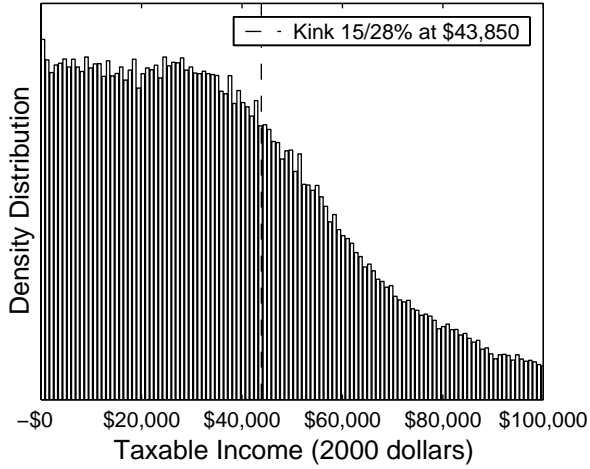


A. Married Taxpayers Filing jointly (266,272 obs.)



B. Single Taxpayers (122,401 obs.)

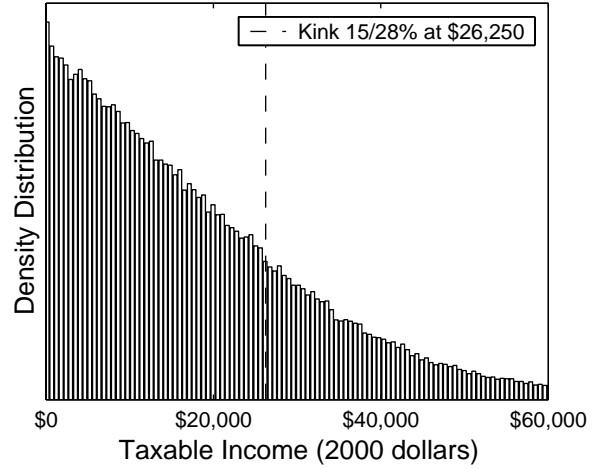


Fig. 7. Density distribution around kink 15 to 28%, 1988–1997

FIGURE 3-A.—EARNINGS DISTRIBUTION, 1980–81

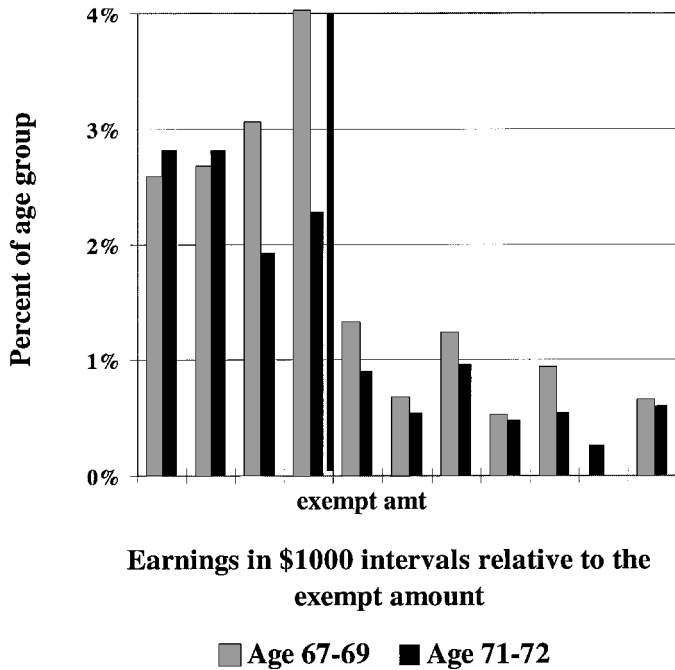


FIGURE 3-B.—EARNINGS DISTRIBUTION, 1980–81

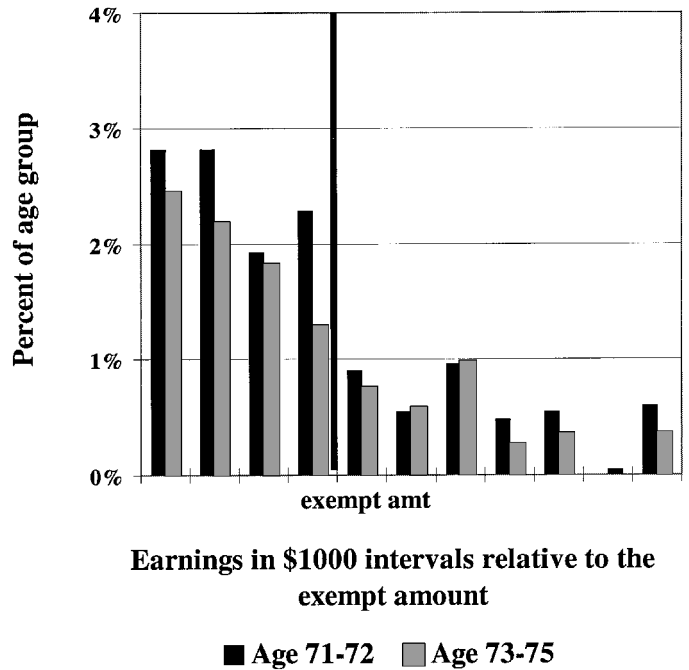


FIGURE 3-C.—EARNINGS DISTRIBUTION, 1984–86

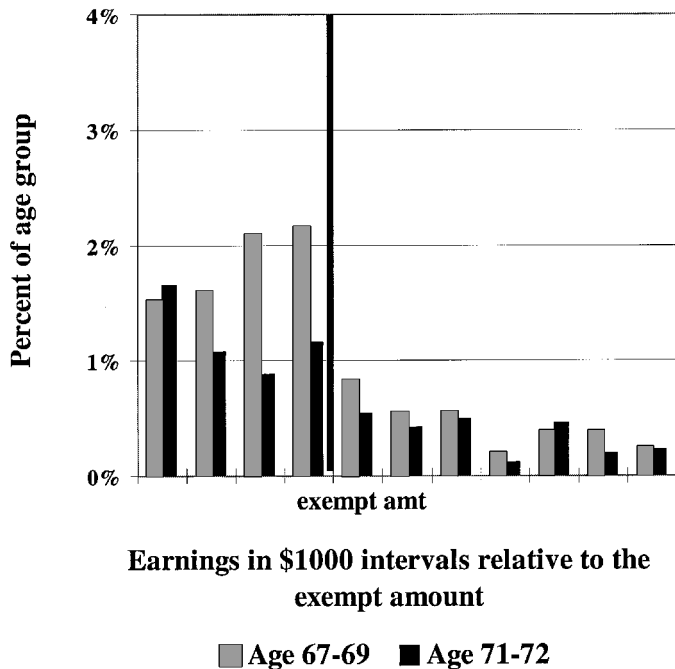
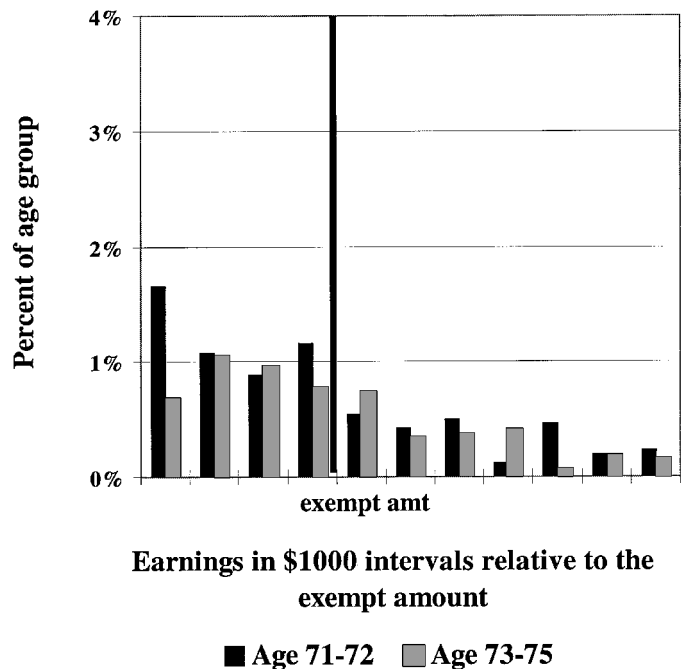


FIGURE 3-D.—EARNINGS DISTRIBUTION, 1984–86



Note: In 1983 the earnings test was eliminated for 70–71 year olds (71–72 year olds in the following March CPS) but was not changed for 62–69 year olds. See Figure 2 note.

