.1235	0.3201	0.2804	0.2417	0.2417
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1691	0.1659	0.1751	0.1887	0.4065	0.3741	0.3578	0.3578
	(22) $p_{M,S}^1$	Studentized UDIM	0.1503	0.1281	0.1061	0.1278	0.3418	0.3280	0.1835	0.1835
	(23) $p_{M,S}^2$	Studentized COLS	0.1332	0.1200	0.1012	0.1036	0.4101	0.3684	0.3685	0.3685
	(24) $p_{M,S}^3$	Studentized AIPW	0.1420	0.1349	0.1434	0.1567	0.3909	0.3319	0.3221	0.3221
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1604	0.1338	0.1078	0.1329	0.3275	0.3054	0.1958	0.1958
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1490	0.1405	0.1161	0.1289	0.3206	0.2805	0.2435	0.2435
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1736	0.1677	0.1777	0.1888	0.4120	0.3819	0.3584	0.3584
	(28) $p_{R,S}^1$	Studentized UDIM	0.1563	0.1313	0.1068	0.1296	0.3469	0.3362	0.1866	0.1866
	(29) $p_{R,S}^2$	Studentized COLS	0.1377	0.1228	0.1044	0.1044	0.4192	0.3686	0.3713	0.3713
	(30) $p_{R,S}^3$	Studentized AIPW	0.1437	0.1352	0.1473	0.1584	0.3949	0.3362	0.3287	0.3287
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.2051	0.1378	0.1563	0.1413	0.3794	0.4016	0.2038	0.2038
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1550	0.1498	0.1321	0.1986	0.3301	0.3095	0.2673	0.2673
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1804	0.1930	0.2244	0.2313	0.4395	0.4520	0.4748	0.4748
	(34) $p_{D,S}^1$	Studentized UDIM	0.1929	0.1596	0.1439	0.1346	0.3626	0.3805	0.2067	0.2067
	(35) $p_{D,S}^2$	Studentized COLS	0.2143	0.1702	0.1364	0.1217	0.5532	0.4033	0.3807	0.3807
	(36) $p_{D,S}^3$	Studentized AIPW	0.1468	0.1616	0.1902	0.2047	0.4841	0.3864	0.3421	0.3421

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10:** Treatment Effects on the Crime Outcomes of the **Female** Participants

	Statistic or $p$ -value	Test statistic	Cumulative prison sentence for classified felonies				Cumulative prison sentence for any felonies			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		2.2885	4.0600	5.0750	5.0250	2.6923	4.4800	5.6000	5.5500
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-2.2885	-4.0600	-5.0750	-5.0250	-2.6923	-4.4800	-5.6000	-5.5500
	(v) COLS (conditional OLS estimate)		-2.4311	-3.8389	-4.9546	-4.9242	-2.8912	-4.3381	-5.5952	-5.5648
	(vi) AIPW (augmented IPW estimate)		-2.1172	-3.5064	-4.2265	-4.1895	-2.5248	-3.9569	-4.8289	-4.7919
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1126	<b>0.0549</b>	<b>0.0532</b>	<b>0.0554</b>	<b>0.0893</b>	<b>0.0439</b>	<b>0.0421</b>	<b>0.0439</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1176	<b>0.0652</b>	<b>0.0624</b>	<b>0.0638</b>	<b>0.0931</b>	<b>0.0522</b>	<b>0.0493</b>	<b>0.0504</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1186	<b>0.0603</b>	<b>0.0643</b>	<b>0.0663</b>	<b>0.0925</b>	<b>0.0469</b>	<b>0.0497</b>	<b>0.0513</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0985</b>	<b>0.0455</b>	<b>0.0425</b>	<b>0.0442</b>	<b>0.0787</b>	<b>0.0362</b>	<b>0.0336</b>	<b>0.0349</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1054	<b>0.0605</b>	<b>0.0583</b>	<b>0.0595</b>	<b>0.0845</b>	<b>0.0488</b>	<b>0.0468</b>	<b>0.0479</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0979</b>	<b>0.0639</b>	<b>0.0966</b>	<b>0.0987</b>	<b>0.0794</b>	<b>0.0536</b>	<b>0.0841</b>	<b>0.0859</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0472</b>	<b>0.0164</b>	<b>0.0164</b>	<b>0.0440</b>	<b>0.0472</b>	<b>0.0164</b>	<b>0.0164</b>	<b>0.0440</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0560</b>	<b>0.0208</b>	<b>0.0204</b>	<b>0.0468</b>	<b>0.0560</b>	<b>0.0204</b>	<b>0.0200</b>	<b>0.0464</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0472</b>	<b>0.0208</b>	<b>0.0296</b>	<b>0.0568</b>	<b>0.0472</b>	<b>0.0208</b>	<b>0.0284</b>	<b>0.0556</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0008</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0024</b>	<b>0.0008</b>	<b>0.0012</b>	<b>0.0012</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0052</b>	<b>0.0052</b>	<b>0.0180</b>	<b>0.0184</b>	<b>0.0060</b>	<b>0.0048</b>	<b>0.0196</b>	<b>0.0196</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0716</b>	<b>0.0324</b>	<b>0.0192</b>	<b>0.0248</b>	<b>0.0708</b>	<b>0.0308</b>	<b>0.0164</b>	<b>0.0220</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.1028	0.1068	<b>0.0640</b>	<b>0.0672</b>	<b>0.0860</b>	<b>0.0808</b>	<b>0.0456</b>	<b>0.0452</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1644	0.1588	0.1496	0.1548	0.1328	0.1288	0.1164	0.1200
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0336</b>	<b>0.0180</b>	<b>0.0072</b>	<b>0.0256</b>	<b>0.0336</b>	<b>0.0192</b>	<b>0.0088</b>	<b>0.0256</b>
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0880</b>	<b>0.0840</b>	<b>0.0356</b>	<b>0.0560</b>	<b>0.0876</b>	<b>0.0680</b>	<b>0.0252</b>	<b>0.0348</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.1840	0.1364	0.1688	0.1764	0.1684	0.1252	0.1568	0.1628
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1300	<b>0.0723</b>	<b>0.0523</b>	<b>0.0653</b>	0.1300	<b>0.0708</b>	<b>0.0484</b>	<b>0.0604</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1592	0.1113	<b>0.0817</b>	<b>0.0836</b>	0.1388	<b>0.0996</b>	<b>0.0661</b>	<b>0.0661</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.2462	0.1691	0.1855	0.1832	0.1915	0.1421	0.1434	0.1434
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0978</b>	<b>0.0627</b>	<b>0.0416</b>	<b>0.0604</b>	<b>0.0978</b>	<b>0.0627</b>	<b>0.0416</b>	<b>0.0604</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.1567	0.1094	<b>0.0627</b>	<b>0.0754</b>	0.1622	0.1032	<b>0.0517</b>	<b>0.0625</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.1943	0.1676	0.1898	0.1906	0.1815	0.1592	0.1714	0.1729
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1351	<b>0.0741</b>	<b>0.0526</b>	<b>0.0667</b>	0.1351	<b>0.0726</b>	<b>0.0498</b>	<b>0.0618</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1604	0.1116	<b>0.0819</b>	<b>0.0839</b>	0.1397	0.1015	<b>0.0667</b>	<b>0.0679</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.2470	0.1716	0.1949	0.1908	0.1950	0.1431	0.1436	0.1510
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0990</b>	<b>0.0642</b>	<b>0.0467</b>	<b>0.0618</b>	<b>0.0990</b>	<b>0.0642</b>	<b>0.0467</b>	<b>0.0618</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.1600	0.1123	<b>0.0705</b>	<b>0.0799</b>	0.1641	0.1079	<b>0.0531</b>	<b>0.0637</b>
	(30) $p_{R,S}^3$	Studentized AIPW	0.1959	0.1786	0.1958	0.1968	0.1866	0.1612	0.1755	0.1806
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1812	<b>0.0821</b>	<b>0.0585</b>	<b>0.0746</b>	0.1488	<b>0.0819</b>	<b>0.0579</b>	<b>0.0652</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1696	0.1289	<b>0.0882</b>	<b>0.0949</b>	0.1998	0.1523	<b>0.0825</b>	<b>0.0832</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2691	0.2115	0.2835	0.3144	0.2613	0.1595	0.1657	0.2083
	(34) $p_{D,S}^1$	Studentized UDIM	0.1554	<b>0.0816</b>	<b>0.0722</b>	<b>0.0778</b>	0.1554	<b>0.0816</b>	<b>0.0722</b>	<b>0.0778</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.1800	0.1548	0.1551	0.1062	0.1814	0.1369	<b>0.0659</b>	<b>0.0744</b>
	(36) $p_{D,S}^3$	Studentized AIPW	0.2783	0.2290	0.2111	0.2206	0.2082	0.1918	0.2070	0.2612

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	One or more felony arrests for violent crime				One or more felony arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.0385	0.0400	0.0500	0.0500	0.1923	0.2400	0.2500	0.2000
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	0.0400	0.0400	0.0870	0.0870
Estimates	(iv) UDIM (difference in means)		-0.0385	-0.0400	-0.0500	-0.0500	-0.1523	-0.2000	-0.1630	-0.1130
	(v) COLS (conditional OLS estimate)		-0.0407	-0.0436	-0.0543	-0.0543	-0.1609	-0.1971	-0.1741	-0.1437
	(vi) AIPW (augmented IPW estimate)		-0.0350	-0.0380	-0.0492	-0.0492	-0.1514	-0.1830	-0.1420	-0.1050
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1602	0.1602	0.1599	0.1599	<b>0.0403</b>	<b>0.0176</b>	<b>0.0730</b>	0.1532
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1662	0.1657	0.1670	0.1670	<b>0.0417</b>	<b>0.0230</b>	<b>0.0645</b>	0.1033
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1707	0.1630	0.1569	0.1569	<b>0.0293</b>	<b>0.0176</b>	<b>0.0802</b>	0.1505
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1431	0.1434	0.1400	0.1400	<b>0.0396</b>	<b>0.0171</b>	<b>0.0824</b>	0.1514
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1520	0.1529	0.1530	0.1530	<b>0.0380</b>	<b>0.0221</b>	<b>0.0725</b>	0.1087
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1452	0.1460	0.1585	0.1585	<b>0.0352</b>	<b>0.0239</b>	0.1229	0.1862
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3412	0.3412	0.3412	0.3412	<b>0.0364</b>	<b>0.0164</b>	<b>0.0800</b>	0.1580
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3412	0.3412	0.3412	0.3412	<b>0.0308</b>	<b>0.0140</b>	<b>0.0564</b>	<b>0.0968</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3416	0.3416	0.3444	0.3444	<b>0.0296</b>	<b>0.0188</b>	0.1012	0.1688
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0032</b>	<b>0.0016</b>	<b>0.0224</b>	<b>0.0668</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0016</b>	<b>0.0024</b>	<b>0.0040</b>	<b>0.0040</b>	<b>0.0064</b>	<b>0.0020</b>	<b>0.0200</b>	<b>0.0368</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0100</b>	<b>0.0164</b>	<b>0.0332</b>	<b>0.0332</b>	<b>0.0096</b>	<b>0.0036</b>	<b>0.0596</b>	0.1020
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2028	0.1688	<b>0.0976</b>	<b>0.0976</b>	<b>0.0496</b>	<b>0.0252</b>	<b>0.0824</b>	0.1692
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2176	0.1744	0.1456	0.1456	<b>0.0516</b>	<b>0.0348</b>	<b>0.0820</b>	0.1280
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3084	0.2616	0.2580	0.2580	<b>0.0668</b>	<b>0.0480</b>	0.1564	0.2196
	(16) $p_{P,S}^1$	Studentized UDIM	0.2148	0.1992	0.1064	0.1064	<b>0.0444</b>	<b>0.0232</b>	<b>0.0968</b>	0.1764
	(17) $p_{P,S}^2$	Studentized COLS	0.2936	0.2456	0.2432	0.2432	<b>0.0572</b>	<b>0.0352</b>	<b>0.0836</b>	0.1296
	(18) $p_{P,S}^3$	Studentized AIPW	0.3724	0.3224	0.3312	0.3312	<b>0.0536</b>	<b>0.0376</b>	0.1376	0.2036
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3190	0.2931	0.1941	0.1941	<b>0.0973</b>	<b>0.0634</b>	0.1302	0.1904
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.3201	0.2804	0.2417	0.2417	<b>0.0997</b>	<b>0.0722</b>	0.1167	0.1508
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4065	0.3741	0.3578	0.3578	0.1106	<b>0.0942</b>	0.2108	0.2479
	(22) $p_{M,S}^1$	Studentized UDIM	0.3418	0.3280	0.1835	0.1835	<b>0.0949</b>	<b>0.0600</b>	0.1341	0.1904
	(23) $p_{M,S}^2$	Studentized COLS	0.4101	0.3684	0.3685	0.3685	<b>0.0970</b>	<b>0.0595</b>	0.1260	0.1422
	(24) $p_{M,S}^3$	Studentized AIPW	0.3909	0.3319	0.3221	0.3221	<b>0.0988</b>	<b>0.0732</b>	0.1857	0.2324
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3275	0.3054	0.1958	0.1958	0.1002	<b>0.0648</b>	0.1319	0.1937
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3206	0.2805	0.2435	0.2435	0.1029	<b>0.0751</b>	0.1179	0.1560
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4120	0.3819	0.3584	0.3584	0.1126	0.1020	0.2112	0.2510
	(28) $p_{R,S}^1$	Studentized UDIM	0.3469	0.3362	0.1866	0.1866	<b>0.0975</b>	<b>0.0614</b>	0.1364	0.1933
	(29) $p_{R,S}^2$	Studentized COLS	0.4192	0.3686	0.3713	0.3713	<b>0.0974</b>	<b>0.0603</b>	0.1295	0.1508
	(30) $p_{R,S}^3$	Studentized AIPW	0.3949	0.3362	0.3287	0.3287	0.1017	<b>0.0739</b>	0.1864	0.2380
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.3794	0.4016	0.2038	0.2038	0.1248	<b>0.0767</b>	0.1721	0.2323
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.3301	0.3095	0.2673	0.2673	0.1085	<b>0.0953</b>	0.1580	0.1704
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4395	0.4520	0.4748	0.4748	0.1225	0.1321	0.2573	0.2917
	(34) $p_{D,S}^1$	Studentized UDIM	0.3626	0.3805	0.2067	0.2067	0.1417	<b>0.0902</b>	0.1655	0.2282
	(35) $p_{D,S}^2$	Studentized COLS	0.5532	0.4033	0.3807	0.3807	0.1348	<b>0.0773</b>	0.1504	0.1955
	(36) $p_{D,S}^3$	Studentized AIPW	0.4841	0.3864	0.3421	0.3421	0.1186	<b>0.0829</b>	0.2143	0.2676

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	One or more felony arrests for any crime				One or more felony convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.1923	0.2400	0.2500	0.2000	0.0385	0.0400	0.0500	0.0500
	(iii) Mean of the treatment group		0.0400	0.0400	0.0870	0.0870	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-0.1523	-0.2000	-0.1630	-0.1130	-0.0385	-0.0400	-0.0500	-0.0500
	(v) COLS (conditional OLS estimate)		-0.1609	-0.1971	-0.1741	-0.1437	-0.0407	-0.0436	-0.0543	-0.0543
	(vi) AIPW (augmented IPW estimate)		-0.1514	-0.1830	-0.1420	-0.1050	-0.0350	-0.0380	-0.0492	-0.0492
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0403</b>	<b>0.0176</b>	<b>0.0730</b>	0.1532	0.1602	0.1602	0.1599	0.1599
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0417</b>	<b>0.0230</b>	<b>0.0645</b>	0.1033	0.1662	0.1657	0.1670	0.1670
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0293</b>	<b>0.0176</b>	<b>0.0802</b>	0.1505	0.1707	0.1630	0.1569	0.1569
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0396</b>	<b>0.0171</b>	<b>0.0824</b>	0.1514	0.1431	0.1434	0.1400	0.1400
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0380</b>	<b>0.0221</b>	<b>0.0725</b>	0.1087	0.1520	0.1529	0.1530	0.1530
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0352</b>	<b>0.0239</b>	0.1229	0.1862	0.1452	0.1460	0.1585	0.1585
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0364</b>	<b>0.0164</b>	<b>0.0800</b>	0.1580	0.3412	0.3412	0.3412	0.3412
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0308</b>	<b>0.0140</b>	<b>0.0564</b>	<b>0.0968</b>	0.3412	0.3412	0.3412	0.3412
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0296</b>	<b>0.0188</b>	0.1012	0.1688	0.3416	0.3416	0.3444	0.3444
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0032</b>	<b>0.0016</b>	<b>0.0224</b>	<b>0.0668</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0064</b>	<b>0.0020</b>	<b>0.0200</b>	<b>0.0368</b>	<b>0.0016</b>	<b>0.0024</b>	<b>0.0040</b>	<b>0.0040</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0096</b>	<b>0.0036</b>	<b>0.0596</b>	0.1020	<b>0.0100</b>	<b>0.0164</b>	<b>0.0332</b>	<b>0.0332</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0496</b>	<b>0.0252</b>	<b>0.0824</b>	0.1692	0.2028	0.1688	<b>0.0976</b>	<b>0.0976</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0516</b>	<b>0.0348</b>	<b>0.0820</b>	0.1280	0.2176	0.1744	0.1456	0.1456
	(15) $p_{P,N}^3$	Nonstudentized AIPW	<b>0.0668</b>	<b>0.0480</b>	0.1564	0.2196	0.3084	0.2616	0.2580	0.2580
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0444</b>	<b>0.0232</b>	<b>0.0968</b>	0.1764	0.2148	0.1992	0.1064	0.1064
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0572</b>	<b>0.0352</b>	<b>0.0836</b>	0.1296	0.2936	0.2456	0.2432	0.2432
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0536</b>	<b>0.0376</b>	0.1376	0.2036	0.3724	0.3224	0.3312	0.3312
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	<b>0.0973</b>	<b>0.0634</b>	0.1302	0.1904	0.3190	0.2931	0.1941	0.1941
	(20) $p_{M,N}^2$	Nonstudentized COLS	<b>0.0997</b>	<b>0.0722</b>	0.1167	0.1508	0.3201	0.2804	0.2417	0.2417
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1106	<b>0.0942</b>	0.2108	0.2479	0.4065	0.3741	0.3578	0.3578
	(22) $p_{M,S}^1$	Studentized UDIM	<b>0.0949</b>	<b>0.0600</b>	0.1341	0.1904	0.3418	0.3280	0.1835	0.1835
	(23) $p_{M,S}^2$	Studentized COLS	<b>0.0970</b>	<b>0.0595</b>	0.1260	0.1422	0.4101	0.3684	0.3685	0.3685
	(24) $p_{M,S}^3$	Studentized AIPW	<b>0.0988</b>	<b>0.0732</b>	0.1857	0.2324	0.3909	0.3319	0.3221	0.3221
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1002	<b>0.0648</b>	0.1319	0.1937	0.3275	0.3054	0.1958	0.1958
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1029	<b>0.0751</b>	0.1179	0.1560	0.3206	0.2805	0.2435	0.2435
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1126	0.1020	0.2112	0.2510	0.4120	0.3819	0.3584	0.3584
	(28) $p_{R,S}^1$	Studentized UDIM	<b>0.0975</b>	<b>0.0614</b>	0.1364	0.1933	0.3469	0.3362	0.1866	0.1866
	(29) $p_{R,S}^2$	Studentized COLS	<b>0.0974</b>	<b>0.0603</b>	0.1295	0.1508	0.4192	0.3686	0.3713	0.3713
	(30) $p_{R,S}^3$	Studentized AIPW	0.1017	<b>0.0739</b>	0.1864	0.2380	0.3949	0.3362	0.3287	0.3287
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1248	<b>0.0767</b>	0.1721	0.2323	0.3794	0.4016	0.2038	0.2038
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1085	<b>0.0953</b>	0.1580	0.1704	0.3301	0.3095	0.2673	0.2673
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.1225	0.1321	0.2573	0.2917	0.4395	0.4520	0.4748	0.4748
	(34) $p_{D,S}^1$	Studentized UDIM	0.1417	<b>0.0902</b>	0.1655	0.2282	0.3626	0.3805	0.2067	0.2067
	(35) $p_{D,S}^2$	Studentized COLS	0.1348	<b>0.0773</b>	0.1504	0.1955	0.5532	0.4033	0.3807	0.3807
	(36) $p_{D,S}^3$	Studentized AIPW	0.1186	<b>0.0829</b>	0.2143	0.2676	0.4841	0.3864	0.3421	0.3421

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	One or more felony convictions for classified crime				One or more felony convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.1538	0.1600	0.2000	0.1500	0.1538	0.1600	0.2000	0.1500
	(iii) Mean of the treatment group		0.0400	0.0400	0.0435	0.0435	0.0400	0.0400	0.0435	0.0435
Estimates	(iv) UDIM (difference in means)		-0.1138	-0.1200	-0.1565	-0.1065	-0.1138	-0.1200	-0.1565	-0.1065
	(v) COLS (conditional OLS estimate)		-0.1177	-0.1115	-0.1546	-0.1243	-0.1177	-0.1115	-0.1546	-0.1243
	(vi) AIPW (augmented IPW estimate)		-0.1139	-0.1104	-0.1385	-0.1015	-0.1139	-0.1104	-0.1385	-0.1015
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0804</b>	<b>0.0751</b>	<b>0.0561</b>	0.1290	<b>0.0804</b>	<b>0.0751</b>	<b>0.0561</b>	0.1290
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0798</b>	<b>0.0897</b>	<b>0.0594</b>	0.1010	<b>0.0798</b>	<b>0.0897</b>	<b>0.0594</b>	0.1010
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0569</b>	<b>0.0632</b>	<b>0.0574</b>	0.1214	<b>0.0569</b>	<b>0.0632</b>	<b>0.0574</b>	0.1214
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0788</b>	<b>0.0785</b>	<b>0.0631</b>	0.1251	<b>0.0788</b>	<b>0.0785</b>	<b>0.0631</b>	0.1251
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0720</b>	<b>0.0914</b>	<b>0.0650</b>	0.1066	<b>0.0720</b>	<b>0.0914</b>	<b>0.0650</b>	0.1066
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0679</b>	<b>0.0953</b>	0.1138	0.1764	<b>0.0679</b>	<b>0.0953</b>	0.1138	0.1764
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	<b>0.0744</b>	<b>0.0780</b>	<b>0.0596</b>	0.1348	<b>0.0744</b>	<b>0.0780</b>	<b>0.0596</b>	0.1348
	(08) $p_{B,N}^2$	Nonstudentized COLS	<b>0.0636</b>	<b>0.0816</b>	<b>0.0576</b>	<b>0.0968</b>	<b>0.0636</b>	<b>0.0816</b>	<b>0.0576</b>	<b>0.0968</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	<b>0.0624</b>	<b>0.0788</b>	<b>0.0732</b>	0.1328	<b>0.0624</b>	<b>0.0788</b>	<b>0.0732</b>	0.1328
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0092</b>	<b>0.0068</b>	<b>0.0076</b>	<b>0.0272</b>	<b>0.0092</b>	<b>0.0068</b>	<b>0.0076</b>	<b>0.0272</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0192</b>	<b>0.0164</b>	<b>0.0068</b>	<b>0.0164</b>	<b>0.0192</b>	<b>0.0164</b>	<b>0.0068</b>	<b>0.0164</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0192</b>	<b>0.0248</b>	<b>0.0440</b>	<b>0.0712</b>	<b>0.0192</b>	<b>0.0248</b>	<b>0.0440</b>	<b>0.0712</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0808</b>	<b>0.0880</b>	<b>0.0656</b>	0.1432	<b>0.0808</b>	<b>0.0880</b>	<b>0.0656</b>	0.1432
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0908</b>	0.1252	<b>0.0984</b>	0.1228	<b>0.0908</b>	0.1252	<b>0.0984</b>	0.1228
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1020	0.1344	0.1244	0.1960	0.1020	0.1344	0.1244	0.1960
	(16) $p_{P,S}^1$	Studentized UDIM	<b>0.0740</b>	<b>0.0816</b>	<b>0.0616</b>	0.1396	<b>0.0740</b>	<b>0.0816</b>	<b>0.0616</b>	0.1396
	(17) $p_{P,S}^2$	Studentized COLS	<b>0.0908</b>	0.1156	<b>0.0836</b>	0.1112	<b>0.0908</b>	0.1156	<b>0.0836</b>	0.1112
	(18) $p_{P,S}^3$	Studentized AIPW	<b>0.0828</b>	0.1064	0.1092	0.1768	<b>0.0828</b>	0.1064	0.1092	0.1768
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1740	0.1460	0.1053	0.1620	0.1740	0.1460	0.1053	0.1620
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1587	0.1527	0.1227	0.1292	0.1587	0.1527	0.1227	0.1292
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1845	0.1694	0.1672	0.2160	0.1845	0.1694	0.1672	0.2160
	(22) $p_{M,S}^1$	Studentized UDIM	0.1639	0.1395	<b>0.0996</b>	0.1544	0.1639	0.1395	<b>0.0996</b>	0.1544
	(23) $p_{M,S}^2$	Studentized COLS	0.1539	0.1358	0.1080	0.1096	0.1539	0.1358	0.1080	0.1096
	(24) $p_{M,S}^3$	Studentized AIPW	0.1403	0.1345	0.1440	0.1876	0.1403	0.1345	0.1440	0.1876
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1764	0.1460	0.1057	0.1621	0.1764	0.1460	0.1057	0.1621
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1622	0.1556	0.1245	0.1344	0.1622	0.1556	0.1245	0.1344
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1889	0.1712	0.1698	0.2176	0.1889	0.1712	0.1698	0.2176
	(28) $p_{R,S}^1$	Studentized UDIM	0.1643	0.1399	0.1003	0.1586	0.1643	0.1399	0.1003	0.1586
	(29) $p_{R,S}^2$	Studentized COLS	0.1568	0.1464	0.1130	0.1132	0.1568	0.1464	0.1130	0.1132
	(30) $p_{R,S}^3$	Studentized AIPW	0.1416	0.1382	0.1488	0.1913	0.1416	0.1382	0.1488	0.1913
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.2485	0.1540	0.1385	0.1865	0.2485	0.1540	0.1385	0.1865
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.2054	0.1983	0.1387	0.1552	0.2054	0.1983	0.1387	0.1552
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2282	0.2178	0.2245	0.2416	0.2282	0.2178	0.2245	0.2416
	(34) $p_{D,S}^1$	Studentized UDIM	0.1978	0.1773	0.1061	0.1842	0.1978	0.1773	0.1061	0.1842
	(35) $p_{D,S}^2$	Studentized COLS	0.2277	0.1804	0.2170	0.1358	0.2277	0.1804	0.2170	0.1358
	(36) $p_{D,S}^3$	Studentized AIPW	0.1858	0.1543	0.2473	0.2603	0.1858	0.1543	0.2473	0.2603

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony arrests for violent crime				Two or more felony arrests for classified crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.0385	0.0400	0.0500	0.0500	0.0385	0.0800	0.1000	0.1000
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-0.0385	-0.0400	-0.0500	-0.0500	-0.0385	-0.0800	-0.1000	-0.1000
	(v) COLS (conditional OLS estimate)		-0.0407	-0.0436	-0.0543	-0.0543	-0.0407	-0.0727	-0.0942	-0.0942
	(vi) AIPW (augmented IPW estimate)		-0.0350	-0.0380	-0.0492	-0.0492	-0.0350	-0.0665	-0.0784	-0.0784
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1602	0.1602	0.1599	0.1599	0.1602	<b>0.0767</b>	<b>0.0753</b>	<b>0.0753</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1662	0.1657	0.1670	0.1670	0.1662	<b>0.0902</b>	<b>0.0881</b>	<b>0.0881</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1707	0.1630	0.1569	0.1569	0.1707	<b>0.0865</b>	<b>0.0948</b>	<b>0.0948</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1431	0.1434	0.1400	0.1400	0.1431	<b>0.0654</b>	<b>0.0625</b>	<b>0.0625</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1520	0.1529	0.1530	0.1530	0.1520	<b>0.0850</b>	<b>0.0832</b>	<b>0.0832</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1452	0.1460	0.1585	0.1585	0.1452	<b>0.0892</b>	0.1296	0.1296
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3412	0.3412	0.3412	0.3412	0.3412	0.1180	0.1180	0.1180
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3412	0.3412	0.3412	0.3412	0.3412	0.1244	0.1220	0.1220
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3416	0.3416	0.3444	0.3444	0.3416	0.1256	0.1372	0.1372
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0016</b>	<b>0.0024</b>	<b>0.0040</b>	<b>0.0040</b>	<b>0.0016</b>	<b>0.0008</b>	<b>0.0016</b>	<b>0.0016</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0100</b>	<b>0.0164</b>	<b>0.0332</b>	<b>0.0332</b>	<b>0.0100</b>	<b>0.0064</b>	<b>0.0228</b>	<b>0.0228</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2028	0.1688	<b>0.0976</b>	<b>0.0976</b>	0.2028	<b>0.0900</b>	<b>0.0500</b>	<b>0.0500</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2176	0.1744	0.1456	0.1456	0.2176	0.2060	0.1276	0.1276
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3084	0.2616	0.2580	0.2580	0.3084	0.2632	0.2532	0.2532
	(16) $p_{P,S}^1$	Studentized UDIM	0.2148	0.1992	0.1064	0.1064	0.2148	0.1108	<b>0.0548</b>	<b>0.0548</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.2936	0.2456	0.2432	0.2432	0.2936	0.2272	0.1872	0.1872
	(18) $p_{P,S}^3$	Studentized AIPW	0.3724	0.3224	0.3312	0.3312	0.3724	0.2636	0.3020	0.3020
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3190	0.2931	0.1941	0.1941	0.3190	0.1532	0.1065	0.1065
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.3201	0.2804	0.2417	0.2417	0.3201	0.2251	0.1681	0.1681
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4065	0.3741	0.3578	0.3578	0.4065	0.2861	0.2791	0.2791
	(22) $p_{M,S}^1$	Studentized UDIM	0.3418	0.3280	0.1835	0.1835	0.3418	0.1786	0.1069	0.1069
	(23) $p_{M,S}^2$	Studentized COLS	0.4101	0.3684	0.3685	0.3685	0.4101	0.2407	0.2164	0.2164
	(24) $p_{M,S}^3$	Studentized AIPW	0.3909	0.3319	0.3221	0.3221	0.3909	0.3063	0.3315	0.3315
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3275	0.3054	0.1958	0.1958	0.3275	0.1560	0.1128	0.1128
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3206	0.2805	0.2435	0.2435	0.3206	0.2272	0.1750	0.1750
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4120	0.3819	0.3584	0.3584	0.4120	0.2988	0.2910	0.2910
	(28) $p_{R,S}^1$	Studentized UDIM	0.3469	0.3362	0.1866	0.1866	0.3469	0.1826	0.1142	0.1142
	(29) $p_{R,S}^2$	Studentized COLS	0.4192	0.3686	0.3713	0.3713	0.4192	0.2456	0.2227	0.2227
	(30) $p_{R,S}^3$	Studentized AIPW	0.3949	0.3362	0.3287	0.3287	0.3949	0.3156	0.3346	0.3346
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.3794	0.4016	0.2038	0.2038	0.3794	0.1859	0.1513	0.1513
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.3301	0.3095	0.2673	0.2673	0.3301	0.2643	0.2603	0.2603
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4395	0.4520	0.4748	0.4748	0.4395	0.3692	0.4125	0.4125
	(34) $p_{D,S}^1$	Studentized UDIM	0.3626	0.3805	0.2067	0.2067	0.3626	0.2555	0.1514	0.1514
	(35) $p_{D,S}^2$	Studentized COLS	0.5532	0.4033	0.3807	0.3807	0.5532	0.2875	0.2620	0.2620
	(36) $p_{D,S}^3$	Studentized AIPW	0.4841	0.3864	0.3421	0.3421	0.4841	0.4046	0.3554	0.3554

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony arrests for any crime				Two or more felony convictions for violent crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.0769	0.1200	0.1500	0.1500	0.0000	0.0000	0.0000	0.0000
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-0.0769	-0.1200	-0.1500	-0.1500	0.0000	0.0000	0.0000	0.0000
	(v) COLS (conditional OLS estimate)		-0.0845	-0.1203	-0.1552	-0.1552	0.0000	0.0000	0.0000	0.0000
	(vi) AIPW (augmented IPW estimate)		-0.0738	-0.1094	-0.1357	-0.1357	0.0000	0.0000	0.0000	0.0000
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	<b>0.0768</b>	<b>0.0377</b>	<b>0.0359</b>	<b>0.0359</b>	0.5000	0.5000	0.5000	0.5000
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	<b>0.0805</b>	<b>0.0468</b>	<b>0.0441</b>	<b>0.0441</b>	0.5000	0.5000	0.5000	0.5000
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	<b>0.0777</b>	<b>0.0398</b>	<b>0.0440</b>	<b>0.0440</b>	0.5000	0.5000	0.5000	0.5000
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	<b>0.0714</b>	<b>0.0325</b>	<b>0.0307</b>	<b>0.0307</b>	0.5000	0.5000	0.5000	0.5000
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	<b>0.0794</b>	<b>0.0466</b>	<b>0.0454</b>	<b>0.0454</b>	0.5000	0.5000	0.5000	0.5000
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	<b>0.0795</b>	<b>0.0544</b>	<b>0.0876</b>	<b>0.0876</b>	0.5000	0.5000	0.5000	0.5000
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.1228	<b>0.0440</b>	<b>0.0440</b>	<b>0.0440</b>	1.0000	1.0000	1.0000	1.0000
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.1228	<b>0.0468</b>	<b>0.0464</b>	<b>0.0464</b>	1.0000	1.0000	1.0000	1.0000
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.1228	<b>0.0492</b>	<b>0.0548</b>	<b>0.0548</b>	1.0000	1.0000	1.0000	1.0000
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0008</b>	1.0000	1.0000	1.0000	1.0000
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0024</b>	<b>0.0008</b>	<b>0.0020</b>	<b>0.0020</b>	1.0000	1.0000	1.0000	1.0000
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0076</b>	<b>0.0060</b>	<b>0.0260</b>	<b>0.0260</b>	1.0000	1.0000	1.0000	1.0000
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	<b>0.0924</b>	<b>0.0412</b>	<b>0.0220</b>	<b>0.0220</b>	1.0000	1.0000	1.0000	1.0000
	(14) $p_{P,N}^2$	Nonstudentized COLS	<b>0.0820</b>	<b>0.0696</b>	<b>0.0380</b>	<b>0.0380</b>	1.0000	1.0000	1.0000	1.0000
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.1232	0.1072	<b>0.0892</b>	<b>0.0892</b>	1.0000	1.0000	1.0000	1.0000
	(16) $p_{P,S}^1$	Studentized UDIM	0.1036	<b>0.0536</b>	<b>0.0256</b>	<b>0.0256</b>	1.0000	1.0000	1.0000	1.0000
	(17) $p_{P,S}^2$	Studentized COLS	0.1288	0.1220	<b>0.0620</b>	<b>0.0620</b>	1.0000	1.0000	1.0000	1.0000
	(18) $p_{P,S}^3$	Studentized AIPW	0.1796	0.1360	0.1656	0.1656	1.0000	1.0000	1.0000	1.0000
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.1413	<b>0.0839</b>	<b>0.0604</b>	<b>0.0604</b>	1.0000	1.0000	1.0000	1.0000
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.1297	<b>0.0865</b>	<b>0.0525</b>	<b>0.0525</b>	1.0000	1.0000	1.0000	1.0000
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.1760	0.1338	0.1192	0.1192	1.0000	1.0000	1.0000	1.0000
	(22) $p_{M,S}^1$	Studentized UDIM	0.1699	0.1016	<b>0.0604</b>	<b>0.0604</b>	1.0000	1.0000	1.0000	1.0000
	(23) $p_{M,S}^2$	Studentized COLS	0.1920	0.1431	<b>0.0984</b>	<b>0.0984</b>	1.0000	1.0000	1.0000	1.0000
	(24) $p_{M,S}^3$	Studentized AIPW	0.1891	0.1673	0.1853	0.1853	1.0000	1.0000	1.0000	1.0000
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.1459	<b>0.0858</b>	<b>0.0618</b>	<b>0.0618</b>	1.0000	1.0000	1.0000	1.0000
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.1329	<b>0.0876</b>	<b>0.0558</b>	<b>0.0558</b>	1.0000	1.0000	1.0000	1.0000
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.1830	0.1347	0.1202	0.1202	1.0000	1.0000	1.0000	1.0000
	(28) $p_{R,S}^1$	Studentized UDIM	0.1810	0.1071	<b>0.0618</b>	<b>0.0618</b>	1.0000	1.0000	1.0000	1.0000
	(29) $p_{R,S}^2$	Studentized COLS	0.1961	0.1446	0.1006	0.1006	1.0000	1.0000	1.0000	1.0000
	(30) $p_{R,S}^3$	Studentized AIPW	0.1944	0.1694	0.1884	0.1884	1.0000	1.0000	1.0000	1.0000
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.1608	<b>0.0945</b>	<b>0.0652</b>	<b>0.0652</b>	1.0000	1.0000	1.0000	1.0000
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.1744	<b>0.0910</b>	<b>0.0735</b>	<b>0.0735</b>	1.0000	1.0000	1.0000	1.0000
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.2279	0.1468	0.1983	0.1983	1.0000	1.0000	1.0000	1.0000
	(34) $p_{D,S}^1$	Studentized UDIM	0.2386	0.1615	<b>0.0778</b>	<b>0.0778</b>	1.0000	1.0000	1.0000	1.0000
	(35) $p_{D,S}^2$	Studentized COLS	0.2787	0.2040	0.1438	0.1438	1.0000	1.0000	1.0000	1.0000
	(36) $p_{D,S}^3$	Studentized AIPW	0.2273	0.1948	0.2055	0.2055	1.0000	1.0000	1.0000	1.0000

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 10: Treatment Effects on the Crime Outcomes of the Female Participants**

	Statistic or $p$ -value	Test statistic	Two or more felony convictions for classified crime				Two or more felony convictions for any crime			
			age 30	age 40	age 50	ages 20–50	age 30	age 40	age 50	ages 20–50
Summary	(i) Number of observations		51	50	43	43	51	50	43	43
	(ii) Mean of the control group		0.0385	0.0800	0.1000	0.1000	0.0769	0.1200	0.1500	0.1500
	(iii) Mean of the treatment group		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Estimates	(iv) UDIM (difference in means)		-0.0385	-0.0800	-0.1000	-0.1000	-0.0769	-0.1200	-0.1500	-0.1500
	(v) COLS (conditional OLS estimate)		-0.0407	-0.0727	-0.0942	-0.0942	-0.0845	-0.1203	-0.1552	-0.1552
	(vi) AIPW (augmented IPW estimate)		-0.0350	-0.0665	-0.0784	-0.0784	-0.0738	-0.1094	-0.1357	-0.1357
Asymptotic $p$ -values	(01) $p_{A,A}^1$	UDIM / Analytic s.e.	0.1602	<b>0.0767</b>	<b>0.0753</b>	<b>0.0753</b>	<b>0.0768</b>	<b>0.0377</b>	<b>0.0359</b>	<b>0.0359</b>
	(02) $p_{A,A}^2$	COLS / Analytic s.e.	0.1662	<b>0.0902</b>	<b>0.0881</b>	<b>0.0881</b>	<b>0.0805</b>	<b>0.0468</b>	<b>0.0441</b>	<b>0.0441</b>
	(03) $p_{A,A}^3$	AIPW / Analytic s.e.	0.1707	<b>0.0865</b>	<b>0.0948</b>	<b>0.0948</b>	<b>0.0777</b>	<b>0.0398</b>	<b>0.0440</b>	<b>0.0440</b>
	(04) $p_{A,B}^1$	UDIM / Bootstrap s.e.	0.1431	<b>0.0654</b>	<b>0.0625</b>	<b>0.0625</b>	<b>0.0714</b>	<b>0.0325</b>	<b>0.0307</b>	<b>0.0307</b>
	(05) $p_{A,B}^2$	COLS / Bootstrap s.e.	0.1520	<b>0.0850</b>	<b>0.0832</b>	<b>0.0832</b>	<b>0.0794</b>	<b>0.0466</b>	<b>0.0454</b>	<b>0.0454</b>
	(06) $p_{A,B}^3$	AIPW / Bootstrap s.e.	0.1452	<b>0.0892</b>	0.1296	0.1296	<b>0.0795</b>	<b>0.0544</b>	<b>0.0876</b>	<b>0.0876</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	Nonstudentized UDIM	0.3412	0.1180	0.1180	0.1180	0.1228	<b>0.0440</b>	<b>0.0440</b>	<b>0.0440</b>
	(08) $p_{B,N}^2$	Nonstudentized COLS	0.3412	0.1244	0.1220	0.1220	0.1228	<b>0.0468</b>	<b>0.0464</b>	<b>0.0464</b>
	(09) $p_{B,N}^3$	Nonstudentized AIPW	0.3416	0.1256	0.1372	0.1372	0.1228	<b>0.0492</b>	<b>0.0548</b>	<b>0.0548</b>
	(10) $p_{B,S}^1$	Studentized UDIM	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0008</b>
	(11) $p_{B,S}^2$	Studentized COLS	<b>0.0016</b>	<b>0.0008</b>	<b>0.0016</b>	<b>0.0016</b>	<b>0.0024</b>	<b>0.0008</b>	<b>0.0020</b>	<b>0.0020</b>
	(12) $p_{B,S}^3$	Studentized AIPW	<b>0.0100</b>	<b>0.0064</b>	<b>0.0228</b>	<b>0.0228</b>	<b>0.0076</b>	<b>0.0060</b>	<b>0.0260</b>	<b>0.0260</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	Nonstudentized UDIM	0.2028	<b>0.0900</b>	<b>0.0500</b>	<b>0.0500</b>	<b>0.0924</b>	<b>0.0412</b>	<b>0.0220</b>	<b>0.0220</b>
	(14) $p_{P,N}^2$	Nonstudentized COLS	0.2176	0.2060	0.1276	0.1276	<b>0.0820</b>	<b>0.0696</b>	<b>0.0380</b>	<b>0.0380</b>
	(15) $p_{P,N}^3$	Nonstudentized AIPW	0.3084	0.2632	0.2532	0.2532	0.1232	0.1072	<b>0.0892</b>	<b>0.0892</b>
	(16) $p_{P,S}^1$	Studentized UDIM	0.2148	0.1108	<b>0.0548</b>	<b>0.0548</b>	0.1036	<b>0.0536</b>	<b>0.0256</b>	<b>0.0256</b>
	(17) $p_{P,S}^2$	Studentized COLS	0.2936	0.2272	0.1872	0.1872	0.1288	0.1220	<b>0.0620</b>	<b>0.0620</b>
	(18) $p_{P,S}^3$	Studentized AIPW	0.3724	0.2636	0.3020	0.3020	0.1796	0.1360	0.1656	0.1656
Worst-case max. $p$	(19) $p_{M,N}^1$	Nonstudentized UDIM	0.3190	0.1532	0.1065	0.1065	0.1413	<b>0.0839</b>	<b>0.0604</b>	<b>0.0604</b>
	(20) $p_{M,N}^2$	Nonstudentized COLS	0.3201	0.2251	0.1681	0.1681	0.1297	<b>0.0865</b>	<b>0.0525</b>	<b>0.0525</b>
	(21) $p_{M,N}^3$	Nonstudentized AIPW	0.4065	0.2861	0.2791	0.2791	0.1760	0.1338	0.1192	0.1192
	(22) $p_{M,S}^1$	Studentized UDIM	0.3418	0.1786	0.1069	0.1069	0.1699	0.1016	<b>0.0604</b>	<b>0.0604</b>
	(23) $p_{M,S}^2$	Studentized COLS	0.4101	0.2407	0.2164	0.2164	0.1920	0.1431	<b>0.0984</b>	<b>0.0984</b>
	(24) $p_{M,S}^3$	Studentized AIPW	0.3909	0.3063	0.3315	0.3315	0.1891	0.1673	0.1853	0.1853
Worst-case adjusted $p$	(25) $p_{R,N}^1$	Nonstudentized UDIM	0.3275	0.1560	0.1128	0.1128	0.1459	<b>0.0858</b>	<b>0.0618</b>	<b>0.0618</b>
	(26) $p_{R,N}^2$	Nonstudentized COLS	0.3206	0.2272	0.1750	0.1750	0.1329	<b>0.0876</b>	<b>0.0558</b>	<b>0.0558</b>
	(27) $p_{R,N}^3$	Nonstudentized AIPW	0.4120	0.2988	0.2910	0.2910	0.1830	0.1347	0.1202	0.1202
	(28) $p_{R,S}^1$	Studentized UDIM	0.3469	0.1826	0.1142	0.1142	0.1810	0.1071	<b>0.0618</b>	<b>0.0618</b>
	(29) $p_{R,S}^2$	Studentized COLS	0.4192	0.2456	0.2227	0.2227	0.1961	0.1446	0.1006	0.1006
	(30) $p_{R,S}^3$	Studentized AIPW	0.3949	0.3156	0.3346	0.3346	0.1944	0.1694	0.1884	0.1884
Worst-case de Haan $p$	(31) $p_{D,N}^1$	Nonstudentized UDIM	0.3794	0.1859	0.1513	0.1513	0.1608	<b>0.0945</b>	<b>0.0652</b>	<b>0.0652</b>
	(32) $p_{D,N}^2$	Nonstudentized COLS	0.3301	0.2643	0.2603	0.2603	0.1744	<b>0.0910</b>	<b>0.0735</b>	<b>0.0735</b>
	(33) $p_{D,N}^3$	Nonstudentized AIPW	0.4395	0.3692	0.4125	0.4125	0.2279	0.1468	0.1983	0.1983
	(34) $p_{D,S}^1$	Studentized UDIM	0.3626	0.2555	0.1514	0.1514	0.2386	0.1615	<b>0.0778</b>	<b>0.0778</b>
	(35) $p_{D,S}^2$	Studentized COLS	0.5532	0.2875	0.2620	0.2620	0.2787	0.2040	0.1438	0.1438
	(36) $p_{D,S}^3$	Studentized AIPW	0.4841	0.4046	0.3554	0.3554	0.2273	0.1948	0.2055	0.2055

