Part 3: Role of Taxes and Transfers in Post Tax-Transfer Outcomes

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Econ 350, Spring 2022



Inequality in What? Alternative Measures of Inequality and Social Mobility

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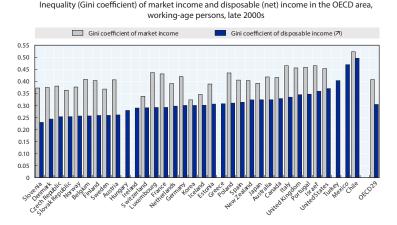
Part 1: Income and Wage Measures

Part 2: Role of Taxes and Transfers in Post-Tax Transfer Outcomes

- Part 3: Role of Skills & Skill Prices
- Part 4: Income Mobility
- Part 5: Inheritance of Inequality



Market incomes are distributed much more unequally than net incomes



Note: Income refers to **household** income. Late 2000s refers to a year between 2006 and 2009. The OECD average excludes Greece, Hungary, Ireland, Mexico and Turkey (no information on market income available). Working age is defined as 18-65 years old. Countries are ranked in increasing order of disposable income inequality.

1. Information on data for Israel: http://dx.doi.org/10.1787/888932315602.

Source: Chapter 6, Figure 6.1, OECD (2013).



Understanding Tax and Transfer Programs for Low- and Middle-Income Families



Are Tax Rates Flat?



Poverty Line Uses Income Concept

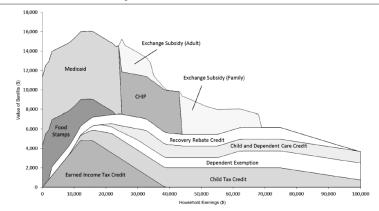
- Wages, salaries, and self-employment income (excludes health care contributions, borrowed money, gifts, inheritance, insurance payments, money from relatives living in house)
- Investment income (interest, dividends, rentals, royalties, income from estates and trusts); capital gains and money from selling property excluded
- Includes supplemental security and government railway plans, SSI, public assistance, welfare, retirement pensions, food stamps, public housing subsidies, and medical care, also excludes tax refunds



Figure 1: Universally Available Tax and Transfer Benefits (Single Parent with Two Children in Colorado, 2008)

Figure 1

Universally Available Tax and Transfer Benefits (Single Parent with Two Children in Colorado, 2008)

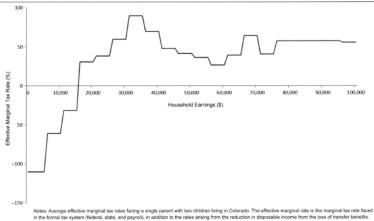


Notes: Value of tax and value transfer benefits for a single parent with two children living in Colorado. Tax and transfer rules are for 2008 with hypothetical exchange plane in 2014 added in. Health value estimates are based on Medicaid appending and insurance premiums as reported by the Kaiser Family Foundation. Coverage varies bus source: Medicaid and CHIP benefits are more comprehensive and have less cost-sharing than those in the exchange. Medicaid and CHIP also pay providers for services at lower rates than private insures:

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Overview

Figure 2: Effective Marginal Tax Rates (Single Parent with Two Children in Colorado, 2008)



in the formal tax system (federal, state, and payroll), in addition to the rates arising from the reduction in disposable income from the loss of transfer benefits. The tax rules used for federal and state income taxes are for CV2008. Hypothetical exchange values were calculated to display the eventual impact of the Affordable care Act or a worker whittout employer provided coverage based on insurance premium data reported by the Kaiser Family Foundation.