However, the econometric application of the piecewise linear budget constraint method has been called into question by the work of MaCurdy et al. (1990). They, and Pencavel (1986) earlier, showed that the probability of locating at a convex interior kink is positive—and the log likelihood is defined—only if the estimated coefficients yield a positive compensated substitution effect. When this

condition was not satisfied, researchers imposed it by constraining the income coefficient to be negative. MaCurdy et al. suggested further that the piecewise linear budget constraint method automatically imposes a positive compensated effect. Blomquist (1995) explained that this conclusion is not warranted. The compensated effect may be estimated to be positive without the researcher imposing it, and

**Table 3**  
**Experimental Payment minus Predicted Control Payment for 3-Year**  
**Dual-headed Experimental Families, Attrition Families Excluded**  
**(Standard Errors in Parentheses)**

G (\$)	$\tau$	Declining Tax Rate	Preexperimental Payment (\$)	Payments for Year of Experiment (\$)			Postexperimental Payment (\$)
				1	2	3	
3,800	.5	No	193.78 (143.45)	248.46 (149.58)	368.95* (170.75)	389.24* (182.99)	138.56 (188.20)
3,800	.7	No	124.96 (223.77)	185.18 (237.91)	317.28 (252.99)	218.37 (325.57)	-47.85 (314.66)
3,800	.7	Yes	-33.37 (178.05)	68.94 (176.07)	158.44 (213.59)	324.84 (230.50)	29.28 (222.42)
3,800	.8	Yes	75.40 (229.44)	336.06 (237.18)	221.54 (245.92)	160.83 (264.53)	91.52 (261.84)
4,800	.5	No	52.02 (192.31)	85.17 (184.85)	294.55 (201.73)	337.23 (221.73)	70.22 (219.58)
4,800	.7	No	220.76 (160.04)	288.33 (169.04)	496.85* (197.88)	543.25* (204.50)	178.32 (194.03)
4,800	.7	Yes	136.99 (127.36)	281.98* (137.19)	423.30* (157.51)	348.03* (162.38)	23.96 (140.58)
4,800	.8	Yes	-16.87 (175.54)	305.09 (209.24)	417.90 (234.32)	317.39 (274.11)	121.47 (239.59)
5,600	.5	No	-163.12 (252.05)	200.75 (258.13)	664.41* (283.28)	717.15* (280.65)	124.93 (287.04)
5,600	.7	No	-59.97 (164.95)	23.34 (156.41)	386.12 (200.59)	744.94* (263.80)	267.69 (259.45)
5,600	.8	Yes	-27.64 (121.47)	-51.03 (126.67)	117.85 (138.52)	273.44 (157.96)	121.53 (169.26)

NOTE.—Terms are explained in text.

\* Denotes mean is more than twice its standard error.

In table 3 we present the basic results for families participating in the 3-year program. The first three columns give the various program parameters. The column label "Preexperimental" gives the difference between the mean payments that would have been made to experimentals and controls based on preexperimental income. Since no family is exposed to an NIT at that point, this difference should be zero. In fact, none of the preexperimental differences are significantly different from zero, although some are rather large, particularly the (3,800, .5, No) (4,800, .7, No) and the (5,600, .5, No) programs. About one-half the preexperimental differences are positive.

The results for the 3 experimental years are given in the next three columns. All but one of the 33 differences in mean payments are positive, and 10 are significantly different from zero, thus showing evidence of some experimental effect on labor supply. The largest effects are in the (5,600, .5, No) program, which has the largest break-even level (\$11,200). The experimental-control differences tend to become larger over time.

It is difficult to tell from casual examination of these numbers if the

**Table 4**  
**Experimental Payment minus Predicted Control Payment for 5-Year Dual-headed Experimental Families,**  
**Attrition Families Excluded (Standard Errors in Parentheses)**

G (\$)	$\tau$	Declining Tax Rate	Preexperimental Payment (\$)	Payment for Year of Experiment (\$)					Postexperimental Payment (\$)
				1	2	3	4	5	
3,800	.5	No	102.24 (185.55)	526.02 (241.53)	110.30 (265.28)	390.07 (307.01)	169.82 (286.76)	229.70 (309.06)	
3,800	.7	No	81.16 (309.85)	-99.33 (330.11)	98.20 (383.52)	-16.42 (388.07)	-122.01 (352.95)	-406.46 (314.40)	
3,800	.7	Yes	6.99 (234.01)	176.14 (272.87)	23.22 (300.28)	324.70 (386.93)	-59.79 (331.68)	-598.09* (102.72)	
3,800	.8	Yes	-130.30 (271.23)	189.80 (280.63)	329.94 (365.58)	1207.82* (463.10)	1108.49* (487.83)	307.38 (453.29)	
4,800	.5	No	-23.66 (183.73)	160.40 (199.26)	399.28 (236.33)	419.73 (247.25)	434.30 (254.52)	251.09 (242.45)	
4,800	.7	No	-129.98 (185.46)	-4.47 (211.44)	569.10 (314.73)	493.42 (357.32)	219.74 (340.60)	-38.46 (228.01)	
4,800	.7	Yes	75.66 (234.21)	387.66 (367.56)	340.71 (404.05)	-130.10 (308.90)	34.61 (445.67)	189.49 (491.52)	
4,800	.8	Yes	-467.89 (252.40)	599.43* (274.39)	398.62 (280.50)	537.21 (365.56)	506.95 (351.98)	346.28 (337.43)	
5,600	.5	No	-224.97 (286.39)	723.08* (306.90)	782.53* (327.39)	592.40 (366.88)	313.82 (387.31)	-53.07 (325.66)	
5,600	.7	No	-158.74 (239.17)	500.18 (416.25)	890.38* (391.61)	825.39 (467.76)	435.01 (609.49)	588.91 (510.52)	
5,600	.8	Yes	-6.48 (175.15)	617.29* (255.89)	906.13* (315.98)	888.72 (337.38)	877.71 (398.38)	75.21 (216.12)	

NOTE:—Terms are explained in text.

\* Denotes mean is more than twice its standard error.

Table IIa  
Marginal Tax Rate

Group	Before TRA86	After TRA86	Change	Relative Change
High	.521 (.002)	.382 (.001)	-.139 (.002)	
75 <sup>th</sup> Percentile	.365 (.001)	.324 (.001)	-.041 (.001)	<b>-.098</b> <b>(.002)</b>
90 <sup>th</sup> Percentile	.430 (.001)	.360 (.001)	-.07 (.001)	<b>-.069</b> <b>(.002)</b>

The marginal tax rate is calculated using family wage and salary, self-employment, interest, dividend, farm and social-security income. I assume all couples file jointly, and that all itemize their deductions. Itemized deductions and capital gains are imputed using Statistics of Income data. These figures include the secondary earner deduction, as well as social security taxes. Standard errors are in parentheses. Before TRA86 is tax years 1983-1985; After TRA86 is tax years 1989-1991.

Table IIb  
After-Tax Wage

Group	Change	Relative Change
High	29.1%	
75 <sup>th</sup> Percentile	6.5%	22.6%
90 <sup>th</sup> Percentile	12.3%	16.8%

I assume that the real average market wage for each group is constant. Therefore, the percent-change in the after-tax wage is calculated as the percent-change in the 'after tax share'-  $(1 - \tau)$ , where  $\tau$  is the marginal tax rate.

Table III  
Differences-in-Differences Estimates  
CPS Married Women Before and After TRA86

A: Labor Force Participation

Group	Before TRA86	After TRA86	Change	Difference-in- Difference
High	0.464 (.018) [756]	0.554 (.018) [718]	0.090 (.025) {19.5%}	
75 <sup>th</sup> Percentile	0.687 (.010) [3799]	0.740 (.010) [3613]	0.053 (.010) {7.2%}	<b>0.037 (.028)</b> <b>{12.3%}</b>
90 <sup>th</sup> Percentile	0.611 (.010) [3765]	0.656 (.010) [3584]	0.045 (.010) {6.5%}	<b>0.045 (.028)</b> <b>{13%}</b>

B: Hours Conditional on Employment

Group	Before TRA86	After TRA86	Change	Difference-in- Difference
High	1283.0 (46.3) [351]	1446.3 (41.1) [398]	163.3 (61.5) {12.7%}	
75 <sup>th</sup> Percentile	1504.1 (14.3) [2610]	1558.9 (13.9) [2676]	54.8 (20.0) {3.6%}	<b>108.6 (65.1)</b> <b>{9.4%}</b>
90 <sup>th</sup> Percentile	1434.1 (16.4) [2303]	1530.1 (15.9) [2348]	96.0 (22.8) {6.8%}	<b>67.3 (64.8)</b> <b>{6.2%}</b>

Each cell contains the mean for that group, along with standard errors in (), number of observations in [], and % increase in {}. Means are unweighted.

C: Annual Hours

Group	Before TRA86	After TRA86	Change	Difference-in- Difference
High	595.7 (31.7) [756]	801.7 (35.2) [718]	206.0 (47.4) {34.5%}	
75 <sup>th</sup> Percentile	1033.3 (15.0) [3799]	1154.5 (15.3) [3613]	121.2 (21.5) {11.7%}	<b>84.8 (51.5)</b> <b>{22.8%}</b>
90 <sup>th</sup> Percentile	876.4 (15.2) [3765]	1005.2 (16.0) [3579]	128.8 (22.1) {14.7%}	<b>77.4 (52.5)</b> <b>{19.8%}</b>

Each cell contains the mean for that group, along with standard errors in (), number of observations in [], and % increase in {}. Means are unweighted.

