Continuous Versus Episodic Change:
The Impact of Civil Rights Policy on The Economic Status of Blacks

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Introduction

I. The Improvement in Black Relative Economic Status

Figure 1: United States

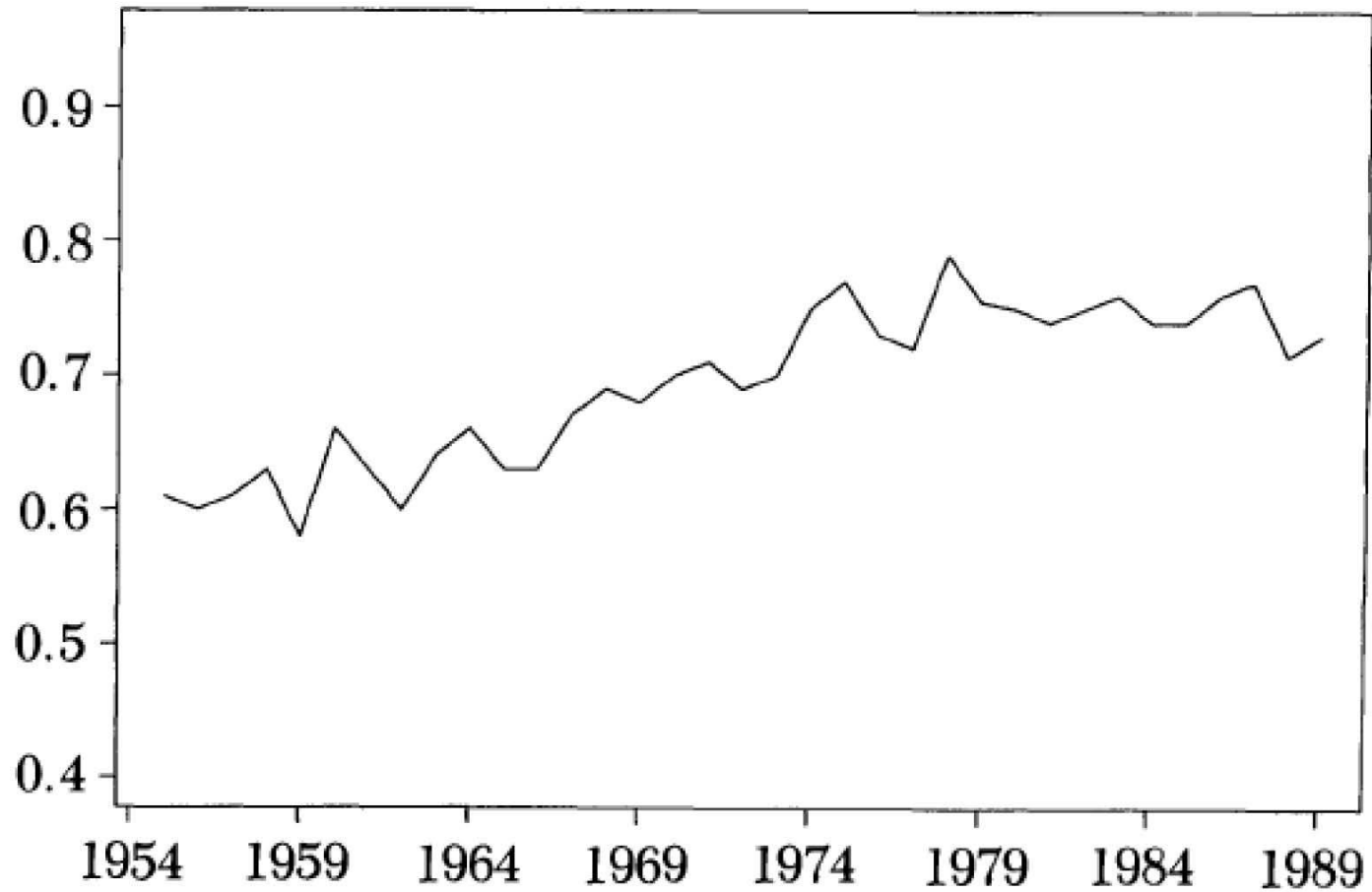**Ratio of Non-White to White Total Money