Maag et al. (2012)



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Overview

Tax Rates by Poverty Status



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Overview

Figure 3: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Single Parent with Two Children; TANF and Food Stamps; Equal Earnings in All Months)

	\$0 Earnings to Half Poverty	Half- Poverty to Poverty	Poverty to 150 Percent of Poverty	150 Percent of Poverty to Twice Poverty	\$0 to Poverty	\$0 to Twice Poverty
Alabama	-18.7	9.0	40.1	46.8	-4.9	19.3
Alaska	5.7	36.4	81.6	51.3	21.1	43.8
Arizona	14.7	5.2	44.8	44.1	9.9	27.2
Arkansas	0.9	7.9	49.7	47.9	4.4	26.6
California	5.3	40.1	53.3	41.5	22.7	35.0
Colorado	-2.3	23.0	46.5	46.1	10.3	28.3
Connecticut	-18.9	-1.7	104.7	44.4	-10.3	32.1
Delaware	-18.6	28.7	51.6	51.2	5.0	28.2
District of Columbia	-16.5	26.6	56.2	55.9	5.0	30.5
Florida	6.4	9.2	42.5	41.5	7.8	24.9
Georgia	6.8	9.0	48.1	47.6	7.9	27.9
Hawaii	5.4	45.5	88.2	48.6	25.5	46.9
Idaho	11.0	5.2	45.1	47.7	8.1	27.2
Illinois	3.4	25.9	46.6	45.5	14.6	30.3
Indiana	-2.7	18.0	47.2	46.2	7.7	27.2
Iowa	2.0	24.1	51.2	49.7	13.0	31.7
Kansas	-1.1	22.7	50.1	53.1	10.8	31.2
Kentucky	0.0	11.5	55.6	47.3	5.8	28.6
Louisiana	-20.3	30.2	47.5	48.3	5.0	26.4
Maine	-2.2	35.3	43.7	48.1	16.6	31.2
Maryland	13.2	16.9	52.0	48.8	15.0	32.7
Massachusetts	4.3	34.0	50.4	49.9	19.2	34.7
Michigan	17.7	13.6	48.7	48.0	15.7	32.0
Minnesota	8.2	25.6	46.2	57.0	16.9	34.3
Mississippi	-2.2	6.1	46.5	46.5	2.0	24.2
Missouri	-4.2	19.5	47.5	47.5	7.7	27.6
Montana	26.7	6.8	46.6	46.9	16.8	31.8

Figure 4: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Single Parent with Two Children; TANF and Food Stamps; Equal Earnings in All Months), Cont'd

	\$0 Earnings to Half Poverty	Half- Poverty to Poverty	Poverty to 150 Percent of Poverty	150 Percent of Poverty to Twice Poverty	\$0 to Poverty	\$0 to Twice Poverty
Montana	26.7	6.8	46.6	46.9	16.8	31.8
Nebraska	2.7	13.7	47.6	47.0	8.2	27.8
Nevada	-18.9	5.2	26.6	41.5	-6.9	13.6
New Hampshire	16.1	30.6	42.5	41.5	23.3	32.7
New Jersey	-27.9	1.3	34.6	47.9	-13.3	14.0
New Mexico	6.8	19.1	46.8	46.6	13.0	29.8
New York	-1.3	35.2	50.8	53.8	16.9	34.6
North Carolina	6.0	6.3	49.1	48.8	6.1	27.6
North Dakota	-2.7	21.2	58.2	43.6	9.2	30.1
Ohio	4.1	23.0	45.5	45.2	13.5	29.5
Oklahoma	8.8	5.6	47.9	48.0	7.2	27.6
Oregon	24.2	8.8	52.7	51.7	16.5	34.4
Pennsylvania	20.1	5.2	45.1	51.0	12.6	30.3
Rhode Island	6.5	31.4	43.9	46.6	19.0	32.1
South Carolina	-18.9	30.6	42.5	42.9	5.9	24.3
South Dakota	30.2	8.2	42.5	41.5	19.2	30.6
Tennessee	-19.0	23.1	42.5	41.5	2.1	22.0
Texas	-12.9	12.1	53.3	41.5	-0.4	23.5
Utah	5.6	26.6	47.6	47.9	16.1	31.9
Vermont	6.4	27.7	52.3	51.7	17.0	34.5



Figure 4: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Single Parent with Two Children; TANF and Food Stamps; Equal Earnings in All Months)