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

## **5 Hypothesis Tests for Treatment Effects on Employment Outcomes**

**Table 11: Treatment Effects on the Employment Outcomes of the Pooled Participants**

	Statistic	Earnings / 10 <sup>3</sup> (age 15 to 25)	Earnings / 10 <sup>3</sup> (age 26 to 30)	Earnings / 10 <sup>3</sup> (age 31 to 35)	Earnings / 10 <sup>3</sup> (age 36 to 40)	Earnings / 10 <sup>3</sup> (age 26 to 40)	Earnings / 10 <sup>3</sup> (age 41 to 55)	Earnings / 10 <sup>3</sup> (age 15 to 55)
Means	(i) Control	88.817	82.440	69.209	95.090	246.74	316.18	651.74
	(ii) Treatment	98.797	116.30	123.85	149.17	389.33	319.32	807.44
Estimates	(iii) UDIM	9.9800	33.863	54.645	54.082	142.59	3.1347	155.70
	(iv) COLS	9.1877	33.680	53.174	51.623	138.48	-17.610	130.05
	(v) AIPW	4.8956	28.694	60.312	56.467	145.47	-46.536	103.83
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.2796	<b>0.0192</b>	<b>0.0023</b>	<b>0.0029</b>	<b>0.0031</b>	0.4812	<b>0.0811</b>
	(02) $p_{A,A}^2$	0.2961	<b>0.0203</b>	<b>0.0032</b>	<b>0.0052</b>	<b>0.0044</b>	0.3997	0.1278
	(03) $p_{A,A}^3$	0.3914	<b>0.0503</b>	<b>0.0045</b>	<b>0.0092</b>	<b>0.0083</b>	0.3087	0.2316
	(04) $p_{A,B}^1$	0.2862	<b>0.0183</b>	<b>0.0038</b>	<b>0.0049</b>	<b>0.0042</b>	0.4854	0.1165
	(05) $p_{A,B}^2$	0.3041	<b>0.0192</b>	<b>0.0063</b>	<b>0.0086</b>	<b>0.0064</b>	0.4146	0.1517
	(06) $p_{A,B}^3$	0.4021	<b>0.0419</b>	<b>0.0055</b>	<b>0.0109</b>	<b>0.0084</b>	0.3177	0.2383
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.2743	<b>0.0172</b>	<b>0.0060</b>	<b>0.0060</b>	<b>0.0048</b>	0.4814	0.1076
	(08) $p_{B,N}^2$	0.2859	<b>0.0196</b>	<b>0.0084</b>	<b>0.0096</b>	<b>0.0088</b>	0.4150	0.1479
	(09) $p_{B,N}^3$	0.3639	<b>0.0464</b>	<b>0.0096</b>	<b>0.0180</b>	<b>0.0124</b>	0.3099	0.2411
	(10) $p_{B,S}^1$	0.2447	<b>0.0056</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0004</b>	0.4814	<b>0.0504</b>
	(11) $p_{B,S}^2$	0.2711	<b>0.0040</b>	<b>0.0012</b>	<b>0.0008</b>	<b>0.0008</b>	0.3898	<b>0.0788</b>
	(12) $p_{B,S}^3$	0.4298	<b>0.0216</b>	<b>0.0012</b>	<b>0.0048</b>	<b>0.0020</b>	0.2947	0.1875
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3151	<b>0.0252</b>	<b>0.0048</b>	<b>0.0052</b>	<b>0.0080</b>	0.4834	0.1343
	(14) $p_{P,N}^2$	0.3339	<b>0.0288</b>	<b>0.0072</b>	<b>0.0072</b>	<b>0.0080</b>	0.4254	0.1679
	(15) $p_{P,N}^3$	0.4234	<b>0.0564</b>	<b>0.0032</b>	<b>0.0048</b>	<b>0.0064</b>	0.3043	0.2211
	(16) $p_{P,S}^1$	0.3135	<b>0.0276</b>	<b>0.0048</b>	<b>0.0048</b>	<b>0.0072</b>	0.4834	0.1339
	(17) $p_{P,S}^2$	0.3331	<b>0.0288</b>	<b>0.0076</b>	<b>0.0076</b>	<b>0.0080</b>	0.4262	0.1679
	(18) $p_{P,S}^3$	0.4222	<b>0.0580</b>	<b>0.0052</b>	<b>0.0088</b>	<b>0.0112</b>	0.3299	0.2575
Worst-case max. $p$	(19) $p_{M,N}^1$	0.4279	<b>0.0726</b>	<b>0.0270</b>	<b>0.0274</b>	<b>0.0319</b>	0.4499	0.1490
	(20) $p_{M,N}^2$	0.4555	<b>0.0790</b>	<b>0.0296</b>	<b>0.0339</b>	<b>0.0379</b>	0.6183	0.1932
	(21) $p_{M,N}^3$	0.6072	0.1517	<b>0.0284</b>	<b>0.0322</b>	<b>0.0402</b>	0.4770	0.2959
	(22) $p_{M,S}^1$	0.4279	<b>0.0783</b>	<b>0.0256</b>	<b>0.0271</b>	<b>0.0293</b>	0.4499	0.1490
	(23) $p_{M,S}^2$	0.4524	<b>0.0759</b>	<b>0.0284</b>	<b>0.0312</b>	<b>0.0354</b>	0.6183	0.1975
	(24) $p_{M,S}^3$	0.6045	0.1493	<b>0.0412</b>	<b>0.0507</b>	<b>0.0535</b>	0.5114	0.3370
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.4329	<b>0.0754</b>	<b>0.0272</b>	<b>0.0296</b>	<b>0.0353</b>	0.4545	0.1515
	(26) $p_{R,N}^2$	0.4602	<b>0.0817</b>	<b>0.0317</b>	<b>0.0350</b>	<b>0.0422</b>	0.6217	0.2022
	(27) $p_{R,N}^3$	0.6181	0.1585	<b>0.0319</b>	<b>0.0331</b>	<b>0.0405</b>	0.4863	0.2974
	(28) $p_{R,S}^1$	0.4305	<b>0.0812</b>	<b>0.0258</b>	<b>0.0291</b>	<b>0.0301</b>	0.4545	0.1515
	(29) $p_{R,S}^2$	0.4562	<b>0.0792</b>	<b>0.0287</b>	<b>0.0320</b>	<b>0.0389</b>	0.6186	0.2062
	(30) $p_{R,S}^3$	0.6129	0.1553	<b>0.0429</b>	<b>0.0532</b>	<b>0.0555</b>	0.5175	0.3387
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.4668	0.1169	<b>0.0386</b>	<b>0.0621</b>	<b>0.0626</b>	0.6201	0.2123
	(32) $p_{D,N}^2$	0.5088	0.1174	<b>0.0502</b>	<b>0.0515</b>	<b>0.0708</b>	0.6546	0.2397
	(33) $p_{D,N}^3$	0.6688	0.2702	<b>0.0745</b>	<b>0.0421</b>	<b>0.0462</b>	0.5201	0.3245
	(34) $p_{D,S}^1$	0.4628	<b>0.0935</b>	<b>0.0314</b>	<b>0.0586</b>	<b>0.0456</b>	0.6201	0.2259
	(35) $p_{D,S}^2$	0.4784	<b>0.0852</b>	<b>0.0478</b>	<b>0.0409</b>	<b>0.0613</b>	0.7865	0.2650
	(36) $p_{D,S}^3$	0.7419	0.2892	<b>0.0702</b>	<b>0.0684</b>	<b>0.0837</b>	0.5379	0.3628

Note: Earnings / 10<sup>3</sup> refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 11: Treatment Effects on the Employment Outcomes of the Pooled Participants**

	Statistic	Frac. employed (age 15 to 25)	Frac. employed (age 26 to 30)	Frac. employed (age 31 to 35)	Frac. employed (age 36 to 40)	Frac. employed (age 26 to 40)	Frac. employed (age 41 to 55)	Frac. employed (age 15 to 55)
Means	(i) Control	0.2525	0.4889	0.3552	0.5044	0.4495	0.4520	0.3976
	(ii) Treatment	0.3049	0.6099	0.5860	0.6792	0.6250	0.4842	0.4876
Estimates	(iii) UDIM	0.0524	0.1211	0.2308	0.1748	0.1756	0.0322	0.0901
	(iv) COLS	0.0502	0.1159	0.2276	0.1692	0.1709	0.0224	0.0842
	(v) AIPW	0.0454	0.0996	0.2762	0.2012	0.1923	0.0004	0.0827
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0919</b>	<b>0.0331</b>	<b>0.0010</b>	<b>0.0034</b>	<b>0.0021</b>	0.2894	<b>0.0175</b>
	(02) $p_{A,A}^2$	<b>0.0994</b>	<b>0.0435</b>	<b>0.0013</b>	<b>0.0050</b>	<b>0.0033</b>	0.3539	<b>0.0272</b>
	(03) $p_{A,A}^3$	0.1253	<b>0.0615</b>	<b>0.0002</b>	<b>0.0012</b>	<b>0.0009</b>	0.4980	<b>0.0460</b>
	(04) $p_{A,B}^1$	<b>0.0982</b>	<b>0.0258</b>	<b>0.0019</b>	<b>0.0055</b>	<b>0.0029</b>	0.3389	<b>0.0325</b>
	(05) $p_{A,B}^2$	0.1119	<b>0.0337</b>	<b>0.0031</b>	<b>0.0081</b>	<b>0.0043</b>	0.3881	<b>0.0422</b>
	(06) $p_{A,B}^3$	0.1468	<b>0.0488</b>	<b>0.0005</b>	<b>0.0023</b>	<b>0.0013</b>	0.4983	<b>0.0601</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0972</b>	<b>0.0272</b>	<b>0.0040</b>	<b>0.0064</b>	<b>0.0044</b>	0.3471	<b>0.0360</b>
	(08) $p_{B,N}^2$	0.1008	<b>0.0336</b>	<b>0.0044</b>	<b>0.0100</b>	<b>0.0048</b>	0.4006	<b>0.0452</b>
	(09) $p_{B,N}^3$	0.1120	<b>0.0564</b>	<b>0.0020</b>	<b>0.0076</b>	<b>0.0052</b>	0.4906	<b>0.0660</b>
	(10) $p_{B,S}^1$	<b>0.0512</b>	<b>0.0096</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0008</b>	0.2699	<b>0.0116</b>
	(11) $p_{B,S}^2$	<b>0.0640</b>	<b>0.0120</b>	<b>0.0008</b>	<b>0.0016</b>	<b>0.0008</b>	0.3243	<b>0.0128</b>
	(12) $p_{B,S}^3$	0.1176	<b>0.0256</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>	0.4874	<b>0.0280</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	0.1315	<b>0.0372</b>	<b>0.0028</b>	<b>0.0072</b>	<b>0.0052</b>	0.3263	<b>0.0440</b>
	(14) $p_{P,N}^2$	0.1431	<b>0.0448</b>	<b>0.0036</b>	<b>0.0104</b>	<b>0.0060</b>	0.3810	<b>0.0516</b>
	(15) $p_{P,N}^3$	0.1699	<b>0.0776</b>	<b>0.0012</b>	<b>0.0028</b>	<b>0.0024</b>	0.4918	<b>0.0520</b>
	(16) $p_{P,S}^1$	0.1347	<b>0.0388</b>	<b>0.0028</b>	<b>0.0084</b>	<b>0.0060</b>	0.3243	<b>0.0432</b>
	(17) $p_{P,S}^2$	0.1411	<b>0.0476</b>	<b>0.0036</b>	<b>0.0100</b>	<b>0.0060</b>	0.3790	<b>0.0476</b>
	(18) $p_{P,S}^3$	0.1595	<b>0.0724</b>	<b>0.0016</b>	<b>0.0036</b>	<b>0.0024</b>	0.4918	<b>0.0620</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	0.2160	<b>0.0800</b>	<b>0.0133</b>	<b>0.0190</b>	<b>0.0165</b>	0.2711	<b>0.0513</b>
	(20) $p_{M,N}^2$	0.2325	<b>0.0901</b>	<b>0.0133</b>	<b>0.0221</b>	<b>0.0204</b>	0.3357	<b>0.0749</b>
	(21) $p_{M,N}^3$	0.3429	0.1649	<b>0.0130</b>	<b>0.0254</b>	<b>0.0257</b>	0.4934	0.1053
	(22) $p_{M,S}^1$	0.2226	<b>0.0807</b>	<b>0.0136</b>	<b>0.0198</b>	<b>0.0161</b>	0.2668	<b>0.0491</b>
	(23) $p_{M,S}^2$	0.2287	<b>0.0914</b>	<b>0.0133</b>	<b>0.0231</b>	<b>0.0223</b>	0.3318	<b>0.0691</b>
	(24) $p_{M,S}^3$	0.3368	0.1575	<b>0.0162</b>	<b>0.0202</b>	<b>0.0247</b>	0.4934	0.1180
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.2164	<b>0.0802</b>	<b>0.0139</b>	<b>0.0194</b>	<b>0.0166</b>	0.2761	<b>0.0540</b>
	(26) $p_{R,N}^2$	0.2368	<b>0.0909</b>	<b>0.0136</b>	<b>0.0236</b>	<b>0.0245</b>	0.3447	<b>0.0781</b>
	(27) $p_{R,N}^3$	0.3509	0.1670	<b>0.0135</b>	<b>0.0267</b>	<b>0.0265</b>	0.5000	0.1130
	(28) $p_{R,S}^1$	0.2239	<b>0.0807</b>	<b>0.0138</b>	<b>0.0206</b>	<b>0.0161</b>	0.2707	<b>0.0508</b>
	(29) $p_{R,S}^2$	0.2326	<b>0.0917</b>	<b>0.0135</b>	<b>0.0242</b>	<b>0.0245</b>	0.3402	<b>0.0719</b>
	(30) $p_{R,S}^3$	0.3473	0.1596	<b>0.0175</b>	<b>0.0217</b>	<b>0.0287</b>	0.5000	0.1180
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.2377	<b>0.0996</b>	<b>0.0182</b>	<b>0.0277</b>	<b>0.0216</b>	0.3021	<b>0.0720</b>
	(32) $p_{D,N}^2$	0.3176	0.1054	<b>0.0201</b>	<b>0.0402</b>	<b>0.0473</b>	0.3895	0.1004
	(33) $p_{D,N}^3$	0.3720	0.2304	<b>0.0311</b>	<b>0.0297</b>	<b>0.0436</b>	0.5735	0.1755
	(34) $p_{D,S}^1$	0.2389	0.1100	<b>0.0182</b>	<b>0.0267</b>	<b>0.0270</b>	0.3253	<b>0.0928</b>
	(35) $p_{D,S}^2$	0.2506	0.1411	<b>0.0195</b>	<b>0.0402</b>	<b>0.0473</b>	0.3819	<b>0.0896</b>
	(36) $p_{D,S}^3$	0.3833	0.1953	<b>0.0301</b>	<b>0.0396</b>	<b>0.0495</b>	0.5735	0.1516

Note:  $Earnings / 10^3$  refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 11: Treatment Effects on the Employment Outcomes of the Pooled Participants**

	Statistic	Growth rate (age 21 to 25)	Growth rate (age 26 to 30)	Growth rate (age 31 to 35)	Growth rate (age 36 to 40)	Growth rate (age 41 to 45)	Growth rate (age 46 to 50)	Growth rate (age 51 to 55)
Means	(i) Control	0.0149	0.0087	0.0383	0.0750	-0.0143	0.0051	-0.0411
	(ii) Treatment	0.0605	0.0777	0.0155	0.0252	-0.0780	0.0221	0.0141
Estimates	(iii) UDIM	0.0456	0.0691	-0.0228	-0.0498	-0.0638	0.0170	0.0552
	(iv) COLS	0.0308	0.0780	-0.0253	-0.0467	-0.0838	0.0226	0.0667
	(v) AIPW	0.0244	0.1313	-0.0201	-0.0733	-0.0989	0.0382	0.0379
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.2227	<b>0.0951</b>	0.2011	<b>0.0977</b>	<b>0.0502</b>	0.2022	0.1132
	(02) $p_{A,A}^2$	0.3007	<b>0.0804</b>	0.1838	0.1109	<b>0.0159</b>	0.1295	<b>0.0906</b>
	(03) $p_{A,A}^3$	0.3756	<b>0.0166</b>	0.2916	<b>0.0335</b>	<b>0.0250</b>	<b>0.0966</b>	0.3071
	(04) $p_{A,B}^1$	0.2831	0.1209	0.2655	0.1281	0.1048	0.2821	0.2291
	(05) $p_{A,B}^2$	0.5000	0.1164	0.2574	0.1431	<b>0.0563</b>	0.2360	0.3119
	(06) $p_{A,B}^3$	0.4225	<b>0.0324</b>	0.3294	<b>0.0507</b>	0.2032	0.5000	0.4120
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.2299	0.1192	0.2331	0.1128	<b>0.0892</b>	0.2831	0.2351
	(08) $p_{B,N}^2$	0.3187	0.1188	0.2247	0.1259	<b>0.0392</b>	0.2207	0.2467
	(09) $p_{B,N}^3$	0.4046	<b>0.0548</b>	0.3087	<b>0.0308</b>	<b>0.0432</b>	0.1507	0.2955
	(10) $p_{B,S}^1$	0.2067	<b>0.0416</b>	0.1859	<b>0.0400</b>	<b>0.0312</b>	0.1791	0.1331
	(11) $p_{B,S}^2$	0.2783	<b>0.0376</b>	0.1587	<b>0.0492</b>	<b>0.0044</b>	0.1140	0.1156
	(12) $p_{B,S}^3$	0.3387	<b>0.0016</b>	0.2823	<b>0.0048</b>	<b>0.0140</b>	<b>0.0620</b>	0.3715
Permutation $p$ -values	(13) $p_{P,N}^1$	0.2719	<b>0.0796</b>	0.1759	<b>0.0952</b>	<b>0.0984</b>	0.3323	0.2623
	(14) $p_{P,N}^2$	0.3459	<b>0.0636</b>	0.1691	0.1136	<b>0.0428</b>	0.2783	0.2627
	(15) $p_{P,N}^3$	0.3743	<b>0.0072</b>	0.2267	<b>0.0348</b>	<b>0.0256</b>	0.1379	0.3774
	(16) $p_{P,S}^1$	0.2723	<b>0.0800</b>	0.2003	0.1176	<b>0.0992</b>	0.3243	0.2463
	(17) $p_{P,S}^2$	0.3439	<b>0.0640</b>	0.1931	0.1307	<b>0.0436</b>	0.2531	0.2383
	(18) $p_{P,S}^3$	0.3962	<b>0.0100</b>	0.2795	<b>0.0456</b>	<b>0.0288</b>	0.1447	0.3663
Worst-case max. $p$	(19) $p_{M,N}^1$	0.3672	0.1951	0.4858	0.1959	0.2026	0.3695	0.3525
	(20) $p_{M,N}^2$	0.4395	0.1683	0.4548	0.2186	0.1123	0.3450	0.3597
	(21) $p_{M,N}^3$	0.4010	<b>0.0756</b>	0.5021	0.1218	0.1147	0.2890	0.4967
	(22) $p_{M,S}^1$	0.3712	0.1975	0.5286	0.2426	0.2122	0.3624	0.3355
	(23) $p_{M,S}^2$	0.4408	0.1740	0.4898	0.2511	0.1161	0.3073	0.3271
	(24) $p_{M,S}^3$	0.4328	<b>0.0826</b>	0.5726	0.1536	0.1280	0.2663	0.4864
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.3717	0.1970	0.4882	0.1966	0.2098	0.3822	0.3567
	(26) $p_{R,N}^2$	0.4488	0.1708	0.4581	0.2216	0.1148	0.3469	0.3652
	(27) $p_{R,N}^3$	0.4086	<b>0.0764</b>	0.5024	0.1241	0.1175	0.2897	0.5057
	(28) $p_{R,S}^1$	0.3717	0.1977	0.5307	0.2521	0.2212	0.3652	0.3385
	(29) $p_{R,S}^2$	0.4501	0.1768	0.4933	0.2518	0.1189	0.3182	0.3352
	(30) $p_{R,S}^3$	0.4471	<b>0.0829</b>	0.5844	0.1540	0.1323	0.2677	0.4970
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.4487	0.2130	0.5056	0.2000	0.3056	0.4634	0.4381
	(32) $p_{D,N}^2$	0.5221	0.1829	0.4897	0.2395	0.1359	0.3719	0.3978
	(33) $p_{D,N}^3$	0.4523	<b>0.0847</b>	0.5876	0.1654	0.1984	0.3254	0.6105
	(34) $p_{D,S}^1$	0.5544	0.2035	0.5405	0.3139	0.3023	0.4010	0.3602
	(35) $p_{D,S}^2$	0.5083	0.1825	0.5220	0.4010	0.1763	0.3801	0.3521
	(36) $p_{D,S}^3$	0.5366	<b>0.0836</b>	0.6356	0.1680	0.1549	0.2837	0.5709

Note:  $Earnings / 10^3$  refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 12: Treatment Effects on the Employment Outcomes of the Male Participants**

	Statistic	Earnings / 10 <sup>3</sup> (age 15 to 25)	Earnings / 10 <sup>3</sup> (age 26 to 30)	Earnings / 10 <sup>3</sup> (age 31 to 35)	Earnings / 10 <sup>3</sup> (age 36 to 40)	Earnings / 10 <sup>3</sup> (age 26 to 40)	Earnings / 10 <sup>3</sup> (age 41 to 55)	Earnings / 10 <sup>3</sup> (age 15 to 55)
Means	(i) Control	112.65	82.002	61.346	87.941	231.29	336.31	680.25
	(ii) Treatment	111.00	117.69	117.63	153.27	388.60	333.99	833.59
Estimates	(iii) UDIM	-1.6511	35.692	56.284	65.333	157.31	-2.3186	153.34
	(iv) COLS	-0.6471	36.522	56.040	66.602	159.16	-22.525	135.99
	(v) AIPW	-7.8186	31.753	72.551	77.197	181.50	-55.297	118.39
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.4737	<b>0.0596</b>	<b>0.0243</b>	<b>0.0126</b>	<b>0.0197</b>	0.4905	0.1733
	(02) $p_{A,A}^2$	0.4897	<b>0.0553</b>	<b>0.0249</b>	<b>0.0114</b>	<b>0.0185</b>	0.4096	0.2026
	(03) $p_{A,A}^3$	0.3855	<b>0.0840</b>	<b>0.0100</b>	<b>0.0082</b>	<b>0.0129</b>	0.3292	0.2649
	(04) $p_{A,B}^1$	0.4758	<b>0.0651</b>	<b>0.0294</b>	<b>0.0165</b>	<b>0.0239</b>	0.4926	0.2111
	(05) $p_{A,B}^2$	0.4905	<b>0.0592</b>	<b>0.0319</b>	<b>0.0160</b>	<b>0.0235</b>	0.4212	0.2246
	(06) $p_{A,B}^3$	0.3954	<b>0.0788</b>	<b>0.0109</b>	<b>0.0088</b>	<b>0.0126</b>	0.3386	0.2710
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.4922	<b>0.0636</b>	<b>0.0296</b>	<b>0.0160</b>	<b>0.0228</b>	0.4986	0.2035
	(08) $p_{B,N}^2$	0.4878	<b>0.0580</b>	<b>0.0316</b>	<b>0.0168</b>	<b>0.0244</b>	0.4242	0.2211
	(09) $p_{B,N}^3$	0.4414	<b>0.0836</b>	<b>0.0196</b>	<b>0.0168</b>	<b>0.0224</b>	0.3123	0.2823
	(10) $p_{B,S}^1$	0.4522	<b>0.0192</b>	<b>0.0092</b>	<b>0.0024</b>	<b>0.0048</b>	0.4846	0.1275
	(11) $p_{B,S}^2$	0.4662	<b>0.0160</b>	<b>0.0100</b>	<b>0.0024</b>	<b>0.0032</b>	0.3986	0.1459
	(12) $p_{B,S}^3$	0.3211	<b>0.0356</b>	<b>0.0024</b>	<b>0.0020</b>	<b>0.0016</b>	0.3439	0.2087
Permutation $p$ -values	(13) $p_{P,N}^1$	0.4666	<b>0.0748</b>	<b>0.0312</b>	<b>0.0152</b>	<b>0.0272</b>	0.4922	0.2303
	(14) $p_{P,N}^2$	0.4750	<b>0.0676</b>	<b>0.0332</b>	<b>0.0140</b>	<b>0.0256</b>	0.4370	0.2519
	(15) $p_{P,N}^3$	0.3659	0.1064	<b>0.0108</b>	<b>0.0076</b>	<b>0.0172</b>	0.3379	0.2771
	(16) $p_{P,S}^1$	0.4662	<b>0.0796</b>	<b>0.0344</b>	<b>0.0204</b>	<b>0.0296</b>	0.4930	0.2387
	(17) $p_{P,S}^2$	0.4750	<b>0.0732</b>	<b>0.0352</b>	<b>0.0172</b>	<b>0.0280</b>	0.4378	0.2571
	(18) $p_{P,S}^3$	0.3647	<b>0.0972</b>	<b>0.0152</b>	<b>0.0144</b>	<b>0.0196</b>	0.3475	0.2859
Worst-case max. $p$	(19) $p_{M,N}^1$	0.5192	0.1449	<b>0.0886</b>	<b>0.0446</b>	<b>0.0638</b>	0.6836	0.2548
	(20) $p_{M,N}^2$	0.5333	0.1369	<b>0.0855</b>	<b>0.0357</b>	<b>0.0632</b>	0.6213	0.2814
	(21) $p_{M,N}^3$	0.3661	0.2329	<b>0.0560</b>	<b>0.0313</b>	<b>0.0625</b>	0.5125	0.3645
	(22) $p_{M,S}^1$	0.5186	0.1532	<b>0.0958</b>	<b>0.0459</b>	<b>0.0645</b>	0.6836	0.2595
	(23) $p_{M,S}^2$	0.5333	0.1398	<b>0.0952</b>	<b>0.0357</b>	<b>0.0616</b>	0.6213	0.2840
	(24) $p_{M,S}^3$	0.3661	0.2208	<b>0.0742</b>	<b>0.0422</b>	<b>0.0756</b>	0.5306	0.3692
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.5223	0.1503	<b>0.0914</b>	<b>0.0452</b>	<b>0.0649</b>	0.6842	0.2579
	(26) $p_{R,N}^2$	0.5423	0.1369	<b>0.0906</b>	<b>0.0395</b>	<b>0.0636</b>	0.6227	0.2887
	(27) $p_{R,N}^3$	0.3698	0.2340	<b>0.0582</b>	<b>0.0322</b>	<b>0.0681</b>	0.5169	0.3786
	(28) $p_{R,S}^1$	0.5217	0.1579	<b>0.0982</b>	<b>0.0491</b>	<b>0.0655</b>	0.6842	0.2599
	(29) $p_{R,S}^2$	0.5423	0.1424	0.1016	<b>0.0395</b>	<b>0.0634</b>	0.6227	0.2870
	(30) $p_{R,S}^3$	0.3698	0.2228	<b>0.0766</b>	<b>0.0457</b>	<b>0.0757</b>	0.5366	0.3783
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.5298	0.1737	0.1206	<b>0.0680</b>	<b>0.0706</b>	0.7093	0.3137
	(32) $p_{D,N}^2$	0.5984	0.1486	0.1381	<b>0.0670</b>	<b>0.0779</b>	0.6526	0.2996
	(33) $p_{D,N}^3$	0.4516	0.3238	<b>0.0697</b>	<b>0.0482</b>	0.1280	0.5601	0.4076
	(34) $p_{D,S}^1$	0.5298	0.1743	0.2078	<b>0.0963</b>	<b>0.0722</b>	0.7093	0.2930
	(35) $p_{D,S}^2$	0.5984	0.2112	0.1265	<b>0.0552</b>	<b>0.0938</b>	0.6526	0.3240
	(36) $p_{D,S}^3$	0.4516	0.2463	0.1030	<b>0.0855</b>	<b>0.0887</b>	0.5762	0.4509

Note: Earnings / 10<sup>3</sup> refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 12: Treatment Effects on the Employment Outcomes of the Male Participants**

	Statistic	Frac. employed (age 15 to 25)	Frac. employed (age 26 to 30)	Frac. employed (age 31 to 35)	Frac. employed (age 36 to 40)	Frac. employed (age 26 to 40)	Frac. employed (age 41 to 55)	Frac. employed (age 15 to 55)
Means	(i) Control	0.3035	0.4695	0.3278	0.4490	0.4154	0.4391	0.3941
	(ii) Treatment	0.3101	0.5637	0.5050	0.6134	0.5607	0.4310	0.4460
Estimates	(iii) UDIM	0.0067	0.0942	0.1772	0.1644	0.1453	-0.0081	0.0520
	(iv) COLS	0.0095	0.0970	0.1801	0.1643	0.1471	-0.0192	0.0493
	(v) AIPW	0.0050	0.1010	0.2809	0.2322	0.2047	-0.0478	0.0588
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.4491	0.1328	<b>0.0517</b>	<b>0.0416</b>	<b>0.0467</b>	0.4582	0.1877
	(02) $p_{A,A}^2$	0.4274	0.1258	<b>0.0492</b>	<b>0.0421</b>	<b>0.0445</b>	0.4018	0.1995
	(03) $p_{A,A}^3$	0.4631	0.1086	<b>0.0046</b>	<b>0.0063</b>	<b>0.0065</b>	0.3288	0.1855
	(04) $p_{A,B}^1$	0.4533	0.1262	<b>0.0560</b>	<b>0.0454</b>	<b>0.0473</b>	0.4665	0.2094
	(05) $p_{A,B}^2$	0.4325	0.1188	<b>0.0545</b>	<b>0.0465</b>	<b>0.0450</b>	0.4194	0.2148
	(06) $p_{A,B}^3$	0.4627	<b>0.0890</b>	<b>0.0044</b>	<b>0.0068</b>	<b>0.0053</b>	0.3361	0.1796
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.4482	0.1212	<b>0.0560</b>	<b>0.0500</b>	<b>0.0456</b>	0.4518	0.2107
	(08) $p_{B,N}^2$	0.4150	0.1148	<b>0.0536</b>	<b>0.0472</b>	<b>0.0444</b>	0.3994	0.2159
	(09) $p_{B,N}^3$	0.4254	<b>0.0900</b>	<b>0.0072</b>	<b>0.0144</b>	<b>0.0088</b>	0.3131	0.1935
	(10) $p_{B,S}^1$	0.4422	<b>0.0748</b>	<b>0.0308</b>	<b>0.0212</b>	<b>0.0228</b>	0.4610	0.1499
	(11) $p_{B,S}^2$	0.4270	<b>0.0672</b>	<b>0.0304</b>	<b>0.0216</b>	<b>0.0224</b>	0.4030	0.1563
	(12) $p_{B,S}^3$	0.4910	<b>0.0472</b>	<b>0.0016</b>	<b>0.0016</b>	<b>0.0012</b>	0.3331	0.1072
Permutation $p$ -values	(13) $p_{P,N}^1$	0.4718	0.1575	<b>0.0584</b>	<b>0.0616</b>	<b>0.0568</b>	0.4798	0.2371
	(14) $p_{P,N}^2$	0.4590	0.1499	<b>0.0592</b>	<b>0.0624</b>	<b>0.0556</b>	0.4458	0.2427
	(15) $p_{P,N}^3$	0.4898	0.1399	<b>0.0088</b>	<b>0.0140</b>	<b>0.0128</b>	0.3431	0.2143
	(16) $p_{P,S}^1$	0.4718	0.1615	<b>0.0668</b>	<b>0.0664</b>	<b>0.0648</b>	0.4798	0.2423
	(17) $p_{P,S}^2$	0.4578	0.1531	<b>0.0648</b>	<b>0.0648</b>	<b>0.0616</b>	0.4450	0.2391
	(18) $p_{P,S}^3$	0.4850	0.1299	<b>0.0088</b>	<b>0.0120</b>	<b>0.0112</b>	0.3587	0.2171
Worst-case max. $p$	(19) $p_{M,N}^1$	0.5746	0.2034	<b>0.0966</b>	<b>0.0944</b>	<b>0.0961</b>	0.6452	0.2395
	(20) $p_{M,N}^2$	0.5719	0.1953	<b>0.0979</b>	<b>0.0890</b>	<b>0.0881</b>	0.6059	0.2604
	(21) $p_{M,N}^3$	0.6781	0.2682	<b>0.0461</b>	<b>0.0497</b>	<b>0.0564</b>	0.4897	0.3141
	(22) $p_{M,S}^1$	0.5742	0.2107	0.1052	0.1009	<b>0.0958</b>	0.6452	0.2395
	(23) $p_{M,S}^2$	0.5719	0.2006	0.1030	<b>0.0944</b>	<b>0.0941</b>	0.6023	0.2630
	(24) $p_{M,S}^3$	0.6737	0.2577	<b>0.0432</b>	<b>0.0461</b>	<b>0.0524</b>	0.4972	0.3221
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.5853	0.2050	<b>0.0984</b>	<b>0.0953</b>	<b>0.0998</b>	0.6474	0.2417
	(26) $p_{R,N}^2$	0.5803	0.1978	<b>0.0995</b>	<b>0.0893</b>	<b>0.0908</b>	0.6133	0.2686
	(27) $p_{R,N}^3$	0.6849	0.2725	<b>0.0468</b>	<b>0.0512</b>	<b>0.0594</b>	0.5101	0.3197
	(28) $p_{R,S}^1$	0.5850	0.2112	0.1079	0.1034	0.1051	0.6474	0.2406
	(29) $p_{R,S}^2$	0.5803	0.2007	0.1040	<b>0.0953</b>	0.1035	0.6064	0.2686
	(30) $p_{R,S}^3$	0.6808	0.2602	<b>0.0459</b>	<b>0.0464</b>	<b>0.0570</b>	0.5187	0.3317
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.6748	0.2442	0.1487	0.1040	0.1314	0.8634	0.3085
	(32) $p_{D,N}^2$	0.6183	0.2127	0.1115	0.1112	0.1254	0.6959	0.3928
	(33) $p_{D,N}^3$	0.7290	0.2941	<b>0.0667</b>	<b>0.0684</b>	<b>0.0835</b>	0.5605	0.3660
	(34) $p_{D,S}^1$	0.6797	0.2267	0.1320	0.1183	0.1460	0.8634	0.3206
	(35) $p_{D,S}^2$	0.6183	0.2089	0.1082	0.1229	0.1584	0.6706	0.3065
	(36) $p_{D,S}^3$	0.7465	0.2929	<b>0.0613</b>	<b>0.0622</b>	0.1285	0.6847	0.4431

Note:  $Earnings / 10^3$  refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 12: Treatment Effects on the Employment Outcomes of the Male Participants**

	Statistic	Growth rate (age 21 to 25)	Growth rate (age 26 to 30)	Growth rate (age 31 to 35)	Growth rate (age 36 to 40)	Growth rate (age 41 to 45)	Growth rate (age 46 to 50)	Growth rate (age 51 to 55)
Means	(i) Control	-0.0151	-0.0492	0.0331	0.1089	0.0152	-0.0243	-0.0247
	(ii) Treatment	0.0222	0.0961	0.0158	0.0327	-0.0687	0.0083	-0.0305
Estimates	(iii) UDIM	0.0374	0.1453	-0.0172	-0.0762	-0.0839	0.0326	-0.0059
	(iv) COLS	0.0183	0.1488	-0.0157	-0.0744	-0.1079	0.0296	0.0164
	(v) AIPW	0.0327	0.2294	-0.0099	-0.1297	-0.1279	0.0488	-0.0107
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.2855	<b>0.0187</b>	0.3038	0.1274	<b>0.0738</b>	0.1041	0.4546
	(02) $p_{A,A}^2$	0.3909	<b>0.0223</b>	0.3343	0.1373	<b>0.0334</b>	0.1315	0.3924
	(03) $p_{A,A}^3$	0.3825	<b>0.0028</b>	0.4055	<b>0.0491</b>	<b>0.0478</b>	0.1327	0.4581
	(04) $p_{A,B}^1$	0.4261	<b>0.0480</b>	0.3650	0.1740	0.1389	0.2117	0.4763
	(05) $p_{A,B}^2$	0.5000	<b>0.0622</b>	0.3858	0.1826	<b>0.0780</b>	0.5000	0.5000
	(06) $p_{A,B}^3$	0.4980	<b>0.0104</b>	0.5000	<b>0.0820</b>	<b>0.0911</b>	0.5000	0.5000
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.3015	<b>0.0340</b>	0.3287	0.1291	0.1052	0.1927	0.4594
	(08) $p_{B,N}^2$	0.3918	<b>0.0512</b>	0.3499	0.1359	<b>0.0492</b>	0.2127	0.4954
	(09) $p_{B,N}^3$	0.4250	<b>0.0108</b>	0.4122	<b>0.0416</b>	<b>0.0560</b>	0.1599	0.4966
	(10) $p_{B,S}^1$	0.3315	<b>0.0080</b>	0.2755	<b>0.0604</b>	<b>0.0548</b>	<b>0.0676</b>	0.4826
	(11) $p_{B,S}^2$	0.4166	<b>0.0100</b>	0.3047	<b>0.0668</b>	<b>0.0108</b>	<b>0.0892</b>	0.3691
	(12) $p_{B,S}^3$	0.3255	<b>0.0008</b>	0.3890	<b>0.0148</b>	<b>0.0220</b>	<b>0.0668</b>	0.4254
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3387	<b>0.0240</b>	0.2943	0.1172	0.1192	0.2811	0.4946
	(14) $p_{P,N}^2$	0.4290	<b>0.0276</b>	0.3163	0.1283	<b>0.0632</b>	0.3179	0.4350
	(15) $p_{P,N}^3$	0.3671	<b>0.0028</b>	0.3786	<b>0.0256</b>	<b>0.0384</b>	0.1547	0.4634
	(16) $p_{P,S}^1$	0.3359	<b>0.0208</b>	0.2979	0.1531	0.1208	0.2463	0.4938
	(17) $p_{P,S}^2$	0.4226	<b>0.0256</b>	0.3259	0.1591	<b>0.0644</b>	0.2799	0.4286
	(18) $p_{P,S}^3$	0.3998	<b>0.0020</b>	0.3814	<b>0.0616</b>	<b>0.0532</b>	0.2011	0.4654
Worst-case max. $p$	(19) $p_{M,N}^1$	0.4359	<b>0.0820</b>	0.4934	0.2445	0.2032	0.2770	0.5795
	(20) $p_{M,N}^2$	0.5238	<b>0.0945</b>	0.5314	0.2546	0.1300	0.3037	0.5169
	(21) $p_{M,N}^3$	0.4022	<b>0.0300</b>	0.5573	0.1016	0.1338	0.2488	0.4847
	(22) $p_{M,S}^1$	0.4297	<b>0.0731</b>	0.4986	0.2957	0.2276	0.2547	0.5759
	(23) $p_{M,S}^2$	0.5212	<b>0.0852</b>	0.5407	0.2953	0.1419	0.2817	0.5145
	(24) $p_{M,S}^3$	0.4417	<b>0.0236</b>	0.5683	0.1997	0.1743	0.2615	0.4860
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.4507	<b>0.0828</b>	0.4936	0.2481	0.2043	0.2799	0.5881
	(26) $p_{R,N}^2$	0.5280	<b>0.0966</b>	0.5375	0.2638	0.1352	0.3085	0.5253
	(27) $p_{R,N}^3$	0.4040	<b>0.0317</b>	0.5577	0.1094	0.1379	0.2495	0.4901
	(28) $p_{R,S}^1$	0.4440	<b>0.0737</b>	0.4994	0.3045	0.2287	0.2626	0.5843
	(29) $p_{R,S}^2$	0.5269	<b>0.0899</b>	0.5503	0.3036	0.1432	0.2861	0.5213
	(30) $p_{R,S}^3$	0.4488	<b>0.0241</b>	0.5685	0.2073	0.1777	0.2774	0.4919
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.4775	0.1176	0.5367	0.3177	0.2520	0.3442	0.6668
	(32) $p_{D,N}^2$	0.5439	0.1051	0.5843	0.3178	0.1588	0.3737	0.5877
	(33) $p_{D,N}^3$	0.5053	<b>0.0525</b>	0.5662	0.1362	0.1637	0.2679	0.6119
	(34) $p_{D,S}^1$	0.5455	0.1625	0.5016	0.3546	0.2386	0.2896	0.7225
	(35) $p_{D,S}^2$	0.5562	0.1214	0.6075	0.3574	0.1714	0.3219	0.6163
	(36) $p_{D,S}^3$	0.5688	<b>0.0394</b>	0.6317	0.2279	0.2077	0.3339	0.5511

Note:  $Earnings / 10^3$  refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 13: Treatment Effects on the Employment Outcomes of the Female Participants**

	Statistic	Earnings / 10 <sup>3</sup> (age 15 to 25)	Earnings / 10 <sup>3</sup> (age 26 to 30)	Earnings / 10 <sup>3</sup> (age 31 to 35)	Earnings / 10 <sup>3</sup> (age 36 to 40)	Earnings / 10 <sup>3</sup> (age 26 to 40)	Earnings / 10 <sup>3</sup> (age 41 to 55)	Earnings / 10 <sup>3</sup> (age 15 to 55)
Means	(i) Control	53.066	83.098	81.002	105.81	269.91	285.99	608.97
	(ii) Treatment	82.689	114.47	132.07	143.76	390.29	299.95	772.93
Estimates	(iii) UDIM	29.623	31.369	51.066	37.944	120.38	13.956	163.96
	(iv) COLS	26.247	29.677	47.763	30.017	107.46	-8.8074	124.90
	(v) AIPW	22.845	24.375	43.033	27.203	94.611	-34.167	83.289
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0457</b>	0.1065	<b>0.0402</b>	<b>0.0906</b>	<b>0.0624</b>	0.4345	0.1472
	(02) $p_{A,A}^2$	<b>0.0703</b>	0.1206	<b>0.0566</b>	0.1616	<b>0.0928</b>	0.4632	0.2273
	(03) $p_{A,A}^3$	0.1281	0.1909	0.1194	0.2333	0.1619	0.4038	0.3529
	(04) $p_{A,B}^1$	<b>0.0405</b>	<b>0.0702</b>	<b>0.0311</b>	<b>0.0890</b>	<b>0.0454</b>	0.4502	0.1708
	(05) $p_{A,B}^2$	<b>0.0839</b>	<b>0.0914</b>	<b>0.0565</b>	0.1696	<b>0.0841</b>	0.4710	0.2474
	(06) $p_{A,B}^3$	0.1671	0.1649	0.1263	0.2456	0.1622	0.4083	0.3559
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0368</b>	<b>0.0724</b>	<b>0.0332</b>	<b>0.0920</b>	<b>0.0484</b>	0.4474	0.1731
	(08) $p_{B,N}^2$	<b>0.0792</b>	<b>0.0884</b>	<b>0.0576</b>	0.1543	<b>0.0844</b>	0.4722	0.2415
	(09) $p_{B,N}^3$	0.1487	0.1575	0.1200	0.2339	0.1507	0.4254	0.3463
	(10) $p_{B,S}^1$	<b>0.0208</b>	<b>0.0412</b>	<b>0.0188</b>	<b>0.0648</b>	<b>0.0252</b>	0.4402	0.1347
	(11) $p_{B,S}^2$	<b>0.0412</b>	<b>0.0544</b>	<b>0.0340</b>	0.1315	<b>0.0488</b>	0.4602	0.2103
	(12) $p_{B,S}^3$	0.1291	0.1327	<b>0.0984</b>	0.2227	0.1331	0.3886	0.3635
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0748</b>	0.1128	<b>0.0480</b>	0.1064	<b>0.0704</b>	0.4466	0.1803
	(14) $p_{P,N}^2$	0.1012	0.1323	<b>0.0684</b>	0.1631	0.1036	0.4670	0.2451
	(15) $p_{P,N}^3$	0.1363	0.1695	0.1016	0.1879	0.1383	0.3970	0.3143
	(16) $p_{P,S}^1$	<b>0.0736</b>	0.1144	<b>0.0468</b>	0.1052	<b>0.0684</b>	0.4454	0.1799
	(17) $p_{P,S}^2$	<b>0.0956</b>	0.1319	<b>0.0640</b>	0.1655	0.1008	0.4674	0.2475
	(18) $p_{P,S}^3$	0.1487	0.1795	0.1287	0.2311	0.1595	0.4258	0.3459
Worst-case max. $p$	(19) $p_{M,N}^1$	0.1263	0.1981	0.1178	0.2188	0.1515	0.4824	0.2659
	(20) $p_{M,N}^2$	0.1691	0.2348	0.1447	0.2797	0.2018	0.6534	0.3245
	(21) $p_{M,N}^3$	0.2266	0.2750	0.1843	0.3193	0.2320	0.5321	0.4209
	(22) $p_{M,S}^1$	0.1272	0.2073	0.1102	0.2116	0.1431	0.4824	0.2610
	(23) $p_{M,S}^2$	0.1653	0.2309	0.1384	0.2774	0.2018	0.6654	0.3280
	(24) $p_{M,S}^3$	0.2361	0.2851	0.2177	0.3570	0.2623	0.5571	0.4393
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.1310	0.2001	0.1198	0.2286	0.1575	0.4899	0.2665
	(26) $p_{R,N}^2$	0.1733	0.2449	0.1468	0.2833	0.2097	0.6585	0.3253
	(27) $p_{R,N}^3$	0.2289	0.2807	0.1905	0.3229	0.2335	0.5322	0.4276
	(28) $p_{R,S}^1$	0.1306	0.2080	0.1108	0.2222	0.1462	0.4899	0.2623
	(29) $p_{R,S}^2$	0.1693	0.2430	0.1388	0.2777	0.2097	0.6704	0.3324
	(30) $p_{R,S}^3$	0.2414	0.2973	0.2276	0.3623	0.2662	0.5590	0.4464
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1612	0.2201	0.1639	0.3346	0.1960	0.5643	0.3119
	(32) $p_{D,N}^2$	0.1954	0.3043	0.1805	0.3372	0.2769	0.6933	0.3261
	(33) $p_{D,N}^3$	0.2519	0.3137	0.2480	0.3558	0.2605	0.5398	0.4520
	(34) $p_{D,S}^1$	0.1712	0.2408	0.1288	0.3021	0.1949	0.5395	0.2697
	(35) $p_{D,S}^2$	0.2828	0.3593	0.1612	0.3101	0.3425	0.6933	0.3632
	(36) $p_{D,S}^3$	0.2647	0.3446	0.2860	0.4124	0.3950	0.6125	0.4835

Note: Earnings / 10<sup>3</sup> refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 13: Treatment Effects on the Employment Outcomes of the Female Participants**

	Statistic	Frac. employed (age 15 to 25)	Frac. employed (age 26 to 30)	Frac. employed (age 31 to 35)	Frac. employed (age 36 to 40)	Frac. employed (age 26 to 40)	Frac. employed (age 41 to 55)	Frac. employed (age 15 to 55)
Means	(i) Control	0.1760	0.5179	0.3964	0.5874	0.5006	0.4714	0.4028
	(ii) Treatment	0.2979	0.6709	0.6930	0.7660	0.7100	0.5545	0.5425
Estimates	(iii) UDIM	0.1219	0.1529	0.2966	0.1785	0.2094	0.0831	0.1397
	(iv) COLS	0.1126	0.1356	0.2842	0.1644	0.1947	0.0751	0.1289
	(v) AIPW	0.1024	0.0976	0.2696	0.1574	0.1749	0.0684	0.1165
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0125</b>	<b>0.0757</b>	<b>0.0035</b>	<b>0.0244</b>	<b>0.0141</b>	0.1864	<b>0.0185</b>
	(02) $p_{A,A}^2$	<b>0.0185</b>	0.1108	<b>0.0064</b>	<b>0.0401</b>	<b>0.0254</b>	0.2233	<b>0.0341</b>
	(03) $p_{A,A}^3$	<b>0.0322</b>	0.1745	<b>0.0125</b>	<b>0.0537</b>	<b>0.0391</b>	0.3015	<b>0.0662</b>
	(04) $p_{A,B}^1$	<b>0.0128</b>	<b>0.0524</b>	<b>0.0033</b>	<b>0.0234</b>	<b>0.0097</b>	0.2519	<b>0.0290</b>
	(05) $p_{A,B}^2$	<b>0.0297</b>	<b>0.0850</b>	<b>0.0090</b>	<b>0.0423</b>	<b>0.0208</b>	0.2886	<b>0.0481</b>
	(06) $p_{A,B}^3$	<b>0.0723</b>	0.1633	<b>0.0261</b>	<b>0.0797</b>	<b>0.0506</b>	0.3382	<b>0.0983</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0108</b>	<b>0.0532</b>	<b>0.0048</b>	<b>0.0224</b>	<b>0.0108</b>	0.2483	<b>0.0284</b>
	(08) $p_{B,N}^2$	<b>0.0204</b>	<b>0.0876</b>	<b>0.0124</b>	<b>0.0480</b>	<b>0.0232</b>	0.2927	<b>0.0512</b>
	(09) $p_{B,N}^3$	<b>0.0484</b>	0.1543	<b>0.0376</b>	<b>0.0904</b>	<b>0.0568</b>	0.3275	0.1016
	(10) $p_{B,S}^1$	<b>0.0068</b>	<b>0.0320</b>	<b>0.0016</b>	<b>0.0100</b>	<b>0.0052</b>	0.1987	<b>0.0144</b>
	(11) $p_{B,S}^2$	<b>0.0148</b>	<b>0.0544</b>	<b>0.0056</b>	<b>0.0168</b>	<b>0.0104</b>	0.2159	<b>0.0276</b>
	(12) $p_{B,S}^3$	<b>0.0556</b>	0.1427	<b>0.0112</b>	<b>0.0332</b>	<b>0.0272</b>	0.3123	<b>0.0792</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0248</b>	<b>0.0796</b>	<b>0.0060</b>	<b>0.0348</b>	<b>0.0180</b>	0.2639	<b>0.0396</b>
	(14) $p_{P,N}^2$	<b>0.0400</b>	0.1036	<b>0.0104</b>	<b>0.0500</b>	<b>0.0284</b>	0.2815	<b>0.0584</b>
	(15) $p_{P,N}^3$	<b>0.0552</b>	0.1767	<b>0.0212</b>	<b>0.0672</b>	<b>0.0496</b>	0.2855	<b>0.0656</b>
	(16) $p_{P,S}^1$	<b>0.0256</b>	<b>0.0828</b>	<b>0.0060</b>	<b>0.0384</b>	<b>0.0216</b>	0.2611	<b>0.0420</b>
	(17) $p_{P,S}^2$	<b>0.0356</b>	0.1092	<b>0.0104</b>	<b>0.0528</b>	<b>0.0308</b>	0.2791	<b>0.0560</b>
	(18) $p_{P,S}^3$	<b>0.0552</b>	0.1747	<b>0.0260</b>	<b>0.0720</b>	<b>0.0532</b>	0.3179	<b>0.0864</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0830</b>	0.1416	<b>0.0304</b>	<b>0.0699</b>	<b>0.0525</b>	0.2445	<b>0.0705</b>
	(20) $p_{M,N}^2$	0.1087	0.1813	<b>0.0384</b>	<b>0.0923</b>	<b>0.0686</b>	0.2681	<b>0.0957</b>
	(21) $p_{M,N}^3$	0.1296	0.2667	<b>0.0550</b>	0.1124	<b>0.0980</b>	0.3105	0.1045
	(22) $p_{M,S}^1$	<b>0.0856</b>	0.1533	<b>0.0291</b>	<b>0.0750</b>	<b>0.0568</b>	0.2393	<b>0.0673</b>
	(23) $p_{M,S}^2$	<b>0.0970</b>	0.1912	<b>0.0431</b>	<b>0.0955</b>	<b>0.0717</b>	0.2754	<b>0.0978</b>
	(24) $p_{M,S}^3$	0.1287	0.2684	<b>0.0635</b>	0.1272	0.1001	0.3323	0.1295
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0846</b>	0.1462	<b>0.0333</b>	<b>0.0799</b>	<b>0.0561</b>	0.2496	<b>0.0752</b>
	(26) $p_{R,N}^2$	0.1127	0.1884	<b>0.0387</b>	<b>0.0970</b>	<b>0.0702</b>	0.2822	<b>0.0980</b>
	(27) $p_{R,N}^3$	0.1371	0.2691	<b>0.0555</b>	0.1154	<b>0.0995</b>	0.3145	0.1089
	(28) $p_{R,S}^1$	<b>0.0870</b>	0.1556	<b>0.0298</b>	<b>0.0788</b>	<b>0.0638</b>	0.2419	<b>0.0720</b>
	(29) $p_{R,S}^2$	<b>0.0990</b>	0.1962	<b>0.0450</b>	0.1105	<b>0.0746</b>	0.2926	0.1029
	(30) $p_{R,S}^3$	0.1319	0.2818	<b>0.0719</b>	0.1354	0.1014	0.3410	0.1319
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1093	0.1846	<b>0.0567</b>	0.1390	<b>0.0948</b>	0.2812	0.1230
	(32) $p_{D,N}^2$	0.1339	0.2040	<b>0.0487</b>	0.1763	<b>0.0907</b>	0.3942	0.1288
	(33) $p_{D,N}^3$	0.1976	0.3134	<b>0.0600</b>	0.2301	0.1175	0.3551	0.1565
	(34) $p_{D,S}^1$	0.1037	0.2079	<b>0.0606</b>	0.1049	0.1281	0.2824	0.1292
	(35) $p_{D,S}^2$	0.1121	0.2196	<b>0.0604</b>	0.1724	<b>0.0840</b>	0.4186	0.1293
	(36) $p_{D,S}^3$	0.1955	0.4773	<b>0.0876</b>	0.1404	0.1149	0.4970	0.1601