**Table 1: Earned Income Tax Credit Parameters, 1979-2001 (in nominal dollars)**

Year	Phase-in Rt %	Phase-in Range	Max Credit	Phase-out Rte (%)	Phase-out Range
1975-78	10.0	\$0-\$4,000	\$400	10.0	\$4,000 - \$8,000
1979-84	10.0	0-5,000	500	12.5	6,000 - 10,000
1985-86	11.0	0-5,000	550	12.22	6,500 - 11,000
1987	14.0	0-6,080	851	10.0	6,920 - 15,432
1988	14.0	0-6,240	874	10.0	9,840 - 18,576
1989	14.0	0-6,500	910	10.0	10,240 - 19,340
1990	14.0	0-6,810	953	10.0	10,730 - 20,264
1991 <sup>a</sup>	16.7 <sup>1</sup>	0-7,140	1,192	11.93	11,250 - 21,250
	17.3 <sup>2</sup>		1,235	12.36	11,250 - 21,250
1992 <sup>a</sup>	17.6 <sup>1</sup>	0-7,520	1,324	12.57	11,840 - 22,370
	18.4 <sup>2</sup>		1,384	13.14	11,840 - 22,370
1993 <sup>a</sup>	18.5 <sup>1</sup>	0-7,750	1,434	13.21	12,200 - 23,050
	19.5 <sup>2</sup>		1,511	13.93	12,200 - 23,050
1994	23.6 <sup>1</sup>	0-7,750	2,038	15.98	11,000 - 23,755
	30.0 <sup>2</sup>	0-8,245	2,528	17.68	11,000 - 25,296
	7.65 <sup>3</sup>	0-4,000	306	7.65	5,000 - 9,000
1995	34.0 <sup>1</sup>	0-6,160	2,094	15.98	11,290 - 24,396
	36.0 <sup>2</sup>	0-8,640	3,110	20.22	11,290 - 26,673
	7.65 <sup>3</sup>	0-4,100	314	7.65	5,130 - 9,230
1996	34.0 <sup>1</sup>	0-6,330	2,152	15.98	11,610 - 25,078
	40.0 <sup>2</sup>	0-8,890	3,556	21.06	11,610 - 28,495
	7.65 <sup>3</sup>	0-4,220	323	7.65	5,280 - 9,500
1997	34.0 <sup>1</sup>	0-6,500	2,210	15.98	11,930 - 25,750
	40.0 <sup>2</sup>	0-9,140	3,656	21.06	11,930 - 29,290
	7.65 <sup>3</sup>	0-4,340	332	7.65	5,430 - 9,770
1998	34.0 <sup>1</sup>	0-6,680	2,271	15.98	12,260 - 26,473
	40.0 <sup>2</sup>	0-9,390	3,756	21.06	12,260 - 30,095
	7.65 <sup>3</sup>	0-4,460	341	7.65	5,570 - 10,030
1999	34.0 <sup>1</sup>	0-6,800	2,312	15.98	12,460 - 26,928
	40.0 <sup>2</sup>	0-9,540	3,816	21.06	12,460 - 30,580
	7.65 <sup>3</sup>	0-4,530	347	7.65	5,670 - 10,200
2000	34.0 <sup>1</sup>	0-6,920	2,353	15.98	12,690 - 27,413
	40.0 <sup>2</sup>	0-9,720	3,888	21.06	12,690 - 31,152
	7.65 <sup>3</sup>	0-4,610	353	7.65	5,770 - 10,380
2001	34.0 <sup>1</sup>	0-7,140	2,428	15.98	13,090 - 28,281
	40.0 <sup>2</sup>	0-10,020	4,008	21.06	13,090 - 32,121
	7.65 <sup>3</sup>	0-4,760	364	7.65	5,950 - 10,708

Source: 1998 Green Book, Committee on Ways and Means, U.S. House of Representatives, U.S. Government Printing Office, page 867. 1998 through 2001 parameters come from Publication 596, Internal Revenue Service

<sup>a</sup> Basic credit only. Does not include supplemental young child or health insurance credits.

<sup>1</sup> Taxpayers with one qualifying child.

<sup>2</sup> Taxpayers with more than one qualifying child.

<sup>3</sup> Childless taxpayers.



**Table 2: State Earned Income Tax Credits, Tax Year 2001**

	State (year adopted)	Percentage of Federal Credit
Refundable Credits	Colorado (1999)	10
	District of Columbia (2000)	25
	Kansas (1998)	10
	Maryland (1987) <sup>a</sup>	16 (rising to 20 in 2003)
	Massachusetts (1997)	15
	Minnesota (1991)	Averages 33%, varies by earnings <sup>b</sup>
	New Jersey (2000)	15 (20% by 2003), limited to families with incomes below \$20,000
	New York (1994)	25 (30% by 2003)
	Vermont (1988)	32
	Wisconsin (1989)	4% one child 14% 2 children 43% 3 children
Nonrefundable Credits	Illinois (2000)	5
	Iowa (1990)	6.5
	Maine (2000)	5
	Oregon (1997)	5
	Rhode Island (1975)	25.5

Source: Nicholas Johnson, 2001, "A Hand Up: How State Earned Income Tax Credits Help Working Families Escape Poverty in 2001: An Overview," Center on Budget and Policy Priorities, December, Particularly Table 4. Adoption years are from Dickert-Conlin and Houser (2002), which in turn are from Johnson.

<sup>a</sup>A Maryland taxpayer may claim a refundable credit or a non-refundable credit (equal to 50 percent of the federal credit), but not both.

<sup>b</sup>Minnesota's credit for families with children, unlike the other credits shown in the table, is not expressly structured as a percentage of the federal credit. Depending on income levels, the credit may range from 22 percent to 46 percent of the federal credit.

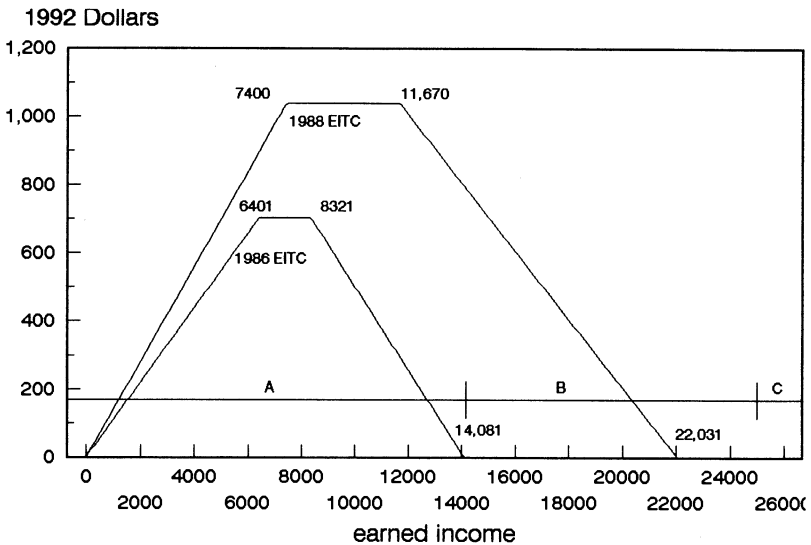


FIGURE IV  
1986 and 1988 Earned Income Tax Credit

Figure IV displays the 1986 and 1988 earned income tax credits (in 1992 dollars) as functions of income. The predicted impact of the EITC expansion on hours of work depends on the taxpayer's income. For most workers in region A (incomes between \$0 and \$14,081), the EITC expansion is predicted to have an ambiguous impact on hours of work since the expansion had offsetting income and substitution effects. Workers in region B (incomes between \$14,081 and \$25,000) are predicted to reduce their hours of work because they are either in the expanded phaseout region and face a 10 percent higher marginal tax rate in addition to having their incomes increased or because they have incomes just beyond the expanded phase-in region and might reduce their hours of work to take advantage of the credit. Workers in region C (incomes above \$25,000) are unlikely to be affected by the increase in the credit.<sup>17</sup>

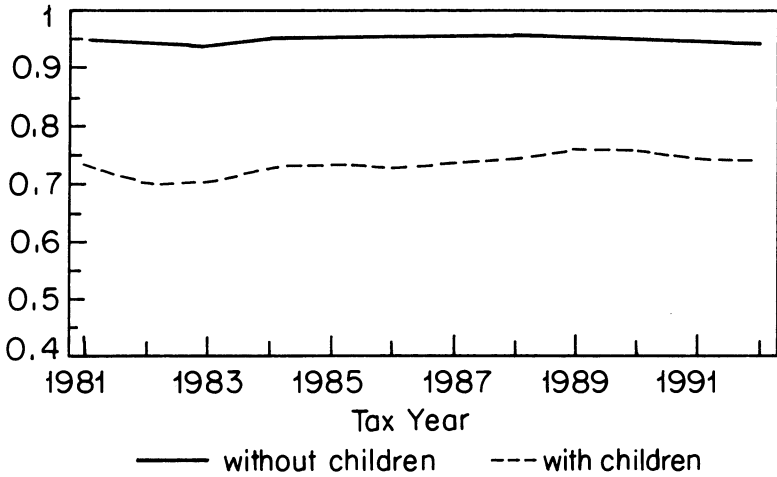
17. The TRA86 tax rate changes reinforced the effect of the EITC on the hours of work of household heads relative to single filers. TRA86 reduced marginal tax rates by between three and eight percentage points for most single taxpayers with incomes in the EITC phaseout range, while reducing marginal tax rates for household heads by only two to three percentage points. Thus, the substitution effect from TRA86 should cause a larger increase in hours from single taxpayers than from household heads. In addition, as we explained in the participation section, the new TRA86 brackets, through their interaction with the in-