Income of Year-Round Full-Time Male Workers, 1955-1989**
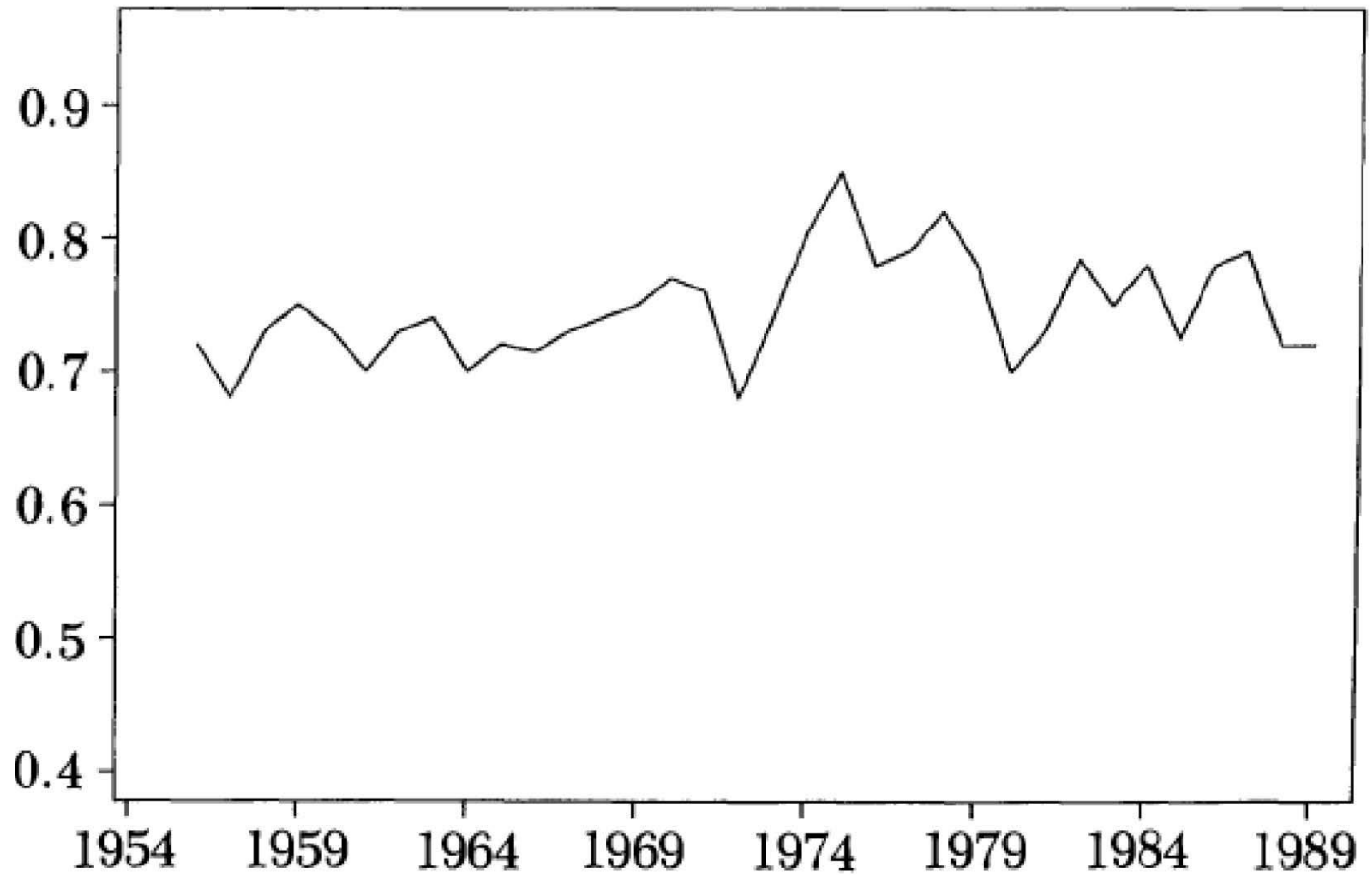
Figure 2: Northeastern Region
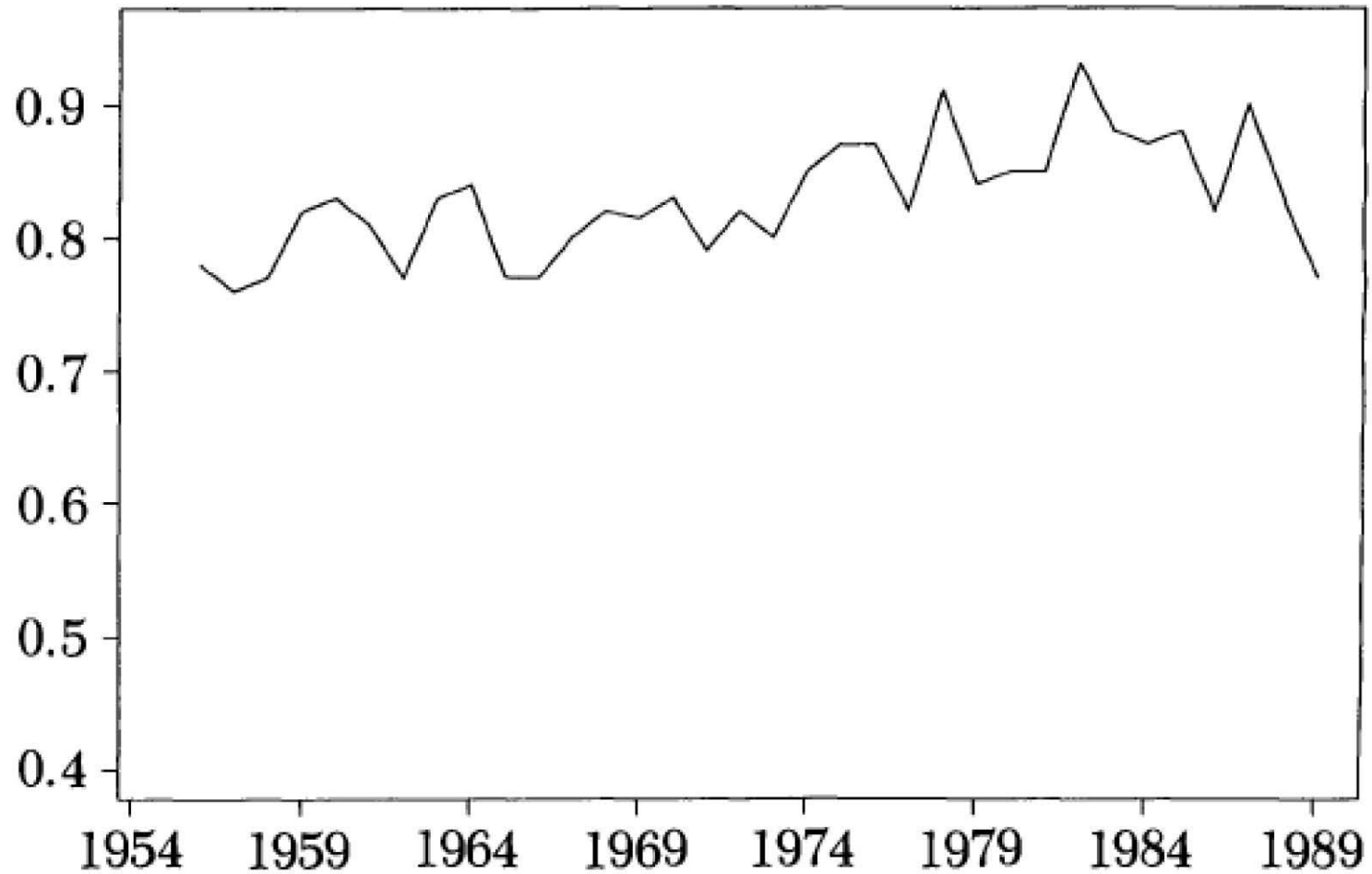
Figure 3: Midwestern Region
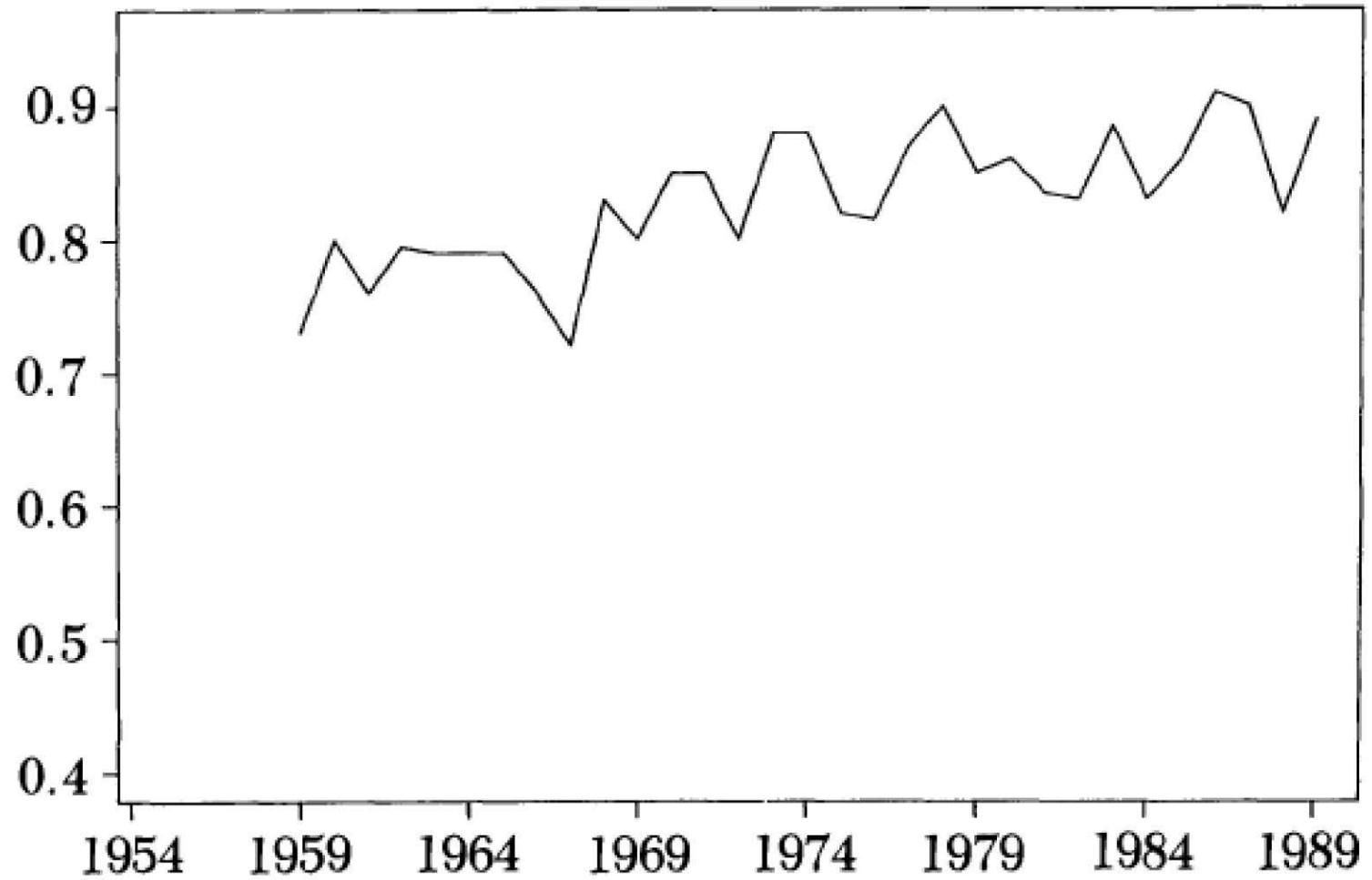
Figure 4: Western Region
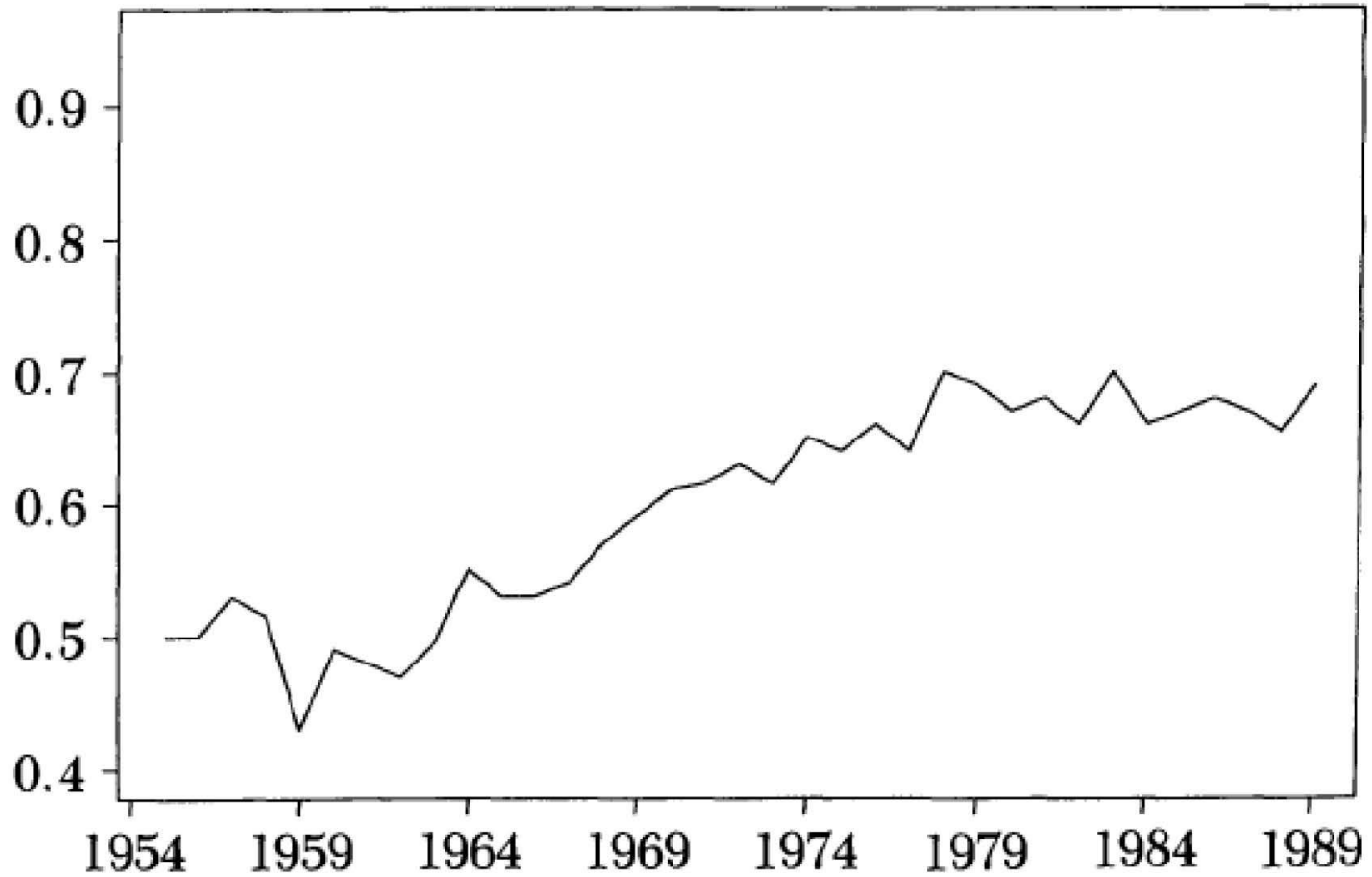
Figure 5: Southern Region