Note:  $Earnings / 10^3$  refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

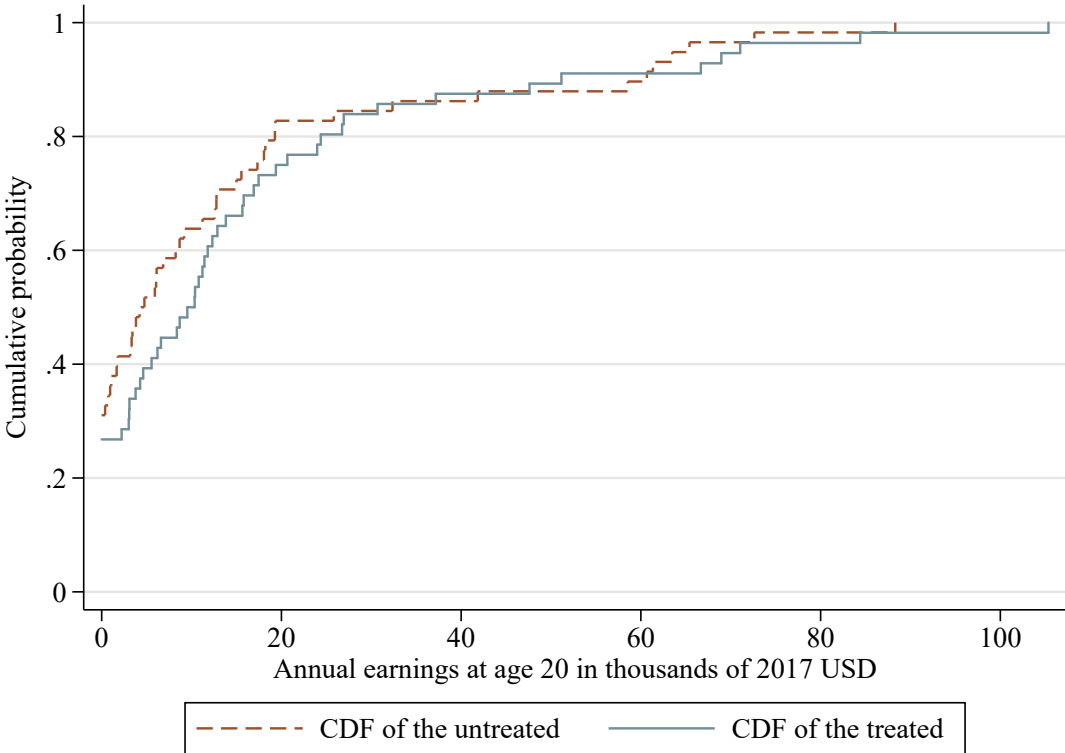
**Table 13: Treatment Effects on the Employment Outcomes of the Female Participants**

	Statistic	Growth rate (age 21 to 25)	Growth rate (age 26 to 30)	Growth rate (age 31 to 35)	Growth rate (age 36 to 40)	Growth rate (age 41 to 45)	Growth rate (age 46 to 50)	Growth rate (age 51 to 55)
Means	(i) Control	0.1622	0.1331	0.0503	0.0408	-0.0501	0.0583	-0.0586
	(ii) Treatment	0.1425	0.0569	0.0210	0.0154	-0.0848	0.0448	0.0879
Estimates	(iii) UDIM	-0.0197	-0.0762	-0.0293	-0.0254	-0.0347	-0.0135	0.1465
	(iv) COLS	-0.0497	-0.0564	-0.0353	-0.0223	-0.0516	0.0064	0.1471
	(v) AIPW	-0.0669	-0.0292	-0.0230	-0.0313	-0.0611	0.0188	0.0984
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.4340	0.1472	0.2558	0.2287	0.1968	0.3480	<b>0.0350</b>
	(02) $p_{A,A}^2$	0.3411	0.2230	0.2113	0.2632	0.1150	0.4238	<b>0.0358</b>
	(03) $p_{A,A}^3$	0.3333	0.3764	0.3421	0.1607	0.1387	0.3284	0.1800
	(04) $p_{A,B}^1$	0.4999	0.2419	0.3373	0.2746	0.4998	0.4978	0.1406
	(05) $p_{A,B}^2$	0.5000	0.3183	0.3852	0.3098	0.5000	0.5000	0.5000
	(06) $p_{A,B}^3$	0.5000	0.5000	0.3834	0.2381	0.4913	0.5000	0.5000
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.3930	0.1963	0.2487	0.2099	0.2639	0.4266	0.1188
	(08) $p_{B,N}^2$	0.3283	0.2815	0.2255	0.2691	0.1979	0.4614	0.1599
	(09) $p_{B,N}^3$	0.3451	0.3743	0.3391	0.1775	0.1723	0.3926	0.2055
	(10) $p_{B,S}^1$	0.4910	<b>0.0972</b>	0.2715	0.1999	0.2027	0.3479	<b>0.0492</b>
	(11) $p_{B,S}^2$	0.3882	0.2007	0.2091	0.2615	0.1447	0.4442	<b>0.0752</b>
	(12) $p_{B,S}^3$	0.3691	0.4034	0.3583	<b>0.0972</b>	0.1303	0.3151	0.2195
Permutation $p$ -values	(13) $p_{P,N}^1$	0.4010	0.2091	0.2303	0.2699	0.2575	0.3774	0.2799
	(14) $p_{P,N}^2$	0.3199	0.2795	0.2091	0.3027	0.1935	0.4634	0.2947
	(15) $p_{P,N}^3$	0.2771	0.3902	0.3027	0.2423	0.1659	0.3850	0.3774
	(16) $p_{P,S}^1$	0.4026	0.2151	0.2619	0.2519	0.2495	0.3774	0.2407
	(17) $p_{P,S}^2$	0.3315	0.2771	0.2319	0.2815	0.1691	0.4586	0.2499
	(18) $p_{P,S}^3$	0.3279	0.4210	0.3343	0.1815	0.1611	0.3595	0.3075
Worst-case max. $p$	(19) $p_{M,N}^1$	0.4442	0.3164	0.5639	0.3467	0.4636	0.4374	0.4027
	(20) $p_{M,N}^2$	0.3617	0.3629	0.4948	0.3945	0.3432	0.6396	0.4269
	(21) $p_{M,N}^3$	0.3339	0.4554	0.5268	0.3503	0.2808	0.5651	0.4882
	(22) $p_{M,S}^1$	0.4442	0.3211	0.5975	0.3368	0.4518	0.4315	0.3200
	(23) $p_{M,S}^2$	0.3849	0.3597	0.5368	0.3774	0.3178	0.6347	0.3589
	(24) $p_{M,S}^3$	0.4016	0.4785	0.5696	0.2759	0.2589	0.5307	0.3971
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.4527	0.3182	0.5751	0.3518	0.4652	0.4545	0.4122
	(26) $p_{R,N}^2$	0.3667	0.3677	0.5047	0.4008	0.3508	0.6436	0.4295
	(27) $p_{R,N}^3$	0.3475	0.4579	0.5272	0.3560	0.2809	0.5655	0.4939
	(28) $p_{R,S}^1$	0.4610	0.3252	0.6052	0.3477	0.4527	0.4488	0.3237
	(29) $p_{R,S}^2$	0.3884	0.3639	0.5426	0.3844	0.3191	0.6386	0.3602
	(30) $p_{R,S}^3$	0.4069	0.4800	0.5719	0.2777	0.2665	0.5372	0.4039
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.5963	0.3532	0.5863	0.3948	0.4789	0.6178	0.4951
	(32) $p_{D,N}^2$	0.4282	0.3883	0.6051	0.4342	0.4329	0.6785	0.4311
	(33) $p_{D,N}^3$	0.5472	0.4796	0.5322	0.4113	0.3025	0.5745	0.5325
	(34) $p_{D,S}^1$	0.5505	0.3482	0.6242	0.3625	0.4719	0.5227	0.3407
	(35) $p_{D,S}^2$	0.4255	0.4113	0.5910	0.4467	0.5459	0.6607	0.3635
	(36) $p_{D,S}^3$	0.4444	0.5175	0.5985	0.2915	0.3534	0.6128	0.4729

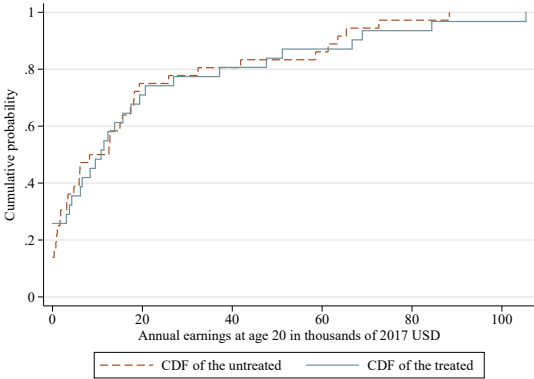
Note:  $Earnings / 10^3$  refers to cumulative earnings (in thousands of 2017 USD) during the specified time period. *Frac. employed* refers to the total fraction of time spent employed during the specified time period. *Growth rate* refers to the growth rate of average earnings during the specified time period. Rows (i) and (ii) contain the means of the control and treatment groups, respectively. Rows (iii), (iv), and (v), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Figure 16:** Distributions of Earnings at Age 20

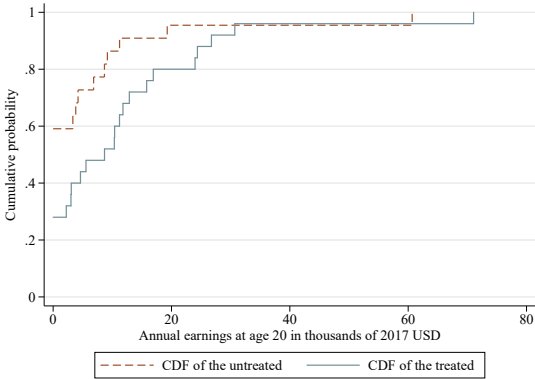
**(a)** Pooled sample of participants



**(b)** Male sample

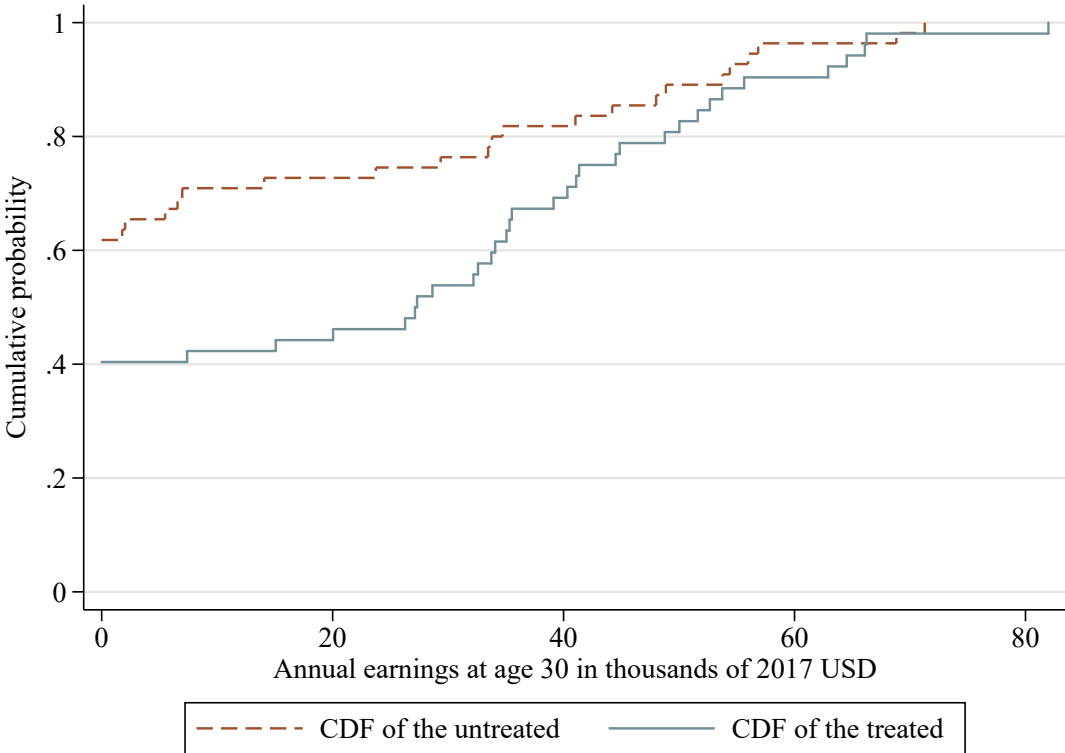


**(c)** Female sample

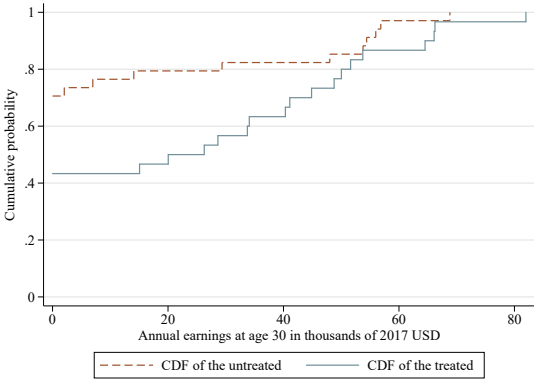


**Figure 17: Distributions of Earnings at Age 30**

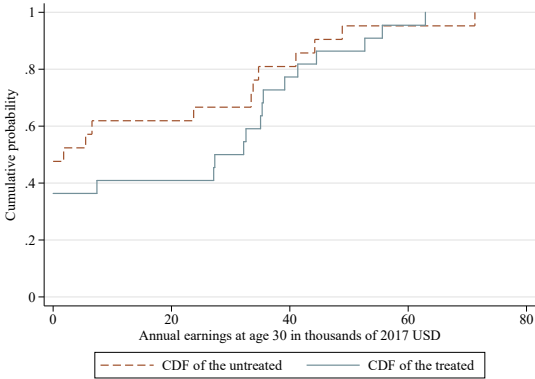
**(a) Pooled sample of participants**



**(b) Male sample**

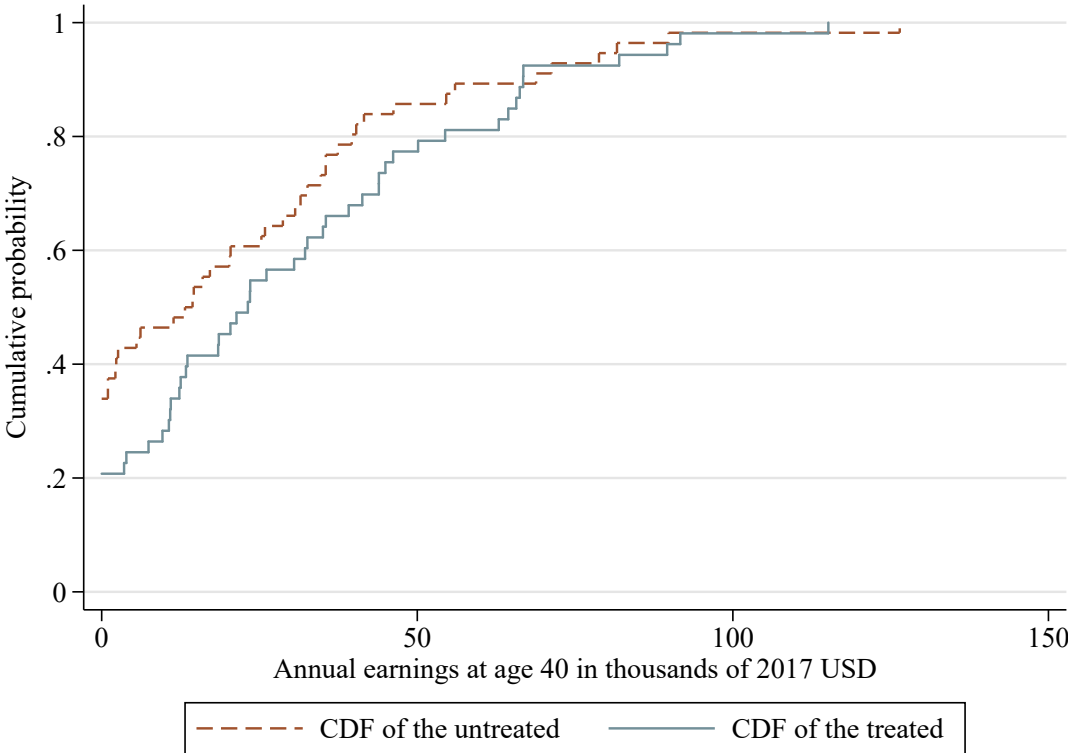


**(c) Female sample**

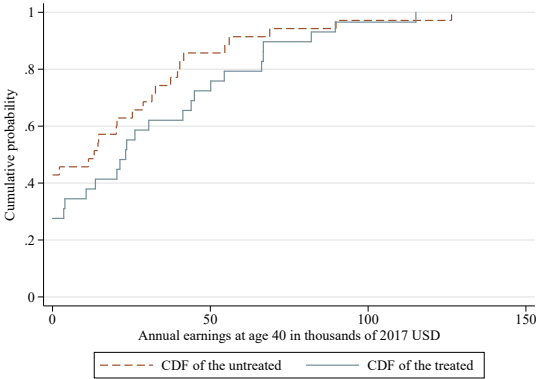


**Figure 18:** Distributions of Earnings at Age 40

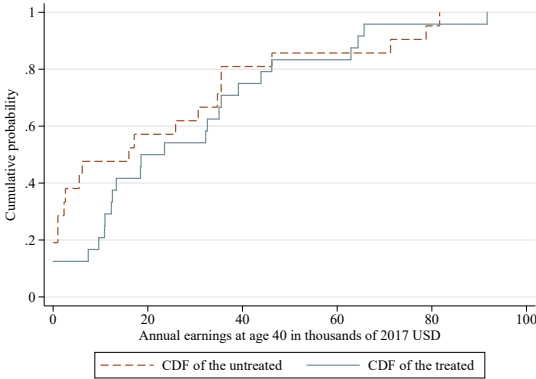
(a) Pooled sample of participants



(b) Male sample

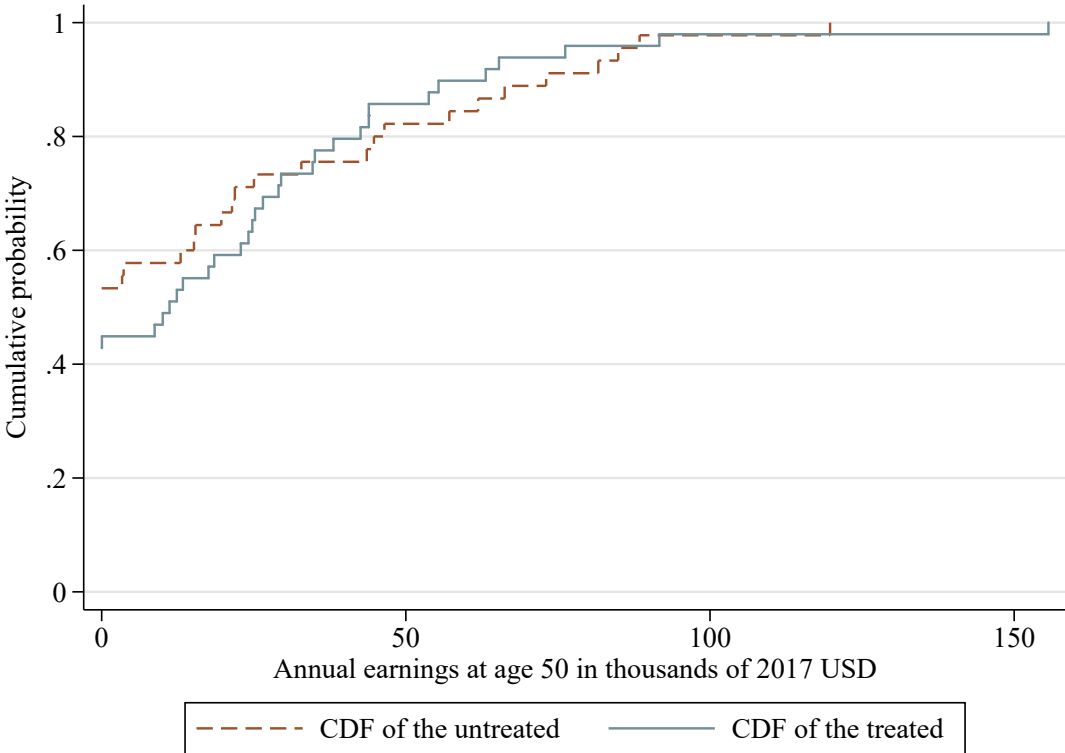


(c) Female sample

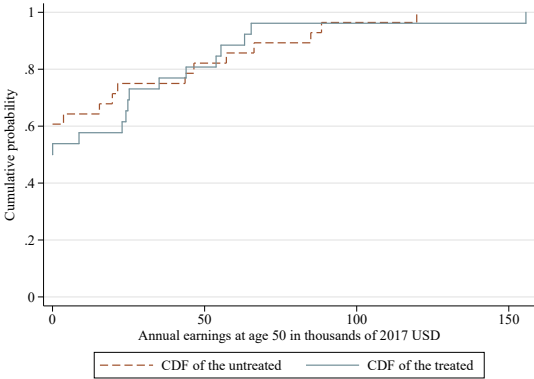


**Figure 19: Distributions of Earnings at Age 50**

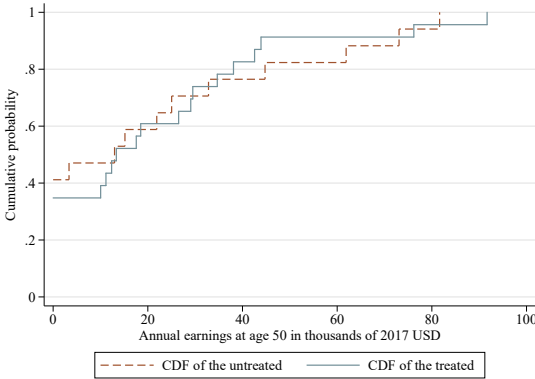
**(a) Pooled sample of participants**



**(b) Male sample**



**(c) Female sample**





## 6 Hypothesis Tests for Treatment Effects on Health Outcomes

**Table 14:** Descriptions of Health Outcomes

Variable	Description
<i>Outcomes collected at the age 40 survey</i>	
Healthy at 40	Good health indicator at the age 40 survey
BMI at age 40	Self-reported body mass index at the age 40 survey
Obese at 40	Indicator of BMI-obesity ( $BMI \geq 30$ ) around age 40
Smok. 100 cig. by 40	Indicator of whether the participant smoked 100 or more cigarettes by age 40 survey
Smokes at 40	Indicator of smoking status around age 40
Num. cigs. smok., 40	Number of cigarettes consumed daily around age 40
Alcohol at 40	Indicator of whether the participant is an alcohol consumer around age 40
Avg. num. drinks, 40	Average drinks per day around age 40
Drug use at 40	Indicator of whether the participant is a hard drug user at around age 40
Rehab. at 40	Indicator of whether the participant was treated for substance usage around/before age 40
<i>Outcomes collected at the late-midlife survey around age 55</i>	
Body mass index	Body mass index (BMI) is the ratio of weight (kg) to squared height ( $m^2$ )
Waist-to-hip ratio	Ratio of the waist length to the hip length
Systolic BP	Amount (in mmHg) of systolic blood pressure (SYS). SYS is average of three measurements of systolic blood pressure if the range of the three measurements is 10 mmHg or lower, and it is a missing value otherwise, because the measurements are unreliable in the latter case (Pickering et al., 2005).
Diastolic BP	Amount (in mmHg) of diastolic blood pressure (DIA). DIA is average of three measurements of diastolic blood pressure if the range of the three measurements is 10 mmHg or lower, and it is a missing value otherwise, because the measurements are unreliable in the latter case (Pickering et al., 2005).

**Table 14:** Descriptions of Health Outcomes

Variable	Description
BMI-obesity	$\mathbb{I}[\text{BMI} \geq 30]$ , where BMI is the body mass index. Katzmarzyk et al. (2013) find that BMI-based obesity status is not significantly associated with all-cause mortality in African Americans. They also find that abdominal obesity is a more significant risk factor.
WHR-based obesity	$\mathbb{I}[\text{WHR} > 0.85]$ for women and $\mathbb{I}[\text{WHR} > 0.9]$ for men, where WHR is the waist-to-hip ratio, as defined by the World Health Organization (2011).
Low-risk obesity	Indicator of whether the participant has a BMI of above 30, or WHR of above 0.85 for women (0.9 for men)
High-risk obesity	Indicator of whether the participant has a BMI of above 40, or WHR of above 0.9 for women (1.0 for men)
Prehypertension	$\mathbb{I}[\text{SYS} \geq 120 \text{ or } \text{DIA} \geq 80]$ , where SYS and DIA are the amounts (mmHg) of systolic and diastolic blood pressure, respectively, as defined by Chobanian et al. (2003).
Hypertension	$\mathbb{I}[\text{SYS} \geq 140 \text{ or } \text{DIA} \geq 90]$ , where SYS and DIA are the amounts (mmHg) of systolic and diastolic blood pressure, respectively, as defined by Chobanian et al. (2003).
Normal peak flow	$\mathbb{I}[ \text{PF} - \text{RPF}  < 100]$ , where RPF is the the reference formula for the average normal peak flow, equal to $\exp(0.544 \ln(\text{age}) - 0.0151 \times \text{age} - 0.747/\text{height} + 5.48)$ for males and $\exp(0.376 \ln(\text{age}) - 0.012 \times \text{age} - 0.588/\text{height} + 5.63)$ for females, both in L/min, as given by Nunn and Gregg (1989), and PF is the measured peak flow. PF is the average of three measurements is their range is less than 100 L/min. If not, the maximum and minimum measurements are used to determine $\mathbb{I}[ \text{PF} - \text{RPF}  < 100]$ if possible, and otherwise it is a missing value.
Bradycardia	$\mathbb{I}[\text{HR} \leq 60]$ , where HR is the heart rate in beats per minute.
Hair cortisol	Hair cortisol, measured in pg/mg, is a biomarker for chronic stress (Russell et al., 2012). Hair cortisol measurements with samples that weigh 7.5 mg or less are unreliable, so if this is the case the hair cortisol level is set to a missing value.
High total cholesterol	$\mathbb{I}[\text{TC} \geq 220]$ , where TC is the total cholesterol concentration in mg/dl, as defined by Fukui et al. (2011). High total cholesterol, also called dyslipidemia, is common in persons with diabetes and increases the risk of coronary heart disease and other cardiovascular diseases.

**Table 14:** Descriptions of Health Outcomes

Variable	Description
High HbA1c	$\mathbb{I}[\text{GH} \geq 5.5]$ , where GH is HbA1c or glycated hemoglobin in percentage, as defined by Tsugawa et al. (2012), who argue that HbA1c levels of 5.5% and higher should be considered as elevated in black persons, although higher thresholds are used for white persons. High HbA1c levels are associated with higher risk of diabetes and cardiovascular diseases.
High CRP	$\mathbb{I}[\text{CRP} \geq 3]$ , where CRP is C-reactive protein in mg/L, as defined by Graf et al. (2009). High CRP levels indicate inflammation, and inflammation of arteries implies greater risk of heart attack, stroke, heart disease, or peripheral arterial disease.
Poor kidney	$\mathbb{I}[\text{AC} \geq 10]$ , where AC is the ratio of albumin (mg/L) to creatinine (mg/dL), as defined by Kovesdy et al. (2013).
Unhealthy days (%)	UHD/30, where UHD is the self-reported number of days in the preceding 30 days (at the time of the interview) the participant's physical health was not good.
Mental illness	Indicator of whether the participant ever had any emotional, nervous, or psychiatric problems.
Severe pain	Indicator of a self-report of severe physical pain.
Regular exercise	Indicator of whether the participant engages in very energetic sports or activities (e.g., gym, biking, swimming) more than once a week.
Cancer	Indicator of whether the participant was ever diagnosed with cancer or a malignant tumor.
Diabetes	Indicator of whether the participant was ever diagnosed with diabetes or has high total cholesterol or high glycated hemoglobin.
Stroke	Indicator of whether the participant was ever diagnosed with stroke or has high C-reactive protein.
Heart disease	Indicator of whether the participant was ever diagnosed with heart attack or other heart diseases or has high C-reactive protein or bradycardia.
Asthma	Indicator of whether the participant was ever diagnosed with asthma.
Lung disease	Indicator of whether the participant was ever diagnosed with chronic lung disease or has asthma or abnormal peak flow.
Good health	Indicator of self-reported good health
Smoked $\geq 100$ cig.	Indicator of whether the participant smoked 100 cigarettes or more in his/her entire life.

**Table 14:** Descriptions of Health Outcomes

Variable	Description
Current smoker	Indicator of whether the participant currently smokes (at the time of the interview)
Num. cig. daily	Number of cigarettes consumed per day. This number equals zero if the participant is not a current smoker.
Teen smoker	Indicator of whether the participant started smoking regularly before turning 20 years old.
Alcohol consumer	Indicator of whether the participant consumes alcoholic beverages.
Avg. num. drinks	Number of alcoholic drinks consumed per day. This number equals zero if the participant is not an alcohol consumer.
Drug use	Indicator of whether the participant has used substances, including unprescribed sedatives, amphetamines, cocaine, LSD, or heroin since the last interview.
Rehabilitation	Indicator of whether the participant was treated drug use or drinking since the last interview.
Home-cooking rate	Number of meals the participant prepares at home per week.
Avoids fried foods	Indicator of whether the participant is consuming less fried foods since the last interview.
Consumes low salt	Indicator of whether the participant is consuming less salt since the last interview.
Consumes low sugar	Indicator of whether the participant is consuming less sugar since the last interview.
Avoids proc. foods	Indicator of whether the participant is consuming less processed foods since the last interview.
Bedridden rate	$NBR/30$ , where NBR is the number of days the participant was mostly in bed due to illness in the preceding month (at the time of the interview).
High med. costs	Indicator of whether the participant needed to see a doctor but could not because of the cost in the preceding year (at the time of the interview).
Uninsured for long	Indicator of whether the participant was without insurance for more than two years.
Overnight med. stays	Number of times the participant was a patient in a hospital overnight in the preceding two years (at the time of the interview).
Home-care assistance	Indicator of whether the participant received assistance at home from a medically trained person in the preceding two years (at the time of the interview).

**Table 15: Treatment Effects on the Health Outcomes of the Pooled Participants**

	Statistic	Healthy at 40	BMI at age 40	Obese at 40	Smok. 100 cig. by 40	Smokes at 40	Num. cigs. smok., 40	Alcohol at 40	Avg. num. drinks, 40	Drug use at 40	Rehab. at 40
Summary	(i) Observations	112	103	103	112	111	109	110	110	110	110
	(ii) Control	0.7931	27.206	0.2364	0.5690	0.5517	6.6491	0.4561	1.1404	0.4386	0.3214
	(iii) Treatment	0.8148	27.803	0.2708	0.4444	0.3774	4.4038	0.4906	1.6415	0.3962	0.2222
Estimates	(iv) UDIM	0.0217	0.5968	0.0345	−0.1245	−0.1744	−2.2453	0.0344	0.5012	−0.0424	−0.0992
	(v) COLS	0.0234	1.1239	0.0344	−0.1091	−0.1629	−2.2530	0.0279	0.4757	−0.0738	−0.0858
	(vi) AIPW	0.0180	0.8426	0.0314	−0.0865	−0.1305	−2.0374	0.0292	0.4524	−0.0955	−0.1046
Asymptotic $p$ -values	(01) $p^1_{A,A}$	0.3891	0.2841	0.3429	0.1050	<b>0.0410</b>	<b>0.0922</b>	0.3611	0.1501	0.3210	0.1198
	(02) $p^2_{A,A}$	0.3911	0.1429	0.3654	0.1602	<b>0.0694</b>	0.1083	0.3954	0.1931	0.2300	0.1627
	(03) $p^3_{A,A}$	0.4089	0.1629	0.3392	0.2062	0.1102	0.1087	0.3872	0.1914	0.1595	<b>0.0909</b>
	(04) $p^1_{A,B}$	0.3846	0.2756	0.3410	<b>0.0787</b>	<b>0.0237</b>	<b>0.0738</b>	0.3538	0.1427	0.3180	0.1229
	(05) $p^2_{A,B}$	0.3872	0.1319	0.3637	0.1316	<b>0.0451</b>	<b>0.0848</b>	0.3915	0.1861	0.2216	0.1696
	(06) $p^3_{A,B}$	0.4171	0.1971	0.3642	0.2023	0.1046	0.1074	0.3922	0.2092	0.1773	0.1210
Bootstrap $p$ -values	(07) $p^1_{B,N}$	0.3896	0.2708	0.3368	<b>0.0804</b>	<b>0.0260</b>	<b>0.0748</b>	0.3584	0.1344	0.3164	0.1208
	(08) $p^2_{B,N}$	0.3888	0.1368	0.3664	0.1336	<b>0.0452</b>	<b>0.0856</b>	0.3940	0.1792	0.2356	0.1740
	(09) $p^3_{B,N}$	0.4320	0.2136	0.4208	0.2036	0.1048	0.1152	0.3844	0.2132	0.1964	0.1348
	(10) $p^1_{B,S}$	0.3440	0.2164	0.2864	<b>0.0336</b>	<b>0.0068</b>	<b>0.0404</b>	0.2976	<b>0.0508</b>	0.2608	<b>0.0632</b>
	(11) $p^2_{B,S}$	0.3528	<b>0.0700</b>	0.3168	<b>0.0748</b>	<b>0.0200</b>	<b>0.0476</b>	0.3580	0.1008	0.1492	0.1016
	(12) $p^3_{B,S}$	0.3940	0.1136	0.2688	0.1508	<b>0.0700</b>	<b>0.0684</b>	0.3692	0.1380	0.1196	<b>0.0564</b>
Permutation $p$ -values	(13) $p^1_{P,N}$	0.4140	0.3120	0.3260	0.1252	<b>0.0608</b>	0.1132	0.3796	0.1480	0.3540	0.1124
	(14) $p^2_{P,N}$	0.4032	0.1624	0.3160	0.1684	<b>0.0848</b>	0.1244	0.4072	0.1680	0.2320	0.1380
	(15) $p^3_{P,N}$	0.4296	0.2176	0.3096	0.2296	0.1392	0.1604	0.4012	0.1796	0.1672	0.1020
	(16) $p^1_{P,S}$	0.3924	0.3116	0.3136	0.1320	<b>0.0616</b>	0.1148	0.3672	0.1476	0.3448	0.1112
	(17) $p^2_{P,S}$	0.4104	0.1568	0.3340	0.1840	<b>0.0964</b>	0.1364	0.4096	0.1860	0.2512	0.1476
	(18) $p^3_{P,S}$	0.4280	0.1976	0.3048	0.2412	0.1520	0.1528	0.4068	0.2000	0.1880	0.1004
Worst-case max. $p$	(19) $p^1_{M,N}$	0.3806	0.3318	0.3813	0.2222	0.1019	0.1901	0.3826	0.2669	0.3565	0.2069
	(20) $p^2_{M,N}$	0.3975	0.2221	0.3609	0.2715	0.1187	0.2075	0.3952	0.2608	0.3051	0.2481
	(21) $p^3_{M,N}$	0.4237	0.3109	0.3862	0.3759	0.2087	0.2401	0.4361	0.2891	0.2382	0.2019
	(22) $p^1_{M,S}$	0.3721	0.3244	0.3762	0.2238	0.1008	0.1941	0.3644	0.2549	0.3478	0.2032
	(23) $p^2_{M,S}$	0.4046	0.2241	0.3794	0.2854	0.1451	0.2158	0.4027	0.2751	0.3334	0.2622
	(24) $p^3_{M,S}$	0.4229	0.2828	0.3868	0.3891	0.2211	0.2221	0.4479	0.3113	0.2681	0.2023
Worst-case adjusted $p$	(25) $p^1_{R,N}$	0.3812	0.3328	0.3921	0.2254	0.1050	0.1954	0.3884	0.2682	0.3569	0.2119
	(26) $p^2_{R,N}$	0.3990	0.2240	0.3640	0.2770	0.1266	0.2138	0.3982	0.2627	0.3144	0.2487
	(27) $p^3_{R,N}$	0.4297	0.3114	0.3883	0.3770	0.2224	0.2491	0.4378	0.2962	0.2392	0.2054
	(28) $p^1_{R,S}$	0.3726	0.3262	0.3801	0.2271	0.1059	0.2008	0.3692	0.2571	0.3486	0.2082
	(29) $p^2_{R,S}$	0.4069	0.2297	0.3836	0.2869	0.1548	0.2203	0.4056	0.2789	0.3404	0.2653
	(30) $p^3_{R,S}$	0.4283	0.2859	0.3894	0.3938	0.2221	0.2280	0.4535	0.3146	0.2708	0.2060
Worst-case de Haan $p$	(31) $p^1_{D,N}$	0.4422	0.3492	0.4872	0.2389	0.1705	0.2778	0.4371	0.3218	0.4925	0.2382
	(32) $p^2_{D,N}$	0.4278	0.2327	0.4104	0.3763	0.1643	0.2809	0.4525	0.2664	0.4103	0.2839
	(33) $p^3_{D,N}$	0.4792	0.4160	0.4407	0.4487	0.3794	0.3176	0.5083	0.3659	0.3081	0.2910
	(34) $p^1_{D,S}$	0.4138	0.3487	0.4985	0.2888	0.1507	0.2499	0.4121	0.2792	0.4050	0.2345
	(35) $p^2_{D,S}$	0.4402	0.3191	0.4303	0.3355	0.2601	0.2598	0.5179	0.2990	0.4445	0.3001
	(36) $p^3_{D,S}$	0.4852	0.3998	0.4503	0.4679	0.2339	0.2564	0.4790	0.3256	0.3008	0.2656

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 15: Treatment Effects on the Health Outcomes of the Pooled Participants**

	Statistic	Body mass index	Waist-to-hip ratio	Systolic BP	Diastolic BP	BMI-obesity	WHR-obesity	Low-risk obesity	High-risk obesity	Pre-hyper-tension	Hyper-tension
Summary	(i) Observations	98	98	63	74	98	98	98	98	80	71
	(ii) Control	28.553	0.8984	132.06	88.770	0.3750	0.6458	0.6875	0.2917	0.8824	0.6250
	(iii) Treatment	31.142	0.9080	137.20	93.292	0.5000	0.6600	0.7400	0.3600	0.9565	0.7436
Estimates	(iv) UDIM	2.5893	0.0096	5.1405	4.5221	0.1250	0.0142	0.0525	0.0683	0.0742	0.1186
	(v) COLS	2.8955	0.0050	4.3750	3.8353	0.1086	-0.0058	0.0435	0.0817	0.0541	0.0965
	(vi) AIPW	2.4787	0.0038	5.9604	3.7596	0.0708	-0.0026	0.0422	0.0615	0.0547	0.1573
Asymptotic p-values	(01) $p_{A,A}^1$	<b>0.0373</b>	0.2454	0.1802	<b>0.0770</b>	0.1302	0.4453	0.2933	0.2505	0.1241	0.1480
	(02) $p_{A,A}^2$	<b>0.0516</b>	0.3637	0.2466	0.1415	0.1819	0.4790	0.3244	0.2012	0.2317	0.2125
	(03) $p_{A,A}^3$	<b>0.0610</b>	0.3880	0.1387	0.1207	0.2581	0.4895	0.3159	0.2283	0.2155	<b>0.0799</b>
	(04) $p_{A,B}^1$	<b>0.0216</b>	0.2383	0.1560	<b>0.0685</b>	<b>0.0962</b>	0.4397	0.2772	0.2235	0.1132	0.1328
	(05) $p_{A,B}^2$	<b>0.0325</b>	0.3604	0.2328	0.1336	0.1522	0.4771	0.3181	0.1697	0.2233	0.1966
	(06) $p_{A,B}^3$	<b>0.0754</b>	0.3979	0.3386	0.1772	0.2683	0.4903	0.3307	0.2382	0.2683	0.1576
Bootstrap p-values	(07) $p_{B,N}^1$	<b>0.0204</b>	0.2328	0.1508	<b>0.0748</b>	0.1044	0.4252	0.2588	0.2172	0.1140	0.1352
	(08) $p_{B,N}^2$	<b>0.0308</b>	0.3532	0.2200	0.1376	0.1500	0.4992	0.3044	0.1676	0.2320	0.1936
	(09) $p_{B,N}^3$	<b>0.0672</b>	0.3976	0.2360	0.1628	0.2540	0.4580	0.3504	0.2464	0.2660	0.1084
	(10) $p_{B,S}^1$	<b>0.0044</b>	0.1764	<b>0.0824</b>	<b>0.0252</b>	<b>0.0504</b>	0.4360	0.2280	0.1768	<b>0.0248</b>	<b>0.0672</b>
	(11) $p_{B,S}^2$	<b>0.0076</b>	0.3332	0.1632	<b>0.0676</b>	0.1048	0.4540	0.2684	0.1124	0.1516	0.1356
	(12) $p_{B,S}^3$	<b>0.0404</b>	0.3628	0.1796	0.1168	0.2364	0.4760	0.2680	0.1996	0.1796	0.1056
Permutation p-values	(13) $p_{P,N}^1$	<b>0.0468</b>	0.2484	0.1812	<b>0.0768</b>	0.1372	0.3960	0.2752	0.2688	0.1124	0.1536
	(14) $p_{P,N}^2$	<b>0.0284</b>	0.3688	0.2228	0.1104	0.1716	0.4900	0.2976	0.2104	0.1560	0.2020
	(15) $p_{P,N}^3$	<b>0.0456</b>	0.3912	0.1808	0.1704	0.2528	0.4756	0.2792	0.2460	0.1484	0.1180
	(16) $p_{P,S}^1$	<b>0.0436</b>	0.2496	0.1808	<b>0.0772</b>	0.1356	0.3912	0.2700	0.2656	0.1160	0.1532
	(17) $p_{P,S}^2$	<b>0.0576</b>	0.3696	0.2384	0.1360	0.1880	0.4892	0.3004	0.2300	0.2016	0.2144
	(18) $p_{P,S}^3$	<b>0.0800</b>	0.3888	0.1904	0.1688	0.2600	0.4756	0.2852	0.2740	0.2028	0.1368
Worst-case max. p	(19) $p_{M,N}^1$	<b>0.0882</b>	0.3972	0.3583	0.2137	0.2214	0.5807	0.4425	0.3647	0.2727	0.3021
	(20) $p_{M,N}^2$	<b>0.0688</b>	0.4988	0.3975	0.2443	0.2322	0.5437	0.4613	0.2604	0.2870	0.3507
	(21) $p_{M,N}^3$	0.1218	0.5283	0.3556	0.2987	0.3438	0.5416	0.4664	0.3517	0.2657	0.2165
	(22) $p_{M,S}^1$	<b>0.0763</b>	0.3972	0.3530	0.2111	0.2174	0.5746	0.4376	0.3612	0.3074	0.3021
	(23) $p_{M,S}^2$	<b>0.0959</b>	0.5015	0.4046	0.2574	0.2451	0.5445	0.4673	0.2697	0.3154	0.3606
	(24) $p_{M,S}^3$	0.1454	0.5291	0.3723	0.2965	0.3591	0.5416	0.4731	0.3723	0.3598	0.2488
Worst-case adjusted p	(25) $p_{R,N}^1$	<b>0.0938</b>	0.3989	0.3644	0.2158	0.2214	0.5838	0.4507	0.3666	0.2748	0.3028
	(26) $p_{R,N}^2$	<b>0.0726</b>	0.5021	0.4006	0.2478	0.2396	0.5465	0.4661	0.2653	0.2870	0.3553
	(27) $p_{R,N}^3$	0.1239	0.5357	0.3608	0.3037	0.3442	0.5456	0.4665	0.3663	0.2657	0.2237
	(28) $p_{R,S}^1$	<b>0.0774</b>	0.3989	0.3612	0.2130	0.2178	0.5783	0.4376	0.3618	0.3144	0.3028
	(29) $p_{R,S}^2$	<b>0.0977</b>	0.5048	0.4054	0.2713	0.2517	0.5477	0.4725	0.2750	0.3189	0.3625
	(30) $p_{R,S}^3$	0.1476	0.5365	0.3830	0.3007	0.3635	0.5456	0.4737	0.3839	0.3667	0.2530
Worst-case de Haan p	(31) $p_{D,N}^1$	0.1385	0.4053	0.3816	0.2277	0.2496	0.6431	0.5211	0.4321	0.3048	0.3417
	(32) $p_{D,N}^2$	<b>0.0868</b>	0.5379	0.5040	0.3089	0.2539	0.6244	0.4796	0.2771	0.3099	0.4025
	(33) $p_{D,N}^3$	0.1653	0.5457	0.3794	0.3509	0.3715	0.6219	0.5561	0.4086	0.2684	0.2729
	(34) $p_{D,S}^1$	<b>0.0965</b>	0.4588	0.4207	0.3068	0.2611	0.6283	0.5256	0.3891	0.3574	0.3441
	(35) $p_{D,S}^2$	0.1300	0.5149	0.4497	0.4045	0.2598	0.6119	0.4926	0.2878	0.3606	0.4254
	(36) $p_{D,S}^3$	0.1975	0.5642	0.4391	0.3297	0.4273	0.6219	0.5841	0.4013	0.3989	0.3017

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various p-values. The superscripts 1, 2, and 3 of these p-values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic p-values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap p-values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation p-values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum p-values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock p-values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan p-values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 15: Treatment Effects on the Health Outcomes of the Pooled Participants**

	Statistic	Normal peak flow	Brady-cardia	Hair cortisol	High total cholesterol	High HbA1c	High CRP	Poor kidney
Summary	(i) Observations	87	98	54	79	92	92	64
	(ii) Control	0.3000	0.1875	76.319	0.9722	0.5909	0.5682	0.2188
	(iii) Treatment	0.3404	0.1400	36.819	0.7907	0.5000	0.4583	0.2188
Estimates	(iv) UDIM	0.0404	-0.0475	-39.500	-0.1815	-0.0909	-0.1098	0.0000
	(v) COLS	0.0940	-0.0794	-50.605	-0.2091	-0.1033	-0.1723	-0.0145
	(vi) AIPW	0.0572	-0.0627	-43.725	-0.2229	-0.1179	-0.1850	0.0016
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.3506	0.2665	<b>0.0168</b>	<b>0.0036</b>	0.1905	0.1550	0.5000
	(02) $p_{A,A}^2$	0.1674	0.1828	<b>0.0080</b>	<b>0.0027</b>	0.1878	<b>0.0664</b>	0.4560
	(03) $p_{A,A}^3$	0.2416	0.2189	<b>0.0034</b>	<b>0.0010</b>	0.1283	<b>0.0439</b>	0.4935
	(04) $p_{A,B}^1$	0.3376	0.2587	<b>0.0176</b>	<b>0.0037</b>	0.1876	0.1437	0.5000
	(05) $p_{A,B}^2$	0.1518	0.1741	<b>0.0075</b>	<b>0.0023</b>	0.1862	<b>0.0575</b>	0.4527
	(06) $p_{A,B}^3$	0.3122	0.2425	0.1526	<b>0.0026</b>	0.1598	<b>0.0591</b>	0.4955
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.3408	0.2624	<b>0.0128</b>	<b>0.0024</b>	0.1836	0.1480	0.4980
	(08) $p_{B,N}^2$	0.1420	0.1712	<b>0.0040</b>	<b>0.0004</b>	0.1828	<b>0.0560</b>	0.4764
	(09) $p_{B,N}^3$	0.2836	0.2644	<b>0.0456</b>	<b>0.0028</b>	0.1680	<b>0.0548</b>	0.4676
	(10) $p_{B,S}^1$	0.2880	0.1852	<b>0.0020</b>	<b>0.0004</b>	0.1252	<b>0.0860</b>	0.4980
	(11) $p_{B,S}^2$	0.1084	0.1064	<b>0.0008</b>	<b>0.0004</b>	0.1304	<b>0.0392</b>	0.4116
	(12) $p_{B,S}^3$	0.2916	0.1696	<b>0.0612</b>	<b>0.0008</b>	0.1016	<b>0.0476</b>	0.4792
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3356	0.2764	<b>0.0148</b>	<b>0.0080</b>	0.1760	0.1456	0.5024
	(14) $p_{P,N}^2$	0.1868	0.1520	<b>0.0044</b>	<b>0.0032</b>	0.1560	<b>0.0604</b>	0.4652
	(15) $p_{P,N}^3$	0.3128	0.2152	<b>0.0172</b>	<b>0.0032</b>	0.1220	<b>0.0664</b>	0.4936
	(16) $p_{P,S}^1$	0.3352	0.2704	<b>0.0248</b>	<b>0.0044</b>	0.1716	0.1796	0.5024
	(17) $p_{P,S}^2$	0.1812	0.1796	<b>0.0116</b>	<b>0.0036</b>	0.1680	<b>0.0700</b>	0.4728
	(18) $p_{P,S}^3$	0.2936	0.2296	<b>0.0332</b>	<b>0.0028</b>	0.1248	<b>0.0724</b>	0.4932
Worst-case max. $p$	(19) $p_{M,N}^1$	0.2639	0.4644	<b>0.0194</b>	<b>0.0206</b>	0.2785	0.1352	0.7010
	(20) $p_{M,N}^2$	0.1902	0.3501	<b>0.0196</b>	<b>0.0191</b>	0.2377	<b>0.0963</b>	0.5468
	(21) $p_{M,N}^3$	0.3237	0.3863	<b>0.0385</b>	<b>0.0333</b>	0.2320	0.1030	0.6082
	(22) $p_{M,S}^1$	0.2639	0.4640	<b>0.0299</b>	<b>0.0153</b>	0.2709	0.1604	0.7010
	(23) $p_{M,S}^2$	0.1874	0.3886	<b>0.0259</b>	<b>0.0167</b>	0.2637	0.1089	0.5579
	(24) $p_{M,S}^3$	0.2921	0.4081	<b>0.0690</b>	<b>0.0256</b>	0.2345	0.1115	0.6082
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.2651	0.4696	<b>0.0221</b>	<b>0.0234</b>	0.2936	0.1374	0.7048
	(26) $p_{R,N}^2$	0.1922	0.3556	<b>0.0197</b>	<b>0.0238</b>	0.2457	<b>0.0964</b>	0.5518
	(27) $p_{R,N}^3$	0.3247	0.3864	<b>0.0386</b>	<b>0.0348</b>	0.2326	0.1051	0.6082
	(28) $p_{R,S}^1$	0.2651	0.4734	<b>0.0331</b>	<b>0.0171</b>	0.2820	0.1621	0.7048
	(29) $p_{R,S}^2$	0.1892	0.3891	<b>0.0276</b>	<b>0.0176</b>	0.2662	0.1111	0.5642
	(30) $p_{R,S}^3$	0.2951	0.4103	<b>0.0691</b>	<b>0.0314</b>	0.2351	0.1149	0.6082
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.3194	0.4961	<b>0.0263</b>	<b>0.0354</b>	0.3901	0.1781	0.7892
	(32) $p_{D,N}^2$	0.2252	0.4207	<b>0.0277</b>	<b>0.0392</b>	0.3100	0.1316	0.6216
	(33) $p_{D,N}^3$	0.3426	0.4428	<b>0.0487</b>	<b>0.0389</b>	0.2493	0.1350	0.6388
	(34) $p_{D,S}^1$	0.3166	0.5863	<b>0.0596</b>	<b>0.0245</b>	0.3564	0.2109	0.7892
	(35) $p_{D,S}^2$	0.2090	0.4049	<b>0.0381</b>	<b>0.0361</b>	0.3097	0.1260	0.5861
	(36) $p_{D,S}^3$	0.3290	0.4370	<b>0.0780</b>	<b>0.0579</b>	0.2521	0.1401	0.6082