TABLE II  
LABOR FORCE PARTICIPATION RATES OF UNMARRIED WOMEN

	Pre-TRA86 (1)	Post-TRA86 (2)	Difference (3)	Difference-in- differences (4)
<i>A. Treatment group:</i>				
With children [20,810]	0.729 (0.004)	0.753 (0.004)	0.024 (0.006)	
<i>Control group:</i>				
Without children [46,287]	0.952 (0.001)	0.952 (0.001)	0.000 (0.002)	0.024 (0.006)
<i>B. Treatment group:</i>				
Less than high school, with children [5396]	0.479 (0.010)	0.497 (0.010)	0.018 (0.014)	
<i>Control group 1:</i>				
Less than high school, without children [3958]	0.784 (0.010)	0.761 (0.009)	-0.023 (0.013)	0.041 (0.019)
<i>Control group 2:</i>				
Beyond high school, with children [5712]	0.911 (0.005)	0.920 (0.005)	0.009 (0.007)	0.009 (0.015)
<i>C. Treatment group:</i>				
High school, with children [9702]	0.764 (0.006)	0.787 (0.006)	0.023 (0.008)	
<i>Control group 1:</i>				
High school, without children [16,527]	0.945 (0.002)	0.943 (0.003)	-0.002 (0.004)	0.025 (0.009)
<i>Control group 2:</i>				
Beyond high school, with children [5712]	0.911 (0.005)	0.920 (0.005)	0.009 (0.007)	0.014 (0.011)

Data are from the March CPS, 1985-1987 and 1989-1991. Pre-TRA86 years are 1984-1986. Post-TRA86 years are 1988-1990. Labor force participation equals one if annual hours are positive, zero otherwise. Standard errors are in parentheses. Sample sizes are in square brackets. Means are weighted with CPS March supplement weights.

All Unmarried Females



Unmarried Males With Less Than High School Education

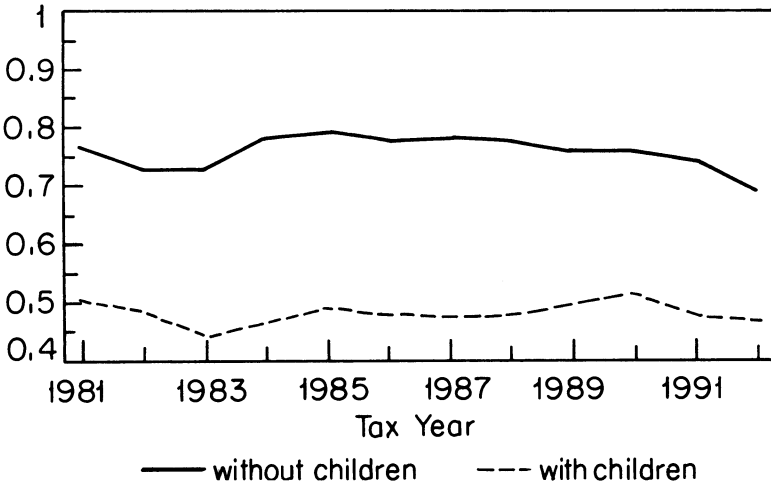


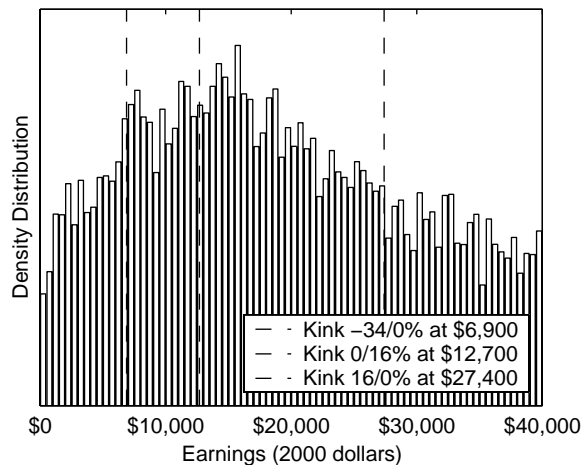
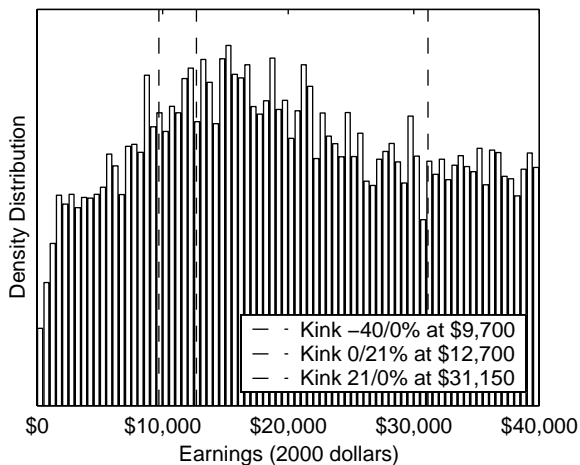
FIGURE II

Labor Force Participation Rates 1981 to 1992, Unmarried Females Ages 16-44

Fig. 9. Earnings distributions after EITC expansion, 1995–1997, wage earners vs. self-employed

A. Wage earners, EITC eligibles, 2+ kids (12,404 obs.)

B. Wage earners, EITC eligibles, one kid (12,456 obs.)



C. Self-employed, EITC eligibles, 2+ kids (4,973 obs.)

D. Self-employed, EITC eligibles, one kid (3,327 obs.)

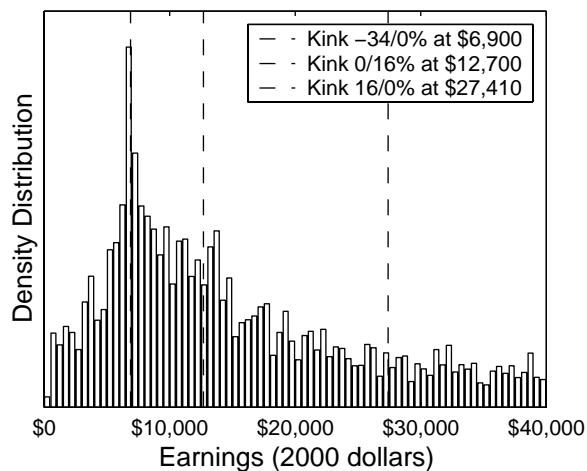
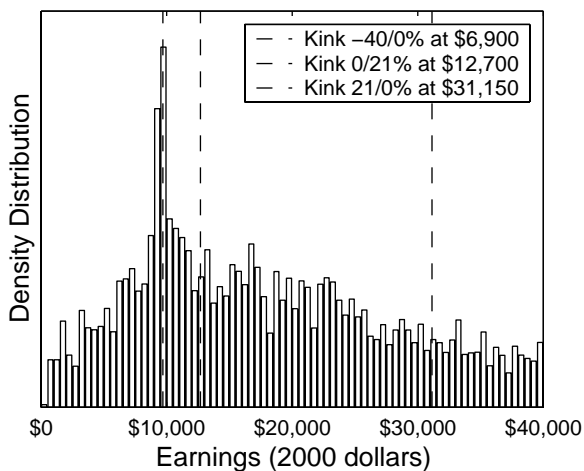
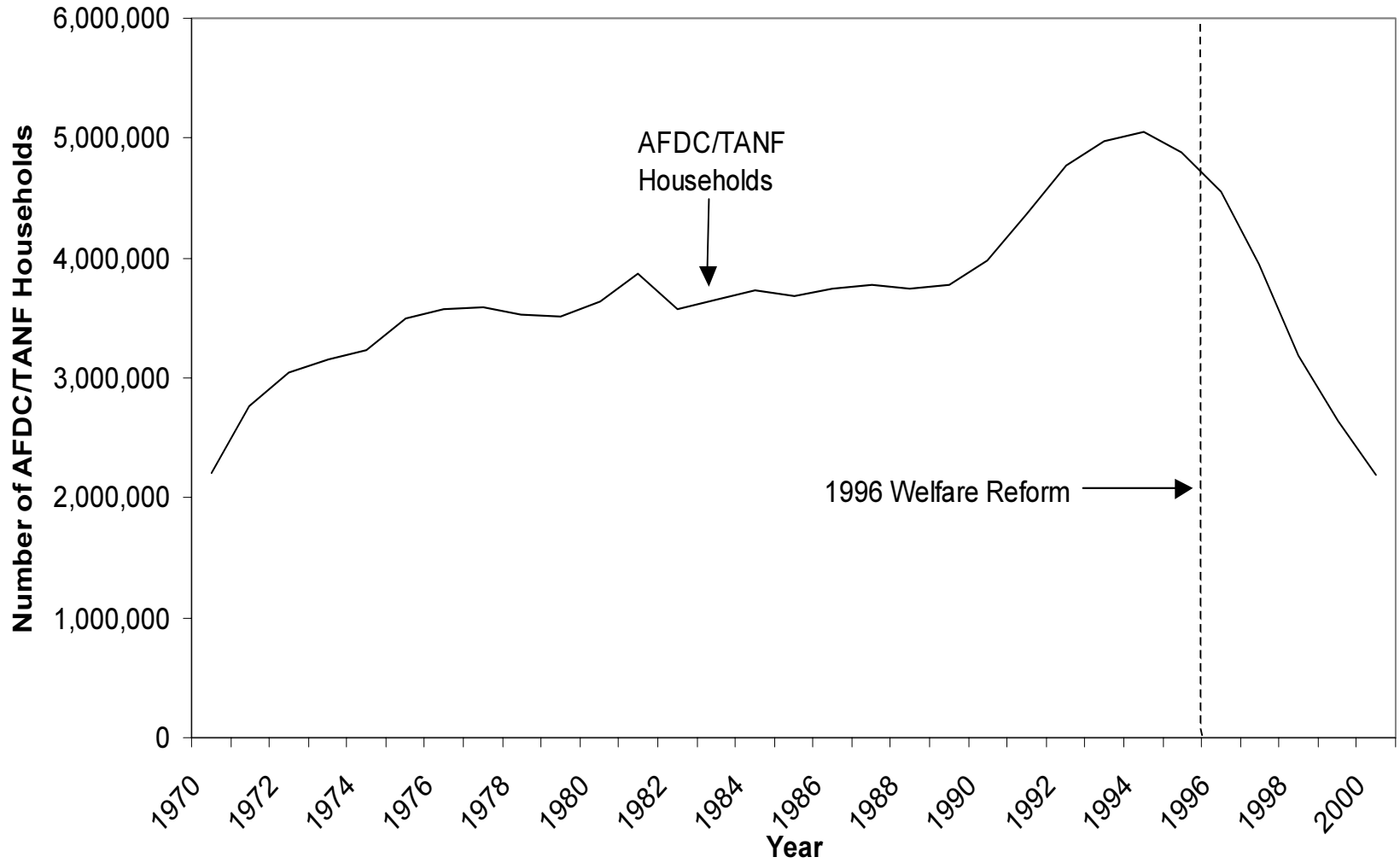