Figure 6: Estimated Percentage Black Male Deficit in (Hourly Wage) Relative to White Male
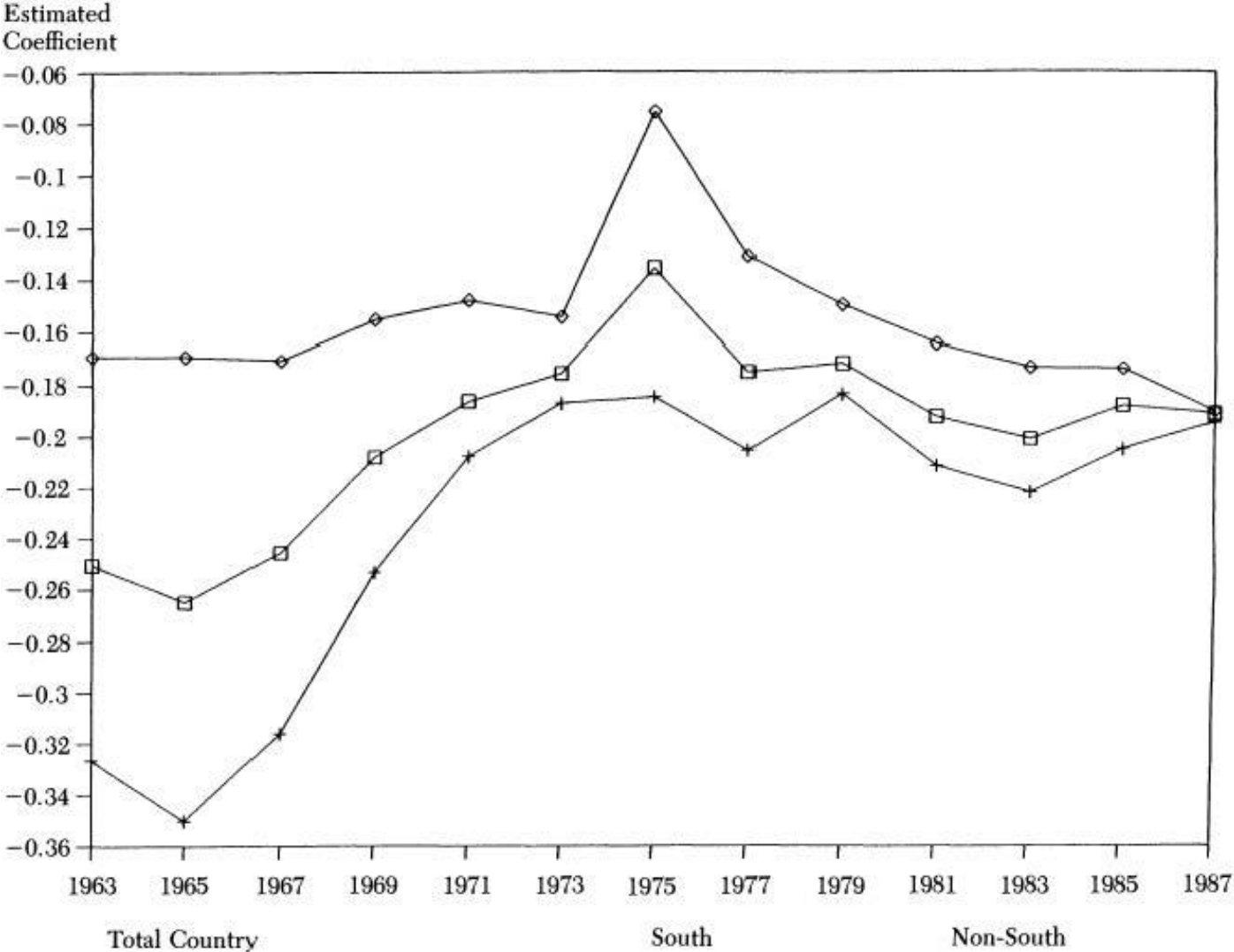
Table 1: Average Weekly Wages of Black Men as a Percentage of Average Weekly Wages of White Men, Stratified by Schooling and Experience

		Years of Experience				
		1–5	6–10	11–20	21–30	31–40
A.	All schooling classes:					
	1967–68	69.5	66.1	61.9	59.7	57.7
	1971–72	82.1	72.0	66.1	62.5	64.0
	1975–76	81.4	74.0	70.2	67.8	68.8
	1979–80	78.9	75.3	72.0	69.3	64.1
B.	Sixteen years of schooling:					
	1967–68	75.7	66.5	59.8	55.3	53.7
	1971–72	101.1	84.6	65.3	62.0	69.5
	1975–76	89.1	84.1	72.7	67.2	70.9
	1979–80	92.3	86.1	77.9	69.9	64.5
C.	Twelve years of schooling:					
	1967–68	81.8	76.8	71.2	68.4	68.4
	1971–72	90.7	82.3	76.2	71.0	73.8
	1975–76	83.1	81.8	77.2	76.7	73.6
	1979–80	79.5	78.1	78.4	77.8	76.2

Source: Yearly CPS public-use tapes: See Smith and Welch (1984), Table 13.