	\$0 Earnings to Half Poverty	Half- Poverty to Poverty	Poverty to 150 Percent of Poverty	150 Percent of Poverty to Twice Poverty	\$0 to Poverty	\$0 to Twice Poverty
Virginia	-18.9	5.0	84.5	51.5	-6.9	30.5
Washington	16.1	24.5	42.5	41.5	20.3	31.1
West Virginia	14.0	5.2	50.5	45.8	9.6	28.9
Wisconsin	36.3	6.0	52.0	52.1	21.1	36.6
Wyoming	14.0	5.2	42.5	41.5	9.6	25.8
Simple Average	2.4	17.9	50.5	47.3	10.2	29.5
High	36.3	45.5	104.7	57.0	25.5	46.9
Low	-27.9	-1.7	26.6	41.5	-13.3	13.6

Notes: The data include TANF, food stamps, federal and state income taxes, and the employee portion of payroll taxes. Calculations were performed using the Urban Institute's Net Income Change Calculator (NICC).



Figure 5: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Single Parent with Two Children; TANF and Food Stamps, and Medicaid; Equal Earnings in All Months)

	\$0 Earnings to Half	Half- Poverty	Poverty to 150 Percent	150 Percent of Poverty to	\$0 to	\$0 to Twice
	Poverty	to Poverty	of Poverty	Twice Poverty	Poverty	Poverty
Alabama	12.0	9.0	40.1	96.6	10.5	39.4
Alaska	5.7	36.4	112.3	101.2	21.1	63.9
Arizona	14.7	5.2	44.8	94.0	9.9	39.7
Arkansas	0.9	7.9	49.7	97.7	4.4	39.0
California	5.3	40.1	84.0	41.5	22.7	42.7
Colorado	-2.3	53.7	46.5	46.1	25.7	36.0
Connecticut	-18.9	-1.7	104.7	44.4	-10.3	32.1
Delaware	-18.6	28.7	82.3	101.0	5.0	48.3
District of Columbia	-16.5	26.6	56.2	55.9	5.0	30.5
Florida	6.4	39.9	42.5	91.4	23.2	45.0
Georgia	6.8	39.8	48.1	47.6	23.3	35.6
Hawaii	5.4	45.5	118.9	48.6	25.5	54.6
Idaho	41.7	5.2	45.1	97.6	23.4	47.4
Illinois	3.4	25.9	46.6	126.1	14.6	50.5
Indiana	-2.7	18.0	47.2	46.2	7.7	27.2
lowa	2.0	24.1	51.2	99.5	13.0	44.2
Kansas	29.7	22.7	50.1	103.0	26.2	51.4
Kentucky	0.0	42.2	55.6	97.2	21.1	48.8
Louisiana	10.5	30.2	47.5	48.3	20.3	34.1
Maine	-2.2	35.3	43.7	98.0	16.6	43.7
Maryland	13.2	16.9	82.7	48.8	15.0	40.4
Massachusetts	4.3	34.0	81.1	49.9	19.2	42.3
Michigan	17.7	44.3	48.7	97.8	31.0	52.1
Minnesota	8.2	25.6	46.2	57.0	16.9	34.3
Mississippi	28.6	6.1	46.5	96.3	17.3	44.4
Missouri	26.5	19.5	47.5	47.5	23.0	35.2
Montana	26.7	37.5	46.6	96.7	32.1	51.9
Nebraska	2.7	44.5	47.6	96.9	23.6	47.9
Nevada	-18.9	5.2	26.6	91.4	-6.9	26.1
New Hampshire	16.1	61.3	42.5	41.5	38.7	40.3
New Jersey	-27.9	1.3	34.6	47.9	-13.3	14.0
New Mexico	6.8	19.1	46.8	46.6	13.0	29.8
New York	-1.3	35.2	50.8	84.5	16.9	42.3
North Carolina	6.0	37.0	49.1	98.7	21.5	47.7
North Dakota	-2.7	51.9	108.1	43.6	24.6	50.2
Ohio	4.1	53.7	45.5	95.1	28.9	49.6
Oklahoma	8.8	5.6	47.9	97.8	7.2	40.0
Oregon	24.2	8.8	83.4	101.6	16.5	54.5
Pennsylvania	20.1	5.2	45.1	51.0	12.6	30.3
Rhode Island	6.5	31.4	43.9	77.3	19.0	39.8
South Carolina	-18.9	61.3	42.5	92.7	21.2	44.4
South Dakota	30.2	38.9	42.5	91.4	34.6	50.7
Tennessee	-19.0	23.1	73.2	41.5	2.1	29.7
Texas	17.8	12.1	53.3	91.4	14.9	43.6
Utah	5.6	26.6	47.6	128.4	16.1	52.0
Vermont	64	27.7	52.3	82.5	17.0	42.2