Figure 3

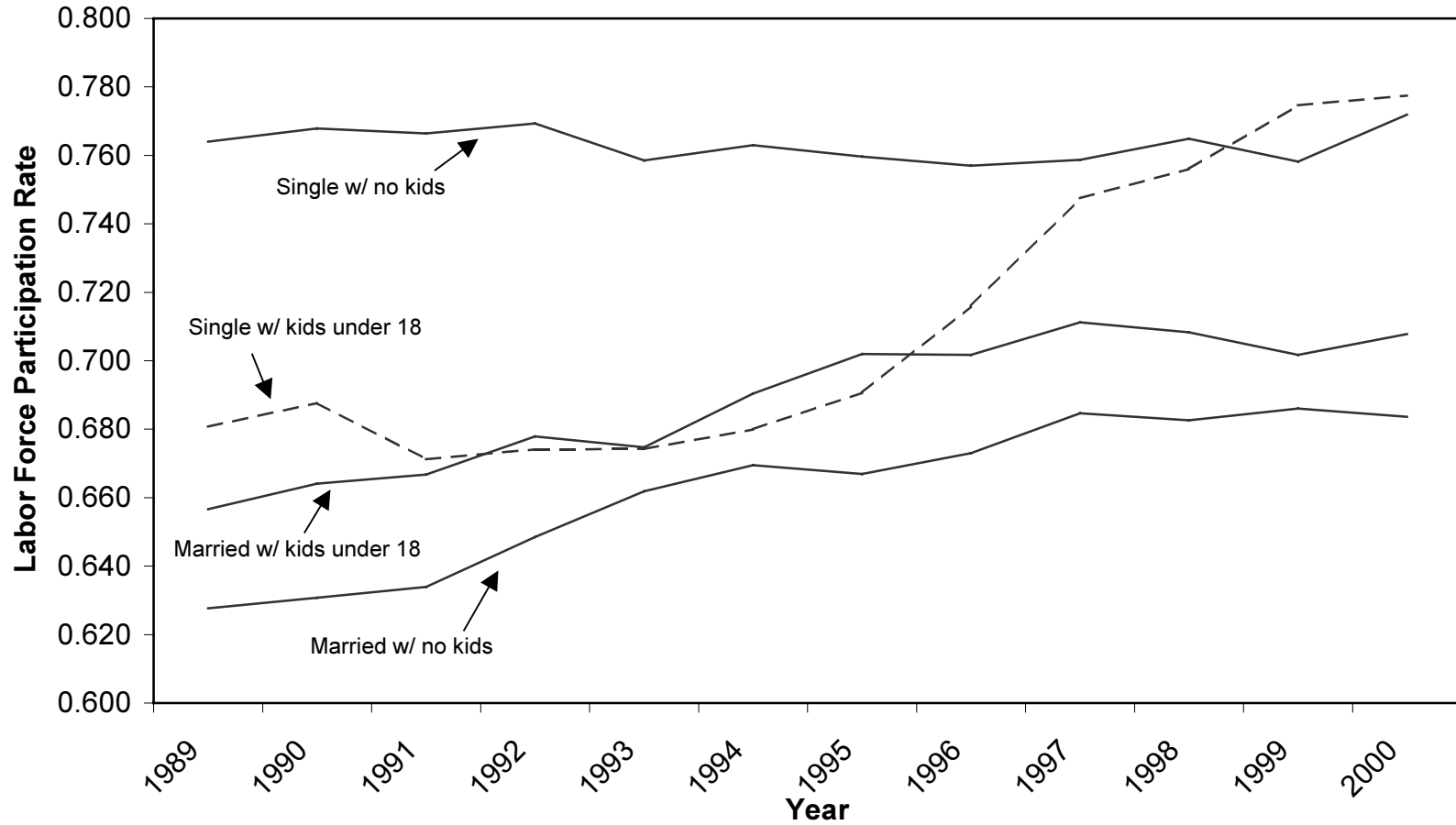
### Total AFDC/TANF Caseloads



Source: Agency for Children and Families, Department of Health and Human Services (<http://acf.dhhs.gov>)

Figure 4

### Labor Force Participation Rates for Women by Marital Status and Children (Ages 20-65)



Source: Tabulations of March Current Population Survey Data

Table 1

**Maximum Benefit Levels Across States**  
(2000 Dollars)

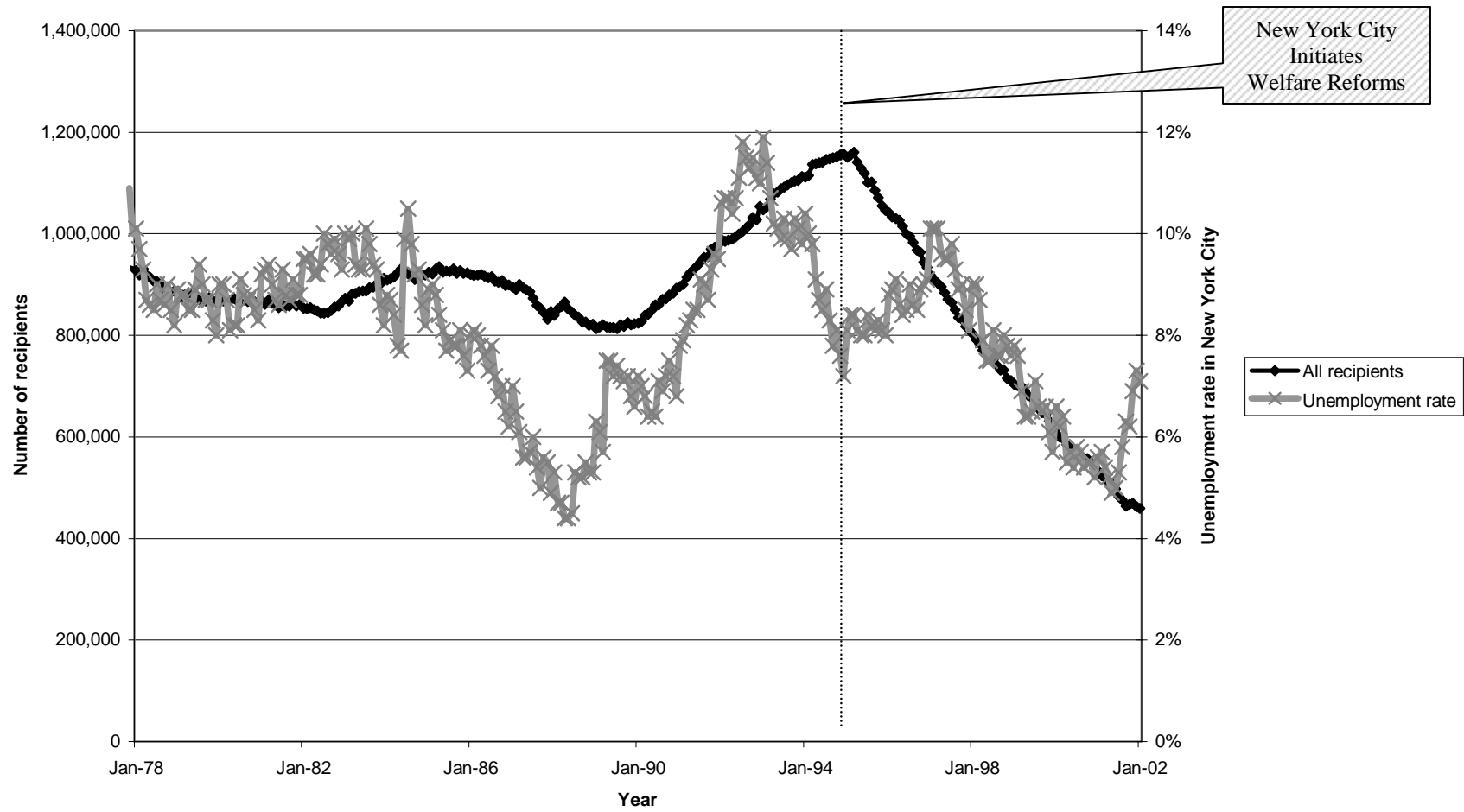
Selected Points In Benefit Distribution	1990	1995	2000	Percent Change 1995-2000
20th Percentile State	\$358 (NC)	\$319 (IA)	\$288 (IN)	-19.60%
Median State	\$480 (NE)	\$428 (IL)	\$379 (DC)	-21.00%
80th Percentile State	\$680 (MI)	\$607 (MD)	\$546 (WA)	-19.70%

Source: State Policy Documentation Policy ([www.spdp.org](http://www.spdp.org)) and The Urban Institute ([www.urban.org/](http://www.urban.org/)).