Table 2: Estimated Regression Coefficients for Southern Residence

Sample	1–5	6–10	11–15	16–20	21–25	26–30	31–35	36–40
Blacks								
1940	−24.6	−25.8	−27.5	−30.0	−28.8	−33.3	−31.0	−32.1
1950	−26.2	−27.7	−27.3	−26.9	−37.7	−37.8	−34.6	−29.0
1960	−33.7	−31.7	−28.4	−29.6	−29.8	−31.2	−37.5	−35.3
1970	−20.9	−27.3	−28.4	−27.7	−27.1	−30.7	−29.3	−29.3
1980	−9.1	−11.8	−10.3	−17.5	−17.3	−16.1	−18.8	−22.9
Whites								
1940	−1.8	−9.3	−10.7	−10.6	−10.8	−11.5	−10.4	−9.5
1950	−8.0	−12.0	−7.9	−12.6	−13.9	−13.7	−11.8	−18.7
1960	−9.9	−12.1	−11.3	−9.4	−9.2	−10.8	−12.8	−14.3
1970	−5.7	−9.0	−10.0	−10.0	−9.6	−8.6	−8.0	−9.4
1980	−1.8	−5.1	−6.0	−6.0	−7.9	−9.4	−7.6	−7.8
Black-White								
1940	−22.8	−16.5	−16.9	−19.5	−18.0	−21.8	−20.6	−22.5
1950	−18.8	−15.6	−20.4	−14.3	−23.9	−24.1	−22.9	−10.3
1960	−23.8	−19.7	−17.1	−20.2	−20.6	−20.5	−24.6	−21.0
1970	−15.2	−18.3	−18.3	−17.9	−17.6	−22.1	−21.3	−19.9
1980	−7.3	−6.8	−4.4	−11.5	−9.5	−6.7	−11.2	−15.1

Source: Smith and Welch (1986), Table A1 and A2.

Table 3: Real Relative Wage Gains of Black vis-à-vis - White Males in the Sixties

| | Percentage Growth in Relative Mean Wage Income Due to | | | | |
	Northern Wage Changes	Northern Occupational Changes	Southern Wage Changes	Southern Occupational Changes	North-South Migration
Total	0.82	3.36	8.97	4.13	0.55
By Occupation					
Professional	−0.97	−2.99	0.39	−0.43	--
Managers	−0.73	−0.83	0.07	0.55	--
Sales	−1.01	0.05	−0.34	0.10	--
Clerical	0.15	1.29	0.29	1.34	--
Craftsmen	−0.76	2.68	1.24	2.55	--
Operatives	2.03	4.91	3.16	2.46	--
Laborers	1.54	−1.76	2.14	−1.79	--
Farmers	−0.95	0.65	0.09	−0.36	--
Farm Laborers	−0.08	−0.41	0.55	−0.45	--
Service	1.59	−0.23	1.37	0.17	--

Source: From Butler, Payner, and Heckman (1989). The data for males in the experienced labor force, 25 to 64 years old, who reported earnings. The 1960 data are for nonwhites and comes from the U.S. Census of Population 1960, Tables 2 and 3. The 1970 data are for black and white males and comes from the U.S. Census of Population 1970, Tables 3 and 4. We could not find similar data for females. "North" refers to "non-South."

Note: For a given race, mean earnings (E) is simply

$$E = P_N \left(\sum_i P_i^N E_i^N \right) + P_S \left(\sum_i P_i^S E_i^S \right)$$

where P_j = Proportion in region "j"

P_i^j = Proportion of that race group in region j that have earnings in occupation i

E_i^j = Average earnings in region j and occupation i.

The percentage change in earnings can be approximated by

$$d\ln E = \left(\frac{P_N \sum_i P_i^N E_i^N}{E} d\ln P_N + \frac{P_S \sum_i P_i^S E_i^S}{E} d\ln P_S \right) \quad \text{Regional Migration}$$

$$+ \left(\sum_i \frac{P_i^N E_i^N P_N}{E} d\ln P_i^N \right) \quad \text{Occupational shift in the North}$$

$$+ \left(\sum_i \frac{P_i^S E_i^S P_S}{E} d\ln P_i^S \right) \quad \text{Occupational shift in the South}$$

$$+ \left(\sum_i \frac{P_i^N E_i^N P_N}{E} d\ln E_i^N \right) \quad \text{Wage changes in the North}$$

$$+ \left(\sum_i \frac{P_i^S E_i^S P_S}{E} d\ln E_i^S \right) \quad \text{Wage changes in the South}$$

Since $d\ln (E_{\text{Black}}/E_{\text{White}}) = d\ln E_{\text{Black}} - d\ln E_{\text{White}}$ we can decompose relative wage growth into the above component part by substracting the white change from the respective black change. Note that all the weights for the changes (i.e., the $P_i^j E_i^j P_j$) were averaged over the 1960 and 1970 Censuses. All pecuniary variables are in 1967 dollars.

## II. Do Migration and Increased Education Explain Post-1964 Black Gains?

Smith and Welch:

The racial wage gap narrowed as rapidly in the 20 years prior to 1960 (and before affirmative action) as during the 20 years afterward. This suggests that the slowly evolving historical forces we have emphasized ... - education and migration – were the primary determinants of the long-term economic improvement. At best, affirmative action has marginally altered black wage gains around this long-term trends.

– Smith and Welch (1989)

- This statement raises two questions:

  1. Was the post-1964 relative black improvement simply part of a longer historical trend of black progress?

  2. Do migration and increased education explain post-1964 black gains?

A. Was the Post-1964 Relative Black Improvement Simply Part of a Longer Historical Trend of Black Progress?

Figure 7: Employment in the South Carolina Textiles Industry
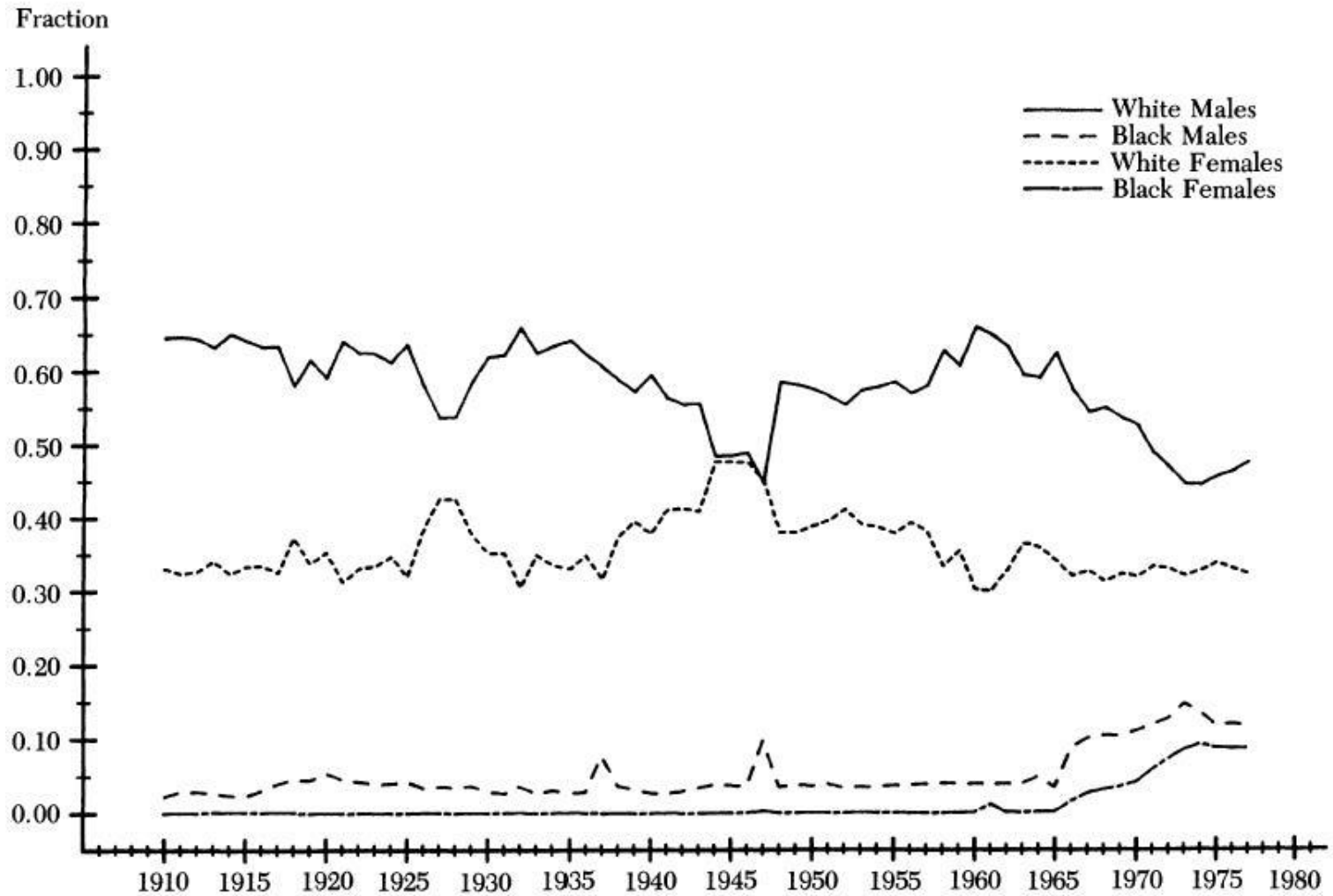
Source: Heckman and Payner (1989).