Figure 5: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Single Parent with Two Children; TANF and Food Stamps, and Medicaid; Equal Earnings in All Months)

	\$0 Earnings to Half Poverty	Half- Poverty to Poverty	Poverty to 150 Percent of Poverty	150 Percent of Poverty to Twice Poverty	\$0 to Poverty	\$0 to Twice Poverty
Virginia	11.8	5.0	84.5	101.3	8.4	50.7
Washington	16.1	24.5	42.5	41.5	20.3	31.1
West Virginia	44.7	5.2	50.5	45.8	24.9	36.5
Wisconsin	36.3	6.0	52.0	52.1	21.1	36.6
Wyoming	14.0	35.9	42.5	91.4	24.9	45.9
Simple Average	7.8	26.4	56.3	76.7	17.1	41.8
High	44.7	61.3	118.9	128.4	38.7	63.9
Low	-27.9	-1.7	26.6	41.5	-13.3	14.0

Notes: The data include TANF, food stamps, federal and state income taxes, and the employee portion of payroll taxes. Calculations were performed using NICC.



Figure 6: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Married Couple with Two Children; TANF and Food Stamps; Equal Earnings in All Months)

			-			
	\$0 Earnings	Half-	Poverty to	150 Percent of		\$0 to
	to Half	Poverty to	150 Percent	Poverty to	\$0 to	Twice
	Poverty	Poverty	of Poverty	Twice Poverty	Poverty	Poverty
Alabama	-78.8	22.8	51.2	61.4	-28.0	6.5
Alaska	-44.8	49.9	75.0	55.8	2.5	29.3
Arizona	-40.9	18.5	57.1	63.7	-11.2	16.0
Arkansas	-59.7	19.2	64.1	59.9	-20.3	13.8
California	-32.0	53.6	59.7	66.4	10.8	27.5
Colorado	-55.3	34.5	57.1	61.8	-10.4	16.9
Connecticut	-65.1	69.2	55.0	62.9	2.0	22.7
Delaware	-71.4	42.0	61.8	56.6	-14.7	17.1
District of Columbia		44.2	68.4	52.0	-10.9	21.7
Florida	-46.9	18.5	54.1	66.4	-14.2	13.1
Georgia	-49.9	20.6	59.8	60.4	-14.7	15.7
Hawaii	-71.0	55.9	102.9	59.5	-7.6	29.3
Idaho	-52.9	18.5	56.0	60.4	-17.2	13.5
Illinois	-48.9	34.6	58.0	62.3	-7.2	18.7
Indiana	-58.9	30.9	58.7	61.8	-14.0	15.4
lowa	-49.7	38.1	61.9	58.2	-5.8	21.3
Kansas	-52.7	34.7	62.7	59.0	-9.0	19.6
Kentucky	-53.8	21.9	68.3	60.6	-15.9	16.9
Louisiana	-78.8	42.0	58.2	61.7	-18.4	13.0
Maine	-48.8	47.7	55.3	60.4	-0.6	22.0
Maryland	-32.4	31.7	62.8	55.7	-0.3	25.0
Massachusetts	-38.9	44.4	62.1	57.8	2.7	25.9
Michigan	-27.6	23.4	60.3	59.9	-2.1	22.5
Minnesota	-47.2	31.7	64.3	50.9	-7.7	22.7
Mississippi	-65.5	19.1	57.9	61.3	-23.2	10.5
Missouri	-59.2	29.3	59.3	60.4	-14.9	15.4
Montana	-24.4	20.4	58.6	60.6	-2.0	22.0
Nebraska	-47.7	23.5	58.4	60.7	-12.1	16.6
Nevada	-72.1	18.6	36.8	66.4	-26.7	2.6
New Hampshire	-29.2	36.4	54.1	66.4	3.6	22.5
New Jersey	-79.7	21.2	41.6	60.0	-29.3	4.0
New Mexico	-45.7	34.7	57.7	61.3	-5.5	19.8
New York	-40.5	46.7	64.8	55.4	3.1	27.4
North Carolina	-55.5	19.8	60.7	59.2	-17.8	14.5
North Dakota	-86.9	18.5	55.5	64.3	-34.2	3.5
Ohio	-44.8	33.6	57.5	62.7	-5.6	19.3
Oklahoma	-47.7	19.7	60.2	59.8	-14.0	16.2
Oregon	-25.6	23.5	64.3	56.1	-1.1	24.9
Pennsylvania	-32.2	18.5	54.1	54.2	-6.9	20.0
Rhode Island	-38.9	38.9	55.3	59.5	0.0	22.6
South Carolina	-76.4	42.9	54.1	64.9	-16.7	12.2
South Dakota	-21.5	18.5	54.1	66.4	-1.5	19.8
Tennessee	-79.4	35.9	54.1	66.4	-21.7	9.2
Texas	-70.9	35.6	54.1	66.4	-17.7	11.3
Utah	-42.0	34.7	57.9	60.0	-3.7	21.1
Vermont	-33.8	35.8	63.3	56.2	1.0	25.7
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Appr et al. (2012)