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 15: Treatment Effects on the Health Outcomes of the Pooled Participants**

	Statistic	Unhealthy days (%)	Mental illness	Severe pain	Regular exercise	Cancer indicator	Diabetes indicator	Stroke indicator	Heart disease	Asthma indicator	Lung disease
Summary	(i) Observations	102	102	102	102	100	102	102	102	102	102
	(ii) Control	0.2453	0.2800	0.1600	0.3200	0.1020	0.8600	0.5200	0.5800	0.1800	0.6400
	(iii) Treatment	0.1782	0.1538	0.0577	0.4231	0.0588	0.8462	0.4423	0.5962	0.1154	0.6731
Estimates	(iv) UDIM	-0.0671	-0.1262	-0.1023	0.1031	-0.0432	-0.0138	-0.0777	0.0162	-0.0646	0.0331
	(v) COLS	-0.0658	-0.1394	-0.1158	0.0961	-0.0099	-0.0368	-0.1321	-0.0135	-0.0572	0.0110
	(vi) AIPW	-0.0675	-0.1504	-0.1212	0.0955	0.0137	-0.0780	-0.1272	0.0158	-0.0455	0.0510
Asymptotic <i>p</i> -values	(01) $p_{A,A}^1$	0.1343	<b>0.0628</b>	<b>0.0500</b>	0.1258	0.2197	0.4265	0.2205	0.4365	0.1689	0.3740
	(02) $p_{A,A}^2$	0.1841	<b>0.0566</b>	<b>0.0678</b>	0.1496	0.4406	0.3446	0.1022	0.4503	0.2078	0.4609
	(03) $p_{A,A}^3$	0.1558	<b>0.0300</b>	<b>0.0378</b>	0.1242	0.4144	0.1838	<b>0.0964</b>	0.4370	0.2302	0.2986
	(04) $p_{A,B}^1$	0.1420	<b>0.0590</b>	<b>0.0454</b>	0.1254	0.2072	0.4204	0.2162	0.4328	0.1711	0.3604
	(05) $p_{A,B}^2$	0.1878	<b>0.0528</b>	<b>0.0594</b>	0.1612	0.4374	0.3284	<b>0.0983</b>	0.4474	0.2201	0.4550
	(06) $p_{A,B}^3$	0.1984	<b>0.0425</b>	<b>0.0496</b>	0.1694	0.4219	0.1915	0.1216	0.4425	0.2776	0.2980
Bootstrap <i>p</i> -values	(07) $p_{B,N}^1$	0.1404	<b>0.0624</b>	<b>0.0484</b>	0.1312	0.2168	0.4340	0.2176	0.4412	0.1716	0.3764
	(08) $p_{B,N}^2$	0.1916	<b>0.0512</b>	<b>0.0640</b>	0.1724	0.4420	0.3404	<b>0.0940</b>	0.4216	0.2092	0.4744
	(09) $p_{B,N}^3$	0.1820	<b>0.0408</b>	<b>0.0472</b>	0.1660	0.4936	0.2364	0.1140	0.4988	0.2676	0.3316
	(10) $p_{B,S}^1$	<b>0.0660</b>	<b>0.0232</b>	<b>0.0052</b>	<b>0.0584</b>	0.1244	0.3992	0.1532	0.4056	<b>0.0964</b>	0.3132
	(11) $p_{B,S}^2$	0.1304	<b>0.0156</b>	<b>0.0164</b>	<b>0.0848</b>	0.4284	0.2888	<b>0.0588</b>	0.4556	0.1420	0.4276
	(12) $p_{B,S}^3$	0.1424	<b>0.0180</b>	<b>0.0156</b>	0.1044	0.3496	0.1220	<b>0.0932</b>	0.3740	0.2304	0.2092
Permutation <i>p</i> -values	(13) $p_{P,N}^1$	0.1488	<b>0.0624</b>	<b>0.0440</b>	0.1160	0.2224	0.4040	0.2560	0.4192	0.1868	0.3676
	(14) $p_{P,N}^2$	0.1704	<b>0.0548</b>	<b>0.0324</b>	0.1376	0.4480	0.2944	0.1084	0.4732	0.2264	0.4576
	(15) $p_{P,N}^3$	0.1712	<b>0.0516</b>	<b>0.0360</b>	0.1456	0.3836	0.1628	0.1312	0.4260	0.2964	0.3196
	(16) $p_{P,S}^1$	0.1528	<b>0.0676</b>	<b>0.0396</b>	0.1144	0.2148	0.3976	0.2536	0.4160	0.2032	0.3620
	(17) $p_{P,S}^2$	0.2120	<b>0.0644</b>	<b>0.0608</b>	0.1384	0.4584	0.3152	0.1136	0.4748	0.2404	0.4588
	(18) $p_{P,S}^3$	0.1968	<b>0.0500</b>	<b>0.0452</b>	0.1312	0.4044	0.1896	0.1328	0.4252	0.3020	0.3124
Worst-case max. <i>p</i>	(19) $p_{M,N}^1$	0.1636	<b>0.0961</b>	<b>0.0841</b>	0.2780	0.3455	0.5393	0.2300	0.4766	0.3435	0.5825
	(20) $p_{M,N}^2$	0.1765	0.1132	<b>0.0746</b>	0.2713	0.4499	0.4613	0.1549	0.5822	0.3741	0.5761
	(21) $p_{M,N}^3$	0.1892	0.1096	<b>0.0764</b>	0.2884	0.5992	0.2935	0.1699	0.4912	0.4376	0.4509
	(22) $p_{M,S}^1$	0.1719	0.1091	<b>0.0847</b>	0.2727	0.3447	0.5363	0.2296	0.4761	0.3522	0.5749
	(23) $p_{M,S}^2$	0.2181	0.1182	0.1147	0.2650	0.4586	0.4896	0.1606	0.5824	0.3889	0.5761
	(24) $p_{M,S}^3$	0.2038	0.1070	<b>0.0994</b>	0.2481	0.6177	0.3259	0.1743	0.4912	0.4394	0.4372
Worst-case adjusted <i>p</i>	(25) $p_{R,N}^1$	0.1650	0.1008	<b>0.0845</b>	0.2829	0.3468	0.5421	0.2316	0.4808	0.3440	0.5943
	(26) $p_{R,N}^2$	0.1791	0.1192	<b>0.0755</b>	0.2754	0.4679	0.4653	0.1645	0.5831	0.3764	0.5866
	(27) $p_{R,N}^3$	0.1909	0.1144	<b>0.0769</b>	0.2975	0.6035	0.3008	0.1753	0.5125	0.4436	0.4587
	(28) $p_{R,S}^1$	0.1736	0.1124	<b>0.0859</b>	0.2765	0.3463	0.5383	0.2320	0.4803	0.3554	0.5864
	(29) $p_{R,S}^2$	0.2210	0.1213	0.1149	0.2709	0.4701	0.4970	0.1707	0.5889	0.3937	0.5866
	(30) $p_{R,S}^3$	0.2041	0.1106	<b>0.0996</b>	0.2579	0.6244	0.3326	0.1786	0.5125	0.4455	0.4395
Worst-case de Haan <i>p</i>	(31) $p_{D,N}^1$	0.1945	0.1219	0.1133	0.3546	0.3662	0.6202	0.2779	0.5216	0.4162	0.8038
	(32) $p_{D,N}^2$	0.2372	0.1467	<b>0.0949</b>	0.2921	0.6439	0.5363	0.1835	0.6588	0.3838	0.6209
	(33) $p_{D,N}^3$	0.1938	0.1420	<b>0.0945</b>	0.3146	0.7220	0.3770	0.2693	0.5977	0.5815	0.5298
	(34) $p_{D,S}^1$	0.1833	0.1344	0.1002	0.3269	0.3614	0.5710	0.2604	0.5891	0.4889	0.7356
	(35) $p_{D,S}^2$	0.3026	0.1515	0.1625	0.3211	0.5621	0.6792	0.2031	0.6428	0.4520	0.6209
	(36) $p_{D,S}^3$	0.2221	0.1377	0.1050	0.2915	0.6718	0.4358	0.2285	0.5977	0.4674	0.4492

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various *p*-values. The superscripts 1, 2, and 3 of these *p*-values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic *p*-values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap *p*-values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation *p*-values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum *p*-values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock *p*-values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan *p*-values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 15: Treatment Effects on the Health Outcomes of the Pooled Participants**

	Statistic	Good health	Smoked $\geq 100$ cig.	Current smoker	Num. cig. daily	Teen smoker	Alcohol consumer	Avg. num. drinks	Drug use	Rehabilitation
Summary	(i) Observations	101	102	102	102	102	101	101	102	102
	(ii) Control	0.6327	0.7000	0.4400	3.9400	0.6800	0.6000	1.8000	0.2600	0.1800
	(iii) Treatment	0.6538	0.5192	0.3462	3.6154	0.5000	0.6275	1.6078	0.1923	0.0769
Estimates	(iv) UDIM	0.0212	-0.1808	-0.0938	-0.3246	-0.1800	0.0275	-0.1922	-0.0677	-0.1031
	(v) COLS	0.0274	-0.1460	-0.1205	-0.8185	-0.1691	0.0666	-0.2890	-0.0494	-0.0864
	(vi) AIPW	-0.0001	-0.1456	-0.1099	-0.6896	-0.1676	0.0405	-0.2677	-0.0606	-0.0919
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.4110	<b>0.0435</b>	0.1798	0.3943	<b>0.0482</b>	0.3905	0.3469	0.1998	<b>0.0501</b>
	(02) $p_{A,A}^2$	0.3946	0.1082	0.1351	0.2501	<b>0.0813</b>	0.2746	0.3015	0.2842	<b>0.0712</b>
	(03) $p_{A,A}^3$	0.4997	<b>0.0978</b>	0.1440	0.2670	<b>0.0724</b>	0.3500	0.2947	0.2263	<b>0.0418</b>
	(04) $p_{A,B}^1$	0.4128	<b>0.0258</b>	0.1489	0.3860	<b>0.0278</b>	0.3878	0.3404	0.2005	<b>0.0477</b>
	(05) $p_{A,B}^2$	0.3990	<b>0.0831</b>	0.1080	0.2268	<b>0.0568</b>	0.2703	0.2963	0.2895	<b>0.0816</b>
	(06) $p_{A,B}^3$	0.4998	0.1015	0.1454	0.2707	<b>0.0729</b>	0.3639	0.3240	0.2499	<b>0.0669</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.4348	<b>0.0320</b>	0.1476	0.3756	<b>0.0280</b>	0.4120	0.3568	0.1880	<b>0.0464</b>
	(08) $p_{B,N}^2$	0.4164	<b>0.0760</b>	0.1168	0.2484	<b>0.0568</b>	0.2752	0.3100	0.2816	<b>0.0880</b>
	(09) $p_{B,N}^3$	0.4712	<b>0.0928</b>	0.1340	0.2828	<b>0.0724</b>	0.3696	0.3124	0.2560	<b>0.0792</b>
	(10) $p_{B,S}^1$	0.3624	<b>0.0084</b>	<b>0.0900</b>	0.3560	<b>0.0108</b>	0.3408	0.2772	0.1356	<b>0.0072</b>
	(11) $p_{B,S}^2$	0.3436	<b>0.0524</b>	<b>0.0524</b>	0.1664	<b>0.0332</b>	0.2220	0.2080	0.2244	<b>0.0204</b>
	(12) $p_{B,S}^3$	0.4708	<b>0.0780</b>	0.1040	0.2124	<b>0.0500</b>	0.3332	0.2692	0.1860	<b>0.0176</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	0.4384	<b>0.0568</b>	0.2076	0.4108	<b>0.0668</b>	0.3828	0.3404	0.1936	<b>0.0516</b>
	(14) $p_{P,N}^2$	0.4136	0.1140	0.1468	0.2752	<b>0.0904</b>	0.2424	0.2840	0.2684	<b>0.0748</b>
	(15) $p_{P,N}^3$	0.4712	0.1344	0.1832	0.3116	0.1112	0.3516	0.3120	0.2388	<b>0.0772</b>
	(16) $p_{P,S}^1$	0.4372	<b>0.0620</b>	0.2068	0.4096	<b>0.0664</b>	0.3780	0.3408	0.1936	<b>0.0532</b>
	(17) $p_{P,S}^2$	0.4180	0.1312	0.1592	0.2724	0.1076	0.2616	0.3028	0.2832	<b>0.0888</b>
	(18) $p_{P,S}^3$	0.4712	0.1432	0.1872	0.2868	0.1192	0.3620	0.3144	0.2420	<b>0.0652</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	0.3355	0.1107	0.2473	0.4658	0.1226	0.3044	0.4420	0.3125	<b>0.1000</b>
	(20) $p_{M,N}^2$	0.3831	0.1683	0.1923	0.3543	0.1390	0.2327	0.3766	0.3779	0.1397
	(21) $p_{M,N}^3$	0.6868	0.2247	0.2216	0.3898	0.1780	0.3631	0.3966	0.3394	0.1361
	(22) $p_{M,S}^1$	0.3349	0.1141	0.2458	0.4658	0.1270	0.3044	0.4427	0.3064	0.1067
	(23) $p_{M,S}^2$	0.3971	0.2043	0.2042	0.3480	0.1619	0.2474	0.3865	0.3947	0.1556
	(24) $p_{M,S}^3$	0.6868	0.2306	0.2252	0.3677	0.1833	0.3712	0.3939	0.3430	0.1251
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.3387	0.1125	0.2506	0.4728	0.1267	0.3131	0.4473	0.3232	0.1004
	(26) $p_{R,N}^2$	0.3846	0.1692	0.1992	0.3576	0.1397	0.2363	0.3776	0.3852	0.1399
	(27) $p_{R,N}^3$	0.6923	0.2248	0.2327	0.3981	0.1794	0.3664	0.3971	0.3463	0.1381
	(28) $p_{R,S}^1$	0.3358	0.1159	0.2491	0.4728	0.1281	0.3131	0.4477	0.3168	0.1083
	(29) $p_{R,S}^2$	0.3975	0.2047	0.2066	0.3513	0.1641	0.2523	0.3884	0.3983	0.1585
	(30) $p_{R,S}^3$	0.6923	0.2339	0.2377	0.3804	0.1882	0.3726	0.3964	0.3534	0.1257
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.3834	0.1276	0.2767	0.5740	0.1580	0.4087	0.5016	0.3828	0.1223
	(32) $p_{D,N}^2$	0.4639	0.2082	0.2627	0.4002	0.1453	0.2841	0.3930	0.4004	0.2256
	(33) $p_{D,N}^3$	0.7503	0.2294	0.2770	0.4372	0.1856	0.4009	0.4413	0.4241	0.1673
	(34) $p_{D,S}^1$	0.3655	0.1609	0.2709	0.6826	0.1649	0.4110	0.4797	0.3691	0.1166
	(35) $p_{D,S}^2$	0.4809	0.2200	0.2268	0.3671	0.1811	0.2885	0.5394	0.4220	0.1921
	(36) $p_{D,S}^3$	0.7503	0.2541	0.3463	0.4798	0.2087	0.4164	0.4195	0.4254	0.1609

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 15:** Treatment Effects on the Health Outcomes of the Pooled Participants

	Statistic	Home-cook-ing rate	Avoids fried food	Consumes low salt	Consumes low sugar	Avoids proc. food	Bedridden rate	High med. costs	Uninsured for long	Overnight med. stays	Home-care assistance
Summary	(i) Observations	101	102	102	101	101	100	102	101	102	102
	(ii) Control	5.6000	0.7800	0.8400	0.7143	0.7347	0.0456	0.1800	0.3061	5.1733	0.1000
	(iii) Treatment	7.4510	0.8462	0.8654	0.7115	0.7885	0.0431	0.0962	0.1154	4.6538	0.0385
Estimates	(iv) UDIM	1.8510	0.0662	0.0254	-0.0027	0.0538	-0.0024	-0.0838	-0.1907	-0.5195	-0.0615
	(v) COLS	2.5142	0.1011	0.0463	0.0571	0.0633	0.0083	-0.0882	-0.1621	-1.8130	-0.0647
	(vi) AIPW	2.3333	0.0986	0.0436	0.0584	0.0320	0.0099	-0.0625	-0.1589	-1.8270	-0.0699
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0729</b>	0.1959	0.3596	0.4875	0.2688	0.4577	0.1000	<b>0.0116</b>	0.4488	0.1082
	(02) $p_{A,A}^2$	<b>0.0304</b>	0.1092	0.2731	0.2815	0.2248	0.3970	0.1389	<b>0.0278</b>	0.2737	<b>0.0984</b>
	(03) $p_{A,A}^3$	<b>0.0392</b>	<b>0.0903</b>	0.2666	0.2691	0.3380	0.3654	0.2048	<b>0.0161</b>	0.2730	<b>0.0641</b>
	(04) $p_{A,B}^1$	<b>0.0599</b>	0.1936	0.3573	0.4877	0.2643	0.4556	0.1057	<b>0.0061</b>	0.4483	0.1000
	(05) $p_{A,B}^2$	<b>0.0237</b>	<b>0.0983</b>	0.2676	0.2838	0.2283	0.3920	0.1483	<b>0.0190</b>	0.2737	<b>0.0996</b>
	(06) $p_{A,B}^3$	<b>0.0437</b>	0.1065	0.2845	0.2934	0.3603	0.3779	0.2435	<b>0.0225</b>	0.2921	<b>0.0875</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0644</b>	0.1988	0.3616	0.4852	0.2872	0.4404	0.1136	<b>0.0040</b>	0.4168	<b>0.0972</b>
	(08) $p_{B,N}^2$	<b>0.0260</b>	0.1004	0.2812	0.2980	0.2436	0.4096	0.1512	<b>0.0164</b>	0.2460	0.1048
	(09) $p_{B,N}^3$	<b>0.0540</b>	0.1112	0.2792	0.3140	0.4000	0.3944	0.2264	<b>0.0192</b>	0.2472	<b>0.0772</b>
	(10) $p_{B,S}^1$	<b>0.0160</b>	0.1172	0.3128	0.4896	0.1928	0.4664	<b>0.0348</b>	<b>0.0012</b>	0.4848	<b>0.0212</b>
	(11) $p_{B,S}^2$	<b>0.0072</b>	<b>0.0388</b>	0.1924	0.2176	0.1404	0.3424	<b>0.0900</b>	<b>0.0028</b>	0.2764	<b>0.0124</b>
	(12) $p_{B,S}^3$	<b>0.0160</b>	<b>0.0488</b>	0.2232	0.2248	0.2744	0.3448	0.2332	<b>0.0036</b>	0.3160	<b>0.0160</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0740</b>	0.1820	0.3344	0.5020	0.2444	0.4728	0.1000	<b>0.0100</b>	0.4660	<b>0.0804</b>
	(14) $p_{P,N}^2$	<b>0.0248</b>	<b>0.0940</b>	0.2396	0.2508	0.2128	0.3508	<b>0.0944</b>	<b>0.0276</b>	0.4416	<b>0.0844</b>
	(15) $p_{P,N}^3$	<b>0.0352</b>	0.1124	0.2664	0.2656	0.3484	0.3352	0.1664	<b>0.0408</b>	0.3888	<b>0.0820</b>
	(16) $p_{P,S}^1$	<b>0.0728</b>	0.1800	0.3332	0.4968	0.2444	0.4704	<b>0.0960</b>	<b>0.0112</b>	0.4660	<b>0.0744</b>
	(17) $p_{P,S}^2$	<b>0.0320</b>	0.1060	0.2488	0.2728	0.2084	0.3896	0.1332	<b>0.0308</b>	0.3932	<b>0.0816</b>
	(18) $p_{P,S}^3$	<b>0.0540</b>	0.1008	0.2620	0.2792	0.3376	0.3656	0.2084	<b>0.0284</b>	0.3500	<b>0.0796</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	0.1659	0.2316	0.4336	0.7483	0.3453	0.4916	0.1363	<b>0.0510</b>	0.5634	0.2433
	(20) $p_{M,N}^2$	<b>0.0796</b>	0.1850	0.4126	0.3222	0.3540	0.5970	0.1353	<b>0.0673</b>	0.5035	0.2415
	(21) $p_{M,N}^3$	<b>0.0946</b>	0.2077	0.4621	0.3409	0.4875	0.5879	0.2265	<b>0.0894</b>	0.4298	0.2409
	(22) $p_{M,S}^1$	0.1645	0.2291	0.4336	0.7461	0.3453	0.4911	0.1337	<b>0.0593</b>	0.5634	0.2395
	(23) $p_{M,S}^2$	<b>0.0929</b>	0.1972	0.4264	0.3399	0.3474	0.6330	0.1907	<b>0.0743</b>	0.4330	0.2530
	(24) $p_{M,S}^3$	0.1161	0.2004	0.4621	0.3608	0.4711	0.6159	0.2707	<b>0.0671</b>	0.3735	0.2455
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.1670	0.2317	0.4419	0.7512	0.3467	0.4935	0.1396	<b>0.0525</b>	0.5747	0.2456
	(26) $p_{R,N}^2$	<b>0.0813</b>	0.1853	0.4163	0.3317	0.3597	0.6025	0.1387	<b>0.0693</b>	0.5181	0.2458
	(27) $p_{R,N}^3$	<b>0.0952</b>	0.2100	0.4692	0.3437	0.4892	0.5927	0.2285	<b>0.0906</b>	0.4383	0.2441
	(28) $p_{R,S}^1$	0.1671	0.2292	0.4419	0.7487	0.3467	0.4954	0.1342	<b>0.0610</b>	0.5747	0.2409
	(29) $p_{R,S}^2$	<b>0.0935</b>	0.2016	0.4292	0.3439	0.3542	0.6400	0.1917	<b>0.0789</b>	0.4425	0.2611
	(30) $p_{R,S}^3$	0.1184	0.2064	0.4692	0.3646	0.4746	0.6174	0.2748	<b>0.0682</b>	0.3756	0.2458
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1796	0.2514	0.4631	0.7855	0.4554	0.5051	0.1803	<b>0.0643</b>	0.6371	0.2781
	(32) $p_{D,N}^2$	0.1283	0.2080	0.4349	0.3927	0.3984	0.6375	0.1626	0.1072	0.5366	0.2799
	(33) $p_{D,N}^3$	0.1274	0.2745	0.4704	0.3959	0.5890	0.6238	0.2550	0.1014	0.4732	0.3112
	(34) $p_{D,S}^1$	0.2056	0.3127	0.4667	0.8304	0.4554	0.5288	0.1622	<b>0.0644</b>	0.6350	0.2762
	(35) $p_{D,S}^2$	0.1133	0.2284	0.4812	0.4500	0.4070	0.6820	0.2205	0.1566	0.5137	0.2790
	(36) $p_{D,S}^3$	0.1455	0.2599	0.5074	0.3741	0.5363	0.6353	0.3147	<b>0.0948</b>	0.4112	0.4030

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 16: Treatment Effects on the Health Outcomes of the Male Participants**

	Statistic	Healthy at 40	BMI at age 40	Obese at 40	Smok. 100 cig. by 40	Smokes at 40	Num. cigs. smok., 40	Alcohol at 40	Avg. num. drinks, 40	Drug use at 40	Rehab. at 40
Summary	(i) Observations	66	65	65	66	66	64	65	65	64	64
	(ii) Control	0.8056	27.423	0.2571	0.5556	0.5278	6.5429	0.4286	1.1429	0.5429	0.3529
	(iii) Treatment	0.8000	28.717	0.3333	0.4000	0.3333	3.5862	0.4667	2.0333	0.4828	0.3667
Estimates	(iv) UDIM	-0.0056	1.2935	0.0762	-0.1556	-0.1944	-2.9567	0.0381	0.8905	-0.0601	0.0137
	(v) COLS	-0.0030	1.7238	0.0740	-0.1418	-0.1709	-2.5350	0.0664	0.9569	-0.0873	0.0032
	(vi) AIPW	0.0029	1.6759	0.1056	-0.1405	-0.1677	-2.4495	0.0332	0.9167	-0.1295	-0.0232
Asymptotic p-values	(01) $p_{A,A}^1$	0.4776	0.1596	0.2500	0.1157	<b>0.0646</b>	<b>0.0756</b>	0.3828	0.1084	0.3231	0.4568
	(02) $p_{A,A}^2$	0.4882	<b>0.0862</b>	0.2824	0.1660	0.1178	0.1270	0.3139	0.1153	0.2635	0.4903
	(03) $p_{A,A}^3$	0.4866	<b>0.0842</b>	0.1636	0.1556	0.1125	0.1071	0.4004	0.1138	0.1627	0.4215
	(04) $p_{A,B}^1$	0.4771	0.1663	0.2506	<b>0.0820</b>	<b>0.0387</b>	<b>0.0534</b>	0.3782	0.1111	0.3111	0.4550
	(05) $p_{A,B}^2$	0.4883	<b>0.0965</b>	0.2826	0.1217	<b>0.0783</b>	<b>0.0984</b>	0.3041	0.1185	0.2506	0.4899
	(06) $p_{A,B}^3$	0.4876	0.1113	0.1992	0.1380	<b>0.0967</b>	<b>0.0905</b>	0.4025	0.1307	0.1697	0.4250
Bootstrap p-values	(07) $p_{B,N}^1$	0.4724	0.1520	0.2500	<b>0.0880</b>	<b>0.0404</b>	<b>0.0564</b>	0.3928	0.1012	0.3116	0.4720
	(08) $p_{B,N}^2$	0.4764	<b>0.0920</b>	0.2868	0.1244	<b>0.0768</b>	0.1028	0.3044	0.1100	0.2708	0.4976
	(09) $p_{B,N}^3$	0.4964	0.1164	0.2248	0.1500	0.1028	<b>0.0960</b>	0.3852	0.1168	0.2088	0.4448
	(10) $p_{B,S}^1$	0.4800	0.1040	0.1824	<b>0.0392</b>	<b>0.0200</b>	<b>0.0272</b>	0.3308	<b>0.0148</b>	0.2732	0.4220
	(11) $p_{B,S}^2$	0.4976	<b>0.0452</b>	0.2252	<b>0.0760</b>	<b>0.0452</b>	<b>0.0476</b>	0.2532	<b>0.0228</b>	0.1864	0.4780
	(12) $p_{B,S}^3$	0.4716	<b>0.0548</b>	0.1096	<b>0.0908</b>	<b>0.0588</b>	<b>0.0528</b>	0.4104	<b>0.0448</b>	0.1032	0.3816
Permutation p-values	(13) $p_{P,N}^1$	0.5024	0.1856	0.2276	0.1404	<b>0.0960</b>	0.1008	0.4056	0.1016	0.3496	0.4888
	(14) $p_{P,N}^2$	0.4892	0.1204	0.2296	0.1652	0.1248	0.1472	0.3192	<b>0.0968</b>	0.2580	0.4900
	(15) $p_{P,N}^3$	0.4904	0.1256	0.1632	0.1704	0.1324	0.1572	0.4232	0.1076	0.1652	0.4168
	(16) $p_{P,S}^1$	0.4888	0.1804	0.2244	0.1404	<b>0.0956</b>	0.1048	0.3916	0.1072	0.3392	0.4652
	(17) $p_{P,S}^2$	0.4880	0.1036	0.2432	0.1864	0.1496	0.1588	0.3308	0.1168	0.2700	0.4900
	(18) $p_{P,S}^3$	0.4888	0.1076	0.1516	0.1828	0.1492	0.1472	0.4296	0.1256	0.1760	0.4124
Worst-case max. p	(19) $p_{M,N}^1$	0.6903	0.2955	0.3459	0.2440	0.1799	0.1649	0.3252	0.1990	0.4020	0.6450
	(20) $p_{M,N}^2$	0.6588	0.2399	0.3565	0.2741	0.2104	0.2081	0.3558	0.1773	0.3920	0.5864
	(21) $p_{M,N}^3$	0.5552	0.2771	0.2735	0.2884	0.2135	0.2300	0.4247	0.1913	0.2855	0.4939
	(22) $p_{M,S}^1$	0.6677	0.2908	0.3459	0.2450	0.1799	0.1735	0.3031	0.1886	0.3825	0.6224
	(23) $p_{M,S}^2$	0.6579	0.2116	0.3858	0.3055	0.2393	0.2203	0.3592	0.1970	0.4046	0.5864
	(24) $p_{M,S}^3$	0.5552	0.2401	0.2667	0.3142	0.2472	0.2212	0.4276	0.2092	0.3035	0.4928
Worst-case adjusted p	(25) $p_{R,N}^1$	0.6933	0.2982	0.3460	0.2472	0.1866	0.1681	0.3321	0.2055	0.4134	0.6525
	(26) $p_{R,N}^2$	0.6595	0.2476	0.3577	0.2760	0.2135	0.2134	0.3677	0.1791	0.3970	0.5988
	(27) $p_{R,N}^3$	0.5582	0.2897	0.2741	0.2988	0.2141	0.2312	0.4372	0.1985	0.2911	0.4959
	(28) $p_{R,S}^1$	0.6706	0.2914	0.3460	0.2518	0.1866	0.1745	0.3080	0.1937	0.3846	0.6299
	(29) $p_{R,S}^2$	0.6584	0.2229	0.3912	0.3116	0.2428	0.2218	0.3736	0.1992	0.4060	0.5988
	(30) $p_{R,S}^3$	0.5604	0.2436	0.2698	0.3253	0.2546	0.2225	0.4346	0.2100	0.3065	0.4937
Worst-case de Haan p	(31) $p_{D,N}^1$	0.7343	0.3213	0.3464	0.3879	0.2276	0.2675	0.4235	0.2315	0.5211	0.7098
	(32) $p_{D,N}^2$	0.6682	0.2841	0.4324	0.4349	0.2214	0.2551	0.4260	0.2162	0.4464	0.7230
	(33) $p_{D,N}^3$	0.5857	0.3946	0.3088	0.3394	0.2406	0.2440	0.4881	0.2251	0.3631	0.5970
	(34) $p_{D,S}^1$	0.7250	0.2961	0.3520	0.3197	0.2337	0.2108	0.3289	0.2643	0.4478	0.7318
	(35) $p_{D,S}^2$	0.6691	0.2502	0.4153	0.4232	0.2626	0.2567	0.5274	0.2219	0.4865	0.7230
	(36) $p_{D,S}^3$	0.5862	0.2693	0.3121	0.3540	0.3285	0.2382	0.5752	0.2751	0.3404	0.5169

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 16:** Treatment Effects on the Health Outcomes of the Male Participants

	Statistic	Body mass index	Waist-to-hip ratio	Systolic BP	Diastolic BP	BMI-obesity	WHR-obesity	Low-risk obesity	High-risk obesity	Pre-hyper-tension	Hyper-tension
Summary	(i) Observations	55	55	37	42	55	55	55	55	44	41
	(ii) Control	27.291	0.8945	133.29	89.258	0.2857	0.5714	0.5714	0.1071	0.8947	0.5789
	(iii) Treatment	29.407	0.9234	136.38	94.045	0.4444	0.5926	0.6296	0.1481	0.9600	0.6818
Estimates	(iv) UDIM	2.1161	0.0288	3.0892	4.7871	0.1587	0.0212	0.0582	0.0410	0.0653	0.1029
	(v) COLS	2.4051	0.0256	1.4330	2.7552	0.1429	0.0011	0.0366	0.0912	0.0124	0.0653
	(vi) AIPW	1.7566	0.0210	0.8187	2.3688	0.0810	0.0026	0.0298	0.0620	0.0237	0.1038
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0612</b>	<b>0.0764</b>	0.3305	0.1316	0.1272	0.4407	0.3400	0.3271	0.2157	0.2591
	(02) $p_{A,A}^2$	<b>0.0528</b>	0.1001	0.4264	0.2872	0.1649	0.4968	0.3957	0.1781	0.4552	0.3548
	(03) $p_{A,A}^3$	0.1212	0.1360	0.4516	0.2872	0.2826	0.4920	0.4102	0.2530	0.4036	0.2515
	(04) $p_{A,B}^1$	<b>0.0631</b>	<b>0.0718</b>	0.3171	0.1299	0.1089	0.4358	0.3276	0.3228	0.2046	0.2370
	(05) $p_{A,B}^2$	<b>0.0587</b>	0.1082	0.4220	0.2841	0.1535	0.4968	0.3964	0.1739	0.4532	0.3410
	(06) $p_{A,B}^3$	0.1547	0.1650	0.4607	0.3297	0.2936	0.4928	0.4186	0.2686	0.4069	0.2802
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0664</b>	<b>0.0672</b>	0.3228	0.1340	0.1060	0.4236	0.3172	0.3148	0.2236	0.2460
	(08) $p_{B,N}^2$	<b>0.0544</b>	0.1048	0.3836	0.2664	0.1256	0.4760	0.3796	0.1636	0.4620	0.3164
	(09) $p_{B,N}^3$	0.1232	0.1560	0.4368	0.3224	0.2368	0.5000	0.4236	0.2400	0.4504	0.2356
	(10) $p_{B,S}^1$	<b>0.0272</b>	<b>0.0280</b>	0.2620	<b>0.0624</b>	<b>0.0708</b>	0.4352	0.2868	0.2924	0.1372	0.1868
	(11) $p_{B,S}^2$	<b>0.0264</b>	<b>0.0604</b>	0.4472	0.2428	0.1292	0.4816	0.3848	0.1232	0.4848	0.3336
	(12) $p_{B,S}^3$	0.1396	0.1116	0.4704	0.2760	0.3096	0.4848	0.3932	0.2744	0.4060	0.2428
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0604</b>	<b>0.0804</b>	0.3088	0.1200	0.1324	0.3980	0.3164	0.3752	0.1420	0.2468
	(14) $p_{P,N}^2$	<b>0.0448</b>	0.1012	0.3928	0.2412	0.1612	0.4536	0.3424	0.1908	0.3772	0.3168
	(15) $p_{P,N}^3$	0.1048	0.1488	0.4420	0.3272	0.2780	0.4424	0.3592	0.2608	0.3048	0.2604
	(16) $p_{P,S}^1$	<b>0.0656</b>	<b>0.0808</b>	0.3052	0.1140	0.1272	0.3924	0.3140	0.3744	0.1408	0.2452
	(17) $p_{P,S}^2$	<b>0.0568</b>	<b>0.0984</b>	0.3924	0.2588	0.1700	0.4540	0.3448	0.2052	0.3928	0.3240
	(18) $p_{P,S}^3$	0.1400	0.1440	0.4428	0.3164	0.2924	0.4424	0.3636	0.2960	0.3576	0.2736
Worst-case max. $p$	(19) $p_{M,N}^1$	0.1281	0.1707	0.4566	0.2767	0.2271	0.5645	0.4533	0.4294	0.2810	0.4462
	(20) $p_{M,N}^2$	0.1083	0.2121	0.5004	0.3465	0.2715	0.6656	0.5544	0.3222	0.4636	0.5028
	(21) $p_{M,N}^3$	0.2228	0.2875	0.5499	0.4211	0.4035	0.6696	0.5833	0.4060	0.3863	0.4315
	(22) $p_{M,S}^1$	0.1316	0.1717	0.4533	0.2612	0.2260	0.5586	0.4533	0.4264	0.2810	0.4445
	(23) $p_{M,S}^2$	0.1369	0.2106	0.5021	0.3510	0.2682	0.6656	0.5637	0.3352	0.4826	0.5120
	(24) $p_{M,S}^3$	0.2578	0.2868	0.5524	0.4128	0.4236	0.6696	0.5936	0.4443	0.4590	0.4431
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.1313	0.1743	0.4628	0.2858	0.2322	0.5720	0.4690	0.4324	0.2871	0.4501
	(26) $p_{R,N}^2$	0.1107	0.2163	0.5215	0.3529	0.2804	0.6766	0.5641	0.3278	0.4764	0.5073
	(27) $p_{R,N}^3$	0.2373	0.2886	0.5677	0.4285	0.4077	0.6712	0.5860	0.4157	0.3888	0.4357
	(28) $p_{R,S}^1$	0.1377	0.1754	0.4549	0.2640	0.2309	0.5644	0.4690	0.4273	0.2871	0.4501
	(29) $p_{R,S}^2$	0.1439	0.2123	0.5220	0.3598	0.2770	0.6766	0.5717	0.3426	0.4897	0.5141
	(30) $p_{R,S}^3$	0.2663	0.2870	0.5716	0.4247	0.4276	0.6712	0.5959	0.4519	0.4591	0.4499
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1552	0.2035	0.5131	0.3409	0.2824	0.6070	0.6111	0.4515	0.3161	0.5315
	(32) $p_{D,N}^2$	0.1204	0.2281	0.6488	0.4366	0.3205	0.7832	0.6781	0.4112	0.5880	0.5498
	(33) $p_{D,N}^3$	0.3277	0.3251	0.7926	0.5363	0.5103	0.6972	0.6385	0.4822	0.3929	0.4415
	(34) $p_{D,S}^1$	0.1535	0.2071	0.5110	0.3022	0.2992	0.6276	0.6111	0.4515	0.3161	0.5315
	(35) $p_{D,S}^2$	0.1874	0.2614	0.6506	0.4388	0.2968	0.7477	0.5974	0.3639	0.5360	0.6831
	(36) $p_{D,S}^3$	0.5068	0.3026	0.7792	0.5004	0.4484	0.6972	0.6426	0.4998	0.6221	0.5366

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 16: Treatment Effects on the Health Outcomes of the Male Participants**

	Statistic	Normal peak flow	Brady-cardia	Hair cortisol	High total cholesterol	High HbA1c	High CRP	Poor kidney
Summary	(i) Observations	49	55	17	42	51	50	36
	(ii) Control	0.2400	0.1786	47.131	0.9444	0.5000	0.5417	0.2105
	(iii) Treatment	0.1667	0.1481	32.185	0.7083	0.5185	0.3462	0.1765
Estimates	(iv) UDIM	-0.0733	-0.0304	-14.946	-0.2361	0.0185	-0.1955	-0.0341
	(v) COLS	0.0067	-0.0038	-21.170	-0.2671	-0.0453	-0.3166	0.0541
	(vi) AIPW	-0.0011	-0.0099	-32.708	-0.2906	-0.0841	-0.3244	0.0706
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.2580	0.3841	0.2578	<b>0.0183</b>	0.4463	<b>0.0812</b>	0.3992
	(02) $p_{A,A}^2$	0.4741	0.4872	0.3046	<b>0.0093</b>	0.3863	<b>0.0144</b>	0.3526
	(03) $p_{A,A}^3$	0.4948	0.4628	<b>0.0841</b>	<b>0.0035</b>	0.2624	<b>0.0061</b>	0.2375
	(04) $p_{A,B}^1$	0.2599	0.3760	0.2553	<b>0.0145</b>	0.4480	<b>0.0804</b>	0.3985
	(05) $p_{A,B}^2$	0.4745	0.4860	0.3066	<b>0.0078</b>	0.3918	<b>0.0157</b>	0.3711
	(06) $p_{A,B}^3$	0.4953	0.4651	0.3206	<b>0.0065</b>	0.3038	<b>0.0172</b>	0.3403
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.2636	0.3764	0.2521	<b>0.0156</b>	0.4636	<b>0.0788</b>	0.4044
	(08) $p_{B,N}^2$	0.4340	0.4784	0.2901	<b>0.0052</b>	0.3880	<b>0.0160</b>	0.3508
	(09) $p_{B,N}^3$	0.4856	0.4792	0.2053	<b>0.0068</b>	0.3132	<b>0.0232</b>	0.3380
	(10) $p_{B,S}^1$	0.2028	0.3344	0.2689	<b>0.0016</b>	0.4244	<b>0.0456</b>	0.3652
Permutation $p$ -values	(11) $p_{B,S}^2$	0.4844	0.4932	0.3293	<b>0.0008</b>	0.3664	<b>0.0168</b>	0.3440
	(12) $p_{B,S}^3$	0.4724	0.4432	0.2469	<b>0.0012</b>	0.2352	<b>0.0156</b>	0.2728
	(13) $p_{P,N}^1$	0.2904	0.3904	0.3160	<b>0.0316</b>	0.4764	<b>0.0960</b>	0.4464
Worst-case max. $p$	(14) $p_{P,N}^2$	0.4936	0.4624	0.2632	<b>0.0212</b>	0.3848	<b>0.0192</b>	0.3324
	(15) $p_{P,N}^3$	0.4776	0.4524	0.1204	<b>0.0136</b>	0.2796	<b>0.0188</b>	0.3112
	(16) $p_{P,S}^1$	0.2688	0.3720	0.3196	<b>0.0220</b>	0.4660	<b>0.0944</b>	0.4072
	(17) $p_{P,S}^2$	0.4924	0.4636	0.3512	<b>0.0120</b>	0.3904	<b>0.0232</b>	0.3388
	(18) $p_{P,S}^3$	0.4752	0.4528	0.2356	<b>0.0104</b>	0.2752	<b>0.0176</b>	0.2496
	(19) $p_{M,N}^1$	0.5634	0.6868	0.3276	<b>0.0574</b>	0.6197	<b>0.0931</b>	0.4335
Worst-case adjusted $p$	(20) $p_{M,N}^2$	0.5145	0.7154	0.3189	<b>0.0564</b>	0.4672	<b>0.0491</b>	0.4839
	(21) $p_{M,N}^3$	0.5967	0.6764	0.1840	<b>0.0567</b>	0.3655	<b>0.0523</b>	0.4417
	(22) $p_{M,S}^1$	0.5472	0.6798	0.3276	<b>0.0329</b>	0.6147	<b>0.0924</b>	0.4079
	(23) $p_{M,S}^2$	0.5048	0.7154	0.3729	<b>0.0320</b>	0.4828	<b>0.0540</b>	0.4806
	(24) $p_{M,S}^3$	0.5966	0.6764	0.3042	<b>0.0414</b>	0.3558	<b>0.0532</b>	0.3755
	(25) $p_{R,N}^1$	0.5743	0.6876	0.3282	<b>0.0585</b>	0.6250	<b>0.0942</b>	0.4352
	(26) $p_{R,N}^2$	0.5262	0.7161	0.3238	<b>0.0578</b>	0.4686	<b>0.0522</b>	0.4852
	(27) $p_{R,N}^3$	0.6025	0.6786	0.1866	<b>0.0598</b>	0.3780	<b>0.0546</b>	0.4421
Worst-case de Haan $p$	(28) $p_{R,S}^1$	0.5543	0.6827	0.3313	<b>0.0336</b>	0.6207	<b>0.0936</b>	0.4080
	(29) $p_{R,S}^2$	0.5209	0.7161	0.3772	<b>0.0326</b>	0.4862	<b>0.0566</b>	0.4832
	(30) $p_{R,S}^3$	0.6025	0.6786	0.3045	<b>0.0415</b>	0.3689	<b>0.0550</b>	0.3824
	(31) $p_{D,N}^1$	0.6209	0.7072	0.4358	<b>0.0689</b>	0.7086	0.1279	0.4679
	(32) $p_{D,N}^2$	0.7150	0.7292	0.3618	<b>0.0879</b>	0.4760	<b>0.0596</b>	0.5123
	(33) $p_{D,N}^3$	0.6744	0.7146	0.2477	<b>0.0645</b>	0.4367	<b>0.0735</b>	0.4706
	(34) $p_{D,S}^1$	0.6398	0.6994	0.4284	<b>0.0584</b>	0.7031	0.1443	0.4486
	(35) $p_{D,S}^2$	0.7438	0.7901	0.4218	<b>0.0345</b>	0.5784	<b>0.0610</b>	0.5305
	(36) $p_{D,S}^3$	0.6744	0.7146	0.3431	<b>0.0417</b>	0.5549	<b>0.0620</b>	0.4192

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 16:** Treatment Effects on the Health Outcomes of the Male Participants

	Statistic	Unhealthy days (%)	Mental illness	Severe pain	Regular exercise	Cancer indicator	Diabetes indicator	Stroke indicator	Heart disease	Asthma indicator	Lung disease
Summary	(i) Observations	59	59	59	59	58	59	59	59	59	59
	(ii) Control	0.2422	0.2667	0.1333	0.3667	0.1034	0.7667	0.4333	0.5333	0.1333	0.6667
	(iii) Treatment	0.2138	0.1724	0.0690	0.4138	0.0345	0.8621	0.3448	0.5172	0.0345	0.7241
Estimates	(iv) UDIM	-0.0284	-0.0943	-0.0644	0.0471	-0.0690	0.0954	-0.0885	-0.0161	-0.0989	0.0575
	(v) COLS	-0.0243	-0.1075	-0.0753	-0.0115	-0.0046	0.0939	-0.1617	-0.0152	-0.1067	0.0218
	(vi) AIPW	-0.0385	-0.1237	-0.0847	0.0029	0.0256	0.0246	-0.1747	0.0016	-0.1087	0.0360
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.3699	0.2000	0.2114	0.3538	0.1546	0.1883	0.2408	0.4500	<b>0.0876</b>	0.3178
	(02) $p_{A,A}^2$	0.3926	0.1841	0.2047	0.4648	0.4786	0.2508	0.1080	0.4553	<b>0.0734</b>	0.4326
	(03) $p_{A,A}^3$	0.3164	0.1156	0.1396	0.4899	0.3814	0.4249	<b>0.0646</b>	0.4947	<b>0.0522</b>	0.3686
	(04) $p_{A,B}^1$	0.3731	0.1892	0.2001	0.3560	0.1397	0.1683	0.2441	0.4503	<b>0.0866</b>	0.3148
	(05) $p_{A,B}^2$	0.3978	0.1786	0.1871	0.4673	0.4768	0.2349	0.1122	0.4558	<b>0.0749</b>	0.4305
	(06) $p_{A,B}^3$	0.3386	0.1252	0.1460	0.4915	0.3934	0.4274	<b>0.0962</b>	0.4955	<b>0.0820</b>	0.3755
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.3740	0.1864	0.2100	0.3548	0.1504	0.1720	0.2428	0.4496	<b>0.0796</b>	0.3220
	(08) $p_{B,N}^2$	0.3960	0.1840	0.2024	0.4580	0.4848	0.2248	0.1052	0.4376	<b>0.0716</b>	0.4476
	(09) $p_{B,N}^3$	0.3352	0.1284	0.1560	0.4716	0.4928	0.3848	<b>0.0948</b>	0.4604	<b>0.0712</b>	0.4052
	(10) $p_{B,S}^1$	0.3320	0.1328	0.1192	0.3164	<b>0.0408</b>	0.1036	0.1852	0.4332	<b>0.0116</b>	0.2580
	(11) $p_{B,S}^2$	0.3624	0.1092	<b>0.0872</b>	0.4660	0.4696	0.2020	<b>0.0648</b>	0.4664	<b>0.0032</b>	0.3832
	(12) $p_{B,S}^3$	0.2876	<b>0.0604</b>	<b>0.0560</b>	0.4888	0.3496	0.4680	<b>0.0564</b>	0.4520	<b>0.0076</b>	0.3052
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3644	0.2076	0.1856	0.3536	0.1604	0.2380	0.2656	0.4608	<b>0.0936</b>	0.3468
	(14) $p_{P,N}^2$	0.3876	0.1876	0.1572	0.4632	0.4668	0.2484	0.1296	0.4536	<b>0.0784</b>	0.4460
	(15) $p_{P,N}^3$	0.3320	0.1592	0.1316	0.4884	0.3452	0.4616	0.1080	0.4932	<b>0.0684</b>	0.4068
	(16) $p_{P,S}^1$	0.3652	0.2084	0.1792	0.3512	0.1544	0.2212	0.2648	0.4528	<b>0.0904</b>	0.3252
	(17) $p_{P,S}^2$	0.3880	0.1996	0.1732	0.4632	0.4736	0.2952	0.1320	0.4540	<b>0.0776</b>	0.4448
	(18) $p_{P,S}^3$	0.3236	0.1416	0.1240	0.4876	0.3912	0.4712	<b>0.0956</b>	0.4932	<b>0.0592</b>	0.3916
Worst-case max. $p$	(19) $p_{M,N}^1$	0.4762	0.2533	0.2861	0.6329	0.3367	0.2734	0.2670	0.6308	0.2708	0.4663
	(20) $p_{M,N}^2$	0.5182	0.2832	0.2863	0.4762	0.5409	0.2616	0.1746	0.6016	0.2115	0.5137
	(21) $p_{M,N}^3$	0.4397	0.2415	0.2477	0.6455	0.6250	0.4794	0.1444	0.5447	0.2083	0.4873
	(22) $p_{M,S}^1$	0.4783	0.2564	0.2854	0.6315	0.3337	0.2497	0.2670	0.6272	0.2691	0.4663
	(23) $p_{M,S}^2$	0.5112	0.2822	0.2946	0.4741	0.5524	0.2958	0.1801	0.6016	0.2116	0.5108
	(24) $p_{M,S}^3$	0.4241	0.2169	0.2439	0.6427	0.6553	0.4874	0.1315	0.5447	0.2083	0.4634
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.4837	0.2596	0.2912	0.6342	0.3429	0.2772	0.2686	0.6331	0.2728	0.4731
	(26) $p_{R,N}^2$	0.5234	0.2852	0.2916	0.4799	0.5425	0.2672	0.1777	0.6032	0.2128	0.5193
	(27) $p_{R,N}^3$	0.4474	0.2429	0.2540	0.6489	0.6272	0.4936	0.1534	0.5475	0.2185	0.4897
	(28) $p_{R,S}^1$	0.4864	0.2608	0.2906	0.6331	0.3395	0.2528	0.2689	0.6296	0.2708	0.4794
	(29) $p_{R,S}^2$	0.5157	0.2884	0.3035	0.4799	0.5564	0.2992	0.1883	0.6032	0.2194	0.5161
	(30) $p_{R,S}^3$	0.4331	0.2211	0.2513	0.6460	0.6561	0.5007	0.1333	0.5475	0.2125	0.4658
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.5969	0.3343	0.3489	0.7675	0.3661	0.3703	0.3062	0.6412	0.3399	0.5227
	(32) $p_{D,N}^2$	0.5481	0.3831	0.3010	0.5085	0.5749	0.3704	0.2377	0.6375	0.2543	0.5580
	(33) $p_{D,N}^3$	0.4912	0.3758	0.2970	0.6878	0.6904	0.5586	0.1847	0.5652	0.2895	0.5952
	(34) $p_{D,S}^1$	0.6235	0.2776	0.3130	0.7207	0.3877	0.3199	0.3062	0.6359	0.3598	0.5865
	(35) $p_{D,S}^2$	0.5419	0.3939	0.3474	0.5085	0.5721	0.3245	0.2317	0.6375	0.2808	0.7228
	(36) $p_{D,S}^3$	0.4441	0.2796	0.3553	0.6931	0.6705	0.5959	0.1928	0.5652	0.2547	0.5010