B. The Unimportance of Migration After 1965

C. The Relative Improvement of Black Education

1. The Modest Impact of Relative Increases in the Quantity of Schooling

$$\ln E_t^B = X_t^B \, \beta_t^B + U_t^B \qquad (1)$$

$$\ln E_t^W = X_t^W \beta_t^W + U_t^W. \qquad (2)$$

$$\ln(E_t^B / E_t^W) = X_t^B \beta_t^B - X_t^W \beta_t^W \qquad (3)$$
$$+ U_t^B - U_t^W.$$

$$\text{``Direct Effect''}$$
$$\Delta \ln(E_t^B/E_t^W) = [(X_{t+1}^B - X_{t+1}^W) \quad (4)$$
$$- (X_t^B - X_t^W)]\beta_t^W$$

$$\text{``Race Interaction''}$$
$$+ (X_{t+1}^B - X_t^B)(\beta_t^B - \beta_t^W)$$

$$\text{``Year Interaction''}$$
$$+ (X_{t+1}^B - X_{t+1}^W)(\beta_{t+1}^W - \beta_t^W)$$

$$\text{``Race-Year Interaction''}$$
$$+ (X_{t+1}^B)[(\beta_{t+1}^B - \beta_{t+1}^W) - (\beta_t^B - \beta_t^W)]$$

$$\text{``Residual Change''}$$
$$+ (U_{t+1}^B - U_t^B) - (U_{t+1}^W - U_t^W).$$

Table 4: The Contribution of Schooling to Black Relative Wage Growth by Decade and Overall for Workers Classified by Work Experience

Period	1980–70	1970–60	1960–50	1950–40	1980–40	1980–70	1970–60	1960–50	1950–40	1980–40
	Experience = 1–5 Years					Experience = 6–10 Years				
Direct	10.04	6.81	6.14	12.60	35.58	4.20	6.37	5.10	6.78	22.46
Race	−2.34	−4.84	−4.05	−9.57	−20.80	−1.12	−2.33	−4.50	−4.50	−12.45
Year	0.77	−1.62	−6.52	12.18	4.81	1.17	−0.73	−3.40	11.28	8.32
Race-Year	38.88	12.53	−10.36	23.61	64.67	24.29	9.73	5.98	11.78	51.79
Total	47.35	12.89	−14.79	38.81	84.26	28.55	13.05	3.18	25.35	70.12
Race-Year/Total × 100	82.11	97.21	70.04	60.83	76.75	85.08	74.56	188.05	46.46	73.86
	Experience = 11–15 Years					Experience = 16–20 Years				
Direct	2.30	5.69	4.40	5.94	18.34	4.41	4.67	2.81	4.42	16.31
Race	−1.40	−3.01	−3.44	−5.86	−13.71	−2.16	−3.24	−3.53	−6.05	−14.99
Year	0.44	−0.75	−0.97	7.80	6.52	0.55	−1.53	−1.27	7.96	5.70
Race-Year	16.61	11.98	2.00	14.53	45.11	7.07	4.37	8.84	14.26	34.54
Total	17.95	13.91	1.98	22.42	56.26	9.86	4.27	6.85	20.58	41.56
Race-Year/Total × 100	92.53	86.12	101.01	64.81	80.18	71.70	102.34	129.05	69.29	83.11

Table 4: The Contribution of Schooling to Black Relative Wage Growth by Decade and Overall for Workers Classified by Work Experience, Cont'd

	Experience = 21–25 Years					Experience = 26–30 Years				
Direct	4.24	5.03	4.08	0.50	13.85	3.75	−5.65	2.34	−0.26	11.47
Race	−2.80	−4.58	−6.93	−3.31	−17.62	−4.68	−4.81	−4.09	−1.96	−15.54
Year	0.18	−0.82	−1.55	8.44	6.25	0.52	−0.25	−1.50	8.63	7.40
Race-Year	4.65	8.78	13.71	5.00	32.15	12.67	−1.21	2.93	10.83	27.64
Total	6.27	8.41	9.31	10.63	34.63	12.25	1.79	−0.31	17.24	30.97
Race-Year/Total × 100	74.16	104.40	147.26	47.04	92.84	103.43	−67.59	−945.16	62.82	89.25
	Experience = 31–35 Years					Experience = 36–40 Years				
Direct	4.25	3.90	0.95	1.27	10.37	4.08	1.62	2.81	−2.45	6.05
Race	−5.95	−6.01	−3.24	−2.65	−17.85	−4.51	−5.20	−3.50	−0.68	−13.89
Year	0.93	−0.09	−2.57	7.19	5.45	2.03	−0.57	−0.60	7.80	8.66
Race-Year	13.92	2.86	−0.36	7.44	24.59	5.39	5.29	1.52	4.41	16.60
Total	13.15	0.67	−4.50	13.26	22.58	6.99	1.13	0.24	9.07	17.42
Race-Year/Total × 100	105.86	426.87	−8.00	56.10	108.90	77.11	468.14	633.33	48.62	95.29

Source: Smith and Welch (1986), Tables A3-A6. Smith and Welch include age, region, location in SMSA and location in central cities of SMSA as regressors in addition to schooling.

- The most striking feature of Table 4 is the large proportion of the total accounted for by the "Race-Year Interaction."

- The Contribution of measured changes in years of schooling in comparison.

2. Improving Relative Schooling Quality or Reduced Discrimination?

Table 5: Estimated "Vintage Effects;" Percentage Change in Black Relative Wages Owing to Increased Returns to Years of Schooling

Cohort by Experience Class	1940–1950	1950–1960	1960–1970	1970–1980
1–5 in 1980	—	—	—	38.88
6–10 in 1980	—	—	—	24.29
1–5 in 1970	—	—	12.53	16.61
6–10 in 1970	—	—	9.73	7.07
1–5 in 1960	—	−10.36	11.98	4.65
6–10 in 1960	—	5.98	4.37	12.67
1–5 in 1950	23.61	2.00	8.78	13.92
6–10 in 1950	11.78	8.84	−1.21	5.39
11–15 in 1940	14.53	13.71	2.86	—
16–20 in 1940	14.26	2.93	5.29	—
11–15 in 1940	5.00	−.36	—	—
16–20 in 1940	10.83	1.52	—	—
21–25 in 1940	7.44	—	—	—
26–30 in 1940	4.41	—	—	—

Source: The entries in this table are the Race-Year Interaction for schooling presented in Table 4.