Note: Maximum benefit levels for family of three. 51 states (including D.C.) used in analysis.



Figure 1: The Unemployment Rate and the Welfare Caseload in New York City, January 1978 –January 2002



Source: Office of Policy and Program Analysis, New York City Human Resources Administration

Figure 4: The Percent of Eligible HR Recipients that Start a Job, November 3, 1999

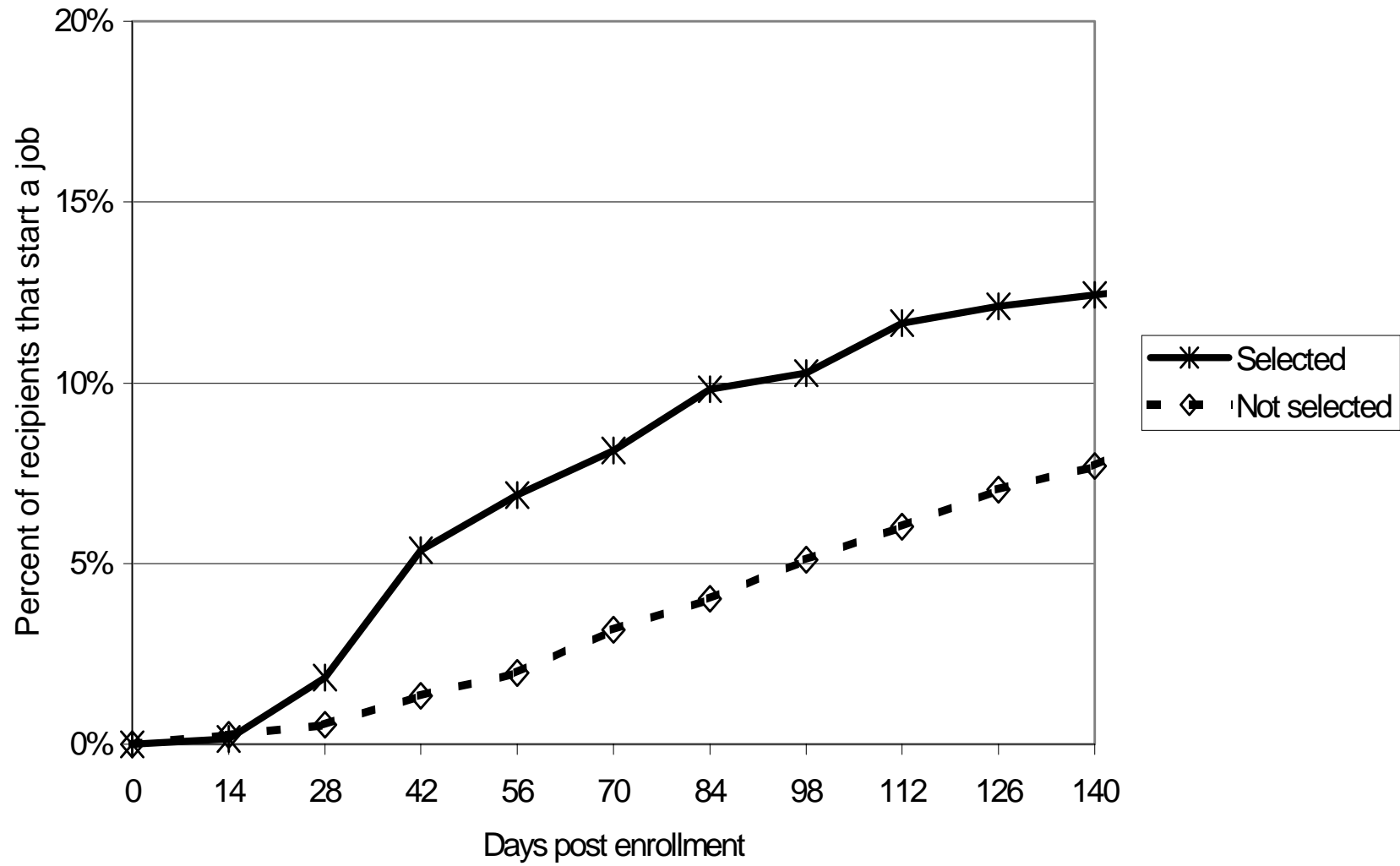


Figure 5: The Percent of Eligible HR Recipients that Start a Job on Nine Dates With Largest Enrollment

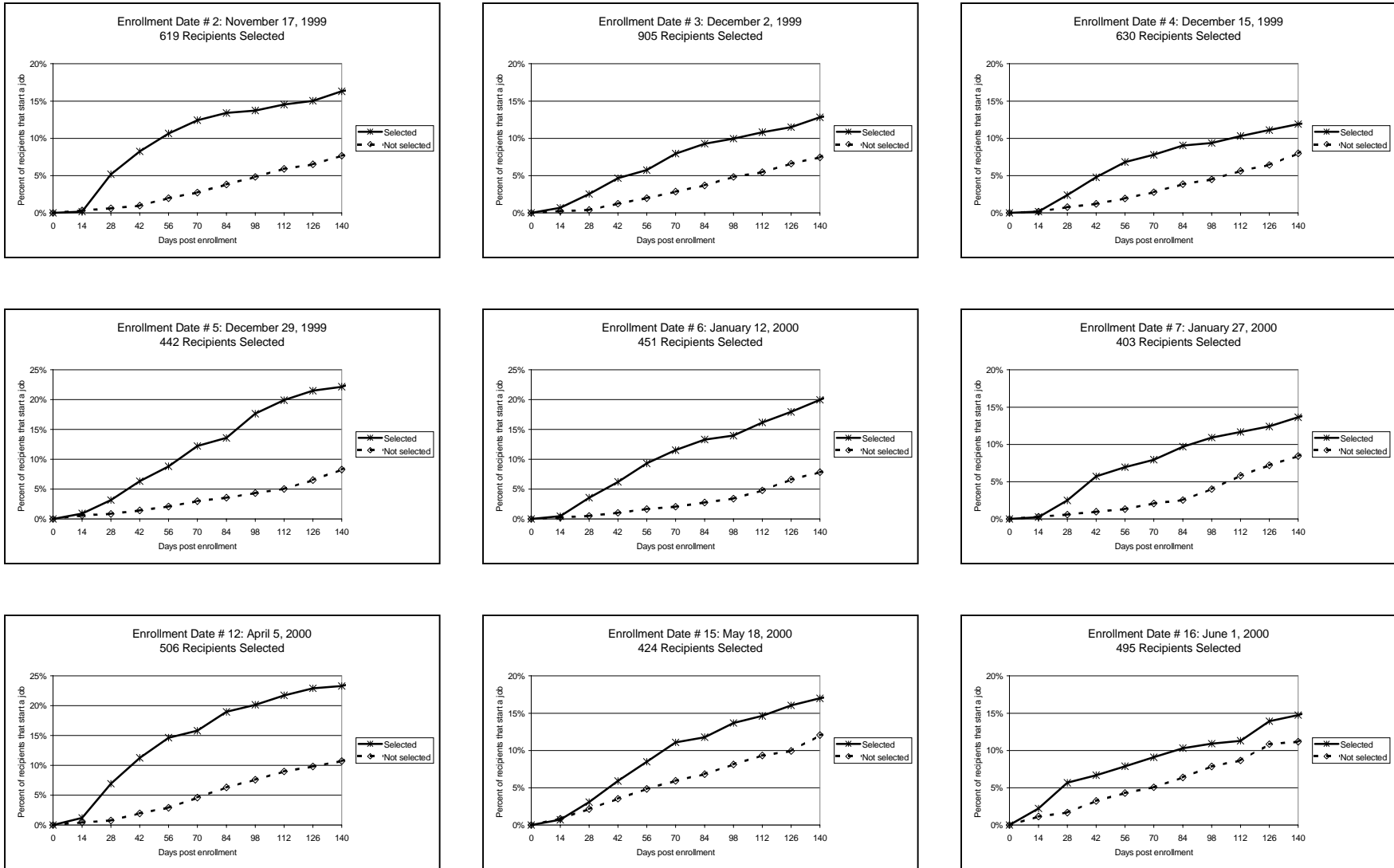


Figure 6: The Percent of Eligible HR Recipients that Start a Job Comparing Treatment Group and Control Group