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 16: Treatment Effects on the Health Outcomes of the Male Participants**

	Statistic	Good health	Smoked $\geq 100$ cig.	Current smoker	Num. cig. daily	Teen smoker	Alcohol consumer	Avg. num. drinks	Drug use	Rehabilitation
Summary	(i) Observations	58	59	59	59	59	58	58	59	59
	(ii) Control	0.6552	0.6667	0.4667	4.2333	0.6667	0.6333	1.8333	0.2667	0.2000
	(iii) Treatment	0.7241	0.5517	0.3448	3.9310	0.5517	0.6429	2.0357	0.2414	0.1379
Estimates	(iv) UDIM	0.0690	-0.1149	-0.1218	-0.3023	-0.1149	0.0095	0.2024	-0.0253	-0.0621
	(v) COLS	0.0692	-0.1170	-0.1268	-0.5280	-0.1170	0.1055	0.2169	-0.0000	-0.0221
	(vi) AIPW	0.0393	-0.1345	-0.1402	-0.5744	-0.1345	0.0482	0.0761	-0.0111	-0.0313
Asymptotic $p$ -values	(01) $P_{A,A}^1$	0.2772	0.2024	0.1813	0.4309	0.2024	0.4718	0.3709	0.4144	0.2531
	(02) $P_{A,A}^2$	0.2976	0.2355	0.1913	0.3806	0.2355	0.2583	0.3602	0.4998	0.3992
	(03) $P_{A,A}^3$	0.3740	0.1827	0.1409	0.3534	0.1827	0.3691	0.4471	0.4609	0.3445
	(04) $P_{A,B}^1$	0.2861	0.1774	0.1525	0.4247	0.1774	0.4692	0.3654	0.4088	0.2532
	(05) $P_{A,B}^2$	0.3088	0.2065	0.1588	0.3676	0.2065	0.2421	0.3596	0.4998	0.4073
	(06) $P_{A,B}^3$	0.3918	0.1768	0.1286	0.3556	0.1768	0.3743	0.4541	0.4623	0.3639
Bootstrap $p$ -values	(07) $P_{B,N}^1$	0.2904	0.1676	0.1440	0.4172	0.1676	0.4892	0.3684	0.4004	0.2536
	(08) $P_{B,N}^2$	0.3224	0.2008	0.1704	0.3892	0.2008	0.2316	0.3456	0.4976	0.4148
	(09) $P_{B,N}^3$	0.3668	0.1980	0.1356	0.3692	0.1980	0.3500	0.4564	0.4780	0.3764
	(10) $P_{B,S}^1$	0.2080	0.1312	0.1080	0.4244	0.1312	0.4376	0.3132	0.3808	0.1884
	(11) $P_{B,S}^2$	0.2312	0.1688	0.1088	0.3124	0.1688	0.2060	0.3312	0.4976	0.3688
	(12) $P_{B,S}^3$	0.3912	0.1256	<b>0.0832</b>	0.2964	0.1256	0.3736	0.4464	0.4388	0.3108
Permutation $p$ -values	(13) $P_{P,N}^1$	0.2876	0.2264	0.2024	0.4340	0.2264	0.4472	0.3988	0.4284	0.2680
	(14) $P_{P,N}^2$	0.2872	0.2324	0.1960	0.3904	0.2324	0.1992	0.3924	0.4928	0.4052
	(15) $P_{P,N}^3$	0.3768	0.2060	0.1744	0.3848	0.2060	0.3448	0.4880	0.4736	0.3720
	(16) $P_{P,S}^1$	0.2824	0.2192	0.2008	0.4340	0.2192	0.4308	0.3972	0.4248	0.2672
	(17) $P_{P,S}^2$	0.3008	0.2548	0.2092	0.3904	0.2548	0.2380	0.3840	0.4928	0.3992
	(18) $P_{P,S}^3$	0.3832	0.2144	0.1712	0.3664	0.2144	0.3540	0.4812	0.4728	0.3548
Worst-case max. $p$	(19) $P_{M,N}^1$	0.2653	0.3733	0.3107	0.5127	0.3733	0.3914	0.4614	0.4996	0.3872
	(20) $P_{M,N}^2$	0.3009	0.3559	0.2741	0.4788	0.3559	0.2611	0.4875	0.6122	0.5575
	(21) $P_{M,N}^3$	0.3902	0.3136	0.2445	0.4779	0.3136	0.4409	0.5567	0.5798	0.4868
	(22) $P_{M,S}^1$	0.2646	0.3435	0.3075	0.5127	0.3435	0.3775	0.4604	0.4986	0.3872
	(23) $P_{M,S}^2$	0.3092	0.3862	0.2915	0.4716	0.3862	0.2997	0.4661	0.6122	0.5463
	(24) $P_{M,S}^3$	0.3972	0.3335	0.2516	0.4582	0.3335	0.4500	0.5539	0.5763	0.4678
Worst-case adjusted $p$	(25) $P_{R,N}^1$	0.2679	0.3734	0.3178	0.5177	0.3734	0.3992	0.4730	0.5174	0.3913
	(26) $P_{R,N}^2$	0.3040	0.3560	0.2804	0.4850	0.3560	0.2660	0.4885	0.6362	0.5694
	(27) $P_{R,N}^3$	0.3903	0.3138	0.2509	0.5018	0.3138	0.4527	0.5574	0.5965	0.4884
	(28) $P_{R,S}^1$	0.2682	0.3435	0.3132	0.5177	0.3435	0.3830	0.4720	0.5169	0.3913
	(29) $P_{R,S}^2$	0.3100	0.3866	0.2945	0.4734	0.3866	0.3005	0.4673	0.6362	0.5575
	(30) $P_{R,S}^3$	0.3983	0.3340	0.2549	0.4753	0.3340	0.4612	0.5578	0.5928	0.4714
Worst-case de Haan $p$	(31) $P_{D,N}^1$	0.2849	0.3774	0.3260	0.6154	0.3774	0.4392	0.5626	0.6099	0.4237
	(32) $P_{D,N}^2$	0.3489	0.3718	0.3627	0.5976	0.3718	0.3065	0.5120	0.7892	0.7152
	(33) $P_{D,N}^3$	0.4337	0.3449	0.2778	0.5921	0.3449	0.5067	0.6242	0.6356	0.5411
	(34) $P_{D,S}^1$	0.2839	0.3441	0.3232	0.6154	0.3441	0.4600	0.6226	0.5980	0.4276
	(35) $P_{D,S}^2$	0.3394	0.3933	0.3677	0.5131	0.3933	0.3172	0.5329	0.7892	0.7051
	(36) $P_{D,S}^3$	0.4301	0.3709	0.2950	0.5701	0.3709	0.5540	0.6007	0.6572	0.5135

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 16:** Treatment Effects on the Health Outcomes of the Male Participants

	Statistic	Home-cook -ing rate	Avoids fried food	Consumes low salt	Consumes low sugar	Avoids proc. food	Bedridden rate	High med. costs	Uninsured for long	Overnight med. stays	Home-care assistance
Summary	(i) Observations	59	59	59	58	58	59	59	58	59	59
	(ii) Control	4.3333	0.7333	0.8667	0.7241	0.6897	0.0322	0.1333	0.3793	4.1444	0.0667
	(iii) Treatment	7.7241	0.7931	0.7931	0.6897	0.7241	0.0149	0.1034	0.1724	0.5172	0.0000
Estimates	(iv) UDIM	3.3908	0.0598	-0.0736	-0.0345	0.0345	-0.0173	-0.0299	-0.2069	-3.6272	-0.0667
	(v) COLS	3.8682	0.1251	-0.0436	0.0369	0.0532	-0.0276	-0.0012	-0.1494	-3.4569	-0.0614
	(vi) AIPW	4.0018	0.1216	-0.0373	0.0436	0.0119	-0.0255	0.0309	-0.1496	-3.3532	-0.0649
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0152</b>	0.2911	0.2226	0.3878	0.3824	0.1002	0.3595	<b>0.0403</b>	<b>0.0343</b>	<b>0.0768</b>
	(02) $p_{A,A}^2$	<b>0.0121</b>	0.1458	0.3354	0.3881	0.3251	<b>0.0487</b>	0.4954	0.1192	<b>0.0932</b>	0.1294
	(03) $p_{A,A}^3$	<b>0.0089</b>	0.1206	0.3428	0.3548	0.4571	<b>0.0337</b>	0.3766	<b>0.0789</b>	<b>0.0747</b>	<b>0.0934</b>
	(04) $p_{A,B}^1$	<b>0.0147</b>	0.2920	0.2241	0.3869	0.3876	0.1072	0.3609	<b>0.0348</b>	<b>0.0322</b>	<b>0.0658</b>
	(05) $p_{A,B}^2$	<b>0.0118</b>	0.1407	0.3368	0.3874	0.3342	<b>0.0560</b>	0.4954	0.1172	<b>0.0867</b>	0.1189
	(06) $p_{A,B}^3$	<b>0.0126</b>	0.1391	0.3552	0.3712	0.4627	<b>0.0690</b>	0.3956	<b>0.0986</b>	<b>0.0906</b>	0.1024
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0180</b>	0.2844	0.2276	0.3728	0.4012	0.1008	0.3684	<b>0.0340</b>	<b>0.0140</b>	0.1256
	(08) $p_{B,N}^2$	<b>0.0168</b>	0.1452	0.3148	0.4120	0.3532	<b>0.0436</b>	0.4972	0.1176	<b>0.0472</b>	0.1748
	(09) $p_{B,N}^3$	<b>0.0208</b>	0.1468	0.3380	0.4056	0.4820	<b>0.0536</b>	0.4588	<b>0.0924</b>	<b>0.0464</b>	0.1348
	(10) $p_{B,S}^1$	<b>0.0028</b>	0.2344	0.1568	0.3512	0.3404	<b>0.0144</b>	0.2948	<b>0.0144</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	<b>0.0024</b>	<b>0.0704</b>	0.3004	0.3256	0.2576	<b>0.0036</b>	0.4952	<b>0.0600</b>	<b>0.0004</b>	<b>0.0008</b>
	(12) $p_{B,S}^3$	<b>0.0024</b>	<b>0.0728</b>	0.3440	0.2944	0.4364	<b>0.0092</b>	0.3328	<b>0.0468</b>	<b>0.0032</b>	<b>0.0024</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0160</b>	0.2956	0.2408	0.3992	0.3772	0.1192	0.3512	<b>0.0388</b>	<b>0.0192</b>	<b>0.0836</b>
	(14) $p_{P,N}^2$	<b>0.0048</b>	0.1444	0.3376	0.3972	0.3196	<b>0.0228</b>	0.4688	<b>0.0984</b>	<b>0.0376</b>	0.1636
	(15) $p_{P,N}^3$	<b>0.0040</b>	0.1580	0.3592	0.3740	0.4508	<b>0.0432</b>	0.4012	0.1040	<b>0.0332</b>	<b>0.0492</b>
	(16) $p_{P,S}^1$	<b>0.0164</b>	0.2936	0.2156	0.3944	0.3772	0.1256	0.3240	<b>0.0428</b>	<b>0.0248</b>	<b>0.0820</b>
	(17) $p_{P,S}^2$	<b>0.0132</b>	0.1572	0.3380	0.4020	0.3172	<b>0.0700</b>	0.4688	0.1056	0.1116	0.2596
	(18) $p_{P,S}^3$	<b>0.0132</b>	0.1484	0.3492	0.3696	0.4504	<b>0.0584</b>	0.4148	<b>0.0892</b>	<b>0.0980</b>	0.2344
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0752</b>	0.3206	0.3163	0.6085	0.4540	0.1154	0.4679	0.1312	<b>0.0399</b>	0.1154
	(20) $p_{M,N}^2$	<b>0.0448</b>	0.2472	0.3349	0.4392	0.4861	<b>0.0513</b>	0.5666	0.2014	<b>0.0401</b>	0.1438
	(21) $p_{M,N}^3$	<b>0.0408</b>	0.2599	0.3604	0.4293	0.5905	<b>0.0761</b>	0.5655	0.2165	<b>0.0442</b>	<b>0.0478</b>
	(22) $p_{M,S}^1$	<b>0.0749</b>	0.3206	0.2930	0.6004	0.4540	0.1256	0.4494	0.1444	<b>0.0770</b>	0.1834
	(23) $p_{M,S}^2$	<b>0.0631</b>	0.2591	0.3348	0.4352	0.4812	<b>0.0990</b>	0.5666	0.2154	0.1779	0.5563
	(24) $p_{M,S}^3$	<b>0.0652</b>	0.2545	0.3504	0.4181	0.5891	<b>0.0935</b>	0.5785	0.1888	0.1755	0.5216
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0787</b>	0.3256	0.3179	0.6089	0.4652	0.1196	0.4692	0.1338	<b>0.0428</b>	0.1199
	(26) $p_{R,N}^2$	<b>0.0457</b>	0.2686	0.3379	0.4414	0.4933	<b>0.0513</b>	0.5720	0.2029	<b>0.0410</b>	0.1453
	(27) $p_{R,N}^3$	<b>0.0473</b>	0.2682	0.3652	0.4339	0.6002	<b>0.0791</b>	0.5682	0.2190	<b>0.0456</b>	<b>0.0496</b>
	(28) $p_{R,S}^1$	<b>0.0768</b>	0.3256	0.2950	0.6058	0.4652	0.1329	0.4539	0.1503	<b>0.0782</b>	0.1837
	(29) $p_{R,S}^2$	<b>0.0647</b>	0.2810	0.3386	0.4353	0.4885	0.1011	0.5720	0.2173	0.1846	0.5566
	(30) $p_{R,S}^3$	<b>0.0678</b>	0.2659	0.3543	0.4225	0.5986	<b>0.0944</b>	0.5814	0.1890	0.1836	0.5257
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1187	0.3679	0.3670	0.6912	0.5267	0.1440	0.5073	0.1760	<b>0.0604</b>	0.1199
	(32) $p_{D,N}^2$	<b>0.0561</b>	0.3654	0.3658	0.4865	0.5172	<b>0.0603</b>	0.6044	0.2584	<b>0.0448</b>	0.1516
	(33) $p_{D,N}^3$	<b>0.0529</b>	0.3507	0.4069	0.4916	0.6061	0.1247	0.6692	0.2350	<b>0.0625</b>	<b>0.0536</b>
	(34) $p_{D,S}^1$	<b>0.0867</b>	0.3703	0.3869	0.6883	0.5267	0.1807	0.5073	0.1952	<b>0.0871</b>	0.1961
	(35) $p_{D,S}^2$	<b>0.0897</b>	0.3700	0.3529	0.4900	0.5134	0.1143	0.6232	0.2521	0.2051	0.5908
	(36) $p_{D,S}^3$	0.1061	0.4624	0.3891	0.4722	0.6232	0.1194	0.5995	0.2176	0.1929	0.5752

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 17: Treatment Effects on the Health Outcomes of the Female Participants**

	Statistic	Healthy at 40	BMI at age 40	Obese at 40	Smok. 100 cig. by 40	Smokes at 40	Num. cigs. smok., 40	Alcohol at 40	Avg. num. drinks, 40	Drug use at 40	Rehab. at 40
Summary	(i) Observations	46	38	38	46	45	45	45	45	46	46
	(ii) Control	0.7727	26.826	0.2000	0.5909	0.5909	6.8182	0.5000	1.1364	0.2727	0.2727
	(iii) Treatment	0.8333	26.280	0.1667	0.5000	0.4348	5.4348	0.5217	1.1304	0.2917	0.0417
Estimates	(iv) UDIM	0.0606	-0.5462	-0.0333	-0.0909	-0.1561	-1.3834	0.0217	-0.0059	0.0189	-0.2311
	(v) COLS	0.0419	-0.1783	-0.0505	-0.0300	-0.1353	-1.5738	-0.0119	-0.1917	-0.0713	-0.2149
	(vi) AIPW	0.0394	-0.3337	-0.0732	-0.0104	-0.0781	-1.4557	0.0234	-0.2031	-0.0474	-0.2195
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.3079	0.3751	0.4083	0.2699	0.1542	0.3024	0.4433	0.4957	0.4487	<b>0.0169</b>
	(02) $p_{A,A}^2$	0.3858	0.4486	0.3541	0.4234	0.1885	0.2949	0.4713	0.3859	0.3415	<b>0.0363</b>
	(03) $p_{A,A}^3$	0.3840	0.3871	0.2479	0.4712	0.3001	0.2848	0.4394	0.3591	0.3855	<b>0.0210</b>
	(04) $p_{A,B}^1$	0.2974	0.3577	0.3928	0.2614	0.1368	0.2987	0.4389	0.4956	0.4418	<b>0.0148</b>
	(05) $p_{A,B}^2$	0.3848	0.4474	0.3475	0.4263	0.1972	0.2936	0.4720	0.3872	0.3253	<b>0.0342</b>
	(06) $p_{A,B}^3$	0.3991	0.4032	0.2812	0.4754	0.3215	0.3098	0.4468	0.3859	0.3878	<b>0.0397</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.2936	0.3472	0.3720	0.2732	0.1456	0.2900	0.4408	0.4672	0.4424	<b>0.0100</b>
	(08) $p_{B,N}^2$	0.3664	0.3996	0.3024	0.4440	0.1988	0.2968	0.4648	0.4188	0.3356	<b>0.0288</b>
	(09) $p_{B,N}^3$	0.3924	0.3412	0.2372	0.4708	0.3024	0.3088	0.4576	0.3964	0.3800	<b>0.0412</b>
	(10) $p_{B,S}^1$	0.2528	0.3292	0.3744	0.1996	<b>0.0848</b>	0.2740	0.4240	0.4556	0.4428	<b>0.0020</b>
	(11) $p_{B,S}^2$	0.3688	0.4844	0.3700	0.3864	0.1340	0.2664	0.4656	0.3292	0.2848	<b>0.0104</b>
	(12) $p_{B,S}^3$	0.3876	0.4276	0.2872	0.4684	0.2912	0.2768	0.4192	0.3436	0.3868	<b>0.0128</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3568	0.3808	0.4316	0.2776	0.1624	0.3196	0.4948	0.5004	0.4300	<b>0.0156</b>
	(14) $p_{P,N}^2$	0.3980	0.4928	0.3808	0.4484	0.2228	0.3164	0.4652	0.4000	0.3480	<b>0.0300</b>
	(15) $p_{P,N}^3$	0.4040	0.4508	0.3064	0.4980	0.3492	0.3268	0.4492	0.4212	0.4116	<b>0.0352</b>
	(16) $p_{P,S}^1$	0.3536	0.3824	0.4152	0.2764	0.1848	0.3208	0.4756	0.4960	0.4208	<b>0.0148</b>
	(17) $p_{P,S}^2$	0.4120	0.4884	0.4012	0.4484	0.2172	0.3216	0.4676	0.4180	0.3692	<b>0.0472</b>
	(18) $p_{P,S}^3$	0.4228	0.4412	0.3104	0.4984	0.3544	0.3240	0.4540	0.4300	0.4220	<b>0.0416</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	0.3976	0.5714	0.6028	0.3804	0.2169	0.4086	0.6764	0.5077	0.6919	<b>0.0694</b>
	(20) $p_{M,N}^2$	0.4420	0.6578	0.5604	0.5264	0.2725	0.4348	0.5806	0.4534	0.3791	<b>0.0943</b>
	(21) $p_{M,N}^3$	0.4527	0.5928	0.4652	0.5814	0.4066	0.4565	0.5899	0.4691	0.4481	<b>0.0967</b>
	(22) $p_{M,S}^1$	0.3927	0.5714	0.5763	0.3792	0.2389	0.4108	0.6628	0.5030	0.6865	<b>0.0694</b>
	(23) $p_{M,S}^2$	0.4658	0.6560	0.5772	0.5334	0.2692	0.4378	0.5784	0.4671	0.3994	0.1226
	(24) $p_{M,S}^3$	0.4751	0.5872	0.4564	0.5814	0.4066	0.4475	0.5933	0.4796	0.4541	0.1263
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.4030	0.5724	0.6142	0.3869	0.2188	0.4171	0.6805	0.5155	0.6971	<b>0.0754</b>
	(26) $p_{R,N}^2$	0.4426	0.6630	0.5676	0.5285	0.2746	0.4370	0.5861	0.4608	0.3818	<b>0.0961</b>
	(27) $p_{R,N}^3$	0.4600	0.6055	0.4720	0.5901	0.4119	0.4679	0.5940	0.4745	0.4549	<b>0.0974</b>
	(28) $p_{R,S}^1$	0.3965	0.5748	0.5866	0.3812	0.2404	0.4180	0.6636	0.5111	0.6916	<b>0.0754</b>
	(29) $p_{R,S}^2$	0.4667	0.6601	0.5841	0.5367	0.2746	0.4450	0.5887	0.4726	0.4024	0.1290
	(30) $p_{R,S}^3$	0.4778	0.6049	0.4579	0.5901	0.4119	0.4586	0.5973	0.4858	0.4609	0.1299
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.4209	0.6014	0.6291	0.4115	0.2809	0.5591	0.7286	0.5857	0.7377	<b>0.0911</b>
	(32) $p_{D,N}^2$	0.5217	0.6818	0.5937	0.7052	0.3055	0.4616	0.7437	0.6398	0.3954	0.1339
	(33) $p_{D,N}^3$	0.5031	0.6453	0.4987	0.6138	0.5291	0.5552	0.6522	0.5091	0.5569	0.1060
	(34) $p_{D,S}^1$	0.4264	0.6051	0.6686	0.4087	0.3165	0.5087	0.7047	0.5538	0.7117	<b>0.0870</b>
	(35) $p_{D,S}^2$	0.5121	0.6904	0.6209	0.7052	0.3128	0.5530	0.6360	0.5205	0.4513	0.1684
	(36) $p_{D,S}^3$	0.5457	0.6799	0.5236	0.6161	0.4468	0.6201	0.6281	0.6598	0.5150	0.1797

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 17: Treatment Effects on the Health Outcomes of the Female Participants**

	Statistic	Body mass index	Waist-to-hip ratio	Systolic BP	Diastolic BP	BMI-obesity	WHR-obesity	Low-risk obesity	High-risk obesity	Pre-hyper-tension	Hyper-tension
Summary	(i) Observations	43	43	26	32	43	43	43	43	36	30
	(ii) Control	30.320	0.9038	130.15	88.071	0.5000	0.7500	0.8500	0.5500	0.8667	0.6923
	(iii) Treatment	33.180	0.8900	138.29	92.370	0.5652	0.7391	0.8696	0.6087	0.9524	0.8235
Estimates	(iv) UDIM	2.8594	-0.0138	8.1374	4.2989	0.0652	-0.0109	0.0196	0.0587	0.0857	0.1312
	(v) COLS	3.3612	-0.0214	10.474	6.7925	0.0671	-0.0198	0.0414	0.0577	0.0992	0.1759
	(vi) AIPW	3.4981	-0.0204	13.219	5.7230	0.0562	-0.0100	0.0599	0.0606	0.0983	0.2330
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.1327	0.2442	0.1828	0.1959	0.3485	0.4695	0.4301	0.3626	0.2032	0.2076
	(02) $p_{A,A}^2$	0.1613	0.1381	0.1949	<b>0.0866</b>	0.3547	0.4455	0.3485	0.3591	0.1639	0.1706
	(03) $p_{A,A}^3$	0.1375	0.1431	<b>0.0701</b>	0.1270	0.3698	0.4727	0.2818	0.3421	0.1531	<b>0.0721</b>
	(04) $p_{A,B}^1$	0.1006	0.2174	0.1709	0.1722	0.3286	0.4671	0.4286	0.3394	0.1883	0.2073
	(05) $p_{A,B}^2$	0.1319	0.1087	0.2040	0.1019	0.3379	0.4428	0.3496	0.3392	0.1620	0.1918
	(06) $p_{A,B}^3$	0.1401	0.1392	0.3423	0.1888	0.3703	0.4756	0.3047	0.3428	0.2635	0.2038
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.1036	0.2208	0.1676	0.1616	0.3440	0.4648	0.4296	0.3456	0.2196	0.2124
	(08) $p_{B,N}^2$	0.1620	0.1128	0.1968	0.1016	0.3908	0.4504	0.3712	0.3596	0.1996	0.2032
	(09) $p_{B,N}^3$	0.1496	0.1184	0.2292	0.1476	0.4104	0.4400	0.3600	0.3704	0.2300	0.1572
	(10) $p_{B,S}^1$	<b>0.0424</b>	0.1600	0.1152	0.1420	0.2732	0.4612	0.4144	0.3116	0.1264	0.1404
	(11) $p_{B,S}^2$	<b>0.0488</b>	<b>0.0820</b>	0.1388	<b>0.0328</b>	0.2708	0.4192	0.3080	0.2812	<b>0.0968</b>	0.1236
	(12) $p_{B,S}^3$	<b>0.0776</b>	0.1552	0.1452	0.1436	0.2992	0.4920	0.2252	0.2816	0.1792	0.1392
Permutation $p$ -values	(13) $p_{P,N}^1$	0.1504	0.2376	0.1780	0.2112	0.3512	0.4864	0.4540	0.3936	0.1644	0.2476
	(14) $p_{P,N}^2$	0.1120	0.1516	0.1556	<b>0.0924</b>	0.3332	0.4492	0.3512	0.3632	0.1520	0.1788
	(15) $p_{P,N}^3$	0.1012	0.1576	0.1176	0.1712	0.3584	0.4728	0.2784	0.3480	0.1616	0.1128
	(16) $p_{P,S}^1$	0.1400	0.2336	0.1832	0.2248	0.3468	0.4804	0.4436	0.3896	0.1604	0.2416
	(17) $p_{P,S}^2$	0.1600	0.1428	0.1956	0.1128	0.3384	0.4484	0.3408	0.3636	0.1548	0.2008
	(18) $p_{P,S}^3$	0.1568	0.1656	0.1340	0.1996	0.3624	0.4744	0.2848	0.3516	0.1624	0.1412
Worst-case max. $p$	(19) $p_{M,N}^1$	0.2239	0.3277	0.3685	0.3693	0.4788	0.5508	0.5501	0.4958	0.3200	0.3445
	(20) $p_{M,N}^2$	0.2002	0.2460	0.3278	0.2161	0.4407	0.5251	0.4572	0.4789	0.3015	0.2608
	(21) $p_{M,N}^3$	0.2005	0.2566	0.2967	0.3331	0.4651	0.5587	0.3863	0.4574	0.3465	0.1985
	(22) $p_{M,S}^1$	0.2140	0.3245	0.3848	0.3822	0.4788	0.5417	0.5412	0.4950	0.3193	0.3393
	(23) $p_{M,S}^2$	0.2357	0.2422	0.4098	0.2445	0.4421	0.5262	0.4490	0.4758	0.2997	0.3015
	(24) $p_{M,S}^3$	0.2371	0.2684	0.3050	0.3763	0.4626	0.5587	0.3824	0.4570	0.3454	0.2399
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.2305	0.3298	0.3803	0.3698	0.4832	0.5524	0.5506	0.5021	0.3329	0.3452
	(26) $p_{R,N}^2$	0.2032	0.2505	0.3434	0.2243	0.4419	0.5301	0.4654	0.4907	0.3129	0.2625
	(27) $p_{R,N}^3$	0.2020	0.2605	0.3047	0.3375	0.4722	0.5640	0.3897	0.4668	0.3609	0.2024
	(28) $p_{R,S}^1$	0.2188	0.3261	0.3905	0.3869	0.4838	0.5433	0.5413	0.5031	0.3322	0.3401
	(29) $p_{R,S}^2$	0.2371	0.2451	0.4208	0.2488	0.4441	0.5314	0.4566	0.4889	0.3083	0.3067
	(30) $p_{R,S}^3$	0.2374	0.2697	0.3115	0.3827	0.4650	0.5640	0.3858	0.4589	0.3510	0.2459
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.2738	0.3300	0.4617	0.3845	0.5234	0.5694	0.5919	0.5483	0.4182	0.4212
	(32) $p_{D,N}^2$	0.2453	0.2799	0.4127	0.2723	0.4660	0.7023	0.5763	0.5397	0.3199	0.3154
	(33) $p_{D,N}^3$	0.2088	0.3137	0.3169	0.3860	0.5321	0.6138	0.4212	0.5182	0.4030	0.2707
	(34) $p_{D,S}^1$	0.2613	0.3261	0.5584	0.3987	0.5037	0.5581	0.6077	0.5926	0.4316	0.4125
	(35) $p_{D,S}^2$	0.2470	0.2826	0.5159	0.2638	0.4649	0.8584	0.5060	0.7007	0.3234	0.3277
	(36) $p_{D,S}^3$	0.2414	0.3889	0.3931	0.4567	0.4768	0.6542	0.4893	0.4673	0.3596	0.2937

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 17: Treatment Effects on the Health Outcomes of the Female Participants**

	Statistic	Normal peak flow	Brady-cardia	Hair cortisol	High total cholesterol	High HbA1c	High CRP	Poor kidney
Summary	(i) Observations	38	43	37	37	41	42	28
	(ii) Control	0.4000	0.2000	89.292	1.0000	0.7000	0.6000	0.2308
	(iii) Treatment	0.5217	0.1304	39.014	0.8947	0.4762	0.5909	0.2667
Estimates	(iv) UDIM	0.1217	-0.0696	-50.277	-0.1053	-0.2238	-0.0091	0.0359
	(v) COLS	0.2483	-0.1545	-60.545	-0.1447	-0.1605	-0.0137	0.0413
	(vi) AIPW	0.1396	-0.1373	-59.278	-0.1274	-0.1656	0.0119	-0.0959
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.2562	0.2799	<b>0.0287</b>	<b>0.0623</b>	<b>0.0761</b>	0.4758	0.4182
	(02) $p_{A,A}^2$	<b>0.0841</b>	0.1126	<b>0.0116</b>	<b>0.0774</b>	0.1914	0.4671	0.4145
	(03) $p_{A,A}^3$	0.1830	0.1401	<b>0.0054</b>	<b>0.0667</b>	0.1619	0.4716	0.3013
	(04) $p_{A,B}^1$	0.2257	0.2727	<b>0.0208</b>	<b>0.0674</b>	<b>0.0667</b>	0.4764	0.4123
	(05) $p_{A,B}^2$	<b>0.0894</b>	0.1139	<b>0.0098</b>	<b>0.0751</b>	0.1900	0.4681	0.4128
	(06) $p_{A,B}^3$	0.2922	0.1626	<b>0.0145</b>	<b>0.0901</b>	0.1733	0.4758	0.3467
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.2352	0.2784	<b>0.0160</b>	0.1284	<b>0.0704</b>	0.4644	0.4228
	(08) $p_{B,N}^2$	<b>0.0868</b>	0.1100	<b>0.0064</b>	0.1296	0.1964	0.4604	0.3608
	(09) $p_{B,N}^3$	0.2672	0.1716	<b>0.0240</b>	0.1400	0.1668	0.4972	0.3572
	(10) $p_{B,S}^1$	0.1800	0.2076	<b>0.0016</b>	<b>0.0004</b>	<b>0.0408</b>	0.4780	0.4080
	(11) $p_{B,S}^2$	<b>0.0816</b>	<b>0.0492</b>	<b>0.0012</b>	<b>0.0040</b>	0.1492	0.4680	0.4380
	(12) $p_{B,S}^3$	0.2788	<b>0.0892</b>	<b>0.0016</b>	<b>0.0436</b>	0.1380	0.4472	0.2416
Permutation $p$ -values	(13) $p_{P,N}^1$	0.2480	0.2992	<b>0.0260</b>	0.1296	<b>0.0868</b>	0.5048	0.4396
	(14) $p_{P,N}^2$	<b>0.0932</b>	0.1036	<b>0.0136</b>	<b>0.0296</b>	0.1712	0.4732	0.4144
	(15) $p_{P,N}^3$	0.2460	0.1340	<b>0.0248</b>	<b>0.0444</b>	0.1648	0.4556	0.3348
	(16) $p_{P,S}^1$	0.2476	0.2924	<b>0.0336</b>	<b>0.0848</b>	<b>0.0756</b>	0.5000	0.4224
	(17) $p_{P,S}^2$	0.1000	0.1220	<b>0.0160</b>	0.1088	0.1812	0.4744	0.4216
	(18) $p_{P,S}^3$	0.2352	0.1604	<b>0.0236</b>	<b>0.0956</b>	0.1804	0.4572	0.3608
Worst-case max. $p$	(19) $p_{M,N}^1$	0.2363	0.3599	<b>0.0490</b>	0.2652	0.1964	0.5736	0.6287
	(20) $p_{M,N}^2$	0.1243	0.1645	<b>0.0367</b>	0.1252	0.2740	0.5571	0.4848
	(21) $p_{M,N}^3$	0.2825	0.2085	<b>0.0509</b>	0.1730	0.2629	0.5814	0.4237
	(22) $p_{M,S}^1$	0.2327	0.3473	<b>0.0551</b>	0.2034	0.1757	0.5663	0.6122
	(23) $p_{M,S}^2$	0.1238	0.1762	<b>0.0362</b>	0.2572	0.2898	0.5602	0.4959
	(24) $p_{M,S}^3$	0.2637	0.2365	<b>0.0405</b>	0.1370	0.2704	0.5821	0.4632
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.2386	0.3662	<b>0.0524</b>	0.2759	0.2052	0.5787	0.6309
	(26) $p_{R,N}^2$	0.1286	0.1675	<b>0.0395</b>	0.1258	0.2771	0.5644	0.4926
	(27) $p_{R,N}^3$	0.2861	0.2186	<b>0.0526</b>	0.1836	0.2649	0.5952	0.4310
	(28) $p_{R,S}^1$	0.2336	0.3510	<b>0.0583</b>	0.2076	0.1853	0.5773	0.6159
	(29) $p_{R,S}^2$	0.1262	0.1859	<b>0.0378</b>	0.2649	0.2990	0.5696	0.4986
	(30) $p_{R,S}^3$	0.2644	0.2496	<b>0.0406</b>	0.1441	0.2711	0.5959	0.4730
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.2538	0.4502	<b>0.0688</b>	0.3293	0.2208	0.6487	0.6560
	(32) $p_{D,N}^2$	0.1571	0.2216	<b>0.0527</b>	0.1358	0.3570	0.6159	0.5886
	(33) $p_{D,N}^3$	0.3700	0.2607	<b>0.0623</b>	0.2097	0.2829	0.6467	0.5545
	(34) $p_{D,S}^1$	0.2501	0.3657	<b>0.0743</b>	0.2379	0.2342	0.6224	0.6409
	(35) $p_{D,S}^2$	0.1378	0.3016	<b>0.0459</b>	0.2873	0.3540	0.6441	0.6034
	(36) $p_{D,S}^3$	0.2683	0.3296	<b>0.0505</b>	0.1821	0.3003	0.6578	0.5038

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 17: Treatment Effects on the Health Outcomes of the Female Participants**

	Statistic	Unhealthy days (%)	Mental illness	Severe pain	Regular exercise	Cancer indicator	Diabetes indicator	Stroke indicator	Heart disease	Asthma indicator	Lung disease
Summary	(i) Observations	43	43	43	43	42	43	43	43	43	43
	(ii) Control	0.2500	0.3000	0.2000	0.2500	0.1000	1.0000	0.6500	0.6500	0.2500	0.6000
	(iii) Treatment	0.1333	0.1304	0.0435	0.4348	0.0909	0.8261	0.5652	0.6957	0.2174	0.6087
Estimates	(iv) UDIM	-0.1167	-0.1696	-0.1565	0.1848	-0.0091	-0.1739	-0.0848	0.0457	-0.0326	0.0087
	(v) COLS	-0.1250	-0.1886	-0.1730	0.2316	-0.0038	-0.2160	-0.0832	0.0132	0.0182	0.0146
	(vi) AIPW	-0.1084	-0.1881	-0.1728	0.2261	-0.0033	-0.2229	-0.0603	0.0359	0.0438	0.0723
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.1009	<b>0.0776</b>	<b>0.0657</b>	<b>0.0914</b>	0.4616	<b>0.0063</b>	0.2813	0.3728	0.3901	0.4780
	(02) $p_{A,A}^2$	0.1599	<b>0.0700</b>	0.1066	<b>0.0479</b>	0.4850	<b>0.0066</b>	0.3002	0.4666	0.4405	0.4643
	(03) $p_{A,A}^3$	0.1756	<b>0.0591</b>	<b>0.0803</b>	<b>0.0376</b>	0.4860	<b>0.0020</b>	0.3502	0.4092	0.3484	0.3216
	(04) $p_{A,B}^1$	<b>0.0991</b>	<b>0.0900</b>	<b>0.0596</b>	<b>0.0738</b>	0.4599	<b>0.0127</b>	0.2865	0.3726	0.3970	0.4768
	(05) $p_{A,B}^2$	0.1641	<b>0.0858</b>	0.1048	<b>0.0460</b>	0.4848	<b>0.0139</b>	0.3086	0.4664	0.4479	0.4626
	(06) $p_{A,B}^3$	0.2165	0.1017	0.1022	<b>0.0559</b>	0.4872	<b>0.0171</b>	0.3728	0.4218	0.3862	0.3330
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0908</b>	<b>0.0888</b>	<b>0.0528</b>	<b>0.0812</b>	0.4744	<b>0.0132</b>	0.2840	0.3748	0.3964	0.4872
	(08) $p_{B,N}^2$	0.1592	<b>0.0892</b>	0.1016	<b>0.0504</b>	0.5060	<b>0.0136</b>	0.3036	0.4744	0.4624	0.4852
	(09) $p_{B,N}^3$	0.1848	<b>0.0912</b>	<b>0.0924</b>	<b>0.0612</b>	0.5028	<b>0.0136</b>	0.3388	0.4436	0.4100	0.3412
	(10) $p_{B,S}^1$	<b>0.0272</b>	<b>0.0396</b>	<b>0.0076</b>	<b>0.0364</b>	0.4384	<b>0.0004</b>	0.2388	0.3192	0.3536	0.4688
	(11) $p_{B,S}^2$	0.1092	<b>0.0396</b>	<b>0.0640</b>	<b>0.0216</b>	0.4612	<b>0.0004</b>	0.2708	0.4376	0.4180	0.4328
	(12) $p_{B,S}^3$	0.1848	<b>0.0572</b>	<b>0.0644</b>	<b>0.0252</b>	0.4612	<b>0.0008</b>	0.3648	0.3648	0.3196	0.2668
Permutation $p$ -values	(13) $p_{P,N}^1$	0.1108	<b>0.0740</b>	<b>0.0624</b>	0.1000	0.4836	<b>0.0224</b>	0.2768	0.3820	0.4572	0.4684
	(14) $p_{P,N}^2$	0.1136	<b>0.0692</b>	<b>0.0560</b>	<b>0.0552</b>	0.4892	<b>0.0036</b>	0.2984	0.4564	0.3740	0.4380
	(15) $p_{P,N}^3$	0.1648	<b>0.0772</b>	<b>0.0680</b>	<b>0.0672</b>	0.4948	<b>0.0052</b>	0.3500	0.3816	0.2868	0.3056
	(16) $p_{P,S}^1$	0.1236	<b>0.0792</b>	<b>0.0608</b>	<b>0.0904</b>	0.4704	<b>0.0160</b>	0.2756	0.3792	0.4540	0.4564
	(17) $p_{P,S}^2$	0.1960	<b>0.0716</b>	0.1308	<b>0.0456</b>	0.4896	<b>0.0060</b>	0.2996	0.4576	0.3740	0.4376
	(18) $p_{P,S}^3$	0.2392	<b>0.0840</b>	0.1312	<b>0.0528</b>	0.4944	<b>0.0080</b>	0.3632	0.3968	0.2896	0.3132
Worst-case max. $p$	(19) $p_{M,N}^1$	0.1482	0.1449	0.1094	0.1806	0.5169	<b>0.0791</b>	0.3709	0.6014	0.4903	0.7208
	(20) $p_{M,N}^2$	0.1517	0.1419	0.1035	0.1113	0.5395	<b>0.0328</b>	0.3915	0.5622	0.6794	0.6132
	(21) $p_{M,N}^3$	0.1956	0.1685	0.1235	0.1234	0.5685	<b>0.0459</b>	0.4488	0.5124	0.6247	0.4840
	(22) $p_{M,S}^1$	0.1645	0.1606	0.1055	0.1734	0.5030	<b>0.0582</b>	0.3644	0.5954	0.4869	0.7161
	(23) $p_{M,S}^2$	0.2272	0.1534	0.1967	<b>0.0973</b>	0.5419	<b>0.0346</b>	0.3953	0.5646	0.6788	0.6121
	(24) $p_{M,S}^3$	0.2497	0.1712	0.1870	<b>0.0979</b>	0.5685	<b>0.0473</b>	0.4593	0.5238	0.6234	0.4939
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.1568	0.1473	0.1108	0.1818	0.5237	<b>0.0836</b>	0.3729	0.6075	0.4999	0.7215
	(26) $p_{R,N}^2$	0.1589	0.1443	0.1083	0.1128	0.5459	<b>0.0336</b>	0.3965	0.5628	0.6809	0.6137
	(27) $p_{R,N}^3$	0.2002	0.1746	0.1260	0.1258	0.5770	<b>0.0504</b>	0.4554	0.5176	0.6362	0.4926
	(28) $p_{R,S}^1$	0.1683	0.1645	0.1104	0.1754	0.5057	<b>0.0600</b>	0.3700	0.5984	0.4963	0.7167
	(29) $p_{R,S}^2$	0.2388	0.1622	0.1977	0.1010	0.5482	<b>0.0355</b>	0.3967	0.5651	0.6806	0.6123
	(30) $p_{R,S}^3$	0.2575	0.1763	0.1951	0.1004	0.5766	<b>0.0475</b>	0.4699	0.5260	0.6377	0.4948
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1842	0.1753	0.1338	0.2189	0.6260	<b>0.0969</b>	0.4017	0.6467	0.5620	0.7249
	(32) $p_{D,N}^2$	0.2239	0.1676	0.1668	0.1377	0.6353	<b>0.0367</b>	0.4760	0.6049	0.7007	0.6466
	(33) $p_{D,N}^3$	0.2321	0.2282	0.1435	0.1648	0.6485	0.1021	0.5339	0.5197	0.6709	0.5609
	(34) $p_{D,S}^1$	0.1722	0.2359	0.1363	0.2019	0.5318	<b>0.0894</b>	0.4586	0.6081	0.5224	0.7750
	(35) $p_{D,S}^2$	0.4020	0.2162	0.2198	0.1661	0.6038	<b>0.0442</b>	0.4717	0.5703	0.7845	0.6455
	(36) $p_{D,S}^3$	0.3234	0.2260	0.2381	0.1333	0.6485	<b>0.0723</b>	0.5265	0.5421	0.6904	0.5100

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 17: Treatment Effects on the Health Outcomes of the Female Participants**

	Statistic	Good health	Smoked $\geq 100$ cig.	Current smoker	Num. cig. daily	Teen smoker	Alcohol consumer	Avg. num. drinks	Drug use	Rehabilitation
Summary	(i) Observations	43	43	43	43	43	43	43	43	43
	(ii) Control	0.6000	0.7500	0.4000	3.5000	0.7000	0.5500	1.7500	0.2500	0.1500
	(iii) Treatment	0.5652	0.4783	0.3478	3.2174	0.4348	0.6087	1.0870	0.1304	0.0000
Estimates	(iv) UDIM	-0.0348	-0.2717	-0.0522	-0.2826	-0.2652	0.0587	-0.6630	-0.1196	-0.1500
	(v) COLS	-0.0476	-0.1855	-0.0941	-0.9845	-0.2313	0.0141	-0.8866	-0.1148	-0.1774
	(vi) AIPW	-0.0557	-0.1613	-0.0671	-0.8522	-0.2142	0.0297	-0.7529	-0.1306	-0.1773
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.4136	<b>0.0265</b>	0.3677	0.4325	<b>0.0392</b>	0.3392	0.2066	0.1716	<b>0.0359</b>
	(02) $p_{A,A}^2$	0.3900	0.1100	0.2863	0.2762	<b>0.0777</b>	0.4632	0.1892	0.2200	<b>0.0192</b>
	(03) $p_{A,A}^3$	0.3590	0.1428	0.3367	0.2883	<b>0.0894</b>	0.4199	0.2008	0.1622	<b>0.0082</b>
	(04) $p_{A,B}^1$	0.4098	<b>0.0243</b>	0.3546	0.4262	<b>0.0319</b>	0.3517	0.2059	0.1607	<b>0.0222</b>
	(05) $p_{A,B}^2$	0.3919	0.1195	0.2785	0.2642	<b>0.0800</b>	0.4668	0.1954	0.2130	<b>0.0131</b>
	(06) $p_{A,B}^3$	0.3825	0.1939	0.3555	0.2965	0.1267	0.4358	0.2455	0.1768	<b>0.0101</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.4096	<b>0.0284</b>	0.3592	0.4148	<b>0.0376</b>	0.3488	0.2168	0.1600	<b>0.0356</b>
	(08) $p_{B,N}^2$	0.3908	0.1260	0.2916	0.2840	<b>0.0844</b>	0.4892	0.1816	0.2116	<b>0.0356</b>
	(09) $p_{B,N}^3$	0.3968	0.1532	0.3344	0.2816	<b>0.0980</b>	0.4648	0.2088	0.1736	<b>0.0372</b>
	(10) $p_{B,S}^1$	0.3852	<b>0.0176</b>	0.3096	0.4068	<b>0.0200</b>	0.3076	<b>0.0596</b>	<b>0.0932</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	0.3700	<b>0.0676</b>	0.2080	0.1896	<b>0.0608</b>	0.4380	<b>0.0584</b>	0.1660	<b>0.0004</b>
	(12) $p_{B,S}^3$	0.3320	0.1736	0.3368	0.2428	0.1252	0.3888	0.1376	0.1348	<b>0.0012</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3840	<b>0.0420</b>	0.4088	0.4660	<b>0.0552</b>	0.3616	0.2308	0.1540	<b>0.0196</b>
	(14) $p_{P,N}^2$	0.3372	0.1260	0.3172	0.3160	0.1036	0.4972	0.1596	0.1820	<b>0.0100</b>
	(15) $p_{P,N}^3$	0.3228	0.1680	0.3764	0.3472	0.1292	0.4564	0.2404	0.1660	<b>0.0220</b>
	(16) $p_{P,S}^1$	0.3840	<b>0.0380</b>	0.4008	0.4632	<b>0.0508</b>	0.3500	0.2676	0.1556	<b>0.0216</b>
	(17) $p_{P,S}^2$	0.3440	0.1276	0.3244	0.3040	0.1084	0.4960	0.2352	0.2064	<b>0.0168</b>
	(18) $p_{P,S}^3$	0.3276	0.1852	0.3848	0.3324	0.1436	0.4588	0.2988	0.1848	<b>0.0316</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	0.6508	<b>0.0849</b>	0.3963	0.4487	0.1059	0.4008	0.2944	0.2708	<b>0.0475</b>
	(20) $p_{M,N}^2$	0.5424	0.1876	0.3221	0.3708	0.1468	0.5192	0.2452	0.3014	<b>0.0275</b>
	(21) $p_{M,N}^3$	0.5469	0.2308	0.3971	0.4036	0.1937	0.4939	0.3405	0.2869	<b>0.0476</b>
	(22) $p_{M,S}^1$	0.6508	<b>0.0808</b>	0.3795	0.4482	<b>0.0984</b>	0.3843	0.3193	0.2729	<b>0.0594</b>
	(23) $p_{M,S}^2$	0.5458	0.1801	0.3255	0.3540	0.1593	0.5204	0.3200	0.3325	<b>0.0406</b>
	(24) $p_{M,S}^3$	0.5535	0.2628	0.4042	0.3909	0.2063	0.4962	0.3562	0.3076	<b>0.0440</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.6546	<b>0.0866</b>	0.4076	0.4494	0.1122	0.4187	0.3027	0.2750	<b>0.0500</b>
	(26) $p_{R,N}^2$	0.5472	0.1925	0.3338	0.3714	0.1503	0.5212	0.2566	0.3044	<b>0.0307</b>
	(27) $p_{R,N}^3$	0.5513	0.2312	0.4003	0.4071	0.1942	0.5040	0.3502	0.2917	<b>0.0503</b>
	(28) $p_{R,S}^1$	0.6546	<b>0.0817</b>	0.3896	0.4492	0.1016	0.3992	0.3292	0.2746	<b>0.0621</b>
	(29) $p_{R,S}^2$	0.5497	0.1807	0.3350	0.3555	0.1607	0.5225	0.3284	0.3349	<b>0.0422</b>
	(30) $p_{R,S}^3$	0.5539	0.2665	0.4103	0.3958	0.2078	0.5062	0.3725	0.3082	<b>0.0467</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.6843	0.1173	0.5750	0.4935	0.1436	0.5218	0.3293	0.3873	<b>0.0695</b>
	(32) $p_{D,N}^2$	0.6088	0.2196	0.3909	0.4069	0.1963	0.6771	0.3525	0.3405	<b>0.0465</b>
	(33) $p_{D,N}^3$	0.6131	0.2556	0.4608	0.4577	0.2201	0.5858	0.3808	0.3547	<b>0.0650</b>
	(34) $p_{D,S}^1$	0.6772	0.1090	0.4618	0.4699	0.1451	0.4800	0.3439	0.3383	<b>0.0663</b>
	(35) $p_{D,S}^2$	0.5682	0.1871	0.3767	0.4217	0.2175	0.6771	0.4371	0.3496	<b>0.0525</b>
	(36) $p_{D,S}^3$	0.5866	0.3451	0.4263	0.4199	0.2129	0.6158	0.4198	0.3413	<b>0.0653</b>