D. *The Schooling Quality Hypothesis*

A: Ratio of White-to-Black Pupils/Teachers
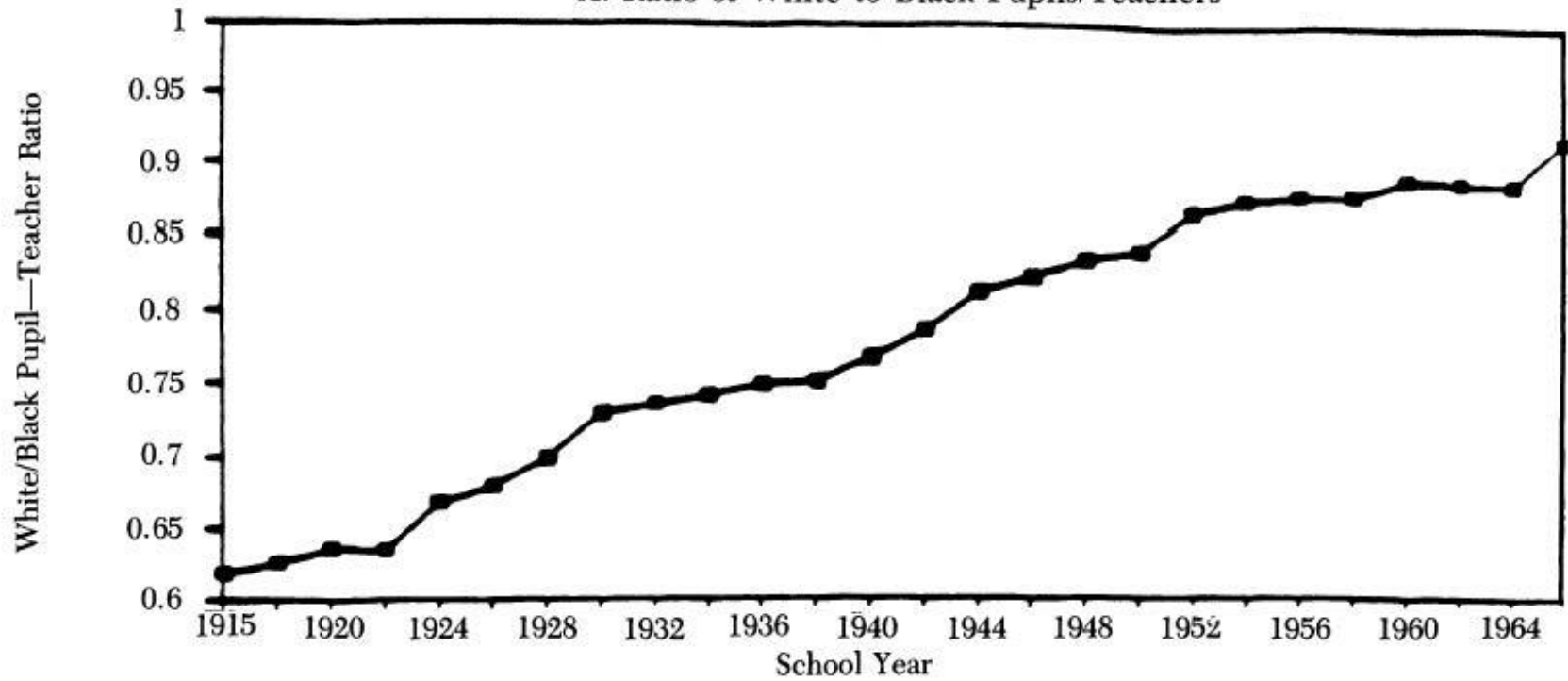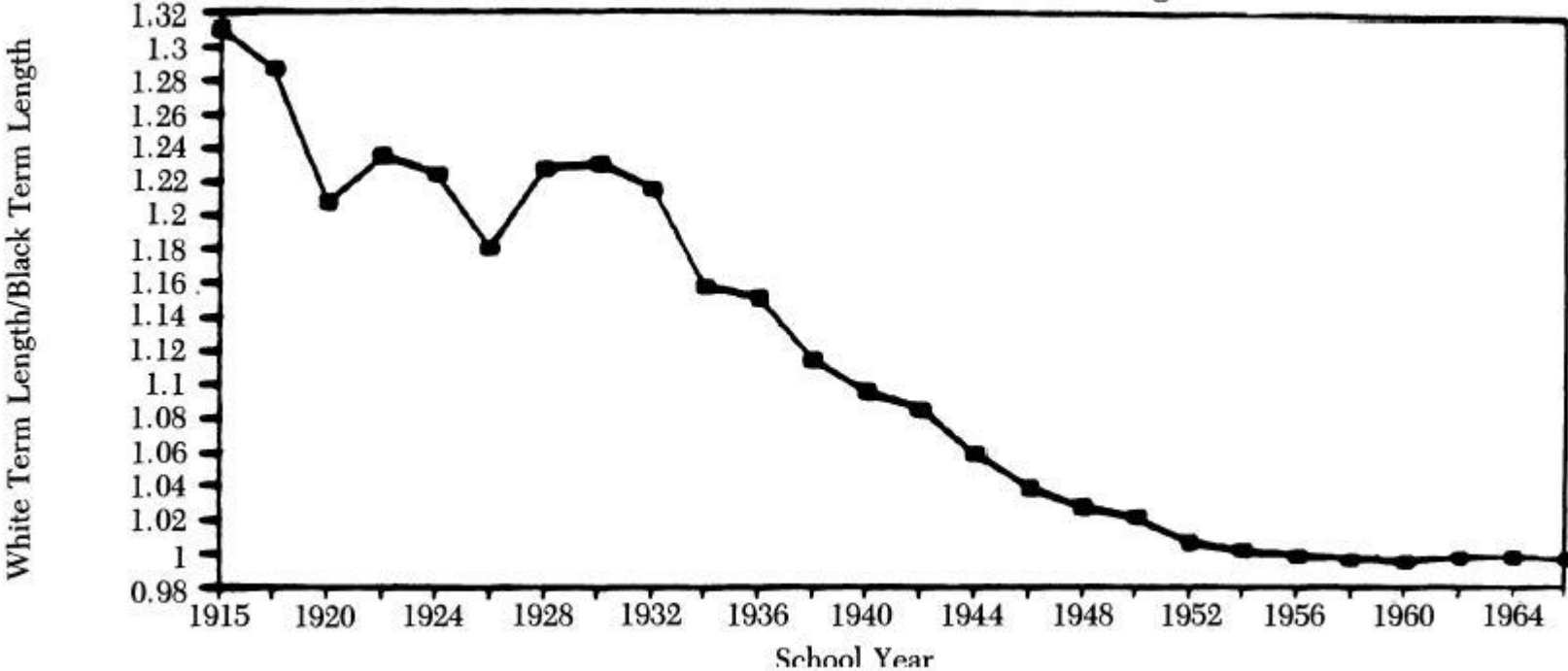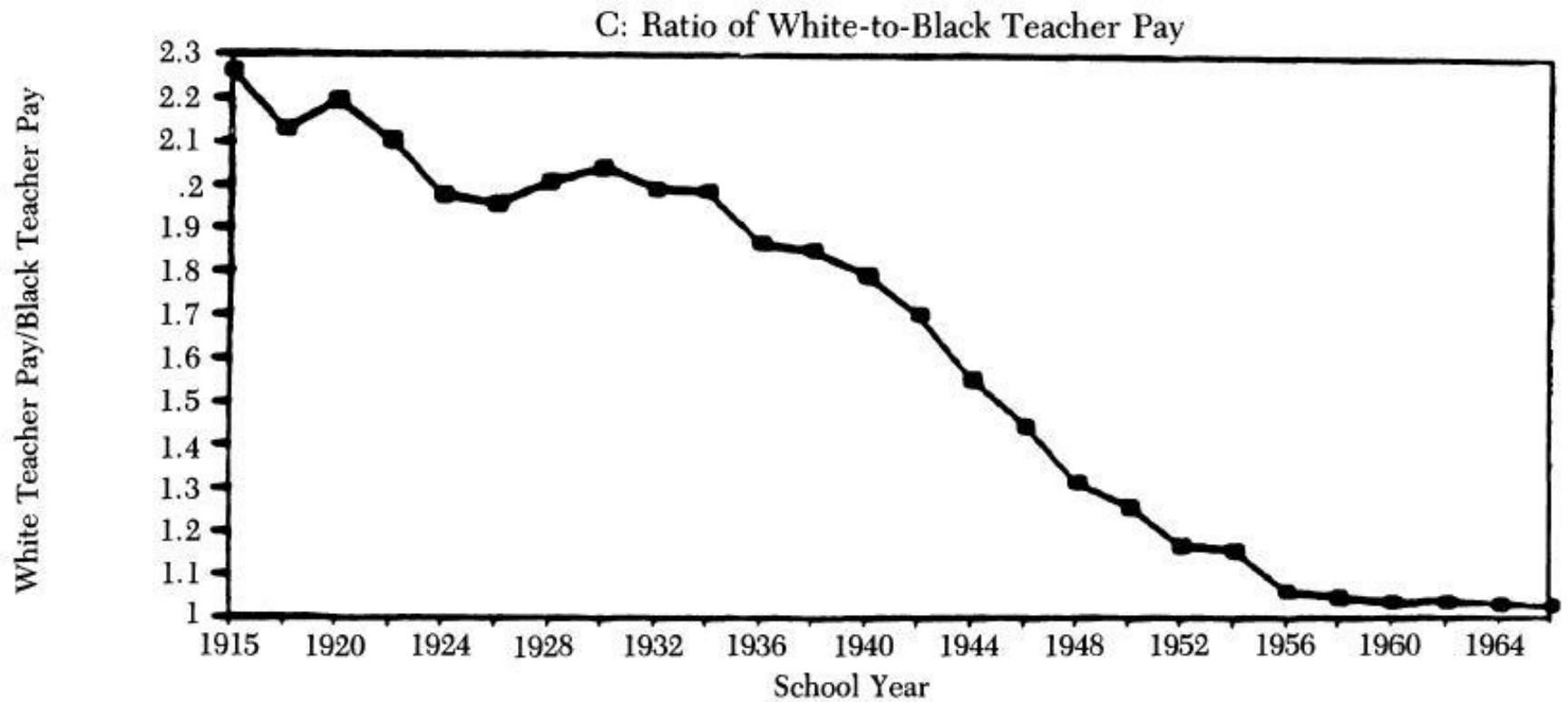
B: Ratio of White-to-Black Term Length