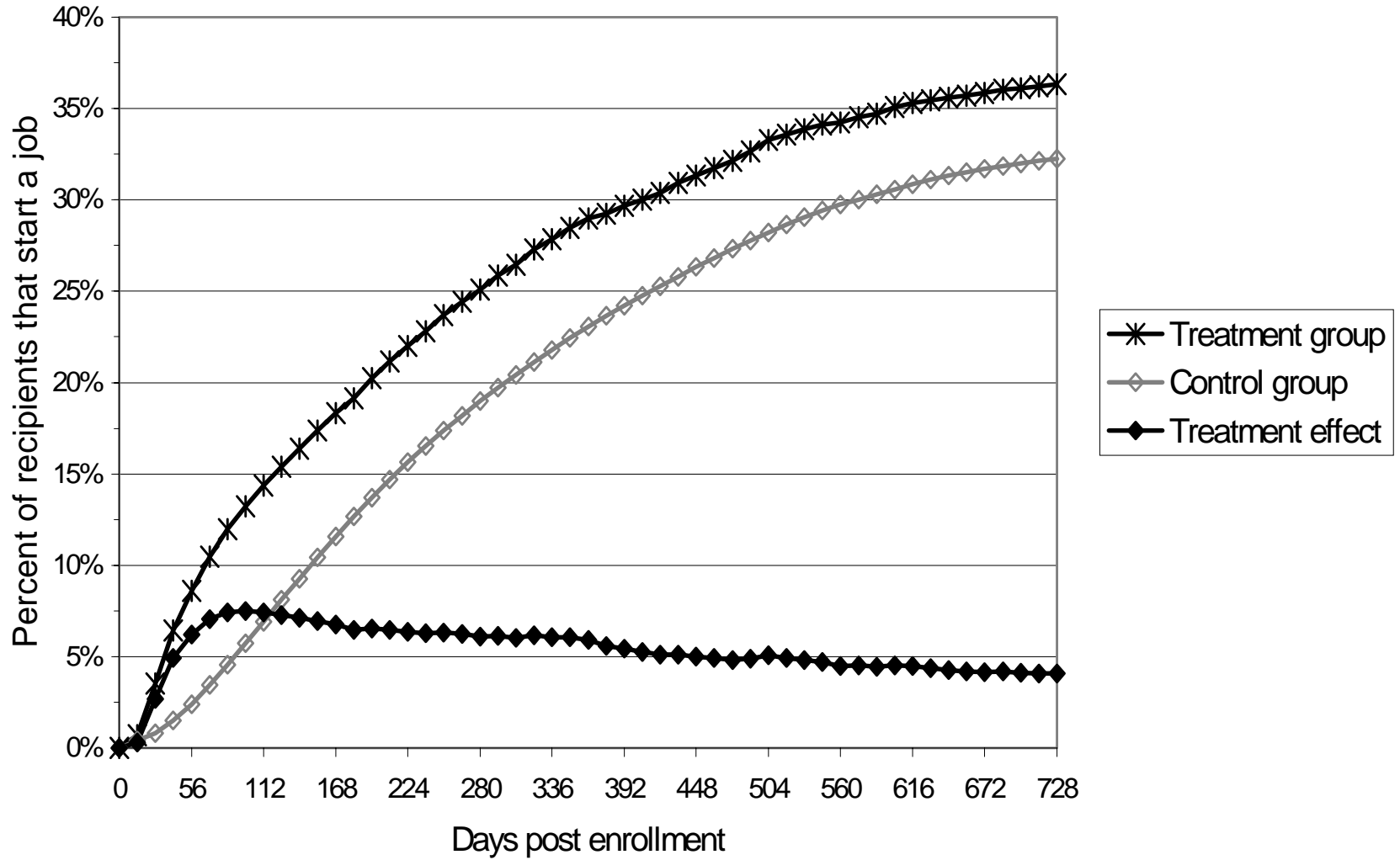


Table 4. The Effect of Work-First Job Placements on Subsequent Earnings and Quarters of Employment One to Four Quarters Following Work First Assignment: Participants Assigned 1999 - 2002

	A. Earnings				B. Quarters Employed			
	OLS		2SLS		OLS		2SLS	
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
	<i>Quarters 1 - 4</i>							
Any job	2,360 (73)		1,320 (532)		0.84 (0.03)		0.54 (0.13)	
Temp agency job		2,031 (145)		-1,059 (1,010)		0.82 (0.03)		0.01 (0.25)
Direct-hire job		2,447 (77)		3,053 (669)		0.84 (0.03)		0.93 (0.17)
R <sup>2</sup>	0.23	0.23			0.21	0.21		
H <sub>0</sub> : Temp = Direct		0.01		0.00		0.50		0.01
	<i>Quarters 5 - 8</i>							
Any job	1,686 (73)		1,470 (511)		0.44 (0.02)		0.29 (0.13)	
Temp agency job		1,372 (140)		-1,117 (1,179)		0.37 (0.03)		-0.17 (0.23)
Direct-hire job		1,765 (85)		3,354 (835)		0.45 (0.02)		0.62 (0.19)
R <sup>2</sup>	0.18	0.18			0.14	0.14		
H <sub>0</sub> : Temp = Direct		0.19		0.01		0.02		0.01
	<i>Quarters 1 - 8</i>							
Any job	4,046 (128)		2,790 (986)		1.28 (0.04)		0.83 (0.23)	
Temp agency job		3,385 (263)		-2,176 (2,086)		1.19 (0.06)		-0.16 (0.46)
Direct-hire job		4,212 (143)		6,407 (1412)		1.30 (0.04)		1.56 (0.33)
R <sup>2</sup>	0.24	0.24			0.21	0.21		
H <sub>0</sub> : Temp = Direct		0.01		0.00		0.06		0.01

N = 27,029. Robust standard errors in parentheses are clustered on Work First contractor assignment × year. All models include year × quarter of assignment and randomization district × year of assignment dummy variables, and controls for age and its square, gender, race, sum of UI earnings and UI quarters worked in four quarters prior to Work First assignment, and four education dummies (elementary education, less than high school, greater than high school, and education unknown). Earnings values inflated to 2003 dollars using the Consumer Price Index (CPI-U).

TABLE 1  
RESPONSE OF TAXABLE INCOME OF NONAGED MARRIED TAXPAYERS TO CHANGES IN MARGINAL TAX RATES BETWEEN 1985 AND 1988

1985 MARGINAL TAX RATE	1985 AGI (\$'000) (1)	OBSERVATIONS (2)	Net of Tax Rate (3)	Adjusted Full AGI (4)	PERCENTAGE CHANGES OF			Adjusted Taxable Income Plus Gross Loss (7)
					Adjusted AGI Excluding Capital Gains (5)	Adjusted Taxable Income (6)		
22	30.7	800	9.0	9.4	8.4	13.6	13.4	
25	36.1	909	13.3	4.5	2.4	3.5	3.7	
28	42.7	713	16.3	3.9	4.7	6.0	5.0	
33	51.5	771	8.7	2.2	2.2	2.5	2.5	
38	67.5	345	16.1	8.0	8.1	9.6	8.8	
42	94.3	152	24.1	18.8	14.7	22.0	22.3	
45	126.9	45	30.9	12.4	14.8	18.5	15.3	
49	177.7	35	41.2	27.1	29.6	42.7	33.9	
50	479.0	22	44.0	18.4	70.6	92.4	51.1	
22-38		3,538	12.2	5.1	4.6	6.2	6.4	
42-45		197	25.6	17.0	14.7	21.0	20.3	
49-50		57	42.2	21.3	53.7	71.6	44.8	

NOTE.—All observations pertain to married taxpayers under age 65 who filed joint tax returns for 1985 and 1988 with no age exemption in 1988. Taxpayers who created a subchapter S corporation between 1985 and 1988 are eliminated from the sample.

TABLE 2

ESTIMATED ELASTICITIES OF TAXABLE INCOME WITH RESPECT TO NET-OF-TAX RATES

Taxpayer Groups Classified by 1985 Marginal Rate	Net of Tax Rate (1)	Adjusted Taxable Income (2)	Adjusted Taxable Income Plus Gross Loss (3)
Percentage Changes, 1985-88			
1. Medium (22-38)	12.2	6.2	6.4
2. High (42-45)	25.6	21.0	20.3
3. Highest (49-50)	42.2	71.6	44.8
Differences of Differences			
4. High minus medium	13.4	14.8	13.9
5. Highest minus high	16.6	50.6	24.5
6. Highest minus medium	30.0	65.4	38.4
Implied Elasticity Estimates			
7. High minus medium		1.10	1.04
8. Highest minus high		3.05	1.48
9. Highest minus medium		2.14	1.25

NOTE.—The calculations in this table are based on observations for married taxpayers under age 65 who filed joint tax returns for 1985 and 1988 with no age exemption in 1988. Taxpayers who created a subchapter S corporation between 1985 and 1988 are eliminated from the sample.

method, that is, by comparing the differences in the percentage change in taxable income between pairs of marginal tax rate groups to the differences in the percentage change in the net-of-tax rates between the same groups.