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 17: Treatment Effects on the Health Outcomes of the Female Participants**

	Statistic	Home-cook -ing rate	Avoids fried food	Consumes low salt	Consumes low sugar	Avoids proc. food	Bedridden rate	High med. costs	Uninsured for long	Overnight med. stays	Home-care assistance
Summary	(i) Observations	42	43	43	43	43	41	43	43	43	43
	(ii) Control	7.5000	0.8500	0.8000	0.7000	0.8000	0.0667	0.2500	0.2000	6.7167	0.1500
	(iii) Treatment	7.0909	0.9130	0.9565	0.7391	0.8696	0.0803	0.0870	0.0435	9.8696	0.0870
Estimates	(iv) UDIM	-0.4091	0.0630	0.1565	0.0391	0.0696	0.0136	-0.1630	-0.1565	3.1529	-0.0630
	(v) COLS	0.6358	0.0786	0.1705	0.0826	0.0742	0.0593	-0.1957	-0.1803	-0.0192	-0.0648
	(vi) AIPW	-0.0222	0.0662	0.1578	0.0792	0.0604	0.0599	-0.1945	-0.1719	0.3275	-0.0770
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.4206	0.2708	<b>0.0657</b>	0.3852	0.2762	0.3938	<b>0.0730</b>	<b>0.0657</b>	0.3610	0.2629
	(02) $p_{A,A}^2$	0.3756	0.2291	<b>0.0663</b>	0.3074	0.2618	0.1993	<b>0.0592</b>	<b>0.0455</b>	0.4988	0.2538
	(03) $p_{A,A}^3$	0.4953	0.2490	<b>0.0628</b>	0.3131	0.2781	0.1812	<b>0.0555</b>	<b>0.0300</b>	0.4802	0.1899
	(04) $p_{A,B}^1$	0.4171	0.2624	<b>0.0602</b>	0.3864	0.2730	0.3879	<b>0.0675</b>	<b>0.0406</b>	0.3580	0.2540
	(05) $p_{A,B}^2$	0.3751	0.2240	<b>0.0650</b>	0.3097	0.2589	0.1890	<b>0.0640</b>	<b>0.0343</b>	0.4989	0.2628
	(06) $p_{A,B}^3$	0.4958	0.2651	<b>0.0899</b>	0.3324	0.3029	0.2072	<b>0.0802</b>	<b>0.0434</b>	0.4818	0.2226
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.4272	0.2748	<b>0.0568</b>	0.3836	0.2796	0.3976	<b>0.0712</b>	<b>0.0384</b>	0.3972	0.2624
	(08) $p_{B,N}^2$	0.3708	0.2428	<b>0.0524</b>	0.2988	0.2760	0.1976	<b>0.0636</b>	<b>0.0396</b>	0.4444	0.2732
	(09) $p_{B,N}^3$	0.4776	0.2696	<b>0.0548</b>	0.3164	0.3432	0.2212	<b>0.0812</b>	<b>0.0428</b>	0.4428	0.2260
	(10) $p_{B,S}^1$	0.3968	0.2004	<b>0.0128</b>	0.3548	0.2124	0.3520	<b>0.0144</b>	<b>0.0032</b>	0.2756	0.1812
	(11) $p_{B,S}^2$	0.3464	0.1420	<b>0.0176</b>	0.2744	0.1812	<b>0.0920</b>	<b>0.0224</b>	<b>0.0028</b>	0.4464	0.1860
	(12) $p_{B,S}^3$	0.4680	0.1996	<b>0.0372</b>	0.3148	0.2096	0.1556	<b>0.0380</b>	<b>0.0104</b>	0.3984	0.1416
Permutation $p$ -values	(13) $p_{P,N}^1$	0.4128	0.2456	<b>0.0512</b>	0.3884	0.2804	0.4060	<b>0.0684</b>	<b>0.0588</b>	0.4196	0.2464
	(14) $p_{P,N}^2$	0.3816	0.2172	<b>0.0504</b>	0.2692	0.2692	0.1484	<b>0.0380</b>	<b>0.0480</b>	0.4520	0.2556
	(15) $p_{P,N}^3$	0.4980	0.2476	<b>0.0744</b>	0.2864	0.3224	0.1700	<b>0.0408</b>	<b>0.0676</b>	0.4496	0.2224
	(16) $p_{P,S}^1$	0.4128	0.2412	<b>0.0496</b>	0.3824	0.2792	0.4028	<b>0.0792</b>	<b>0.0556</b>	0.4184	0.2340
	(17) $p_{P,S}^2$	0.3724	0.2084	<b>0.0576</b>	0.2892	0.2624	0.2196	<b>0.0600</b>	<b>0.0504</b>	0.4520	0.2428
	(18) $p_{P,S}^3$	0.4976	0.2392	<b>0.0792</b>	0.3268	0.2988	0.2352	<b>0.0736</b>	<b>0.0568</b>	0.4468	0.2044
Worst-case max. $p$	(19) $p_{M,N}^1$	0.5689	0.3884	0.1047	0.4968	0.3777	0.5348	0.1288	0.1053	0.5732	0.4233
	(20) $p_{M,N}^2$	0.4486	0.3664	0.1169	0.3884	0.4031	0.3413	<b>0.0821</b>	<b>0.0867</b>	0.5898	0.4385
	(21) $p_{M,N}^3$	0.6429	0.4251	0.1719	0.3911	0.4550	0.3799	<b>0.0835</b>	0.1161	0.5950	0.4221
	(22) $p_{M,S}^1$	0.5686	0.3833	0.1047	0.4933	0.3745	0.5307	0.1240	0.1005	0.5765	0.4071
	(23) $p_{M,S}^2$	0.4468	0.3610	0.1279	0.4201	0.3882	0.4117	0.1227	<b>0.0913</b>	0.5898	0.4315
	(24) $p_{M,S}^3$	0.6429	0.4223	0.1843	0.4248	0.4385	0.4417	0.1397	<b>0.0885</b>	0.5938	0.4037
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.5729	0.3937	0.1107	0.4980	0.3785	0.5395	0.1349	0.1063	0.5801	0.4274
	(26) $p_{R,N}^2$	0.4493	0.3697	0.1200	0.3894	0.4170	0.3415	<b>0.0850</b>	<b>0.0878</b>	0.5993	0.4406
	(27) $p_{R,N}^3$	0.6464	0.4300	0.1751	0.3939	0.4595	0.3817	<b>0.0864</b>	0.1258	0.5961	0.4317
	(28) $p_{R,S}^1$	0.5729	0.3889	0.1112	0.4950	0.3750	0.5325	0.1252	0.1052	0.5814	0.4128
	(29) $p_{R,S}^2$	0.4508	0.3635	0.1346	0.4206	0.3947	0.4152	0.1254	<b>0.0934</b>	0.5993	0.4326
	(30) $p_{R,S}^3$	0.6464	0.4258	0.1863	0.4263	0.4401	0.4459	0.1401	<b>0.0890</b>	0.5950	0.4182
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.6453	0.4389	0.1405	0.5023	0.5153	0.6290	0.1846	0.1174	0.6231	0.4451
	(32) $p_{D,N}^2$	0.5274	0.3754	0.1492	0.4235	0.4700	0.3440	0.1020	0.1136	0.7673	0.4532
	(33) $p_{D,N}^3$	0.6630	0.4311	0.1901	0.4398	0.5225	0.4537	0.1047	0.1562	0.6744	0.5076
	(34) $p_{D,S}^1$	0.6453	0.4028	0.1499	0.5040	0.4640	0.5843	0.1709	0.1258	0.6093	0.4422
	(35) $p_{D,S}^2$	0.4647	0.3665	0.1497	0.4854	0.4188	0.4251	0.1575	0.1209	0.7673	0.4392
	(36) $p_{D,S}^3$	0.6842	0.4258	0.2010	0.4574	0.4963	0.4619	0.1628	<b>0.0946</b>	0.6527	0.5083

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

## **7 Hypothesis Tests for Treatment Effects on Education Outcomes**

**Table 18: Treatment Effects on the Education Outcomes of the Pooled Participants**

	Statistic	Regular high school graduate	Completed any high school	Attended college	Completed college
Summary	(i) Observations	115	115	115	115
	(ii) Control	0.4915	0.7119	0.3220	0.1525
	(iii) Treatment	0.7321	0.8214	0.4286	0.1250
Estimates	(iv) UDIM	0.2406	0.1096	0.1065	-0.0275
	(v) COLS	0.2477	0.1057	0.0986	-0.0181
	(vi) AIPW	0.2479	0.1084	0.0577	-0.0362
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0032</b>	<b>0.0816</b>	0.1217	0.3419
	(02) $p_{A,A}^2$	<b>0.0047</b>	0.1054	0.1484	0.4012
	(03) $p_{A,A}^3$	<b>0.0019</b>	<b>0.0846</b>	0.2604	0.3038
	(04) $p_{A,B}^1$	<b>0.0021</b>	<b>0.0691</b>	0.1050	0.3301
	(05) $p_{A,B}^2$	<b>0.0027</b>	<b>0.0912</b>	0.1329	0.3886
	(06) $p_{A,B}^3$	<b>0.0028</b>	<b>0.0967</b>	0.2660	0.2947
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0044</b>	<b>0.0692</b>	0.1132	0.3220
	(08) $p_{B,N}^2$	<b>0.0044</b>	<b>0.0904</b>	0.1328	0.3972
	(09) $p_{B,N}^3$	<b>0.0056</b>	0.1028	0.2672	0.3044
	(10) $p_{B,S}^1$	<b>0.0004</b>	<b>0.0276</b>	<b>0.0480</b>	0.2756
	(11) $p_{B,S}^2$	<b>0.0016</b>	<b>0.0376</b>	<b>0.0692</b>	0.3556
	(12) $p_{B,S}^3$	<b>0.0016</b>	<b>0.0412</b>	0.2164	0.2360
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0040</b>	<b>0.0984</b>	0.1472	0.3772
	(14) $p_{P,N}^2$	<b>0.0060</b>	0.1084	0.1684	0.4044
	(15) $p_{P,N}^3$	<b>0.0044</b>	0.1104	0.3028	0.3260
	(16) $p_{P,S}^1$	<b>0.0052</b>	<b>0.0980</b>	0.1448	0.3576
	(17) $p_{P,S}^2$	<b>0.0084</b>	0.1224	0.1740	0.4076
	(18) $p_{P,S}^3$	<b>0.0068</b>	0.1196	0.3032	0.3400
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0227</b>	0.1430	0.1901	0.5267
	(20) $p_{M,N}^2$	<b>0.0233</b>	0.1796	0.2241	0.4673
	(21) $p_{M,N}^3$	<b>0.0241</b>	0.1914	0.3718	0.3865
	(22) $p_{M,S}^1$	<b>0.0227</b>	0.1463	0.1879	0.5195
	(23) $p_{M,S}^2$	<b>0.0263</b>	0.1950	0.2257	0.4709
	(24) $p_{M,S}^3$	<b>0.0233</b>	0.2072	0.3696	0.3877
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0229</b>	0.1472	0.1902	0.5348
	(26) $p_{R,N}^2$	<b>0.0252</b>	0.1850	0.2267	0.4799
	(27) $p_{R,N}^3$	<b>0.0244</b>	0.1934	0.3802	0.3909
	(28) $p_{R,S}^1$	<b>0.0229</b>	0.1493	0.1902	0.5263
	(29) $p_{R,S}^2$	<b>0.0264</b>	0.2002	0.2281	0.4809
	(30) $p_{R,S}^3$	<b>0.0242</b>	0.2073	0.3829	0.3903
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0243</b>	0.1747	0.2250	0.5540
	(32) $p_{D,N}^2$	<b>0.0357</b>	0.2236	0.2934	0.5867
	(33) $p_{D,N}^3$	<b>0.0276</b>	0.2517	0.4234	0.4003
	(34) $p_{D,S}^1$	<b>0.0296</b>	0.1812	0.2086	0.5449
	(35) $p_{D,S}^2$	<b>0.0401</b>	0.2543	0.2415	0.5255
	(36) $p_{D,S}^3$	<b>0.0385</b>	0.2358	0.4534	0.5311

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 19: Treatment Effects on the Education Outcomes of the Male Participants**

	Statistic	Regular high school graduate	Completed any high school	Attended college	Completed college
Summary	(i) Observations	68	68	68	68
	(ii) Control	0.5556	0.7500	0.2500	0.1111
	(iii) Treatment	0.6563	0.7500	0.4375	0.1250
Estimates	(iv) UDIM	0.1007	-0.0000	0.1875	0.0139
	(v) COLS	0.1711	0.0236	0.1966	0.0229
	(vi) AIPW	0.1756	0.0366	0.1589	0.0109
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.2008	0.5000	<b>0.0429</b>	0.4299
	(02) $p_{A,A}^2$	<b>0.0918</b>	0.4144	<b>0.0423</b>	0.3739
	(03) $p_{A,A}^3$	<b>0.0613</b>	0.3532	<b>0.0593</b>	0.4331
	(04) $p_{A,B}^1$	0.1880	0.5000	<b>0.0459</b>	0.4301
	(05) $p_{A,B}^2$	<b>0.0725</b>	0.4127	<b>0.0444</b>	0.3737
	(06) $p_{A,B}^3$	<b>0.0616</b>	0.3623	<b>0.0864</b>	0.4352
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.1856	0.4880	<b>0.0576</b>	0.4296
	(08) $p_{B,N}^2$	<b>0.0736</b>	0.4016	<b>0.0524</b>	0.3548
	(09) $p_{B,N}^3$	<b>0.0692</b>	0.3860	<b>0.0960</b>	0.4224
	(10) $p_{B,S}^1$	0.1288	0.4840	<b>0.0132</b>	0.4176
	(11) $p_{B,S}^2$	<b>0.0404</b>	0.3876	<b>0.0148</b>	0.3672
	(12) $p_{B,S}^3$	<b>0.0260</b>	0.2948	<b>0.0340</b>	0.4384
Permutation $p$ -values	(13) $p_{P,N}^1$	0.2176	0.4876	<b>0.0560</b>	0.4392
	(14) $p_{P,N}^2$	<b>0.0908</b>	0.4328	<b>0.0460</b>	0.3884
	(15) $p_{P,N}^3$	<b>0.0840</b>	0.3848	<b>0.0912</b>	0.4488
	(16) $p_{P,S}^1$	0.2068	0.4876	<b>0.0612</b>	0.4384
	(17) $p_{P,S}^2$	0.1060	0.4384	<b>0.0508</b>	0.3764
	(18) $p_{P,S}^3$	<b>0.0780</b>	0.3828	<b>0.0792</b>	0.4416
Worst-case max. $p$	(19) $p_{M,N}^1$	0.2128	0.6370	<b>0.0926</b>	0.4311
	(20) $p_{M,N}^2$	0.1612	0.5532	0.1049	0.4817
	(21) $p_{M,N}^3$	0.1551	0.5072	0.1629	0.5403
	(22) $p_{M,S}^1$	0.2027	0.6370	<b>0.0981</b>	0.4311
	(23) $p_{M,S}^2$	0.1670	0.5533	0.1042	0.4698
	(24) $p_{M,S}^3$	0.1503	0.5072	0.1472	0.5334
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.2136	0.6514	<b>0.0936</b>	0.4324
	(26) $p_{R,N}^2$	0.1615	0.5701	0.1051	0.4834
	(27) $p_{R,N}^3$	0.1553	0.5173	0.1659	0.5432
	(28) $p_{R,S}^1$	0.2039	0.6514	0.1035	0.4324
	(29) $p_{R,S}^2$	0.1748	0.5701	0.1045	0.4714
	(30) $p_{R,S}^3$	0.1536	0.5173	0.1498	0.5370
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.2770	0.6802	<b>0.0988</b>	0.4592
	(32) $p_{D,N}^2$	0.1696	0.6979	0.1194	0.4908
	(33) $p_{D,N}^3$	0.1879	0.5766	0.1949	0.5976
	(34) $p_{D,S}^1$	0.2425	0.6802	0.1213	0.4706
	(35) $p_{D,S}^2$	0.2132	0.6973	0.1219	0.5868
	(36) $p_{D,S}^3$	0.1801	0.5599	0.1704	0.5586

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 20:** Treatment Effects on the Education Outcomes of the **Female** Participants

	Statistic	Regular high school graduate	Completed any high school	Attended college	Completed college
Summary	(i) Observations	47	47	47	47
	(ii) Control	0.3913	0.6522	0.4348	0.2174
	(iii) Treatment	0.8333	0.9167	0.4167	0.1250
Estimates	(iv) UDIM	0.4420	0.2645	-0.0181	-0.0924
	(v) COLS	0.3606	0.2150	-0.0550	-0.0818
	(vi) AIPW	0.3500	0.2098	-0.0852	-0.1025
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0003</b>	<b>0.0137</b>	0.4526	0.2210
	(02) $p_{A,A}^2$	<b>0.0056</b>	<b>0.0500</b>	0.3687	0.2914
	(03) $p_{A,A}^3$	<b>0.0032</b>	<b>0.0412</b>	0.2880	0.2324
	(04) $p_{A,B}^1$	<b>0.0002</b>	<b>0.0081</b>	0.4456	0.1829
	(05) $p_{A,B}^2$	<b>0.0052</b>	<b>0.0491</b>	0.3509	0.2552
	(06) $p_{A,B}^3$	<b>0.0072</b>	<b>0.0648</b>	0.2905	0.2178
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0012</b>	<b>0.0060</b>	0.4556	0.1948
	(08) $p_{B,N}^2$	<b>0.0084</b>	<b>0.0524</b>	0.3760	0.2720
	(09) $p_{B,N}^3$	<b>0.0084</b>	<b>0.0640</b>	0.3060	0.2316
	(10) $p_{B,S}^1$	<b>0.0028</b>	<b>0.0024</b>	0.4284	0.1180
	(11) $p_{B,S}^2$	<b>0.0068</b>	<b>0.0136</b>	0.3012	0.2128
	(12) $p_{B,S}^3$	<b>0.0096</b>	<b>0.0272</b>	0.2364	0.1840
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0016</b>	<b>0.0180</b>	0.4460	0.2696
	(14) $p_{P,N}^2$	<b>0.0068</b>	<b>0.0560</b>	0.3536	0.3012
	(15) $p_{P,N}^3$	<b>0.0080</b>	<b>0.0644</b>	0.2888	0.2540
	(16) $p_{P,S}^1$	<b>0.0016</b>	<b>0.0204</b>	0.4360	0.2552
	(17) $p_{P,S}^2$	<b>0.0108</b>	<b>0.0748</b>	0.3564	0.3244
	(18) $p_{P,S}^3$	<b>0.0136</b>	<b>0.0800</b>	0.2984	0.2956
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0138</b>	<b>0.0722</b>	0.5825	0.3820
	(20) $p_{M,N}^2$	<b>0.0248</b>	0.1052	0.5022	0.3814
	(21) $p_{M,N}^3$	<b>0.0353</b>	0.1213	0.4325	0.3486
	(22) $p_{M,S}^1$	<b>0.0161</b>	<b>0.0722</b>	0.5789	0.3641
	(23) $p_{M,S}^2$	<b>0.0366</b>	0.1383	0.5002	0.4054
	(24) $p_{M,S}^3$	<b>0.0452</b>	0.1421	0.4378	0.3974
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0146</b>	<b>0.0723</b>	0.5845	0.3821
	(26) $p_{R,N}^2$	<b>0.0248</b>	0.1058	0.5254	0.3870
	(27) $p_{R,N}^3$	<b>0.0361</b>	0.1251	0.4325	0.3534
	(28) $p_{R,S}^1$	<b>0.0164</b>	<b>0.0736</b>	0.5810	0.3644
	(29) $p_{R,S}^2$	<b>0.0375</b>	0.1386	0.5205	0.4112
	(30) $p_{R,S}^3$	<b>0.0476</b>	0.1426	0.4416	0.4003
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0182</b>	<b>0.0779</b>	0.6133	0.4502
	(32) $p_{D,N}^2$	<b>0.0352</b>	0.1497	0.6457	0.4412
	(33) $p_{D,N}^3$	<b>0.0478</b>	0.2239	0.4326	0.4331
	(34) $p_{D,S}^1$	<b>0.0256</b>	<b>0.1000</b>	0.6041	0.4118
	(35) $p_{D,S}^2$	<b>0.0710</b>	0.2007	0.6425	0.4554
	(36) $p_{D,S}^3$	<b>0.0846</b>	0.1538	0.4968	0.4130

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

## 8 Hypothesis Tests for Treatment Effects on Cognitive and Noncognitive Outcomes

Let  $\mathbf{y}_i^R = (y_{1i}^R, y_{2i}^R, \dots, y_{J_R i}^R)$  be the vector of indicators of the  $i$ -th participant's successes on items 1 through  $J_R$  on Raven's test. Similarly, let  $\mathbf{y}_i^S = (y_{1i}^S, y_{2i}^S, \dots, y_{J_S i}^S)$  be the vector of indicators of the  $i$ -th participant's successes on items 1 through  $J_S$  on the Stroop test. Suppose that success on each item  $j \in \{1, 2, \dots, J_R\}$  on Raven's test increases monotonically with the participant's fluid intelligence  $\theta_i^F$ , a latent factor. Also suppose that  $\Pr(y_{ji}^S = 1)$  monotonically increases with the participant's crystallized intelligence  $\theta_i^C$  for all  $j \in \{1, \dots, J_S\}$ . We specify the probability of success on each item of Raven's test and the Stroop test as follows:

$$p_{ji}^T = \Pr(y_{ji}^T = 1 | a_j^T, b_j^T, c_j^T; \theta_i^{U_T}, Z_{3i}) = \frac{1}{1 + \exp(-a_j^T(\theta_i^{U_T} - b_j^T) - c_j^T Z_{3i})}$$

for  $T \in \{R, S\}$ , where  $Z_{3i}$  indicates whether the participant is male,  $U_R = F$ , and  $U_S = C$ , subject to the restriction that  $a_j^T > 0$ . Here, the parameters  $b_j^T$  and  $a_j^T$  are called difficulty and discrimination parameters, respectively. Note that this specification allows gender differences in probability of success on each test item. We set the location and scale of the latent factors by normalizing their mean to be 0 and variance to be 1, i.e.,  $\mathbb{E}[\theta_i^F] = \mathbb{E}[\theta_i^C] = 0$  and  $\text{var}(\theta_i^F) = \text{var}(\theta_i^C) = 1$ . Assuming that the item responses are independent conditional on the vector of skills  $\boldsymbol{\theta}_i = (\theta_i^F, \theta_i^C)$ , the conditional density for  $\mathbf{y}_i = (\mathbf{y}_i^R, \mathbf{y}_i^S)$  is given by

$$f(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i) = f^R(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i) f^S(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i),$$

where

$$f^T(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i) = \prod_{j=1}^{J_T} (p_{ji}^T)^{y_{ji}^T} (1 - p_{ji}^T)^{1 - y_{ji}^T}$$

for  $T \in \{R, S\}$ , and  $\mathbf{b}$  is the vector of all parameters  $a_j^T$ ,  $b_j^T$ , and  $c_j^T$ , for all  $j \in \{1, \dots, J_T\}$  and  $T \in \{R, S\}$ , in addition to another parameter  $d$  for  $\text{cov}(\theta_i^F, \theta_i^C)$  so that  $\boldsymbol{\mu}_\theta = \mathbb{E}[\boldsymbol{\theta}_i] = (0, 0)$  and  $\boldsymbol{\Sigma}_\theta = \text{var}(\boldsymbol{\theta}_i)$  is a matrix with ones on the main diagonal and  $d$ 's on the anti-diagonal. (Note that the densities are conditional on  $Z_{3i}$ , which is suppressed for notational convenience. Implicitly,

$$f(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i, Z_{3i}) = f(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i).$$

Also, in practice,

$$f^T(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i) = \prod_{j \in \mathcal{J}_{Ti}^*} (p_{ji}^T)^{y_{ji}^T} (1 - p_{ji}^T)^{1 - y_{ji}^T},$$

where  $\mathcal{J}_{Ti}^* = \{j \in \{1, \dots, J_T\} : y_{ji}^T \text{ is not missing}\}$ .) Given the scale and location normalization of  $\boldsymbol{\theta}_i$ , we may as well let the multivariate normal density  $g(\boldsymbol{\theta}_j; \boldsymbol{\mu}_\theta, \boldsymbol{\Sigma}_\theta)$  with mean  $\boldsymbol{\mu}_\theta$  and covariance  $\boldsymbol{\Sigma}_\theta$  be the prior density of  $\boldsymbol{\theta}_i$ . Then, the likelihood for participant  $i$  is

$$l_i(\mathbf{b} | \mathbf{y}_i) = f(\mathbf{y}_i | \mathbf{b}) = \int_{\mathbb{R}^2} h(\mathbf{y}_i, \boldsymbol{\theta}_i | \mathbf{b}) d\boldsymbol{\theta}_i,$$

where  $h(\mathbf{y}_i, \boldsymbol{\theta}_i | \mathbf{b})$  is the joint density of  $\mathbf{y}_i$  and  $\boldsymbol{\theta}_i$  conditional on  $\mathbf{b}$ . Since

$$h(\mathbf{y}_i, \boldsymbol{\theta}_i | \mathbf{b}) = f(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i) g(\boldsymbol{\theta}_j | \mathbf{b}; \boldsymbol{\mu}_\theta, \boldsymbol{\Sigma}_\theta)$$

and

$$g(\boldsymbol{\theta}_j | \mathbf{b}; \boldsymbol{\mu}_\theta, \boldsymbol{\Sigma}_\theta) = g(\boldsymbol{\theta}_j; \boldsymbol{\mu}_\theta, \boldsymbol{\Sigma}_\theta),$$

it follows that the likelihood for participant  $i$  can be expressed as

$$l_i(\mathbf{b} | \mathbf{y}_i) = \int_{\mathbb{R}^2} f(\mathbf{y}_i | \mathbf{b}, \boldsymbol{\theta}_i) g(\boldsymbol{\theta}_j; \boldsymbol{\mu}_\theta, \boldsymbol{\Sigma}_\theta) d\boldsymbol{\theta}_i,$$

and the overall likelihood is simply  $l(\mathbf{b}) = \prod_i l_i(\mathbf{b} | \mathbf{y}_i)$ . (Again, in practice, the likelihoods of only the participants with non-missing  $\mathbf{y}_i$  are considered.) Maximizing  $\log[l(\mathbf{b})]$  gives an estimate  $\hat{\mathbf{b}}$  of

*b.* We use adaptive quadrature (Rabe-Hesketh et al., 2005) to maximize this log-likelihood using ten integration points, which seem to be sufficient in practice. Then, the posterior conditional distribution  $v(\boldsymbol{\theta}_i|\mathbf{y}_i;\hat{\mathbf{b}})$  for the  $i$ -th participant’s vector of skills is given by

$$v(\boldsymbol{\theta}_i|\mathbf{y}_i;\hat{\mathbf{b}}) = \frac{h(\mathbf{y}_i, \boldsymbol{\theta}_i|\hat{\mathbf{b}})}{\int_{\mathbb{R}^2} h(\mathbf{y}_i, \boldsymbol{\theta}_i|\hat{\mathbf{b}}) d\boldsymbol{\theta}_i},$$

that is,

$$v(\boldsymbol{\theta}_i|\mathbf{y}_i;\hat{\mathbf{b}}) = f(\mathbf{y}_i|\hat{\mathbf{b}}, \boldsymbol{\theta}_i) g(\boldsymbol{\theta}_i; \boldsymbol{\mu}_\theta, \boldsymbol{\Sigma}_\theta) / l(\hat{\mathbf{b}}).$$

Then, we obtain Empirical Bayes predictions  $\hat{\boldsymbol{\theta}}_i$  of  $\boldsymbol{\theta}_i$  by estimating the mean of the posterior distribution  $v(\boldsymbol{\theta}_i|\mathbf{y}_i;\hat{\mathbf{b}})$  for all participants  $i$  who took the tests. In other words,

$$\hat{\boldsymbol{\theta}}_i = \int_{\mathbb{R}^2} \boldsymbol{\theta}_i v(\boldsymbol{\theta}_i|\mathbf{y}_i;\hat{\mathbf{b}}) d\boldsymbol{\theta}_i$$

is the vector containing Empirical Bayes estimates (Skrondal and Rabe-Hesketh, 2009) of the  $i$ -th participant’s fluid and crystallized intelligence. Observe that the treatment effects on these Empirical Bayes scores can be interpreted in terms of standard deviations because of the normalization of the location and scale of the vector of cognitive skills. Lastly, recall the restriction that all the discrimination parameters be positive ( $a_j^T > 0$  for all  $j \in \{1, \dots, J_T\}$  and  $T \in \{R, S\}$ ). In practice, we first estimate the model with all the test items, drop any test items with negative discrimination parameters (because it is possible that these items do not perform their intended job of measuring latent skills), and then re-estimate the model with the remaining test items. (One test item from Raven’s test was dropped as a result of this process.) In theory it is possible to perform constrained maximum likelihood, but this approach would require us to assume that there are no “bad” test items.

To compute the general intelligence latent scores, we have to take into account that general intelligence not only affects success on items on Raven’s test and the Stroop test but also affects the overall performance on each of the two tests. Accordingly, let  $\mathbf{y}_i^G$  be the vector of (i) indicators

$y_{ji}^G, j \in \{1, \dots, J_G\}$ , of the  $i$ -th participant's successes on items on Raven's test and Stroop test with positive discrimination and difficulty parameters among the respective test items and (ii)  $y_{*i}^G = \text{round}(8 [(\sum_j y_{ji}^R)/J_R + (\sum_j y_{ji}^S)/J_S]/2)$ , which is an ordinal version of the average performance on Raven's test and the Stroop test. We estimate  $i$ -th subject's general intelligence latent score  $\theta_i^G$  by setting  $U_R = U_S = G$  in the above model, but with an ordered logit specification for  $y_{*i}^G$ , and finally obtaining a univariate Empirical Bayes estimate  $\hat{\theta}_i^G$ . Because of the normalization of the location and scale of general intelligence, treatment effects on the estimated general intelligence latent score  $\hat{\theta}_i^G$  can also be interpreted in terms of standard deviations.

Empirical Bayes latent scores for noncognitive skills are obtained using similar methodology as described at the beginning but using ordered logit specification for the outcomes (ratings). All latent variables are normalized to have mean 0 and variance 1.

The following table defines the cognitive and noncognitive outcomes studied in this section.

**Table 21:** Descriptions of Cognitive and Non-cognitive Outcomes

Variable	Description
Score on Raven's test	Percentage of correct answers on Raven's test
Score on Stroop test	Percentage of correct answers on the Stroop test
Combined score (Raven's & Stroop)	Average percentage of correct answers on Raven's and Stroop tests
Raven's-based Emp. Bayes score	Empirical Bayes latent score estimated using items from Raven's test (except for one that has a negative discrimination parameter). The underlying latent variable is normalized to have mean 0 and variance 1 and is allowed to be correlated with crystallized intelligence.
Stroop-based Emp. Bayes score	Empirical Bayes latent score estimated using items from the Stroop test. The underlying latent variable is normalized to have mean 0 and variance 1 and is allowed to be correlated with fluid intelligence.
Emp. Bayes score (Raven's & Stroop)	Empirical Bayes latent score estimated using general performance on Raven's and Stroop tests and also using test items with high difficulty and discrimination levels. The underlying latent variable is normalized to have mean 0 and variance 1.
Positive personality EB score, version 1	Empirical Bayes score estimated using reverse coded self-ratings of how "reserved," "critical," "disorganized," "anxious," and "conventional" the participants are.
Positive personality EB score, version 2	Empirical Bayes score estimated using sums of reverse coded external ratings (by a household member) and self-ratings of how "reserved," "critical," "disorganized," "anxious," and "conventional" the participants are.
Positive personality EB score, version 3	Empirical Bayes score estimated using an index of how good-tempered the participants are and also using the items utilized in estimating versions 1 and 2 of the positive personality latent score.
Grit Emp. Bayes score	Empirical Bayes score estimated using self-ratings of how persevering, committed, and goal-minded the participants are. The underlying latent variable is allowed to be correlated with risk-taking.
Risk-taking Emp. Bayes score	Empirical Bayes score estimated using self-ratings of willing the participants are to take risks in general and in driving, finances, recreation, work, health, and faith. The underlying latent variable is allowed to be correlated with grit.

**Table 22: Treatment Effects on the (Non)cognitive Outcomes of the Pooled Participants**

	Statistic	Score on Raven's test	Score on Stroop test	Combined score (Raven's & Stroop)	Raven's-based Emp. Bayes score	Stroop-based Emp. Bayes score	Emp. Bayes score (Raven's & Stroop)
Summary	(i) Observations	102	102	102	102	102	102
	(ii) Control	0.5044	0.8094	0.6569	-0.1129	-0.1214	-0.1936
	(iii) Treatment	0.5620	0.8359	0.6990	0.1085	0.1161	0.1869
Estimates	(iv) UDIM	0.0575	0.0266	0.0420	0.2214	0.2375	0.3805
	(v) COLS	0.0406	0.0490	0.0448	0.1411	0.3058	0.3550
	(vi) AIPW	0.0319	0.0445	0.0382	0.0754	0.2382	0.3056
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0571</b>	0.2545	<b>0.0731</b>	<b>0.0955</b>	0.1078	<b>0.0263</b>
	(02) $p_{A,A}^2$	0.1332	0.1572	<b>0.0758</b>	0.2007	<b>0.0838</b>	<b>0.0325</b>
	(03) $p_{A,A}^3$	0.1657	0.1514	<b>0.0878</b>	0.3076	0.1159	<b>0.0422</b>
	(04) $p_{A,B}^1$	<b>0.0451</b>	0.2372	<b>0.0613</b>	<b>0.0785</b>	<b>0.0875</b>	<b>0.0168</b>
	(05) $p_{A,B}^2$	0.1131	0.1390	<b>0.0621</b>	0.1824	<b>0.0663</b>	<b>0.0242</b>
	(06) $p_{A,B}^3$	0.1746	0.1721	0.1011	0.3128	0.1312	<b>0.0451</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0448</b>	0.2408	<b>0.0652</b>	<b>0.0816</b>	<b>0.0884</b>	<b>0.0192</b>
	(08) $p_{B,N}^2$	0.1112	0.1224	<b>0.0572</b>	0.1856	<b>0.0592</b>	<b>0.0248</b>
	(09) $p_{B,N}^3$	0.1756	0.1500	<b>0.0924</b>	0.3060	0.1052	<b>0.0364</b>
	(10) $p_{B,S}^1$	<b>0.0160</b>	0.1624	<b>0.0192</b>	<b>0.0300</b>	<b>0.0280</b>	<b>0.0040</b>
	(11) $p_{B,S}^2$	<b>0.0584</b>	<b>0.0448</b>	<b>0.0124</b>	0.1136	<b>0.0124</b>	<b>0.0056</b>
	(12) $p_{B,S}^3$	0.1024	<b>0.0876</b>	<b>0.0428</b>	0.2756	<b>0.0796</b>	<b>0.0168</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0580</b>	0.2260	<b>0.0596</b>	<b>0.0912</b>	<b>0.0976</b>	<b>0.0248</b>
	(14) $p_{P,N}^2$	0.1156	0.1000	<b>0.0536</b>	0.1896	<b>0.0568</b>	<b>0.0272</b>
	(15) $p_{P,N}^3$	0.1848	0.1424	<b>0.0940</b>	0.3292	0.1240	<b>0.0512</b>
	(16) $p_{P,S}^1$	<b>0.0600</b>	0.2252	<b>0.0616</b>	<b>0.0920</b>	<b>0.0976</b>	<b>0.0256</b>
	(17) $p_{P,S}^2$	0.1388	0.1344	<b>0.0700</b>	0.2060	<b>0.0828</b>	<b>0.0308</b>
	(18) $p_{P,S}^3$	0.1852	0.1600	<b>0.0968</b>	0.3236	0.1300	<b>0.0504</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0858</b>	0.2340	<b>0.0782</b>	0.1270	0.1024	<b>0.0434</b>
	(20) $p_{M,N}^2$	0.1768	0.1663	<b>0.0937</b>	0.2592	<b>0.0976</b>	<b>0.0562</b>
	(21) $p_{M,N}^3$	0.2357	0.2113	0.1433	0.3919	0.1717	<b>0.0888</b>
	(22) $p_{M,S}^1$	<b>0.0882</b>	0.2372	<b>0.0804</b>	0.1257	0.1032	<b>0.0439</b>
	(23) $p_{M,S}^2$	0.2020	0.2123	0.1159	0.2665	0.1182	<b>0.0568</b>
	(24) $p_{M,S}^3$	0.2338	0.2315	0.1461	0.3830	0.1815	<b>0.0859</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0902</b>	0.2356	<b>0.0813</b>	0.1322	0.1056	<b>0.0442</b>
	(26) $p_{R,N}^2$	0.1890	0.1684	0.1022	0.2637	0.1020	<b>0.0581</b>
	(27) $p_{R,N}^3$	0.2445	0.2162	0.1459	0.4000	0.1750	<b>0.0919</b>
	(28) $p_{R,S}^1$	<b>0.0890</b>	0.2410	<b>0.0818</b>	0.1338	0.1072	<b>0.0446</b>
	(29) $p_{R,S}^2$	0.2095	0.2217	0.1260	0.2679	0.1218	<b>0.0576</b>
	(30) $p_{R,S}^3$	0.2426	0.2339	0.1488	0.3880	0.1834	<b>0.0881</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1346	0.2671	0.1104	0.1881	0.1198	<b>0.0657</b>
	(32) $p_{D,N}^2$	0.3304	0.1800	0.1449	0.3572	0.1105	<b>0.0715</b>
	(33) $p_{D,N}^3$	0.4445	0.3024	0.1626	0.4182	0.2810	0.1291
	(34) $p_{D,S}^1$	0.1057	0.2794	0.1403	0.1764	0.1516	<b>0.0767</b>
	(35) $p_{D,S}^2$	0.2268	0.2535	0.2191	0.3414	0.1410	<b>0.0631</b>
	(36) $p_{D,S}^3$	0.3887	0.2571	0.1690	0.4290	0.2290	0.1078

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 22: Treatment Effects on the (Non)cognitive Outcomes of the Pooled Participants**

	Statistic	Positive personality EB score, version 1	Positive personality EB score, version 2	Positive personality EB score, version 3	Grit Emp. Bayes score	Risk-taking Emp. Bayes score
Summary	(i) Observations	101	85	102	102	102
	(ii) Control	-0.1581	-0.2114	-0.1803	-0.0930	-0.0819
	(iii) Treatment	0.1550	0.2165	0.1734	0.0867	0.0788
Estimates	(iv) UDIM	0.3131	0.4279	0.3537	0.1797	0.1606
	(v) COLS	0.3377	0.4082	0.3525	0.1547	0.1808
	(vi) AIPW	0.4074	0.5231	0.4220	0.1384	0.1459
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0182</b>	<b>0.0127</b>	<b>0.0243</b>	0.1560	0.1802
	(02) $p_{A,A}^2$	<b>0.0246</b>	<b>0.0301</b>	<b>0.0405</b>	0.2333	0.1475
	(03) $p_{A,A}^3$	<b>0.0057</b>	<b>0.0045</b>	<b>0.0118</b>	0.2477	0.1826
	(04) $p_{A,B}^1$	<b>0.0135</b>	<b>0.0051</b>	<b>0.0113</b>	0.1391	0.1712
	(05) $p_{A,B}^2$	<b>0.0192</b>	<b>0.0190</b>	<b>0.0250</b>	0.2159	0.1458
	(06) $p_{A,B}^3$	<b>0.0098</b>	<b>0.0070</b>	<b>0.0129</b>	0.2587	0.2161
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0144</b>	<b>0.0048</b>	<b>0.0116</b>	0.1464	0.1708
	(08) $p_{B,N}^2$	<b>0.0236</b>	<b>0.0252</b>	<b>0.0268</b>	0.2128	0.1524
	(09) $p_{B,N}^3$	<b>0.0240</b>	<b>0.0096</b>	<b>0.0220</b>	0.2704	0.2168
	(10) $p_{B,S}^1$	<b>0.0020</b>	<b>0.0008</b>	<b>0.0028</b>	<b>0.0820</b>	<b>0.0876</b>
	(11) $p_{B,S}^2$	<b>0.0072</b>	<b>0.0080</b>	<b>0.0128</b>	0.1596	<b>0.0796</b>
	(12) $p_{B,S}^3$	<b>0.0012</b>	<b>0.0028</b>	<b>0.0032</b>	0.1984	0.1428
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0160</b>	<b>0.0172</b>	<b>0.0296</b>	0.1588	0.1892
	(14) $p_{P,N}^2$	<b>0.0124</b>	<b>0.0244</b>	<b>0.0276</b>	0.2052	0.1544
	(15) $p_{P,N}^3$	<b>0.0052</b>	<b>0.0096</b>	<b>0.0180</b>	0.2368	0.2152
	(16) $p_{P,S}^1$	<b>0.0140</b>	<b>0.0176</b>	<b>0.0280</b>	0.1584	0.1912
	(17) $p_{P,S}^2$	<b>0.0200</b>	<b>0.0380</b>	<b>0.0400</b>	0.2324	0.1580
	(18) $p_{P,S}^3$	<b>0.0096</b>	<b>0.0152</b>	<b>0.0212</b>	0.2644	0.2156
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0797</b>	<b>0.0805</b>	0.1023	0.2410	0.1715
	(20) $p_{M,N}^2$	<b>0.0521</b>	<b>0.0678</b>	<b>0.0865</b>	0.2734	0.1223
	(21) $p_{M,N}^3$	<b>0.0351</b>	<b>0.0341</b>	<b>0.0617</b>	0.3179	0.1886
	(22) $p_{M,S}^1$	<b>0.0699</b>	<b>0.0735</b>	<b>0.0977</b>	0.2428	0.1726
	(23) $p_{M,S}^2$	<b>0.0790</b>	<b>0.0955</b>	0.1164	0.3143	0.1251
	(24) $p_{M,S}^3$	<b>0.0488</b>	<b>0.0444</b>	<b>0.0742</b>	0.3456	0.1852
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0815</b>	<b>0.0824</b>	0.1111	0.2433	0.1753
	(26) $p_{R,N}^2$	<b>0.0535</b>	<b>0.0684</b>	<b>0.0888</b>	0.2756	0.1251
	(27) $p_{R,N}^3$	<b>0.0378</b>	<b>0.0348</b>	<b>0.0625</b>	0.3205	0.2103
	(28) $p_{R,S}^1$	<b>0.0714</b>	<b>0.0749</b>	0.1082	0.2448	0.1731
	(29) $p_{R,S}^2$	<b>0.0798</b>	0.1007	0.1268	0.3208	0.1274
	(30) $p_{R,S}^3$	<b>0.0510</b>	<b>0.0453</b>	<b>0.0805</b>	0.3554	0.1904
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0917</b>	<b>0.0852</b>	0.2136	0.3111	0.2233
	(32) $p_{D,N}^2$	<b>0.0743</b>	<b>0.0767</b>	0.1569	0.3013	0.1619
	(33) $p_{D,N}^3$	<b>0.0567</b>	<b>0.0385</b>	<b>0.0950</b>	0.3607	0.3262
	(34) $p_{D,S}^1$	<b>0.0871</b>	<b>0.0822</b>	0.1477	0.3199	0.2233
	(35) $p_{D,S}^2$	<b>0.0854</b>	0.1483	0.1787	0.3612	0.1547
	(36) $p_{D,S}^3$	<b>0.0796</b>	<b>0.0545</b>	0.1508	0.3980	0.2387

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 23: Treatment Effects on the (Non)cognitive Outcomes of the Male Participants**

	Statistic	Score on Raven's test	Score on Stroop test	Combined score (Raven's & Stroop)	Raven's-based Emp. Bayes score	Stroop-based Emp. Bayes score	Emp. Bayes score (Raven's & Stroop)
Summary	(i) Observations	59	59	59	59	59	59
	(ii) Control	0.5000	0.8073	0.6536	-0.1558	-0.0940	-0.2385
	(iii) Treatment	0.5862	0.8330	0.7096	0.1611	0.0965	0.2448
Estimates	(iv) UDIM	0.0862	0.0257	0.0559	0.3169	0.1905	0.4834
	(v) COLS	0.0585	0.0667	0.0626	0.1943	0.3309	0.4665
	(vi) AIPW	0.0554	0.0604	0.0579	0.1551	0.2663	0.4532
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0316</b>	0.3154	<b>0.0882</b>	<b>0.0779</b>	0.2253	<b>0.0297</b>
	(02) $p_{A,A}^2$	0.1106	0.1665	<b>0.0918</b>	0.1975	0.1406	<b>0.0378</b>
	(03) $p_{A,A}^3$	<b>0.0912</b>	0.1510	<b>0.0783</b>	0.2110	0.1601	<b>0.0268</b>
	(04) $p_{A,B}^1$	<b>0.0295</b>	0.3020	<b>0.0804</b>	<b>0.0747</b>	0.2107	<b>0.0273</b>
	(05) $p_{A,B}^2$	0.1041	0.1502	<b>0.0814</b>	0.1951	0.1248	<b>0.0357</b>
	(06) $p_{A,B}^3$	0.1074	0.1710	<b>0.0938</b>	0.2379	0.1789	<b>0.0355</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0316</b>	0.3124	<b>0.0804</b>	<b>0.0780</b>	0.2184	<b>0.0244</b>
	(08) $p_{B,N}^2$	0.1048	0.1404	<b>0.0708</b>	0.1892	0.1140	<b>0.0280</b>
	(09) $p_{B,N}^3$	<b>0.0972</b>	0.1612	<b>0.0772</b>	0.2092	0.1648	<b>0.0256</b>
	(10) $p_{B,S}^1$	<b>0.0072</b>	0.2180	<b>0.0296</b>	<b>0.0284</b>	0.1276	<b>0.0092</b>
	(11) $p_{B,S}^2$	<b>0.0496</b>	<b>0.0460</b>	<b>0.0172</b>	0.1308	<b>0.0484</b>	<b>0.0060</b>
	(12) $p_{B,S}^3$	<b>0.0636</b>	<b>0.0720</b>	<b>0.0336</b>	0.1916	0.1120	<b>0.0092</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0376</b>	0.2800	<b>0.0744</b>	<b>0.0776</b>	0.2076	<b>0.0344</b>
	(14) $p_{P,N}^2$	<b>0.0968</b>	<b>0.0984</b>	<b>0.0656</b>	0.1696	<b>0.0928</b>	<b>0.0296</b>
	(15) $p_{P,N}^3$	0.1156	0.1200	<b>0.0780</b>	0.2404	0.1488	<b>0.0336</b>
	(16) $p_{P,S}^1$	<b>0.0384</b>	0.2768	<b>0.0756</b>	<b>0.0768</b>	0.2064	<b>0.0324</b>
	(17) $p_{P,S}^2$	0.1152	0.1472	<b>0.0812</b>	0.1964	0.1284	<b>0.0364</b>
	(18) $p_{P,S}^3$	0.1076	0.1428	<b>0.0828</b>	0.2312	0.1672	<b>0.0312</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0745</b>	0.2843	0.1194	0.1278	0.2124	<b>0.0536</b>
	(20) $p_{M,N}^2$	0.1511	0.1831	0.1391	0.2399	0.1831	<b>0.0755</b>
	(21) $p_{M,N}^3$	0.1771	0.2026	0.1525	0.2953	0.2413	<b>0.0782</b>
	(22) $p_{M,S}^1$	<b>0.0745</b>	0.2815	0.1257	0.1227	0.2168	<b>0.0513</b>
	(23) $p_{M,S}^2$	0.1627	0.2312	0.1565	0.2568	0.2018	<b>0.0666</b>
	(24) $p_{M,S}^3$	0.1610	0.2384	0.1584	0.2832	0.2445	<b>0.0708</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0820</b>	0.2970	0.1251	0.1300	0.2211	<b>0.0546</b>
	(26) $p_{R,N}^2$	0.1555	0.1851	0.1450	0.2482	0.1859	<b>0.0767</b>
	(27) $p_{R,N}^3$	0.1803	0.2054	0.1603	0.3003	0.2495	<b>0.0784</b>
	(28) $p_{R,S}^1$	<b>0.0820</b>	0.2948	0.1315	0.1263	0.2226	<b>0.0531</b>
	(29) $p_{R,S}^2$	0.1657	0.2361	0.1606	0.2629	0.2043	<b>0.0689</b>
	(30) $p_{R,S}^3$	0.1621	0.2417	0.1631	0.2895	0.2504	<b>0.0716</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1684	0.3355	0.1942	0.1651	0.2858	<b>0.0645</b>
	(32) $p_{D,N}^2$	0.1928	0.2559	0.1775	0.3288	0.1942	<b>0.0772</b>
	(33) $p_{D,N}^3$	0.2494	0.2797	0.1781	0.3680	0.2617	0.1131
	(34) $p_{D,S}^1$	0.1111	0.3189	0.1718	0.1441	0.2323	<b>0.0768</b>
	(35) $p_{D,S}^2$	0.1824	0.2619	0.1844	0.3260	0.2283	<b>0.0923</b>
	(36) $p_{D,S}^3$	0.2031	0.2613	0.1760	0.3777	0.2504	<b>0.0919</b>