Figure 6: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Married Couple with Two Children; TANF and Food Stamps; Equal Earnings in All Months)

	\$0 Earnings to Half Poverty	Half- Poverty to Poverty	Poverty to 150 Percent of Poverty	150 Percent of Poverty to Twice Poverty	\$0 to Poverty	\$0 to Twice Poverty
Virginia	-72.0	53.3	59.7	56.3	-9.4	19.4
Washington	-30.0	34.4	54.1	66.4	2.2	21.7
West Virginia	-44.7	19.7	61.5	62.0	-12.5	16.8
Wisconsin	-23.3	20.4	62.7	56.0	-1.5	24.3
Wyoming	-49.5	18.5	54.1	66.4	-15.5	12.4
Simple Average	-51.2	31.8	59.2	60.6	-9.7	18.1
High	-21.5	69.2	102.9	66.4	10.8	29.3
Low	-86.9	18.5	36.8	50.9	-34.2	2.6

Notes: The data include TANF, food stamps, federal and state income taxes, and the employee portion of payroll taxes. Calculations were performed using NICC.



Figure 7: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Single Parent with Two Children; TANF and Food Stamps; No Employment January-June; Employed July-December)

	\$0 Earnings to Half Poverty	Half- Poverty to Poverty	Poverty to 150 Percent of Poverty	150 Percent of Poverty to Twice Poverty	\$0 to Poverty	\$0 to Twice Poverty
Alabama	-22.8	7.5	32.8	46.8	-7.7	16.0
Alaska	9.0	30.0	9.9	41.5	11.3	22.6
Arizona	-2.1	13.2	4.5	44.1	-6.5	15.0
Arkansas	-9.0	6.1	19.3	47.9	-8.5	16.1
California	10.7	29.3	-8.4	41.5	2.6	18.3
Colorado	-1.7	13.9	5.6	46.1	-6.3	16.0
Connecticut	-22.3	-18.9	66.0	44.4	-1.3	17.3
Delaware	-7.0	4.5	15.7	51.2	-6.7	16.1
District of Columbia	-14.1	17.2	10.3	55.9	-13.3	17.3
Florida	-4.2	10.2	5.2	41.5	-7.5	13.2
Georgia	-4.9	10.7	12.5	47.6	-6.8	16.5
Hawaii	11.6	54.4	-8.2	48.6	12.5	26.6
Idaho	-4.0	10.6	7.4	47.7	-7.4	15.5
Illinois	1.0	21.3	0.5	45.5	-3.8	17.1
Indiana	-6.2	11.7	11.0	46.2	-7.3	15.6
Iowa	-1.1	20.1	5.4	49.7	-5.3	18.5
Kansas	-6.2	20.3	5.9	53.1	-6.9	18.3
Kentucky	-6.2	7.4	21.2	47.3	-8.5	17.4
Louisiana	-8.7	7.7	14.6	48.3	-8.9	15.5
Maine	4.5	22.8	-6.1	48.1	-3.1	17.3