Figure 8: Relative School Quality in 18 Segregated States, 1915-1966
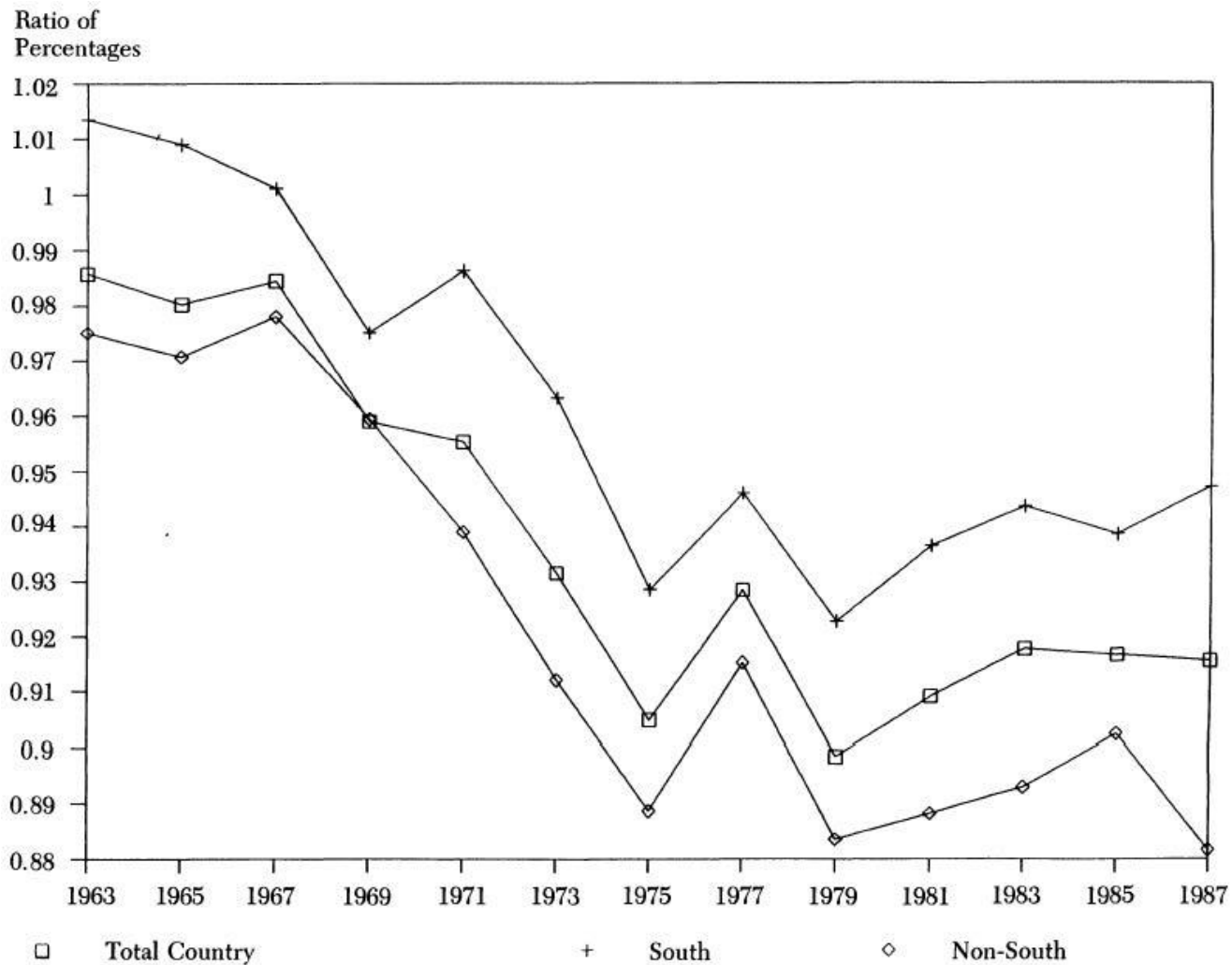

Source: Card and Krueger (1991), Figure 1.

Table 6: Percentage of Black Students in 90-100% - Minority Enrollment Schools

Region	1968	1972	1976	1980
South	77.8	24.7	22.4	23.0
Border	60.2	54.7	42.5	37.0
Northeast	42.7	46.9	51.4	48.7
Midwest	58.0	57.4	51.1	43.6
West	50.8	42.7	36.3	33.7
U.S. Average	64.3	38.7	35.9	33.2

Source: Orfield (1983), Table 2.

- Where does this leave us in our effort to account for black relative advance in the decade following the effective date of Title VII in 1965?

- We have noted that migration had no effect and increases in the years of education had small effects on black relative progress after 1965.

- Given Card and Krueger's estimate for the period 1960-1980 of 15-20 percent as the contribution of relative black schooling gains to black relative earnings advances, it would seem that a considerable portion of the black economic progress enjoyed in the post-1964 era cannot be explained by the long-term forces of migration and educational improvement.

Figure 9: Relative Labor Force Participation Rate: Ratio of Black to White Males Age 20-64

Source: Card and Krueger (1991), Figure 1.

III. Demand-Side Influences on Black Economic Progress

A. Federal Policy Impacts

1. The Contract Compliance Program

Table 7: Estimated Employment and Occupational Status Effects: Percentage Point Differences in Annual Growth Rates Between Blacks and Whites

Study	Independent Variables	Relative Employment		Relative Occupational Position	
		Effect of Contractor Status	Effect of Review	Effect of Contractor Status	Effect of Review
Ashenfelter-Heckman (1976) National Sample of 40,445 establishment from EEO-1 data, 1966–1970 males only	Presence of contract plus region dummy, size of establishment, log employment changes, SMSA, total firm employment, lagged value of dependent variable	.82 *SR* black males 12.9 *LR*		.05 *SR* black males .4 *LR* $$\left[\frac{\Sigma P_j B_j}{\Sigma P_j(B_j + W_j)} - \frac{\Sigma P_j W_j}{\Sigma P_j(B_j + W_j)}\right]$$	
Goldstein-Smith (1976) National Sample of 74,563 establishments in 1970–1972 from EEO-1 data	Presence of govt. contract plus region dummy, size of establishment, log employment changes, SMSA, total firm empl., compliance review	−.10 black males 1.77 black females	.77 black males 1.21 black females	−.21 black males 1.92 black females $$\Sigma(\ln P_j)\left[\frac{\Delta B_j}{B} - \frac{\Delta W_j}{W}\right]$$	.65 black males 1.23 black fermles
Leonard (1984b) National Sample of 68,690 establishments sampled over the period 1974–1980	Gov't contract, presence of contract review, industry, size, growth rate, white collar, region, corporate structure	.42 black males .43 black females	.83 black males .83 black females	.15 black males .09 black females	.09 black males −.05 black females
Leonard (1984c) National Sample of 68,690 establishments sampled over the period 1974–1980. Dependent variable = $\log\left(\frac{\text{emp}_{i,1980}}{\text{emp}_{i,1974}}\right)$	Gov't contract, presence of contract review, industry, log (size), log (growth rate), white collar, region, corporate structure	.82 black males 1.49 black females	1.29 black males 1.49 black females		

Key: P_j = wage in occupation j; B_j = blacks in occupation j; W_j = whites in occupation j; B = blacks; W = whites; Emp_i = Employment of Race i.
SR = Annual effect estimated with lagged dependent variable in regression.
LR = Total effect estimated for long-run solving out the lagged dependent variable.
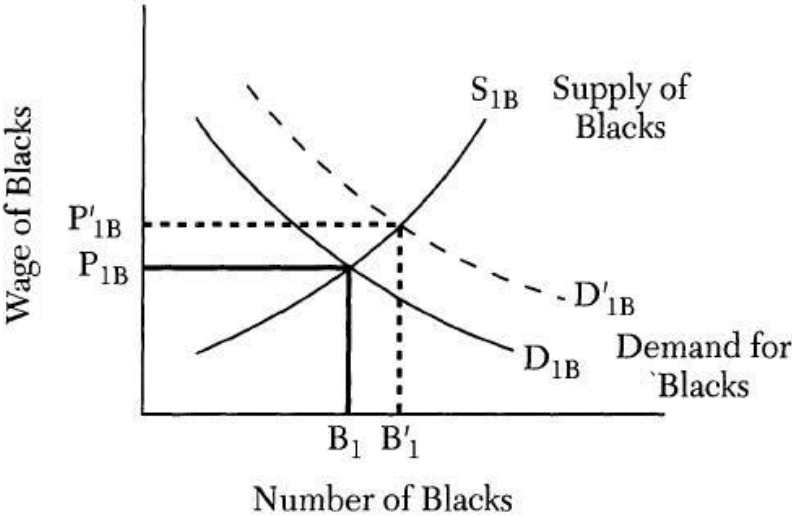
- Neither set of studies provides convincing estimates of the aggregate impact of the OFCC on the relative wages or employment level of black males.