Note: Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 23: Treatment Effects on the (Non)cognitive Outcomes of the Male Participants**

	Statistic	Positive personality EB score, version 1	Positive personality EB score, version 2	Positive personality EB score, version 3	Grit Emp. Bayes score	Risk-taking Emp. Bayes score
Summary	(i) Observations	58	47	59	59	59
	(ii) Control	-0.1347	-0.1490	-0.1331	-0.1247	-0.0444
	(iii) Treatment	0.1443	0.1694	0.1377	0.1246	0.0460
Estimates	(iv) UDIM	0.2791	0.3184	0.2708	0.2492	0.0904
	(v) COLS	0.4232	0.4332	0.3621	0.2455	0.2043
	(vi) AIPW	0.4627	0.5249	0.4118	0.2149	0.1783
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0721</b>	0.1018	0.1197	0.1515	0.3493
	(02) $p_{A,A}^2$	<b>0.0237</b>	<b>0.0618</b>	<b>0.0858</b>	0.1824	0.1738
	(03) $p_{A,A}^3$	<b>0.0070</b>	<b>0.0296</b>	<b>0.0372</b>	0.1893	0.1903
	(04) $p_{A,B}^1$	<b>0.0587</b>	<b>0.0932</b>	<b>0.0988</b>	0.1203	0.3450
	(05) $p_{A,B}^2$	<b>0.0161</b>	<b>0.0564</b>	<b>0.0689</b>	0.1540	0.1832
	(06) $p_{A,B}^3$	<b>0.0096</b>	<b>0.0357</b>	<b>0.0384</b>	0.1824	0.2217
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0576</b>	<b>0.0952</b>	0.1012	0.1148	0.3428
	(08) $p_{B,N}^2$	<b>0.0248</b>	<b>0.0704</b>	<b>0.0772</b>	0.1444	0.1780
	(09) $p_{B,N}^3$	<b>0.0232</b>	<b>0.0472</b>	<b>0.0516</b>	0.1836	0.2208
	(10) $p_{B,S}^1$	<b>0.0264</b>	<b>0.0524</b>	<b>0.0536</b>	<b>0.0732</b>	0.3020
	(11) $p_{B,S}^2$	<b>0.0144</b>	<b>0.0344</b>	<b>0.0448</b>	0.1236	0.1212
	(12) $p_{B,S}^3$	<b>0.0084</b>	<b>0.0172</b>	<b>0.0224</b>	0.1456	0.1668
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0760</b>	0.1144	0.1368	0.1472	0.3884
	(14) $p_{P,N}^2$	<b>0.0128</b>	<b>0.0580</b>	<b>0.0604</b>	0.1712	0.2092
	(15) $p_{P,N}^3$	<b>0.0104</b>	<b>0.0328</b>	<b>0.0432</b>	0.2116	0.2376
	(16) $p_{P,S}^1$	<b>0.0748</b>	0.1208	0.1352	0.1468	0.3872
	(17) $p_{P,S}^2$	<b>0.0236</b>	<b>0.0784</b>	<b>0.0924</b>	0.1852	0.1972
	(18) $p_{P,S}^3$	<b>0.0120</b>	<b>0.0528</b>	<b>0.0524</b>	0.2092	0.2228
Worst-case max. $p$	(19) $p_{M,N}^1$	0.1356	0.1426	0.1809	0.2814	0.3089
	(20) $p_{M,N}^2$	<b>0.0405</b>	<b>0.0741</b>	<b>0.0910</b>	0.3057	0.1745
	(21) $p_{M,N}^3$	<b>0.0379</b>	<b>0.0614</b>	<b>0.0744</b>	0.3312	0.2134
	(22) $p_{M,S}^1$	0.1278	0.1399	0.1772	0.2803	0.3089
	(23) $p_{M,S}^2$	<b>0.0584</b>	<b>0.0923</b>	0.1216	0.3148	0.1730
	(24) $p_{M,S}^3$	<b>0.0389</b>	<b>0.0854</b>	<b>0.0826</b>	0.3337	0.2042
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.1410	0.1430	0.1826	0.2823	0.3111
	(26) $p_{R,N}^2$	<b>0.0412</b>	<b>0.0792</b>	<b>0.0934</b>	0.3095	0.1844
	(27) $p_{R,N}^3$	<b>0.0402</b>	<b>0.0682</b>	<b>0.0766</b>	0.3368	0.2237
	(28) $p_{R,S}^1$	0.1309	0.1448	0.1800	0.2812	0.3112
	(29) $p_{R,S}^2$	<b>0.0589</b>	<b>0.0990</b>	0.1225	0.3171	0.1802
	(30) $p_{R,S}^3$	<b>0.0398</b>	<b>0.0887</b>	<b>0.0854</b>	0.3393	0.2134
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1924	0.1683	0.1908	0.2840	0.3345
	(32) $p_{D,N}^2$	<b>0.0484</b>	<b>0.0987</b>	0.1315	0.3137	0.2454
	(33) $p_{D,N}^3$	<b>0.0444</b>	0.1248	0.1378	0.4160	0.3547
	(34) $p_{D,S}^1$	0.1322	0.1714	0.2299	0.2917	0.4060
	(35) $p_{D,S}^2$	<b>0.0756</b>	0.1303	0.1475	0.3438	0.1995
	(36) $p_{D,S}^3$	<b>0.0419</b>	0.1418	0.1082	0.3750	0.2619

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 24:** Treatment Effects on the (Non)cognitive Outcomes of the Female Participants

	Statistic	Score on Raven's test	Score on Stroop test	Combined score (Raven's & Stroop)	Raven's-based Emp. Bayes score	Stroop-based Emp. Bayes score	Emp. Bayes score (Raven's & Stroop)
Summary	(i) Observations	43	43	43	43	43	43
	(ii) Control	0.5111	0.8125	0.6618	-0.0486	-0.1625	-0.1261
	(iii) Treatment	0.5314	0.8397	0.6855	0.0421	0.1409	0.1139
Estimates	(iv) UDIM	0.0203	0.0272	0.0237	0.0907	0.3034	0.2400
	(v) COLS	0.0116	0.0239	0.0178	0.0531	0.2548	0.1805
	(vi) AIPW	-0.0013	0.0221	0.0104	-0.0372	0.1986	0.0973
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.3555	0.3289	0.2636	0.3485	0.1417	0.1929
	(02) $p_{A,A}^2$	0.4170	0.3714	0.3191	0.4085	0.2118	0.2478
	(03) $p_{A,A}^3$	0.4898	0.3619	0.3776	0.4283	0.2349	0.3410
	(04) $p_{A,B}^1$	0.3463	0.3167	0.2509	0.3410	0.1209	0.1727
	(05) $p_{A,B}^2$	0.4097	0.3674	0.3148	0.4032	0.2020	0.2365
	(06) $p_{A,B}^3$	0.4904	0.3779	0.3903	0.4303	0.2619	0.3506
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.3596	0.3260	0.2636	0.3512	0.1152	0.1756
	(08) $p_{B,N}^2$	0.4064	0.3732	0.3188	0.4104	0.1924	0.2272
	(09) $p_{B,N}^3$	0.4488	0.3524	0.4044	0.3952	0.2192	0.3528
	(10) $p_{B,S}^1$	0.3012	0.2832	0.1764	0.2872	<b>0.0632</b>	0.1060
	(11) $p_{B,S}^2$	0.3856	0.3340	0.2588	0.3748	0.1228	0.1628
	(12) $p_{B,S}^3$	0.4768	0.3520	0.3376	0.4408	0.2084	0.2968
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3544	0.3216	0.2500	0.3412	0.1356	0.1796
	(14) $p_{P,N}^2$	0.4232	0.3520	0.3188	0.4280	0.1900	0.2416
	(15) $p_{P,N}^3$	0.4880	0.3788	0.3908	0.4072	0.2520	0.3516
	(16) $p_{P,S}^1$	0.3448	0.3236	0.2492	0.3384	0.1428	0.1760
	(17) $p_{P,S}^2$	0.4252	0.3708	0.3256	0.4272	0.2140	0.2388
	(18) $p_{P,S}^3$	0.4880	0.3780	0.3916	0.4040	0.2612	0.3492
Worst-case max. $p$	(19) $p_{M,N}^1$	0.3838	0.3877	0.3032	0.3748	0.1745	0.2134
	(20) $p_{M,N}^2$	0.4641	0.4361	0.3889	0.4682	0.2628	0.2922
	(21) $p_{M,N}^3$	0.6772	0.4467	0.4560	0.6405	0.3325	0.4202
	(22) $p_{M,S}^1$	0.3734	0.3922	0.3040	0.3748	0.1833	0.2117
	(23) $p_{M,S}^2$	0.4665	0.4537	0.3969	0.4688	0.2837	0.2940
	(24) $p_{M,S}^3$	0.6772	0.4541	0.4572	0.6396	0.3318	0.4163
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.3859	0.3893	0.3146	0.3878	0.1752	0.2144
	(26) $p_{R,N}^2$	0.4724	0.4504	0.3898	0.4694	0.2675	0.2968
	(27) $p_{R,N}^3$	0.6852	0.4493	0.4655	0.6423	0.3360	0.4220
	(28) $p_{R,S}^1$	0.3748	0.3945	0.3120	0.3827	0.1860	0.2138
	(29) $p_{R,S}^2$	0.4725	0.4622	0.3978	0.4732	0.2859	0.2944
	(30) $p_{R,S}^3$	0.6852	0.4562	0.4659	0.6413	0.3356	0.4184
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.4096	0.4865	0.3597	0.5441	0.2432	0.2238
	(32) $p_{D,N}^2$	0.4961	0.5249	0.4228	0.4838	0.3611	0.3392
	(33) $p_{D,N}^3$	0.8347	0.4843	0.5347	0.6624	0.3694	0.4457
	(34) $p_{D,S}^1$	0.4176	0.4317	0.3403	0.5032	0.1922	0.2750
	(35) $p_{D,S}^2$	0.4975	0.5475	0.5295	0.5307	0.3197	0.3493
	(36) $p_{D,S}^3$	0.7191	0.6358	0.5501	0.7589	0.3608	0.4596

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized test statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 24:** Treatment Effects on the (Non)cognitive Outcomes of the **Female** Participants

	Statistic	Positive personality EB score, version 1	Positive personality EB score, version 2	Positive personality EB score, version 3	Grit Emp. Bayes score	Risk-taking Emp. Bayes score
Summary	(i) Observations	43	38	43	43	43
	(ii) Control	-0.1931	-0.2981	-0.2511	-0.0454	-0.1381
	(iii) Treatment	0.1679	0.2683	0.2184	0.0390	0.1201
Estimates	(iv) UDIM	0.3611	0.5664	0.4695	0.0844	0.2581
	(v) COLS	0.2169	0.3957	0.3376	0.0433	0.1412
	(vi) AIPW	0.3295	0.5206	0.4363	0.0303	0.1001
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0731</b>	<b>0.0181</b>	<b>0.0389</b>	0.3874	0.1719
	(02) $p_{A,A}^2$	0.2250	<b>0.0920</b>	0.1268	0.4542	0.3116
	(03) $p_{A,A}^3$	0.1251	<b>0.0217</b>	<b>0.0664</b>	0.4663	0.3545
	(04) $p_{A,B}^1$	<b>0.0630</b>	<b>0.0091</b>	<b>0.0246</b>	0.3791	0.1578
	(05) $p_{A,B}^2$	0.2243	<b>0.0830</b>	0.1178	0.4506	0.3049
	(06) $p_{A,B}^3$	0.1485	<b>0.0455</b>	<b>0.0858</b>	0.4694	0.3686
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0576</b>	<b>0.0108</b>	<b>0.0208</b>	0.3932	0.1576
	(08) $p_{B,N}^2$	0.2360	<b>0.0864</b>	0.1224	0.4596	0.3092
	(09) $p_{B,N}^3$	0.1600	<b>0.0592</b>	<b>0.0960</b>	0.4800	0.3680
	(10) $p_{B,S}^1$	<b>0.0376</b>	<b>0.0020</b>	<b>0.0088</b>	0.3284	<b>0.0988</b>
	(11) $p_{B,S}^2$	0.2068	<b>0.0504</b>	<b>0.0976</b>	0.4252	0.2652
	(12) $p_{B,S}^3$	0.1188	<b>0.0224</b>	<b>0.0480</b>	0.4472	0.3284
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0740</b>	<b>0.0252</b>	<b>0.0404</b>	0.3980	0.1820
	(14) $p_{P,N}^2$	0.1860	<b>0.0696</b>	<b>0.0984</b>	0.4636	0.3172
	(15) $p_{P,N}^3$	0.1036	<b>0.0368</b>	<b>0.0548</b>	0.4768	0.3672
	(16) $p_{P,S}^1$	<b>0.0640</b>	<b>0.0224</b>	<b>0.0348</b>	0.3996	0.1928
	(17) $p_{P,S}^2$	0.2032	<b>0.0808</b>	0.1120	0.4728	0.3284
	(18) $p_{P,S}^3$	0.1356	<b>0.0408</b>	<b>0.0800</b>	0.4848	0.3780
Worst-case max. $p$	(19) $p_{M,N}^1$	0.2242	0.1586	0.2204	0.4632	0.2579
	(20) $p_{M,N}^2$	0.3687	0.2439	0.2900	0.5111	0.3438
	(21) $p_{M,N}^3$	0.2396	0.1677	0.2189	0.5329	0.4009
	(22) $p_{M,S}^1$	0.2125	0.1494	0.1931	0.4640	0.2632
	(23) $p_{M,S}^2$	0.3936	0.2556	0.3124	0.5243	0.3507
	(24) $p_{M,S}^3$	0.2992	0.1740	0.2773	0.5513	0.4016
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.2254	0.1592	0.2228	0.4632	0.2603
	(26) $p_{R,N}^2$	0.3779	0.2488	0.2922	0.5169	0.3500
	(27) $p_{R,N}^3$	0.2423	0.1721	0.2206	0.5360	0.4088
	(28) $p_{R,S}^1$	0.2130	0.1508	0.1934	0.4644	0.2646
	(29) $p_{R,S}^2$	0.4008	0.2567	0.3169	0.5298	0.3569
	(30) $p_{R,S}^3$	0.3030	0.1762	0.2876	0.5601	0.4064
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.2458	0.1685	0.2324	0.4823	0.2654
	(32) $p_{D,N}^2$	0.4026	0.2813	0.2936	0.5421	0.4247
	(33) $p_{D,N}^3$	0.2684	0.2135	0.2326	0.6956	0.4732
	(34) $p_{D,S}^1$	0.2147	0.1650	0.1953	0.4682	0.2959
	(35) $p_{D,S}^2$	0.4644	0.2589	0.3704	0.5786	0.4907
	(36) $p_{D,S}^3$	0.3487	0.2033	0.3495	0.5875	0.4401

*Note:* Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

## **9 Hypothesis Tests for Treatment Effects on Childhood Experiences**

**Table 25: Treatment Effects on the Childhood Experiences of the Pooled Participants**

	Statistic	Physically abused	Verbally abused	Felt neglected	Abducted by parent	Neglected/abducted	Attached to mother	Attached to father	Attached to parents
Summary	(i) Observations	102	102	102	102	102	101	100	99
	(ii) Control	0.3000	0.3000	0.1800	0.1000	0.2000	0.8776	0.6400	0.5714
	(iii) Treatment	0.3269	0.1538	0.0192	0.0192	0.0192	0.9615	0.6400	0.6400
Estimates	(iv) UDIM	0.0269	-0.1462	-0.1608	-0.0808	-0.1808	0.0840	0.0000	0.0686
	(v) COLS	0.0195	-0.1667	-0.1867	-0.0967	-0.1954	0.0947	0.0564	0.1269
	(vi) AIPW	0.0025	-0.1810	-0.1849	-0.1015	-0.1973	0.0984	0.0774	0.1515
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.3949	<b>0.0415</b>	<b>0.0020</b>	<b>0.0393</b>	<b>0.0009</b>	<b>0.0580</b>	0.5000	0.2518
	(02) $p_{A,A}^2$	0.4291	<b>0.0359</b>	<b>0.0020</b>	<b>0.0238</b>	<b>0.0013</b>	<b>0.0432</b>	0.2881	0.1052
	(03) $p_{A,A}^3$	0.4905	<b>0.0195</b>	<b>0.0012</b>	<b>0.0104</b>	<b>0.0006</b>	<b>0.0231</b>	0.2106	<b>0.0574</b>
	(04) $p_{A,B}^1$	0.3851	<b>0.0354</b>	<b>0.0023</b>	<b>0.0352</b>	<b>0.0011</b>	<b>0.0574</b>	0.5000	0.2365
	(05) $p_{A,B}^2$	0.4214	<b>0.0282</b>	<b>0.0021</b>	<b>0.0227</b>	<b>0.0014</b>	<b>0.0447</b>	0.2795	0.1012
	(06) $p_{A,B}^3$	0.4908	<b>0.0282</b>	<b>0.0041</b>	<b>0.0217</b>	<b>0.0026</b>	<b>0.0369</b>	0.2264	<b>0.0764</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.3640	<b>0.0316</b>	<b>0.0008</b>	<b>0.0316</b>	<b>0.0004</b>	<b>0.0540</b>	0.4956	0.2412
	(08) $p_{B,N}^2$	0.3952	<b>0.0248</b>	<b>0.0008</b>	<b>0.0148</b>	<b>0.0004</b>	<b>0.0336</b>	0.2896	0.1084
	(09) $p_{B,N}^3$	0.4484	<b>0.0220</b>	<b>0.0012</b>	<b>0.0160</b>	<b>0.0008</b>	<b>0.0304</b>	0.2532	<b>0.0848</b>
	(10) $p_{B,S}^1$	0.3676	<b>0.0092</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0040</b>	0.4936	0.1732
	(11) $p_{B,S}^2$	0.4276	<b>0.0076</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0012</b>	0.2096	<b>0.0556</b>
	(12) $p_{B,S}^3$	0.4692	<b>0.0120</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0040</b>	0.1584	<b>0.0356</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3852	<b>0.0536</b>	<b>0.0036</b>	<b>0.0292</b>	<b>0.0016</b>	<b>0.0392</b>	0.4852	0.2380
	(14) $p_{P,N}^2$	0.4132	<b>0.0380</b>	<b>0.0020</b>	<b>0.0224</b>	<b>0.0012</b>	<b>0.0328</b>	0.2736	<b>0.0932</b>
	(15) $p_{P,N}^3$	0.4844	<b>0.0336</b>	<b>0.0020</b>	<b>0.0228</b>	<b>0.0016</b>	<b>0.0256</b>	0.2196	<b>0.0616</b>
	(16) $p_{P,S}^1$	0.3836	<b>0.0492</b>	<b>0.0028</b>	<b>0.0244</b>	<b>0.0008</b>	<b>0.0356</b>	0.4852	0.2284
	(17) $p_{P,S}^2$	0.4172	<b>0.0444</b>	<b>0.0040</b>	<b>0.0216</b>	<b>0.0028</b>	<b>0.0396</b>	0.2732	<b>0.0916</b>
	(18) $p_{P,S}^3$	0.4848	<b>0.0368</b>	<b>0.0068</b>	<b>0.0216</b>	<b>0.0036</b>	<b>0.0396</b>	0.2236	<b>0.0676</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	0.5333	<b>0.0597</b>	<b>0.0100</b>	<b>0.0522</b>	<b>0.0086</b>	0.1962	0.5220	0.3267
	(20) $p_{M,N}^2$	0.5264	<b>0.0597</b>	<b>0.0089</b>	<b>0.0441</b>	<b>0.0089</b>	0.1180	0.3060	0.1604
	(21) $p_{M,N}^3$	0.6128	<b>0.0670</b>	<b>0.0134</b>	<b>0.0486</b>	<b>0.0091</b>	0.1133	0.2965	0.1318
	(22) $p_{M,S}^1$	0.5292	<b>0.0597</b>	<b>0.0087</b>	<b>0.0522</b>	<b>0.0080</b>	0.1968	0.5220	0.3224
Worst-case adjusted $p$	(23) $p_{M,S}^2$	0.5275	<b>0.0702</b>	<b>0.0116</b>	<b>0.0509</b>	<b>0.0116</b>	0.1552	0.3060	0.1481
	(24) $p_{M,S}^3$	0.6128	<b>0.0776</b>	<b>0.0155</b>	<b>0.0469</b>	<b>0.0152</b>	0.1768	0.2962	0.1367
	(25) $p_{R,N}^1$	0.5439	<b>0.0613</b>	<b>0.0103</b>	<b>0.0571</b>	<b>0.0088</b>	0.1992	0.5274	0.3368
	(26) $p_{R,N}^2$	0.5365	<b>0.0598</b>	<b>0.0089</b>	<b>0.0447</b>	<b>0.0089</b>	0.1187	0.3076	0.1608
Worst-case de Haan $p$	(27) $p_{R,N}^3$	0.6226	<b>0.0682</b>	<b>0.0140</b>	<b>0.0512</b>	<b>0.0098</b>	0.1161	0.2972	0.1339
	(28) $p_{R,S}^1$	0.5379	<b>0.0613</b>	<b>0.0090</b>	<b>0.0571</b>	<b>0.0082</b>	0.2027	0.5274	0.3315
	(29) $p_{R,S}^2$	0.5368	<b>0.0713</b>	<b>0.0119</b>	<b>0.0520</b>	<b>0.0119</b>	0.1592	0.3067	0.1483
	(30) $p_{R,S}^3$	0.6226	<b>0.0785</b>	<b>0.0156</b>	<b>0.0496</b>	<b>0.0156</b>	0.1803	0.2970	0.1420
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.6001	<b>0.0638</b>	<b>0.0154</b>	<b>0.0909</b>	<b>0.0154</b>	0.1993	0.6130	0.3579
	(32) $p_{D,N}^2$	0.5642	<b>0.0632</b>	<b>0.0141</b>	<b>0.0538</b>	<b>0.0115</b>	0.1233	0.3470	0.1784
	(33) $p_{D,N}^3$	0.6401	<b>0.0725</b>	<b>0.0201</b>	0.1066	<b>0.0151</b>	0.1195	0.3199	0.1901
	(34) $p_{D,S}^1$	0.6157	<b>0.0654</b>	<b>0.0112</b>	<b>0.0920</b>	<b>0.0112</b>	0.2290	0.6130	0.3874
	(35) $p_{D,S}^2$	0.6507	<b>0.0809</b>	<b>0.0155</b>	<b>0.0646</b>	<b>0.0155</b>	0.1654	0.3604	0.1592
	(36) $p_{D,S}^3$	0.6401	0.1079	<b>0.0220</b>	<b>0.0714</b>	<b>0.0173</b>	0.2117	0.3278	0.1805

Note: Physically abused refers to a binary indicator of whether the participant was physically hurt by an adult before age 18 (excluding spanking). Verbally abused refers to a binary indicator of whether the participant was verbally abused by an adult before age 18. Felt neglected refers to an indicator of whether the participant felt neglected before age 18. Abducted by parent indicates whether the participant was abducted or hid by a parent to keep away from another parent before age 18. Neglected/abducted indicates whether at least one of the two previous variables equals one. Attached to mother and attached to father indicate whether the participant felt close to the biological mother and father through age 15, respectively. Attached to parents indicates whether the participant felt attached to both biological parents through age 15. All of these self-reports by the participants were collected at the last follow-up at around age 55. Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 26: Treatment Effects on the Childhood Experiences of the Male Participants**

	Statistic	Physically abused	Verbally abused	Felt neglected	Abducted by parent	Neglected/abducted	Attached to mother	Attached to father	Attached to parents
Summary	(i) Observations	59	59	59	59	59	58	58	57
	(ii) Control	0.3667	0.3333	0.2333	0.1000	0.2333	0.8966	0.7333	0.6552
	(iii) Treatment	0.3793	0.1379	0.0000	0.0000	0.0000	1.0000	0.5357	0.5357
Estimates	(iv) UDIM	0.0126	-0.1954	-0.2333	-0.1000	-0.2333	0.1034	-0.1976	-0.1195
	(v) COLS	0.0690	-0.2158	-0.2464	-0.1261	-0.2464	0.1561	-0.1311	-0.0183
	(vi) AIPW	0.0443	-0.2194	-0.2298	-0.1154	-0.2298	0.1475	-0.1047	0.0035
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.4633	<b>0.0449</b>	<b>0.0013</b>	<b>0.0328</b>	<b>0.0013</b>	<b>0.0325</b>	<b>0.0604</b>	0.1809
	(02) $p_{A,A}^2$	0.3263	<b>0.0467</b>	<b>0.0044</b>	<b>0.0415</b>	<b>0.0044</b>	<b>0.0341</b>	<b>0.0341</b>	0.1726
	(03) $p_{A,A}^3$	0.3811	<b>0.0290</b>	<b>0.0017</b>	<b>0.0238</b>	<b>0.0017</b>	<b>0.0174</b>	0.2060	0.4892
	(04) $p_{A,B}^1$	0.4593	<b>0.0313</b>	<b>0.0012</b>	<b>0.0252</b>	<b>0.0012</b>	<b>0.0316</b>	<b>0.0554</b>	0.1805
	(05) $p_{A,B}^2$	0.3085	<b>0.0333</b>	<b>0.0026</b>	<b>0.0308</b>	<b>0.0026</b>	<b>0.0304</b>	0.1648	0.4483
	(06) $p_{A,B}^3$	0.3809	<b>0.0312</b>	<b>0.0035</b>	<b>0.0301</b>	<b>0.0035</b>	<b>0.0301</b>	0.2228	0.4902
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.4380	<b>0.0300</b>	<b>0.0008</b>	<b>0.0352</b>	<b>0.0008</b>	<b>0.0468</b>	<b>0.0564</b>	0.1716
	(08) $p_{B,N}^2$	0.2864	<b>0.0324</b>	<b>0.0008</b>	<b>0.0352</b>	<b>0.0008</b>	<b>0.0468</b>	0.1528	0.4420
	(09) $p_{B,N}^3$	0.3404	<b>0.0296</b>	<b>0.0016</b>	<b>0.0356</b>	<b>0.0016</b>	<b>0.0468</b>	0.2032	0.4836
	(10) $p_{B,S}^1$	0.4628	<b>0.0088</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0468</b>	<b>0.0292</b>	0.1220
	(11) $p_{B,S}^2$	0.2928	<b>0.0128</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0468</b>	0.1188	0.4380
	(12) $p_{B,S}^3$	0.4120	<b>0.0136</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0488</b>	0.2016	0.4656
Permutation $p$ -values	(13) $p_{P,N}^1$	0.4876	<b>0.0516</b>	<b>0.0024</b>	<b>0.0400</b>	<b>0.0024</b>	<b>0.0308</b>	<b>0.0656</b>	0.1984
	(14) $p_{P,N}^2$	0.3324	<b>0.0348</b>	<b>0.0020</b>	<b>0.0080</b>	<b>0.0020</b>	<b>0.0004</b>	0.1464	0.4460
	(15) $p_{P,N}^3$	0.3924	<b>0.0328</b>	<b>0.0072</b>	<b>0.0288</b>	<b>0.0072</b>	<b>0.0008</b>	0.2016	0.4740
	(16) $p_{P,S}^1$	0.4852	<b>0.0536</b>	<b>0.0024</b>	<b>0.0336</b>	<b>0.0024</b>	<b>0.0276</b>	<b>0.0720</b>	0.1980
	(17) $p_{P,S}^2$	0.3448	<b>0.0464</b>	<b>0.0112</b>	0.1004	<b>0.0112</b>	<b>0.0176</b>	0.1672	0.4492
	(18) $p_{P,S}^3$	0.4000	<b>0.0424</b>	<b>0.0124</b>	<b>0.0288</b>	<b>0.0124</b>	<b>0.0184</b>	0.2104	0.4744
Worst-case max. $p$	(19) $p_{M,N}^1$	0.5836	<b>0.0525</b>	<b>0.0088</b>	<b>0.0500</b>	<b>0.0088</b>	<b>0.0354</b>	0.1940	0.4428
	(20) $p_{M,N}^2$	0.4440	<b>0.0567</b>	<b>0.0092</b>	<b>0.0378</b>	<b>0.0092</b>	<b>0.0172</b>	0.2877	0.6222
	(21) $p_{M,N}^3$	0.5096	<b>0.0588</b>	<b>0.0224</b>	<b>0.0634</b>	<b>0.0224</b>	<b>0.0134</b>	0.3586	0.5014
	(22) $p_{M,S}^1$	0.5800	<b>0.0592</b>	<b>0.0117</b>	<b>0.0521</b>	<b>0.0117</b>	<b>0.0412</b>	0.1983	0.4428
	(23) $p_{M,S}^2$	0.4548	<b>0.0726</b>	<b>0.0337</b>	0.1139	<b>0.0337</b>	<b>0.0323</b>	0.2988	0.6238
	(24) $p_{M,S}^3$	0.5182	<b>0.0683</b>	<b>0.0370</b>	<b>0.0841</b>	<b>0.0370</b>	<b>0.0690</b>	0.3629	0.5042
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.5838	<b>0.0557</b>	<b>0.0088</b>	<b>0.0507</b>	<b>0.0088</b>	<b>0.0368</b>	0.2031	0.4432
	(26) $p_{R,N}^2$	0.4467	<b>0.0598</b>	<b>0.0098</b>	<b>0.0381</b>	<b>0.0098</b>	<b>0.0172</b>	0.2877	0.6242
	(27) $p_{R,N}^3$	0.5123	<b>0.0615</b>	<b>0.0227</b>	<b>0.0655</b>	<b>0.0227</b>	<b>0.0140</b>	0.3595	0.5092
	(28) $p_{R,S}^1$	0.5824	<b>0.0641</b>	<b>0.0119</b>	<b>0.0523</b>	<b>0.0119</b>	<b>0.0415</b>	0.2031	0.4432
	(29) $p_{R,S}^2$	0.4598	<b>0.0754</b>	<b>0.0341</b>	0.1162	<b>0.0341</b>	<b>0.0379</b>	0.3012	0.6290
	(30) $p_{R,S}^3$	0.5213	<b>0.0731</b>	<b>0.0374</b>	<b>0.0869</b>	<b>0.0374</b>	<b>0.0711</b>	0.3637	0.5123
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.5942	<b>0.0752</b>	<b>0.0139</b>	<b>0.0672</b>	<b>0.0139</b>	<b>0.0597</b>	0.2620	0.4814
	(32) $p_{D,N}^2$	0.4663	<b>0.0775</b>	<b>0.0162</b>	<b>0.0812</b>	<b>0.0162</b>	<b>0.0172</b>	0.3045	0.6753
	(33) $p_{D,N}^3$	0.5228	<b>0.0815</b>	<b>0.0257</b>	0.1153	<b>0.0257</b>	<b>0.0186</b>	0.3658	0.5445
	(34) $p_{D,S}^1$	0.5984	<b>0.0937</b>	<b>0.0158</b>	<b>0.0640</b>	<b>0.0158</b>	<b>0.0732</b>	0.2597	0.4779
	(35) $p_{D,S}^2$	0.4993	0.1083	<b>0.0414</b>	0.1977	<b>0.0414</b>	<b>0.0778</b>	0.3241	0.7215
	(36) $p_{D,S}^3$	0.5557	0.1071	<b>0.0393</b>	0.1379	<b>0.0393</b>	<b>0.0819</b>	0.4206	0.5578

*Note: Physically abused* refers to a binary indicator of whether the participant was physically hurt by an adult before age 18 (excluding spanking). *Verbally abused* refers to a binary indicator of whether the participant was verbally abused by an adult before age 18. *Felt neglected* refers to an indicator of whether the participant felt neglected before age 18. *Abducted by parent* indicates whether the participant was abducted or hid by a parent to keep away from another parent before age 18. *Neglected/abducted* indicates whether at least one of the two previous variables equals one. *Attached to mother* and *attached to father* indicate whether the participant felt close to the biological mother and father through age 15, respectively. *Attached to parents* indicates whether the participant felt attached to both biological parents through age 15. All of these self-reports by the participants were collected at the last follow-up at around age 55. Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.



**Table 27: Treatment Effects on the Childhood Experiences of the Female Participants**

	Statistic	Physically abused	Verbally abused	Felt neglected	Abducted by parent	Neglected/abducted	Attached to mother	Attached to father	Attached to parents
Summary	(i) Observations	43	43	43	43	43	43	42	42
	(ii) Control	0.2000	0.2500	0.1000	0.1000	0.1500	0.8500	0.5000	0.4500
	(iii) Treatment	0.2609	0.1739	0.0435	0.0435	0.0435	0.9130	0.7727	0.7727
Estimates	(iv) UDIM	0.0609	-0.0761	-0.0565	-0.0565	-0.1065	0.0630	0.2727	0.3227
	(v) COLS	-0.0416	-0.1164	-0.1173	-0.0690	-0.1403	0.0275	0.3211	0.3449
	(vi) AIPW	-0.0566	-0.1268	-0.1214	-0.0819	-0.1515	0.0291	0.3345	0.3603
Asymptotic $p$ -values	(01) $p_{A,A}^1$	0.3271	0.2746	0.2460	0.2460	0.1290	0.2629	<b>0.0419</b>	<b>0.0202</b>
	(02) $p_{A,A}^2$	0.3874	0.2006	0.1213	0.1760	<b>0.0848</b>	0.3431	<b>0.0150</b>	<b>0.0115</b>
	(03) $p_{A,A}^3$	0.3364	0.1736	0.1120	0.1234	<b>0.0678</b>	0.3302	<b>0.0081</b>	<b>0.0047</b>
	(04) $p_{A,B}^1$	0.3203	0.2764	0.2404	0.2434	0.1248	0.2642	<b>0.0294</b>	<b>0.0127</b>
	(05) $p_{A,B}^2$	0.3833	0.1966	0.1107	0.1779	<b>0.0786</b>	0.3624	<b>0.0129</b>	<b>0.0106</b>
	(06) $p_{A,B}^3$	0.3520	0.2066	0.1455	0.1686	<b>0.0983</b>	0.3495	<b>0.0145</b>	<b>0.0104</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	0.3236	0.2804	0.2464	0.2584	0.1128	0.2484	<b>0.0308</b>	<b>0.0152</b>
	(08) $p_{B,N}^2$	0.3944	0.2104	0.1208	0.2052	<b>0.0656</b>	0.3384	<b>0.0216</b>	<b>0.0196</b>
	(09) $p_{B,N}^3$	0.3380	0.1976	0.1292	0.1972	<b>0.0744</b>	0.3384	<b>0.0208</b>	<b>0.0168</b>
	(10) $p_{B,S}^1$	0.2756	0.2136	0.1572	0.1660	<b>0.0328</b>	0.2240	<b>0.0184</b>	<b>0.0136</b>
	(11) $p_{B,S}^2$	0.3468	0.1128	<b>0.0252</b>	<b>0.0800</b>	<b>0.0132</b>	0.3268	<b>0.0092</b>	<b>0.0080</b>
	(12) $p_{B,S}^3$	0.3096	0.1344	<b>0.0824</b>	<b>0.0784</b>	<b>0.0420</b>	0.3120	<b>0.0128</b>	<b>0.0104</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	0.3088	0.2956	0.2468	0.2244	0.1240	0.2204	<b>0.0460</b>	<b>0.0228</b>
	(14) $p_{P,N}^2$	0.4152	0.2188	0.1092	0.2132	<b>0.0836</b>	0.3276	<b>0.0196</b>	<b>0.0104</b>
	(15) $p_{P,N}^3$	0.3840	0.2020	<b>0.0992</b>	0.1900	<b>0.0688</b>	0.3164	<b>0.0124</b>	<b>0.0064</b>
	(16) $p_{P,S}^1$	0.3064	0.2784	0.2368	0.2192	0.1208	0.2072	<b>0.0460</b>	<b>0.0208</b>
	(17) $p_{P,S}^2$	0.4184	0.2228	0.1664	0.1920	<b>0.0888</b>	0.2868	<b>0.0204</b>	<b>0.0164</b>
	(18) $p_{P,S}^3$	0.3848	0.2208	0.1716	0.1772	<b>0.0892</b>	0.2896	<b>0.0188</b>	<b>0.0116</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	0.5514	0.3731	0.2609	0.3600	0.1743	0.6885	0.1415	0.1136
	(20) $p_{M,N}^2$	0.4668	0.2934	0.1405	0.3356	0.1399	0.7303	<b>0.0595</b>	<b>0.0655</b>
	(21) $p_{M,N}^3$	0.4296	0.3000	0.1353	0.3151	0.1242	0.7710	<b>0.0550</b>	<b>0.0574</b>
	(22) $p_{M,S}^1$	0.5426	0.3581	0.2438	0.3520	0.1716	0.6722	0.1358	0.1217
	(23) $p_{M,S}^2$	0.4681	0.3095	0.1596	0.3172	0.1478	0.6873	<b>0.0612</b>	<b>0.0655</b>
	(24) $p_{M,S}^3$	0.4251	0.3248	0.1718	0.3091	0.1684	0.7361	<b>0.0766</b>	<b>0.0791</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.5529	0.3751	0.2625	0.3654	0.1789	0.6922	0.1436	0.1174
	(26) $p_{R,N}^2$	0.4682	0.2956	0.1445	0.3361	0.1427	0.7350	<b>0.0622</b>	<b>0.0683</b>
	(27) $p_{R,N}^3$	0.4464	0.3036	0.1361	0.3172	0.1273	0.7740	<b>0.0555</b>	<b>0.0596</b>
	(28) $p_{R,S}^1$	0.5448	0.3617	0.2461	0.3536	0.1749	0.6745	0.1390	0.1224
	(29) $p_{R,S}^2$	0.4699	0.3109	0.1621	0.3185	0.1527	0.6904	<b>0.0628</b>	<b>0.0668</b>
	(30) $p_{R,S}^3$	0.4419	0.3326	0.1746	0.3123	0.1711	0.7408	<b>0.0797</b>	<b>0.0818</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.5732	0.4370	0.2990	0.3837	0.2209	0.7534	0.1479	0.1310
	(32) $p_{D,N}^2$	0.5409	0.3033	0.1615	0.3389	0.1581	0.7511	<b>0.0858</b>	<b>0.0982</b>
	(33) $p_{D,N}^3$	0.5922	0.3161	0.1791	0.3345	0.1419	0.7890	<b>0.0720</b>	0.1163
	(34) $p_{D,S}^1$	0.5914	0.4698	0.4247	0.3630	0.1984	0.6900	0.1511	0.1426
	(35) $p_{D,S}^2$	0.4955	0.3233	0.2255	0.3257	0.1665	0.7164	<b>0.0893</b>	<b>0.0802</b>
	(36) $p_{D,S}^3$	0.5313	0.4188	0.2513	0.3443	0.1870	0.7972	<b>0.0827</b>	0.1012

*Note: Physically abused* refers to a binary indicator of whether the participant was physically hurt by an adult before age 18 (excluding spanking). *Verbally abused* refers to a binary indicator of whether the participant was verbally abused by an adult before age 18. *Felt neglected* refers to an indicator of whether the participant felt neglected before age 18. *Abducted by parent* indicates whether the participant was abducted or hid by a parent to keep away from another parent before age 18. *Neglected/abducted* indicates whether at least one of the two previous variables equals one. *Attached to mother* and *attached to father* indicate whether the participant felt close to the biological mother and father through age 15, respectively. *Attached to parents* indicates whether the participant felt attached to both biological parents through age 15. All of these self-reports by the participants were collected at the last follow-up at around age 55. Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

## **10 Hypothesis Tests for Treatment Effects on Childhood Cognition**

**Table 28: Treatment Effects on Childhood Cognition of the Pooled Participants**

	Statistic	Uncorrected IQ, age 4	Uncorrected IQ, age 5	Uncorrected IQ, age 6	Uncorrected IQ, age 7	Uncorrected IQ, age 8	Uncorrected IQ, age 9
Summary	(i) Observations	123	93	120	119	117	117
	(ii) Control	83.323	83.510	86.344	87.066	86.855	86.770
	(iii) Treatment	95.534	94.932	91.250	91.724	88.109	87.714
Estimates	(iv) UDIM	12.211	11.422	4.9063	4.6586	1.2543	0.9438
	(v) COLS	10.839	11.042	4.1544	3.8600	1.1056	-0.1264
	(vi) AIPW	10.828	11.236	3.9742	3.9689	-0.3057	-0.4453
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0116</b>	<b>0.0189</b>	0.3024	0.3404
	(02) $p_{A,A}^2$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0120</b>	<b>0.0367</b>	0.3132	0.4769
	(03) $p_{A,A}^3$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0097</b>	<b>0.0254</b>	0.4433	0.4111
	(04) $p_{A,B}^1$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0079</b>	<b>0.0091</b>	0.2815	0.3339
	(05) $p_{A,B}^2$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0070</b>	<b>0.0173</b>	0.2928	0.4755
	(06) $p_{A,B}^3$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0062</b>	<b>0.0157</b>	0.4417	0.4144
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0076</b>	<b>0.0092</b>	0.2904	0.3344
	(08) $p_{B,N}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0084</b>	<b>0.0160</b>	0.2852	0.4732
	(09) $p_{B,N}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0064</b>	<b>0.0120</b>	0.4788	0.4424
	(10) $p_{B,S}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0012</b>	0.2264	0.2816
	(11) $p_{B,S}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0012</b>	<b>0.0080</b>	0.2424	0.4624
	(12) $p_{B,S}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0016</b>	<b>0.0068</b>	0.3940	0.3744
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0004</b>	<b>0.0008</b>	<b>0.0104</b>	<b>0.0156</b>	0.3408	0.3728
	(14) $p_{P,N}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0140</b>	<b>0.0292</b>	0.3752	0.4248
	(15) $p_{P,N}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0200</b>	<b>0.0352</b>	0.3912	0.3704
	(16) $p_{P,S}^1$	<b>0.0004</b>	<b>0.0008</b>	<b>0.0116</b>	<b>0.0164</b>	0.3452	0.3716
	(17) $p_{P,S}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0136</b>	<b>0.0392</b>	0.3828	0.4264
	(18) $p_{P,S}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0152</b>	<b>0.0416</b>	0.3936	0.3680
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0144</b>	<b>0.0251</b>	0.2735	0.3624
	(20) $p_{M,N}^2$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0267</b>	<b>0.0483</b>	0.3546	0.5817
	(21) $p_{M,N}^3$	<b>0.0025</b>	<b>0.0064</b>	<b>0.0295</b>	<b>0.0473</b>	0.6563	0.5538
	(22) $p_{M,S}^1$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0159</b>	<b>0.0283</b>	0.2743	0.3624
	(23) $p_{M,S}^2$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0267</b>	<b>0.0644</b>	0.3577	0.5817
	(24) $p_{M,S}^3$	<b>0.0025</b>	<b>0.0029</b>	<b>0.0271</b>	<b>0.0543</b>	0.6558	0.5527
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0165</b>	<b>0.0252</b>	0.2790	0.3644
	(26) $p_{R,N}^2$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0284</b>	<b>0.0486</b>	0.3604	0.5847
	(27) $p_{R,N}^3$	<b>0.0025</b>	<b>0.0068</b>	<b>0.0307</b>	<b>0.0495</b>	0.6668	0.5548
	(28) $p_{R,S}^1$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0162</b>	<b>0.0314</b>	0.2781	0.3644
	(29) $p_{R,S}^2$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0284</b>	<b>0.0645</b>	0.3623	0.5847
	(30) $p_{R,S}^3$	<b>0.0025</b>	<b>0.0031</b>	<b>0.0282</b>	<b>0.0546</b>	0.6693	0.5536
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0228</b>	<b>0.0359</b>	0.2940	0.4063
	(32) $p_{D,N}^2$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0414</b>	<b>0.0586</b>	0.4070	0.6527
	(33) $p_{D,N}^3$	<b>0.0027</b>	<b>0.0083</b>	<b>0.0396</b>	<b>0.0600</b>	0.6878	0.6122
	(34) $p_{D,S}^1$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0198</b>	<b>0.0488</b>	0.3634	0.3922
	(35) $p_{D,S}^2$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0469</b>	<b>0.0964</b>	0.4134	0.6527
	(36) $p_{D,S}^3$	<b>0.0027</b>	<b>0.0036</b>	<b>0.0425</b>	<b>0.0791</b>	0.7856	0.5871

*Note:* *Uncorrected IQ, age a* refers to the participant’s uncorrected Stanford–Binet IQ at age  $a$ . *Corrected IQ, age a* refers to the participant’s corrected Stanford–Binet IQ at age  $a$ . *CAT reading total percentile* refers to the participant’s total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). *CAT arithmetic problems percentile*, *CAT language total percentile*, *CAT language mechanics percentile*, and *CAT language spelling percentile* refer to the participant’s percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 28: Treatment Effects on Childhood Cognition of the Pooled Participants**

	Statistic	Corrected IQ, age 4	Corrected IQ, age 5	Corrected IQ, age 6	Corrected IQ, age 7	Corrected IQ, age 8	Corrected IQ, age 9
Summary	(i) Observations	95	121	120	120	119	117
	(ii) Control	83.820	83.492	86.524	86.603	86.365	86.933
	(iii) Treatment	96.222	93.714	91.018	91.491	88.375	87.684
Estimates	(iv) UDIM	12.402	10.222	4.4937	4.8881	2.0099	0.7509
	(v) COLS	11.220	9.9330	3.6793	4.4670	1.4863	-0.3785
	(vi) AIPW	11.827	9.7586	3.5819	4.2680	0.7280	-0.7609
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0155</b>	<b>0.0119</b>	0.2073	0.3689
	(02) $p_{A,A}^2$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0220</b>	<b>0.0158</b>	0.2556	0.4298
	(03) $p_{A,A}^3$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0170</b>	<b>0.0155</b>	0.3679	0.3447
	(04) $p_{A,B}^1$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0119</b>	<b>0.0057</b>	0.1823	0.3645
	(05) $p_{A,B}^2$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0147</b>	<b>0.0064</b>	0.2305	0.4265
	(06) $p_{A,B}^3$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0126</b>	<b>0.0095</b>	0.3629	0.3584
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0100</b>	<b>0.0036</b>	0.1884	0.3736
	(08) $p_{B,N}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0160</b>	<b>0.0056</b>	0.2208	0.4216
	(09) $p_{B,N}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0140</b>	<b>0.0076</b>	0.3352	0.3796
	(10) $p_{B,S}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0024</b>	<b>0.0008</b>	0.1184	0.3076
	(11) $p_{B,S}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0032</b>	<b>0.0020</b>	0.1732	0.4112
	(12) $p_{B,S}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0028</b>	<b>0.0048</b>	0.3652	0.3032
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0136</b>	<b>0.0116</b>	0.2340	0.3920
	(14) $p_{P,N}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0248</b>	<b>0.0132</b>	0.3108	0.3804
	(15) $p_{P,N}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0356</b>	<b>0.0228</b>	0.4584	0.3184
	(16) $p_{P,S}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0148</b>	<b>0.0120</b>	0.2396	0.3916
	(17) $p_{P,S}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0260</b>	<b>0.0188</b>	0.3180	0.3820
	(18) $p_{P,S}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0316</b>	<b>0.0256</b>	0.4572	0.3136
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0207</b>	<b>0.0264</b>	0.2116	0.3863
	(20) $p_{M,N}^2$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0394</b>	<b>0.0288</b>	0.3121	0.5359
	(21) $p_{M,N}^3$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0440</b>	<b>0.0343</b>	0.4242	0.4911
	(22) $p_{M,S}^1$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0276</b>	<b>0.0276</b>	0.2172	0.3863
	(23) $p_{M,S}^2$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0394</b>	<b>0.0389</b>	0.3146	0.5353
	(24) $p_{M,S}^3$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0341</b>	<b>0.0377</b>	0.4233	0.4832
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0209</b>	<b>0.0279</b>	0.2133	0.4146
	(26) $p_{R,N}^2$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0418</b>	<b>0.0307</b>	0.3213	0.5365
	(27) $p_{R,N}^3$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0474</b>	<b>0.0368</b>	0.4296	0.5074
	(28) $p_{R,S}^1$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0277</b>	<b>0.0293</b>	0.2212	0.4146
	(29) $p_{R,S}^2$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0426</b>	<b>0.0414</b>	0.3211	0.5374
	(30) $p_{R,S}^3$	<b>0.0025</b>	<b>0.0025</b>	<b>0.0351</b>	<b>0.0399</b>	0.4301	0.5029
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0331</b>	<b>0.0352</b>	0.2283	0.5309
	(32) $p_{D,N}^2$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0525</b>	<b>0.0576</b>	0.4083	0.5891
	(33) $p_{D,N}^3$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0641</b>	<b>0.0497</b>	0.4690	0.7377
	(34) $p_{D,S}^1$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0285</b>	<b>0.0380</b>	0.2607	0.5355
	(35) $p_{D,S}^2$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0633</b>	<b>0.0623</b>	0.3809	0.5891
	(36) $p_{D,S}^3$	<b>0.0027</b>	<b>0.0027</b>	<b>0.0409</b>	<b>0.0604</b>	0.5153	0.7663