Maryland	-1.5	27.5	-3.3	48.8	-6.6	17.9
Massachusetts	5.0	30.3	-8.7	49.9	-3.7	19.2
Michigan	0.9	24.7	-1.4	48.0	-4.1	18.1
Minnesota	1.8	22.2	-6.9	57.0	-6.4	18.5
Mississippi	-10.5	2.0	18.4	46.5	-10.2	14.1
Missouri	-4.8	10.3	11.0	47.4	-7.4	16.0
Montana	3.9	23.5	-2.3	46.9	-2.6	18.0
Nebraska	-5.1	13.2	6.1	47.0	-8.6	15.3
Nevada	-18.9	-18.7	52.6	41.5	-18.8	14.1
New Hampshire	11.3	32.5	-17.0	41.5	0.2	17.1
New Jersey	-28.5	-21.5	63.9	47.9	-25.1	15.4
New Mexico	-0.6	19.9	-0.4	46.6	-5.8	16.4
New York	0.3	32.0	-13.3	53.8	-7.8	18.2
North Carolina	-7.1	9.2	14.0	48.8	-8.4	16.2
North Dakota	-2.8	9.3	14.9	43.6	-3.3	16.3
Ohio	0.9	18.7	0.9	45.2	-4.4	16.4
Oklahoma	-5.3	9.9	11.4	48.0	-7.9	16.0
Oregon	1.5	25.4	3.8	51.7	-2.9	20.6
Pennsylvania	0.6	17.1	0.9	51.0	-5.1	17.4
Rhode Island	6.5	27.0	-10.7	46.6	-2.4	17.4
South Carolina	-6.2	7.4	8.0	42.9	-8.5	13.0
South Dakota	7.2	26.5	-11.1	41.5	-1.8	16.0
Tennessee	-10.0	2.1	13.4	41.5	-10.4	11.7
Texas	-12.5	-3.8	24.6	41.5	-9.0	12.5
Utah	4.1	22.0	-1.5	47.9	-3.4	18.1
Vermont	0.5	31.5	-10.0	51.7	-7.0	18.4

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Figure 7: Effective Marginal Tax Rates (%) Moving from Various Earnings Levels (Single Parent with Two Children; TANF and Food Stamps; No Employment January-June; Employed July-December)

	\$0 Earnings to Half Poverty	Half- Poverty to Poverty	Poverty to 150 Percent of Poverty	150 Percent of Poverty to Twice Poverty	\$0 to Poverty	\$0 to Twice Poverty
Virginia	-19.0	-18.7	57.3	51.5	-5.5	17.8
Washington	8.3	28.1	-12.7	41.5	-1.3	16.3
West Virginia	-2.4	12.8	10.7	45.8	-6.6	16.7
Wisconsin	5.9	33.5	-7.7	52.1	-2.0	21.0
Wyoming	-2.4	12.8	2.7	41.5	-6.6	13.6
Simple Average	-3.2	15.1	8.5	47.1	-5.7	16.9
High	11.6	54.4	66.0	57.0	12.5	26.6
Low	-28.5	-21.5	-17.0	. 41.5	-25.1	11.7

Notes: The data include TANF, food stamps, federal and state income taxes, and the employee portion of payroll taxes. Calculations were performed using NICC.