- Missing is knowledge of key parameters of factor demand and sectoral labor supply elasticities.

- (Smith and Welch implicitly assume perfectly inelastic sectoral labor supply, and Leonard explicitly assumes somewhat inelastic sectoral labor supply.)

- To illustrate the importance of knowing these parameters, suppose that there are two sectors producing different products.

- Some of the firms in sector one sell their output to the government, while none of sector two output is sold to the government.

- If the supply of blacks within sector one is highly elastic and the contractor portion of industry employment is relatively small, then OFCC efforts to encourage hiring of blacks will cause blacks to shift to contractor firms for only negligible increases in wages.

- In this event, significant movements of black workers to contractor firms of the sort recorded in Table 7 can occur without any commensurate wage gain (Butler and Heckman, 1977)
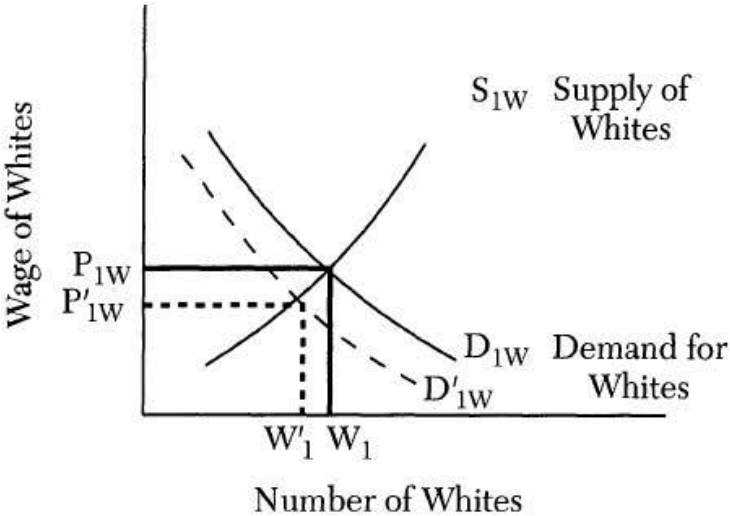
- On the other hand, suppose that government contracting is lucrative and is at least partly a matter of chance (as in competitive bidding).

- In this case, a substantial number of sector one firms may be contractors.

- OFCC pressure may generate effective increases in the demand for black workers in sector one if the elasticity of intersectoral labor supply is low.

Figure 10: Effects of Increased Demand for Black Labor in Sector One
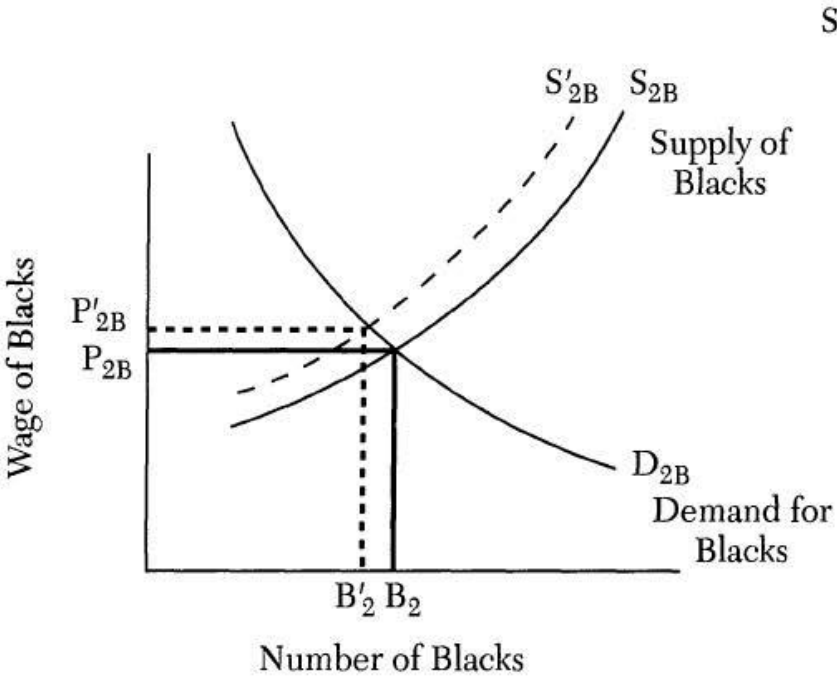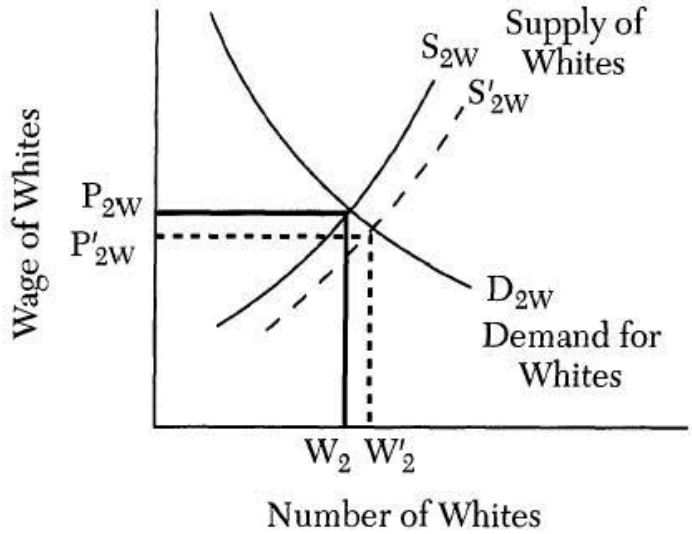

Sector One

(a)

(b)

Sector Two

(c)

(d)

- The studies summarized in Table 7 have made the valuable contribution of demonstrating a positive correlation between black employment growth and contractor status, when a negative finding on this point would have revealed the impotence of the contract compliance program.

- Because the presence of a governmental effect has been confirmed, although its precise nature is still uncertain, further investigation using better data is now warranted.

- To obtain a more refined estimate of the impact of the contract compliance program, it will be necessary to employ a general equilibrium model that includes the key ingredients of sectoral supply and demand parameters by race.

2. Title VII Litigation and the EEOC

Table 8: Summary Statistics for the Equal Employment Opportunity Commission (EEOC) and Office of Federal Contract Compliance (OFCC)

Year	Budget (1,000s of 1982$)	EEOC Resolved Cases (1,000s)	Employment Discrimination Cases Filed in Federal Courts
1966	9,680	6.4	NA
1970	32,954	8.5	336
1975	98,796	62.3	3,772
1979	148,100	81.7	5,032
1981	149,899	61.8	5,714
1982	144,739	57.2	7,015

Year	OFCC Budget (1,000s of 1982$)	Positions
1970	1,418	34
1975	8,072	201
1978	10,642	216
1979*	57,440	1,021
1981*	51,158	1,232
1982*	43,150	979

Source: Smith and Welch (1984); Donohue and Siegelman (1991).
*Beginning in 1979 these figures reflect consolidation of 11 agency offices with OFCC to form OFCCP.

Table 9: Charges Filed with the EEOC by Year

	1966	1967	1968	1969	1970	1971	1972
South	3,011	4,058	5,103	8,188	10,044	12,571	42,975
Total	6,133	8,512	11,172	14,471	17,780	28,609	86,677
Percentage in South	.491	.476	.456	.565	.564	.439	.496

Source: Annual Reports of the U.S. Equal Employment Opportunity Commission.

B. A More Refined View of Federal Policy

Table 10: Black Registration in Southern States, 1940-1984

Year	Registration Rate (percent)
1940	3.1
1946	12.2
1952	20.0
1956	25.0
1958	26.1
1960	28.7
1962	28.8
1964	41.9
1966	51.6
1968	58.7
1970	66.9
1972	55.8
1974	58.6
1976	59.9
1978	—
1980	55.1
1982	53.3
1984	66.9
1986	64.7
1988	63.7

Source: Jaynes and Williams (1989), Tables 5-7.

IV. Conclusion