Note: *Uncorrected IQ, age a* refers to the participant’s uncorrected Stanford–Binet IQ at age  $a$ . *Corrected IQ, age a* refers to the participant’s corrected Stanford–Binet IQ at age  $a$ . *CAT reading total percentile* refers to the participant’s total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). *CAT arithmetic problems percentile*, *CAT language total percentile*, *CAT language mechanics percentile*, and *CAT language spelling percentile* refer to the participant’s percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 28: Treatment Effects on Childhood Cognition of the Pooled Participants**

	Statistic	CAT reading total percentile	CAT arithmetic problems percentile	CAT language total percentile	CAT language mechanics percentile	CAT language spelling percentile
Summary	(i) Observations	95	95	95	95	95
	(ii) Control	8.7826	7.6304	7.0435	7.6957	11.217
	(iii) Treatment	15.082	14.122	16.633	17.837	23.449
Estimates	(iv) UDIM	6.2990	6.4920	9.5892	10.141	12.232
	(v) COLS	4.7799	4.2086	8.6045	9.2684	10.043
	(vi) AIPW	4.1080	4.3935	7.8877	8.6518	9.4312
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0070</b>	<b>0.0197</b>	<b>0.0004</b>	<b>0.0003</b>	<b>0.0023</b>
	(02) $p_{A,A}^2$	<b>0.0403</b>	<b>0.0867</b>	<b>0.0019</b>	<b>0.0014</b>	<b>0.0130</b>
	(03) $p_{A,A}^3$	<b>0.0448</b>	<b>0.0590</b>	<b>0.0013</b>	<b>0.0009</b>	<b>0.0095</b>
	(04) $p_{A,B}^1$	<b>0.0043</b>	<b>0.0145</b>	<b>0.0001</b>	<b>0.0001</b>	<b>0.0009</b>
	(05) $p_{A,B}^2$	<b>0.0339</b>	<b>0.0801</b>	<b>0.0013</b>	<b>0.0008</b>	<b>0.0082</b>
	(06) $p_{A,B}^3$	<b>0.0636</b>	<b>0.0772</b>	<b>0.0022</b>	<b>0.0011</b>	<b>0.0170</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0056</b>	<b>0.0144</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0008</b>
	(08) $p_{B,N}^2$	<b>0.0352</b>	<b>0.0820</b>	<b>0.0016</b>	<b>0.0012</b>	<b>0.0072</b>
	(09) $p_{B,N}^3$	<b>0.0644</b>	<b>0.0684</b>	<b>0.0040</b>	<b>0.0012</b>	<b>0.0100</b>
	(10) $p_{B,S}^1$	<b>0.0008</b>	<b>0.0012</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	<b>0.0160</b>	<b>0.0460</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>
	(12) $p_{B,S}^3$	<b>0.0364</b>	<b>0.0604</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0044</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0104</b>	<b>0.0240</b>	<b>0.0016</b>	<b>0.0012</b>	<b>0.0036</b>
	(14) $p_{P,N}^2$	<b>0.0404</b>	0.1060	<b>0.0036</b>	<b>0.0032</b>	<b>0.0092</b>
	(15) $p_{P,N}^3$	<b>0.0712</b>	<b>0.0952</b>	<b>0.0056</b>	<b>0.0036</b>	<b>0.0176</b>
	(16) $p_{P,S}^1$	<b>0.0100</b>	<b>0.0212</b>	<b>0.0012</b>	<b>0.0008</b>	<b>0.0032</b>
	(17) $p_{P,S}^2$	<b>0.0480</b>	<b>0.0988</b>	<b>0.0024</b>	<b>0.0020</b>	<b>0.0108</b>
	(18) $p_{P,S}^3$	<b>0.0700</b>	<b>0.0920</b>	<b>0.0028</b>	<b>0.0028</b>	<b>0.0140</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0337</b>	<b>0.0645</b>	<b>0.0092</b>	<b>0.0079</b>	<b>0.0105</b>
	(20) $p_{M,N}^2$	<b>0.0732</b>	0.1610	<b>0.0140</b>	<b>0.0133</b>	<b>0.0247</b>
	(21) $p_{M,N}^3$	<b>0.0977</b>	0.1258	<b>0.0295</b>	<b>0.0221</b>	<b>0.0313</b>
	(22) $p_{M,S}^1$	<b>0.0281</b>	<b>0.0519</b>	<b>0.0056</b>	<b>0.0070</b>	<b>0.0084</b>
	(23) $p_{M,S}^2$	<b>0.0854</b>	0.1530	<b>0.0156</b>	<b>0.0128</b>	<b>0.0275</b>
	(24) $p_{M,S}^3$	<b>0.0920</b>	0.1202	<b>0.0154</b>	<b>0.0187</b>	<b>0.0251</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0356</b>	<b>0.0723</b>	<b>0.0097</b>	<b>0.0079</b>	<b>0.0110</b>
	(26) $p_{R,N}^2$	<b>0.0803</b>	0.1642	<b>0.0145</b>	<b>0.0139</b>	<b>0.0252</b>
	(27) $p_{R,N}^3$	0.1004	0.1301	<b>0.0325</b>	<b>0.0237</b>	<b>0.0351</b>
	(28) $p_{R,S}^1$	<b>0.0288</b>	<b>0.0545</b>	<b>0.0063</b>	<b>0.0072</b>	<b>0.0094</b>
	(29) $p_{R,S}^2$	<b>0.0888</b>	0.1555	<b>0.0164</b>	<b>0.0138</b>	<b>0.0278</b>
	(30) $p_{R,S}^3$	<b>0.0942</b>	0.1251	<b>0.0157</b>	<b>0.0197</b>	<b>0.0275</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0605</b>	0.1258	<b>0.0121</b>	<b>0.0082</b>	<b>0.0152</b>
	(32) $p_{D,N}^2$	0.1131	0.1960	<b>0.0210</b>	<b>0.0212</b>	<b>0.0315</b>
	(33) $p_{D,N}^3$	0.1105	0.1641	<b>0.0365</b>	<b>0.0307</b>	<b>0.0648</b>
	(34) $p_{D,S}^1$	<b>0.0573</b>	<b>0.0725</b>	<b>0.0105</b>	<b>0.0099</b>	<b>0.0135</b>
	(35) $p_{D,S}^2$	<b>0.0973</b>	0.1821	<b>0.0172</b>	<b>0.0230</b>	<b>0.0405</b>
	(36) $p_{D,S}^3$	0.1244	0.1324	<b>0.0195</b>	<b>0.0234</b>	<b>0.0372</b>

Note: *Uncorrected IQ, age a* refers to the participant’s uncorrected Stanford–Binet IQ at age  $a$ . *Corrected IQ, age a* refers to the participant’s corrected Stanford–Binet IQ at age  $a$ . *CAT reading total percentile* refers to the participant’s total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). *CAT arithmetic problems percentile*, *CAT language total percentile*, *CAT language mechanics percentile*, and *CAT language spelling percentile* refer to the participant’s percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 29: Treatment Effects on Childhood Cognition of the Male Participants**

	Statistic	Uncorrected IQ, age 4	Uncorrected IQ, age 5	Uncorrected IQ, age 6	Uncorrected IQ, age 7	Uncorrected IQ, age 8	Uncorrected IQ, age 9
Summary	(i) Observations	72	54	72	71	67	71
	(ii) Control	83.077	84.793	85.821	87.711	89.054	89.026
	(iii) Treatment	94.909	95.400	91.485	91.121	88.333	88.394
Estimates	(iv) UDIM	11.832	10.607	5.6643	3.4107	-0.7207	-0.6324
	(v) COLS	9.0606	9.0654	3.4837	1.7225	-2.2087	-3.1880
	(vi) AIPW	8.9881	9.1672	3.0558	1.5758	-3.8293	-4.1669
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0000</b>	<b>0.0001</b>	<b>0.0189</b>	<b>0.0854</b>	0.4034	0.4088
	(02) $p_{A,A}^2$	<b>0.0000</b>	<b>0.0003</b>	<b>0.0478</b>	0.2015	0.1932	0.1114
	(03) $p_{A,A}^3$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0557</b>	0.2040	<b>0.0512</b>	<b>0.0398</b>
	(04) $p_{A,B}^1$	<b>0.0000</b>	<b>0.0001</b>	<b>0.0160</b>	<b>0.0808</b>	0.4020	0.4114
	(05) $p_{A,B}^2$	<b>0.0000</b>	<b>0.0001</b>	<b>0.0338</b>	0.1951	0.1959	0.1134
	(06) $p_{A,B}^3$	<b>0.0000</b>	<b>0.0002</b>	<b>0.0512</b>	0.2143	<b>0.0719</b>	<b>0.0577</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0152</b>	<b>0.0724</b>	0.4036	0.4088
	(08) $p_{B,N}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0352</b>	0.1964	0.2096	0.1164
	(09) $p_{B,N}^3$	<b>0.0004</b>	<b>0.0008</b>	<b>0.0476</b>	0.2152	<b>0.0844</b>	<b>0.0656</b>
	(10) $p_{B,S}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0028</b>	<b>0.0264</b>	0.3580	0.3856
	(11) $p_{B,S}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0104</b>	0.1336	0.1096	<b>0.0520</b>
	(12) $p_{B,S}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0196</b>	0.1564	<b>0.0196</b>	<b>0.0180</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0004</b>	<b>0.0008</b>	<b>0.0212</b>	<b>0.0812</b>	0.3768	0.3932
	(14) $p_{P,N}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0680</b>	0.2140	0.1696	0.1052
	(15) $p_{P,N}^3$	<b>0.0004</b>	<b>0.0020</b>	0.1004	0.2388	<b>0.0652</b>	<b>0.0504</b>
	(16) $p_{P,S}^1$	<b>0.0004</b>	<b>0.0008</b>	<b>0.0208</b>	<b>0.0784</b>	0.3772	0.3912
	(17) $p_{P,S}^2$	<b>0.0004</b>	<b>0.0012</b>	<b>0.0560</b>	0.2008	0.1560	0.1108
	(18) $p_{P,S}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0712</b>	0.2104	<b>0.0556</b>	<b>0.0472</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0048</b>	<b>0.0053</b>	<b>0.0249</b>	<b>0.0812</b>	0.5455	0.5617
	(20) $p_{M,N}^2$	<b>0.0050</b>	<b>0.0061</b>	<b>0.0789</b>	0.2103	0.3225	0.1936
	(21) $p_{M,N}^3$	<b>0.0050</b>	<b>0.0071</b>	0.1072	0.2101	0.1636	0.1308
	(22) $p_{M,S}^1$	<b>0.0048</b>	<b>0.0076</b>	<b>0.0249</b>	<b>0.0782</b>	0.5480	0.5580
	(23) $p_{M,S}^2$	<b>0.0052</b>	<b>0.0053</b>	<b>0.0716</b>	0.2058	0.3077	0.2050
	(24) $p_{M,S}^3$	<b>0.0049</b>	<b>0.0071</b>	<b>0.0872</b>	0.2002	0.1461	0.1289
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0049</b>	<b>0.0053</b>	<b>0.0277</b>	<b>0.0841</b>	0.5494	0.5696
	(26) $p_{R,N}^2$	<b>0.0055</b>	<b>0.0061</b>	<b>0.0805</b>	0.2141	0.3230	0.2036
	(27) $p_{R,N}^3$	<b>0.0050</b>	<b>0.0071</b>	0.1094	0.2117	0.1656	0.1376
	(28) $p_{R,S}^1$	<b>0.0049</b>	<b>0.0079</b>	<b>0.0251</b>	<b>0.0785</b>	0.5526	0.5660
	(29) $p_{R,S}^2$	<b>0.0055</b>	<b>0.0053</b>	<b>0.0727</b>	0.2118	0.3116	0.2153
	(30) $p_{R,S}^3$	<b>0.0050</b>	<b>0.0071</b>	<b>0.0898</b>	0.2045	0.1520	0.1331
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0053</b>	<b>0.0087</b>	<b>0.0400</b>	0.1045	0.6085	0.5940
	(32) $p_{D,N}^2$	<b>0.0076</b>	<b>0.0062</b>	0.1113	0.2816	0.3339	0.2606
	(33) $p_{D,N}^3$	<b>0.0056</b>	<b>0.0071</b>	0.1479	0.2761	0.2641	0.1439
	(34) $p_{D,S}^1$	<b>0.0053</b>	<b>0.0095</b>	<b>0.0306</b>	0.1185	0.5743	0.6044
	(35) $p_{D,S}^2$	<b>0.0076</b>	<b>0.0068</b>	0.1290	0.2358	0.3318	0.2956
	(36) $p_{D,S}^3$	<b>0.0056</b>	<b>0.0071</b>	0.1229	0.2198	0.2396	0.1457

Note: *Uncorrected IQ, age a* refers to the participant's uncorrected Stanford-Binet IQ at age  $a$ . *Corrected IQ, age a* refers to the participant's corrected Stanford-Binet IQ at age  $a$ . *CAT reading total percentile* refers to the participant's total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). *CAT arithmetic problems percentile*, *CAT language total percentile*, *CAT language mechanics percentile*, and *CAT language spelling percentile* refer to the participant's percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 29: Treatment Effects on Childhood Cognition of the Male Participants**

	Statistic	Corrected IQ, age 4	Corrected IQ, age 5	Corrected IQ, age 6	Corrected IQ, age 7	Corrected IQ, age 8	Corrected IQ, age 9
Summary	(i) Observations	54	72	72	70	69	71
	(ii) Control	82.931	84.410	86.026	87.158	88.553	88.947
	(iii) Treatment	95.560	92.818	90.909	90.875	88.613	88.667
Estimates	(iv) UDIM	12.629	8.4079	4.8835	3.7171	0.0603	-0.2807
	(v) COLS	10.621	7.0982	2.7028	2.5312	-1.4631	-2.9149
	(vi) AIPW	11.336	6.6159	2.3446	2.3078	-2.4250	-4.0081
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0000</b>	<b>0.0002</b>	<b>0.0306</b>	<b>0.0566</b>	0.4921	0.4586
	(02) $p_{A,A}^2$	<b>0.0000</b>	<b>0.0007</b>	<b>0.0998</b>	<b>0.0989</b>	0.2848	0.1291
	(03) $p_{A,A}^3$	<b>0.0000</b>	<b>0.0004</b>	0.1095	0.1025	0.1545	<b>0.0402</b>
	(04) $p_{A,B}^1$	<b>0.0001</b>	<b>0.0001</b>	<b>0.0275</b>	<b>0.0546</b>	0.4920	0.4601
	(05) $p_{A,B}^2$	<b>0.0001</b>	<b>0.0004</b>	<b>0.0823</b>	<b>0.0942</b>	0.2844	0.1353
	(06) $p_{A,B}^3$	<b>0.0000</b>	<b>0.0008</b>	0.1053	0.1181	0.1811	<b>0.0663</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0280</b>	<b>0.0532</b>	0.4816	0.4440
	(08) $p_{B,N}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0864</b>	<b>0.0856</b>	0.3000	0.1348
	(09) $p_{B,N}^3$	<b>0.0004</b>	<b>0.0004</b>	0.1092	0.1092	0.2184	<b>0.0748</b>
	(10) $p_{B,S}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0052</b>	<b>0.0160</b>	0.4992	0.4472
Bootstrap $p$ -values	(11) $p_{B,S}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0460</b>	<b>0.0472</b>	0.2112	<b>0.0680</b>
	(12) $p_{B,S}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0660</b>	<b>0.0612</b>	<b>0.0852</b>	<b>0.0188</b>
	(13) $p_{P,N}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0352</b>	<b>0.0556</b>	0.4684	0.4428
Permutation $p$ -values	(14) $p_{P,N}^2$	<b>0.0004</b>	<b>0.0020</b>	0.1244	0.1152	0.2352	0.1156
	(15) $p_{P,N}^3$	<b>0.0004</b>	<b>0.0028</b>	0.1720	0.1444	0.1500	<b>0.0496</b>
	(16) $p_{P,S}^1$	<b>0.0004</b>	<b>0.0012</b>	<b>0.0372</b>	<b>0.0556</b>	0.4680	0.4420
	(17) $p_{P,S}^2$	<b>0.0004</b>	<b>0.0024</b>	0.1204	0.1064	0.2280	0.1296
	(18) $p_{P,S}^3$	<b>0.0004</b>	<b>0.0020</b>	0.1416	0.1168	0.1304	<b>0.0448</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0049</b>	<b>0.0065</b>	<b>0.0393</b>	<b>0.0480</b>	0.4962	0.6136
	(20) $p_{M,N}^2$	<b>0.0052</b>	<b>0.0080</b>	0.1218	0.1224	0.4408	0.2245
	(21) $p_{M,N}^3$	<b>0.0035</b>	<b>0.0080</b>	0.1478	0.1290	0.3609	0.1276
	(22) $p_{M,S}^1$	<b>0.0049</b>	<b>0.0065</b>	<b>0.0413</b>	<b>0.0485</b>	0.4962	0.6066
Worst-case max. $p$	(23) $p_{M,S}^2$	<b>0.0052</b>	<b>0.0080</b>	0.1200	0.1134	0.4282	0.2373
	(24) $p_{M,S}^3$	<b>0.0052</b>	<b>0.0064</b>	0.1439	0.1154	0.3182	0.1277
	(25) $p_{R,N}^1$	<b>0.0073</b>	<b>0.0069</b>	<b>0.0417</b>	<b>0.0511</b>	0.4991	0.6174
Worst-case adjusted $p$	(26) $p_{R,N}^2$	<b>0.0052</b>	<b>0.0085</b>	0.1268	0.1298	0.4495	0.2254
	(27) $p_{R,N}^3$	<b>0.0038</b>	<b>0.0096</b>	0.1549	0.1322	0.3729	0.1286
	(28) $p_{R,S}^1$	<b>0.0073</b>	<b>0.0069</b>	<b>0.0436</b>	<b>0.0517</b>	0.4991	0.6096
	(29) $p_{R,S}^2$	<b>0.0052</b>	<b>0.0085</b>	0.1224	0.1220	0.4388	0.2429
	(30) $p_{R,S}^3$	<b>0.0052</b>	<b>0.0071</b>	0.1510	0.1238	0.3261	0.1349
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0121</b>	<b>0.0112</b>	<b>0.0829</b>	<b>0.0706</b>	0.5862	0.7285
	(32) $p_{D,N}^2$	<b>0.0053</b>	<b>0.0107</b>	0.1618	0.1704	0.4858	0.2736
	(33) $p_{D,N}^3$	<b>0.0056</b>	<b>0.0177</b>	0.2499	0.1590	0.4714	0.1512
	(34) $p_{D,S}^1$	<b>0.0121</b>	<b>0.0112</b>	<b>0.0573</b>	<b>0.0695</b>	0.5862	0.7287
	(35) $p_{D,S}^2$	<b>0.0052</b>	<b>0.0109</b>	0.1866	0.1532	0.5621	0.3208
	(36) $p_{D,S}^3$	<b>0.0052</b>	<b>0.0096</b>	0.1838	0.2432	0.3834	0.1599

Note: *Uncorrected IQ, age a* refers to the participant’s uncorrected Stanford–Binet IQ at age  $a$ . *Corrected IQ, age a* refers to the participant’s corrected Stanford–Binet IQ at age  $a$ . *CAT reading total percentile* refers to the participant’s total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). *CAT arithmetic problems percentile*, *CAT language total percentile*, *CAT language mechanics percentile*, and *CAT language spelling percentile* refer to the participant’s percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based on nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 29: Treatment Effects on Childhood Cognition of the Male Participants**

	Statistic	CAT reading total percentile	CAT arithmetic problems percentile	CAT language total percentile	CAT language mechanics percentile	CAT language spelling percentile
Summary	(i) Observations	55	55	55	55	55
	(ii) Control	9.0000	8.1071	6.5357	6.9643	11.536
	(iii) Treatment	13.926	16.000	14.333	15.556	18.519
Estimates	(iv) UDIM	4.9259	7.8929	7.7976	8.5913	6.9828
	(v) COLS	2.4259	2.8494	5.4333	6.2562	3.9609
	(vi) AIPW	1.8150	3.0948	5.0292	5.9789	3.1707
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0748</b>	<b>0.0589</b>	<b>0.0236</b>	<b>0.0193</b>	<b>0.0952</b>
	(02) $p_{A,A}^2$	0.2638	0.2814	<b>0.0947</b>	<b>0.0707</b>	0.2478
	(03) $p_{A,A}^3$	0.2957	0.2410	<b>0.0815</b>	<b>0.0538</b>	0.2652
	(04) $p_{A,B}^1$	<b>0.0712</b>	<b>0.0453</b>	<b>0.0168</b>	<b>0.0133</b>	<b>0.0840</b>
	(05) $p_{A,B}^2$	0.2656	0.2760	<b>0.0899</b>	<b>0.0658</b>	0.2372
	(06) $p_{A,B}^3$	0.3221	0.2629	<b>0.0995</b>	<b>0.0638</b>	0.2865
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0748</b>	<b>0.0396</b>	<b>0.0124</b>	<b>0.0068</b>	<b>0.0748</b>
	(08) $p_{B,N}^2$	0.2680	0.2752	<b>0.0800</b>	<b>0.0532</b>	0.2400
	(09) $p_{B,N}^3$	0.3040	0.2536	<b>0.0960</b>	<b>0.0584</b>	0.2700
	(10) $p_{B,S}^1$	<b>0.0316</b>	<b>0.0064</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0308</b>
	(11) $p_{B,S}^2$	0.2324	0.2716	<b>0.0184</b>	<b>0.0040</b>	0.1836
	(12) $p_{B,S}^3$	0.3088	0.2720	<b>0.0404</b>	<b>0.0084</b>	0.2628
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0768</b>	<b>0.0664</b>	<b>0.0276</b>	<b>0.0176</b>	<b>0.0944</b>
	(14) $p_{P,N}^2$	0.2456	0.2836	0.1100	<b>0.0880</b>	0.2200
	(15) $p_{P,N}^3$	0.3012	0.2600	0.1184	<b>0.0896</b>	0.2564
	(16) $p_{P,S}^1$	<b>0.0752</b>	<b>0.0664</b>	<b>0.0260</b>	<b>0.0156</b>	<b>0.0928</b>
	(17) $p_{P,S}^2$	0.2716	0.2932	0.1180	<b>0.0836</b>	0.2492
	(18) $p_{P,S}^3$	0.3112	0.2608	0.1076	<b>0.0712</b>	0.2600
Worst-case max. $p$	(19) $p_{M,N}^1$	0.1784	0.1158	<b>0.0773</b>	<b>0.0619</b>	0.1219
	(20) $p_{M,N}^2$	0.3007	0.3290	0.1745	0.1343	0.2522
	(21) $p_{M,N}^3$	0.3350	0.2890	0.1782	0.1463	0.2632
	(22) $p_{M,S}^1$	0.1711	0.1191	<b>0.0748</b>	<b>0.0535</b>	0.1225
	(23) $p_{M,S}^2$	0.3143	0.3326	0.1644	0.1244	0.2720
	(24) $p_{M,S}^3$	0.3488	0.2909	0.1771	0.1333	0.2734
Worst-case adjusted $p$	(25) $p_{R,N}^1$	0.1792	0.1170	<b>0.0784</b>	<b>0.0639</b>	0.1219
	(26) $p_{R,N}^2$	0.3016	0.3295	0.1812	0.1373	0.2526
	(27) $p_{R,N}^3$	0.3351	0.2915	0.1786	0.1466	0.2652
	(28) $p_{R,S}^1$	0.1730	0.1215	<b>0.0783</b>	<b>0.0558</b>	0.1231
	(29) $p_{R,S}^2$	0.3165	0.3372	0.1645	0.1271	0.2745
	(30) $p_{R,S}^3$	0.3536	0.2929	0.1771	0.1352	0.2767
Worst-case de Haan $p$	(31) $p_{D,N}^1$	0.1928	0.1630	0.1051	<b>0.0832</b>	0.1328
	(32) $p_{D,N}^2$	0.3873	0.3623	0.2241	0.1672	0.3426
	(33) $p_{D,N}^3$	0.3706	0.3456	0.2028	0.1516	0.3235
	(34) $p_{D,S}^1$	0.1776	0.1555	0.1284	<b>0.0681</b>	0.1503
	(35) $p_{D,S}^2$	0.3475	0.3840	0.1996	0.1390	0.3129
	(36) $p_{D,S}^3$	0.3823	0.3216	0.2098	0.1467	0.3016

*Note: Uncorrected IQ, age  $a$  refers to the participant's uncorrected Stanford-Binet IQ at age  $a$ . Corrected IQ, age  $a$  refers to the participant's corrected Stanford-Binet IQ at age  $a$ . CAT reading total percentile refers to the participant's total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). CAT arithmetic problems percentile, CAT language total percentile, CAT language mechanics percentile, and CAT language spelling percentile refer to the participant's percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.*



**Table 30: Treatment Effects on Childhood Cognition of the Female Participants**

	Statistic	Uncorrected IQ, age 4	Uncorrected IQ, age 5	Uncorrected IQ, age 6	Uncorrected IQ, age 7	Uncorrected IQ, age 8	Uncorrected IQ, age 9
Summary	(i) Observations	51	39	48	48	50	46
	(ii) Control	83.692	81.650	87.160	86.000	83.600	83.043
	(iii) Treatment	96.360	94.316	90.913	92.520	87.840	86.739
Estimates	(iv) UDIM	12.668	12.666	3.7530	6.5200	4.2400	3.6957
	(v) COLS	13.328	13.521	5.0710	7.1003	4.8782	4.7271
	(vi) AIPW	13.425	14.157	5.2707	7.3473	4.6689	4.8087
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0000</b>	<b>0.0023</b>	0.1221	<b>0.0444</b>	0.1247	0.1466
	(02) $p_{A,A}^2$	<b>0.0000</b>	<b>0.0019</b>	<b>0.0514</b>	<b>0.0427</b>	<b>0.0962</b>	<b>0.0670</b>
	(03) $p_{A,A}^3$	<b>0.0000</b>	<b>0.0008</b>	<b>0.0365</b>	<b>0.0313</b>	0.1144	<b>0.0633</b>
	(04) $p_{A,B}^1$	<b>0.0000</b>	<b>0.0013</b>	0.1139	<b>0.0181</b>	<b>0.0937</b>	0.1281
	(05) $p_{A,B}^2$	<b>0.0000</b>	<b>0.0007</b>	<b>0.0398</b>	<b>0.0173</b>	<b>0.0637</b>	<b>0.0528</b>
	(06) $p_{A,B}^3$	<b>0.0000</b>	<b>0.0006</b>	<b>0.0281</b>	<b>0.0154</b>	<b>0.0896</b>	<b>0.0679</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0004</b>	<b>0.0020</b>	0.1144	<b>0.0160</b>	<b>0.0992</b>	0.1400
	(08) $p_{B,N}^2$	<b>0.0004</b>	<b>0.0008</b>	<b>0.0412</b>	<b>0.0184</b>	<b>0.0624</b>	<b>0.0512</b>
	(09) $p_{B,N}^3$	<b>0.0004</b>	<b>0.0012</b>	<b>0.0324</b>	<b>0.0176</b>	<b>0.0976</b>	<b>0.0684</b>
	(10) $p_{B,S}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0644</b>	<b>0.0040</b>	<b>0.0492</b>	<b>0.0692</b>
	(11) $p_{B,S}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0176</b>	<b>0.0164</b>	<b>0.0392</b>	<b>0.0300</b>
	(12) $p_{B,S}^3$	<b>0.0004</b>	<b>0.0012</b>	<b>0.0072</b>	<b>0.0168</b>	<b>0.0824</b>	<b>0.0472</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0004</b>	<b>0.0044</b>	0.1188	<b>0.0444</b>	0.1360	0.1560
	(14) $p_{P,N}^2$	<b>0.0004</b>	<b>0.0048</b>	<b>0.0676</b>	<b>0.0344</b>	0.1108	0.1100
	(15) $p_{P,N}^3$	<b>0.0004</b>	<b>0.0040</b>	<b>0.0604</b>	<b>0.0364</b>	0.1276	0.1112
	(16) $p_{P,S}^1$	<b>0.0004</b>	<b>0.0052</b>	0.1232	<b>0.0468</b>	0.1416	0.1608
	(17) $p_{P,S}^2$	<b>0.0004</b>	<b>0.0036</b>	<b>0.0632</b>	<b>0.0524</b>	0.1244	<b>0.0928</b>
	(18) $p_{P,S}^3$	<b>0.0004</b>	<b>0.0064</b>	<b>0.0636</b>	<b>0.0564</b>	0.1704	0.1128
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0025</b>	<b>0.0125</b>	0.1305	<b>0.0729</b>	0.1423	0.2126
	(20) $p_{M,N}^2$	<b>0.0025</b>	<b>0.0198</b>	<b>0.0905</b>	<b>0.0666</b>	0.1378	0.1869
	(21) $p_{M,N}^3$	<b>0.0025</b>	<b>0.0227</b>	<b>0.0818</b>	<b>0.0651</b>	0.1585	0.1862
	(22) $p_{M,S}^1$	<b>0.0052</b>	<b>0.0183</b>	0.1397	<b>0.0734</b>	0.1487	0.2134
	(23) $p_{M,S}^2$	<b>0.0025</b>	<b>0.0185</b>	<b>0.0859</b>	<b>0.0808</b>	0.1512	0.1625
	(24) $p_{M,S}^3$	<b>0.0034</b>	<b>0.0273</b>	<b>0.0820</b>	<b>0.0858</b>	0.2040	0.1992
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0025</b>	<b>0.0128</b>	0.1328	<b>0.0818</b>	0.1442	0.2158
	(26) $p_{R,N}^2$	<b>0.0025</b>	<b>0.0198</b>	<b>0.0911</b>	<b>0.0726</b>	0.1449	0.1962
	(27) $p_{R,N}^3$	<b>0.0025</b>	<b>0.0235</b>	<b>0.0832</b>	<b>0.0675</b>	0.1635	0.1878
	(28) $p_{R,S}^1$	<b>0.0052</b>	<b>0.0215</b>	0.1438	<b>0.0779</b>	0.1491	0.2164
	(29) $p_{R,S}^2$	<b>0.0025</b>	<b>0.0190</b>	<b>0.0870</b>	<b>0.0855</b>	0.1588	0.1644
	(30) $p_{R,S}^3$	<b>0.0036</b>	<b>0.0278</b>	<b>0.0820</b>	<b>0.0896</b>	0.2066	0.2052
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0027</b>	<b>0.0193</b>	0.1629	0.1156	0.1790	0.2540
	(32) $p_{D,N}^2$	<b>0.0027</b>	<b>0.0203</b>	0.1324	0.1316	0.1684	0.3027
	(33) $p_{D,N}^3$	<b>0.0027</b>	<b>0.0271</b>	<b>0.0942</b>	<b>0.0969</b>	0.1886	0.3194
	(34) $p_{D,S}^1$	<b>0.0066</b>	<b>0.0500</b>	0.1476	<b>0.0978</b>	0.2143	0.2272
	(35) $p_{D,S}^2$	<b>0.0027</b>	<b>0.0257</b>	0.1044	0.1044	0.2096	0.2057
	(36) $p_{D,S}^3$	<b>0.0040</b>	<b>0.0382</b>	<b>0.0959</b>	0.1232	0.2141	0.2628

*Note:* *Uncorrected IQ, age a* refers to the participant’s uncorrected Stanford–Binet IQ at age  $a$ . *Corrected IQ, age a* refers to the participant’s corrected Stanford–Binet IQ at age  $a$ . *CAT reading total percentile* refers to the participant’s total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). *CAT arithmetic problems percentile*, *CAT language total percentile*, *CAT language mechanics percentile*, and *CAT language spelling percentile* refer to the participant’s percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 30: Treatment Effects on Childhood Cognition of the Female Participants**

	Statistic	Corrected IQ, age 4	Corrected IQ, age 5	Corrected IQ, age 6	Corrected IQ, age 7	Corrected IQ, age 8	Corrected IQ, age 9
Summary	(i) Observations	41	49	48	50	50	46
	(ii) Control	85.048	82.115	87.333	85.760	83.040	83.455
	(iii) Treatment	97.050	95.000	91.167	92.280	88.080	86.333
Estimates	(iv) UDIM	12.002	12.885	3.8333	6.5200	5.0400	2.8788
	(v) COLS	12.343	13.930	4.9644	7.0502	5.2612	3.9406
	(vi) AIPW	12.519	14.195	5.3288	7.0353	5.1794	3.8234
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0000</b>	<b>0.0003</b>	0.1137	<b>0.0415</b>	<b>0.0852</b>	0.2023
	(02) $p_{A,A}^2$	<b>0.0000</b>	<b>0.0001</b>	<b>0.0534</b>	<b>0.0357</b>	<b>0.0824</b>	0.1058
	(03) $p_{A,A}^3$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0352</b>	<b>0.0353</b>	<b>0.0875</b>	0.1081
	(04) $p_{A,B}^1$	<b>0.0000</b>	<b>0.0001</b>	0.1042	<b>0.0188</b>	<b>0.0568</b>	0.1847
	(05) $p_{A,B}^2$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0416</b>	<b>0.0149</b>	<b>0.0521</b>	<b>0.0878</b>
	(06) $p_{A,B}^3$	<b>0.0000</b>	<b>0.0000</b>	<b>0.0281</b>	<b>0.0180</b>	<b>0.0638</b>	0.1259
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0004</b>	<b>0.0008</b>	0.1064	<b>0.0196</b>	<b>0.0608</b>	0.1924
	(08) $p_{B,N}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0412</b>	<b>0.0156</b>	<b>0.0496</b>	<b>0.0932</b>
	(09) $p_{B,N}^3$	<b>0.0004</b>	<b>0.0008</b>	<b>0.0336</b>	<b>0.0200</b>	<b>0.0700</b>	0.1252
Permutation $p$ -values	(10) $p_{B,S}^1$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0572</b>	<b>0.0040</b>	<b>0.0252</b>	0.1180
	(11) $p_{B,S}^2$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0152</b>	<b>0.0120</b>	<b>0.0336</b>	<b>0.0544</b>
	(12) $p_{B,S}^3$	<b>0.0004</b>	<b>0.0004</b>	<b>0.0096</b>	<b>0.0180</b>	<b>0.0576</b>	<b>0.0816</b>
Worst-case max. $p$	(13) $p_{P,N}^1$	<b>0.0004</b>	<b>0.0004</b>	0.1148	<b>0.0372</b>	<b>0.0912</b>	0.2192
	(14) $p_{P,N}^2$	<b>0.0004</b>	<b>0.0008</b>	<b>0.0684</b>	<b>0.0300</b>	<b>0.0912</b>	0.1460
	(15) $p_{P,N}^3$	<b>0.0004</b>	<b>0.0012</b>	<b>0.0620</b>	<b>0.0360</b>	0.1056	0.1656
	(16) $p_{P,S}^1$	<b>0.0004</b>	<b>0.0004</b>	0.1168	<b>0.0420</b>	<b>0.0972</b>	0.2196
Worst-case adjusted $p$	(17) $p_{P,S}^2$	<b>0.0012</b>	<b>0.0008</b>	<b>0.0612</b>	<b>0.0436</b>	0.1168	0.1320
	(18) $p_{P,S}^3$	<b>0.0004</b>	<b>0.0012</b>	<b>0.0644</b>	<b>0.0576</b>	0.1428	0.1628
	(19) $p_{M,N}^1$	<b>0.0077</b>	<b>0.0084</b>	0.1343	<b>0.0594</b>	0.1322	0.2682
	(20) $p_{M,N}^2$	<b>0.0077</b>	<b>0.0057</b>	<b>0.0906</b>	<b>0.0532</b>	0.1396	0.2290
Worst-case de Haan $p$	(21) $p_{M,N}^3$	<b>0.0081</b>	<b>0.0079</b>	<b>0.0798</b>	<b>0.0672</b>	0.1526	0.2488
	(22) $p_{M,S}^1$	<b>0.0087</b>	<b>0.0077</b>	0.1371	<b>0.0689</b>	0.1406	0.2649
	(23) $p_{M,S}^2$	<b>0.0077</b>	<b>0.0087</b>	<b>0.0795</b>	<b>0.0734</b>	0.1617	0.2148
	(24) $p_{M,S}^3$	<b>0.0098</b>	<b>0.0087</b>	<b>0.0858</b>	<b>0.0839</b>	0.1831	0.2471
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0087</b>	<b>0.0109</b>	0.1348	<b>0.0614</b>	0.1404	0.2728
	(26) $p_{R,N}^2$	<b>0.0087</b>	<b>0.0058</b>	<b>0.0934</b>	<b>0.0596</b>	0.1465	0.2330
	(27) $p_{R,N}^3$	<b>0.0086</b>	<b>0.0081</b>	<b>0.0818</b>	<b>0.0732</b>	0.1592	0.2494
	(28) $p_{R,S}^1$	<b>0.0099</b>	<b>0.0079</b>	0.1386	<b>0.0700</b>	0.1433	0.2676
	(29) $p_{R,S}^2$	<b>0.0087</b>	<b>0.0087</b>	<b>0.0804</b>	<b>0.0772</b>	0.1642	0.2188
	(30) $p_{R,S}^3$	<b>0.0100</b>	<b>0.0087</b>	<b>0.0875</b>	<b>0.0845</b>	0.1831	0.2478
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0127</b>	<b>0.0131</b>	0.1561	<b>0.0953</b>	0.1635	0.3170
	(32) $p_{D,N}^2$	<b>0.0127</b>	<b>0.0073</b>	0.1302	0.1107	0.1647	0.2563
	(33) $p_{D,N}^3$	<b>0.0104</b>	<b>0.0112</b>	<b>0.0998</b>	0.1038	0.2615	0.3283
	(34) $p_{D,S}^1$	<b>0.0135</b>	<b>0.0086</b>	0.1647	0.1131	0.2134	0.3307
	(35) $p_{D,S}^2$	<b>0.0127</b>	<b>0.0137</b>	<b>0.0894</b>	0.1025	0.1814	0.2877
	(36) $p_{D,S}^3$	<b>0.0109</b>	<b>0.0088</b>	0.1436	0.1107	0.1913	0.2543

Note: *Uncorrected IQ, age a* refers to the participant’s uncorrected Stanford–Binet IQ at age  $a$ . *Corrected IQ, age a* refers to the participant’s corrected Stanford–Binet IQ at age  $a$ . *CAT reading total percentile* refers to the participant’s total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). *CAT arithmetic problems percentile*, *CAT language total percentile*, *CAT language mechanics percentile*, and *CAT language spelling percentile* refer to the participant’s percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant’s IQ, SES, gender, and mother’s working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

**Table 30: Treatment Effects on Childhood Cognition of the Female Participants**

	Statistic	CAT reading total percentile	CAT arithmetic problems percentile	CAT language total percentile	CAT language mechanics percentile	CAT language spelling percentile
Summary	(i) Observations	40	40	40	40	40
	(ii) Control	8.4444	6.8889	7.8333	8.8333	10.722
	(iii) Treatment	16.500	11.818	19.455	20.636	29.500
Estimates	(iv) UDIM	8.0556	4.9293	11.621	11.803	18.778
	(v) COLS	7.9323	6.5669	12.637	13.175	18.846
	(vi) AIPW	7.3451	6.2269	11.923	12.425	18.270
Asymptotic $p$ -values	(01) $p_{A,A}^1$	<b>0.0139</b>	<b>0.0621</b>	<b>0.0023</b>	<b>0.0030</b>	<b>0.0017</b>
	(02) $p_{A,A}^2$	<b>0.0110</b>	<b>0.0067</b>	<b>0.0005</b>	<b>0.0007</b>	<b>0.0019</b>
	(03) $p_{A,A}^3$	<b>0.0130</b>	<b>0.0102</b>	<b>0.0009</b>	<b>0.0014</b>	<b>0.0017</b>
	(04) $p_{A,B}^1$	<b>0.0087</b>	<b>0.0499</b>	<b>0.0011</b>	<b>0.0013</b>	<b>0.0007</b>
	(05) $p_{A,B}^2$	<b>0.0081</b>	<b>0.0069</b>	<b>0.0004</b>	<b>0.0005</b>	<b>0.0018</b>
	(06) $p_{A,B}^3$	<b>0.0128</b>	<b>0.0138</b>	<b>0.0013</b>	<b>0.0015</b>	<b>0.0042</b>
Bootstrap $p$ -values	(07) $p_{B,N}^1$	<b>0.0088</b>	<b>0.0636</b>	<b>0.0012</b>	<b>0.0016</b>	<b>0.0008</b>
	(08) $p_{B,N}^2$	<b>0.0076</b>	<b>0.0140</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0008</b>
	(09) $p_{B,N}^3$	<b>0.0176</b>	<b>0.0160</b>	<b>0.0008</b>	<b>0.0008</b>	<b>0.0016</b>
Permutation $p$ -values	(10) $p_{B,S}^1$	<b>0.0028</b>	<b>0.0496</b>	<b>0.0008</b>	<b>0.0004</b>	<b>0.0004</b>
	(11) $p_{B,S}^2$	<b>0.0036</b>	<b>0.0056</b>	<b>0.0004</b>	<b>0.0008</b>	<b>0.0016</b>
	(12) $p_{B,S}^3$	<b>0.0080</b>	<b>0.0184</b>	<b>0.0032</b>	<b>0.0040</b>	<b>0.0036</b>
Permutation $p$ -values	(13) $p_{P,N}^1$	<b>0.0160</b>	<b>0.0656</b>	<b>0.0048</b>	<b>0.0052</b>	<b>0.0040</b>
	(14) $p_{P,N}^2$	<b>0.0276</b>	<b>0.0284</b>	<b>0.0020</b>	<b>0.0036</b>	<b>0.0048</b>
	(15) $p_{P,N}^3$	<b>0.0356</b>	<b>0.0540</b>	<b>0.0064</b>	<b>0.0056</b>	<b>0.0068</b>
Worst-case max. $p$	(16) $p_{P,S}^1$	<b>0.0132</b>	<b>0.0596</b>	<b>0.0024</b>	<b>0.0032</b>	<b>0.0036</b>
	(17) $p_{P,S}^2$	<b>0.0156</b>	<b>0.0084</b>	<b>0.0012</b>	<b>0.0016</b>	<b>0.0028</b>
	(18) $p_{P,S}^3$	<b>0.0268</b>	<b>0.0284</b>	<b>0.0044</b>	<b>0.0072</b>	<b>0.0064</b>
Worst-case max. $p$	(19) $p_{M,N}^1$	<b>0.0436</b>	<b>0.0976</b>	<b>0.0191</b>	<b>0.0158</b>	<b>0.0163</b>
	(20) $p_{M,N}^2$	<b>0.0648</b>	<b>0.0648</b>	<b>0.0155</b>	<b>0.0155</b>	<b>0.0228</b>
	(21) $p_{M,N}^3$	<b>0.0710</b>	<b>0.0987</b>	<b>0.0203</b>	<b>0.0208</b>	<b>0.0249</b>
Worst-case adjusted $p$	(22) $p_{M,S}^1$	<b>0.0413</b>	0.1000	<b>0.0111</b>	<b>0.0116</b>	<b>0.0103</b>
	(23) $p_{M,S}^2$	<b>0.0430</b>	<b>0.0216</b>	<b>0.0074</b>	<b>0.0101</b>	<b>0.0116</b>
	(24) $p_{M,S}^3$	<b>0.0573</b>	<b>0.0544</b>	<b>0.0178</b>	<b>0.0208</b>	<b>0.0180</b>
Worst-case adjusted $p$	(25) $p_{R,N}^1$	<b>0.0444</b>	0.1008	<b>0.0211</b>	<b>0.0184</b>	<b>0.0169</b>
	(26) $p_{R,N}^2$	<b>0.0671</b>	<b>0.0712</b>	<b>0.0164</b>	<b>0.0164</b>	<b>0.0246</b>
	(27) $p_{R,N}^3$	<b>0.0754</b>	<b>0.0992</b>	<b>0.0208</b>	<b>0.0225</b>	<b>0.0270</b>
Worst-case adjusted $p$	(28) $p_{R,S}^1$	<b>0.0453</b>	0.1076	<b>0.0120</b>	<b>0.0130</b>	<b>0.0103</b>
	(29) $p_{R,S}^2$	<b>0.0452</b>	<b>0.0230</b>	<b>0.0075</b>	<b>0.0128</b>	<b>0.0122</b>
	(30) $p_{R,S}^3$	<b>0.0603</b>	<b>0.0580</b>	<b>0.0182</b>	<b>0.0225</b>	<b>0.0191</b>
Worst-case de Haan $p$	(31) $p_{D,N}^1$	<b>0.0570</b>	0.1176	<b>0.0287</b>	<b>0.0253</b>	<b>0.0212</b>
	(32) $p_{D,N}^2$	<b>0.0785</b>	0.1154	<b>0.0191</b>	<b>0.0208</b>	<b>0.0418</b>
	(33) $p_{D,N}^3$	<b>0.0954</b>	0.1226	<b>0.0240</b>	<b>0.0268</b>	<b>0.0507</b>
Worst-case de Haan $p$	(34) $p_{D,S}^1$	<b>0.0771</b>	0.1357	<b>0.0235</b>	<b>0.0287</b>	<b>0.0115</b>
	(35) $p_{D,S}^2$	<b>0.0452</b>	<b>0.0312</b>	<b>0.0083</b>	<b>0.0209</b>	<b>0.0174</b>
	(36) $p_{D,S}^3$	<b>0.0935</b>	<b>0.0710</b>	<b>0.0232</b>	<b>0.0269</b>	<b>0.0253</b>

Note: *Uncorrected IQ, age a* refers to the participant's uncorrected Stanford-Binet IQ at age  $a$ . *Corrected IQ, age a* refers to the participant's corrected Stanford-Binet IQ at age  $a$ . *CAT reading total percentile* refers to the participant's total percentile on the reading section of the California Achievement Test (CAT) at age 14 (grade 8). *CAT arithmetic problems percentile*, *CAT language total percentile*, *CAT language mechanics percentile*, and *CAT language spelling percentile* refer to the participant's percentile on the CAT arithmetic problems section, language section, language mechanics subsection, and language spelling subsection, respectively, at age 14 (grade 8). Row (i) provides the number of non-missing observations for each variable. Rows (ii) and (iii) contain the means of the control and treatment groups, respectively. Rows (iv), (v), and (vi), i.e., UDIM, COLS, and AIPW, contain the unconditional difference-in-means (UDIM) estimates of treatment effects, conditional ordinary least squares (COLS) estimates (conditional on pre-program covariates, i.e., participant's IQ, SES, gender, and mother's working status at baseline), and the augmented inverse probability weighting (AIPW) estimates (accounting for non-response and imbalance in pre-program covariates between the experimental groups), respectively. Rows (01) through (36) contain various  $p$ -values. The superscripts 1, 2, and 3 of these  $p$ -values are associated with the UDIM, COLS, and AIPW estimates, respectively. Rows (01) – (03) provide the one-sided asymptotic  $p$ -values based on studentized test statistics using analytic standard error, while rows (04) – (06) provide those using the bootstrap standard error. Rows (07) – (09) provide the bootstrap  $p$ -values based on nonstudentized test statistics, while rows (10) – (12) provide those based on studentized test statistics. Rows (13) – (15) provide the permutation  $p$ -values based on nonstudentized test statistics, while rows (16) – (18) provide those based on studentized test statistics. Rows (19) – (21) provide the worst-case maximum  $p$ -values based on nonstudentized test statistics, while rows (22) – (24) provide those based on studentized test statistics. Rows (25) – (27) provide the worst-case adjusted Robson-Whitlock  $p$ -values based on nonstudentized test statistics, while rows (28) – (30) provide those based on studentized statistics. Rows (31) – (33) provide the worst-case de Haan  $p$ -values based the nonstudentized test statistics, while rows (34) – (36) provide those based on studentized test statistics.

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