This method implicitly assumes that there is a relation between the percentage change in taxable income between 1985 and 1988 and the percentage change in the net-of-tax rate with a common "constant term" that does not differ between marginal tax rate groups. The differencing eliminates the common constant term and provides an estimate of the slope term. Since both changes are measured as percentages, this slope coefficient is an estimated elasticity.<sup>20</sup>

Consider for example the comparison of the middle and high marginal tax rate groups. The net-of-tax rate increased by 12.2 percent for the first group and by 25.6 percent for the second group (shown

<sup>20</sup> John Navratil has repeated this analysis for the years 1983 and 1985, when there were no changes in tax rates or tax rules, to see whether there is any systematic tendency for higher marginal tax rate individuals to experience relatively greater income increases. He found no evidence of faster income growth among higher marginal tax rate groups, confirming that the patterns reported in tables 1 and 2 are due to the 1986 tax reforms.

**TABLE 1.**  
**Thresholds and Average Incomes in Top Income Groups in 2000**

Percentile threshold (1)	Income threshold (2)	Income Groups (3)	Number of tax units (4)	Average income in each group (5)
		Full Population	133,589,000	\$42,709
Median	\$25,076	Bottom 90%	120,230,100	\$26,616
Top 10%	\$87,334	Top 10-5%	6,679,450	\$100,480
Top 5%	\$120,212	Top 5-1%	5,343,560	\$162,366
Top 1%	\$277,983	Top 1-0.5%	667,945	\$327,970
Top .5%	\$397,949	Top 0.5-0.1%	534,356	\$611,848
Top .1%	\$1,134,849	Top 0.1-0.01%	120,230	\$2,047,801
Top .01%	\$5,349,795	Top 0.01%	13,359	\$13,055,242

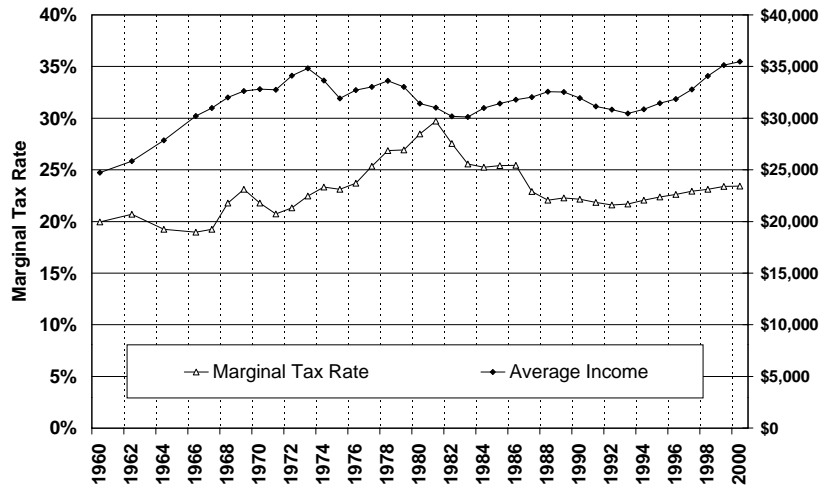
Notes: Computations based on income tax return statistics.

Income defined as annual gross income reported on tax returns excluding capital gains and all government transfers (such as Social Security, Unemployment Benefits, Welfare Payments, etc.) and before individual income taxes and employees' payroll taxes. Amounts are expressed in current 2000 dollars.

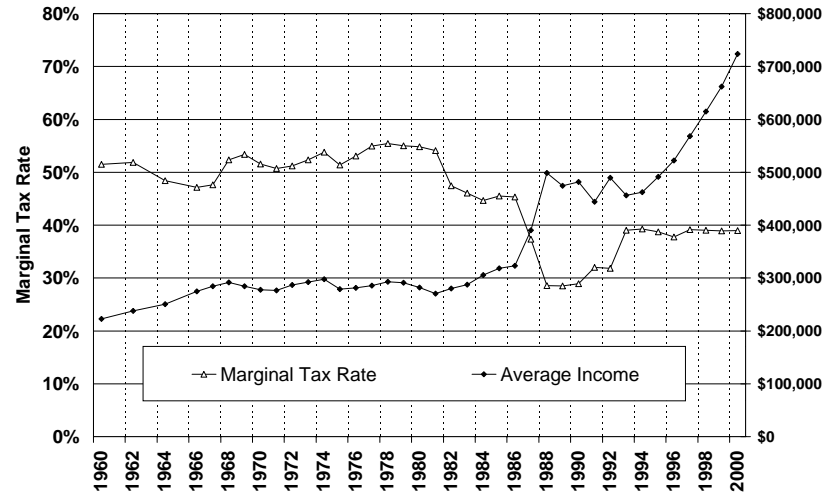
Column (2) reports the income thresholds corresponding to each of the percentiles in column (1). For example, an annual income of at least \$87,334 is required to belong to the top 10% tax units, etc.



**A. Bottom 99% tax units**



**B. Top 1% tax units**

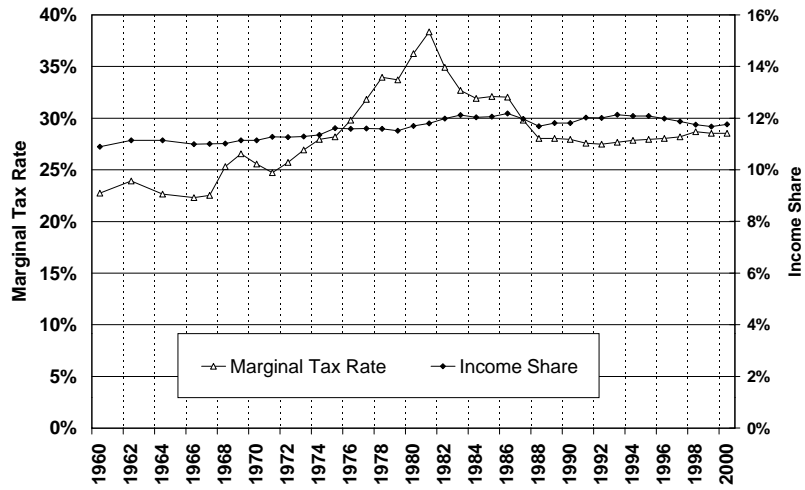


**FIGURE 2.**

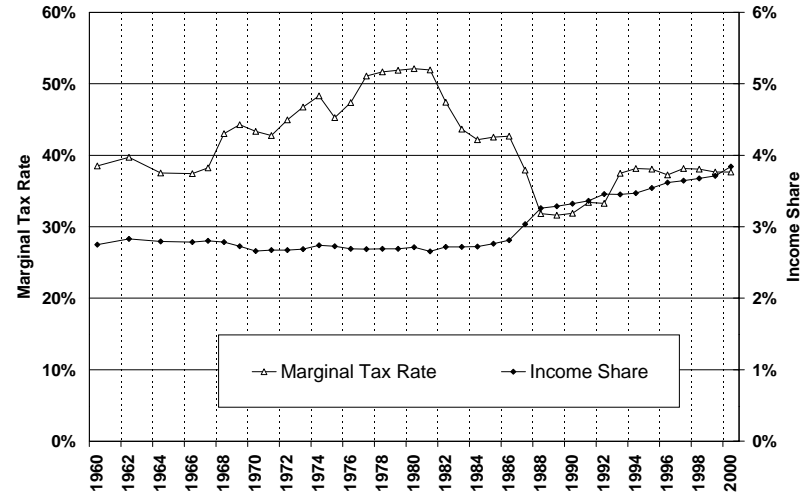
Marginal Tax Rates and Average Real Incomes for the Bottom 99% and the Top 1%

Source: Series obtained from Tables A and B1

**A. Top 10-5% tax units**



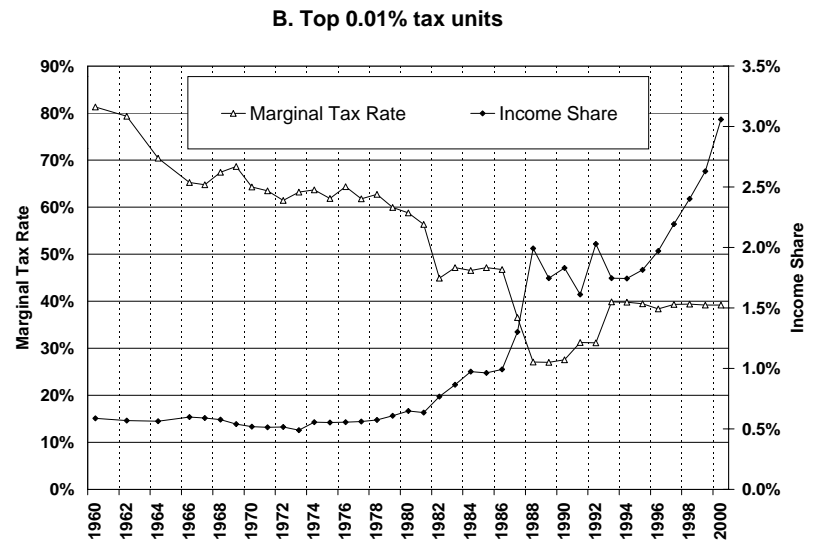
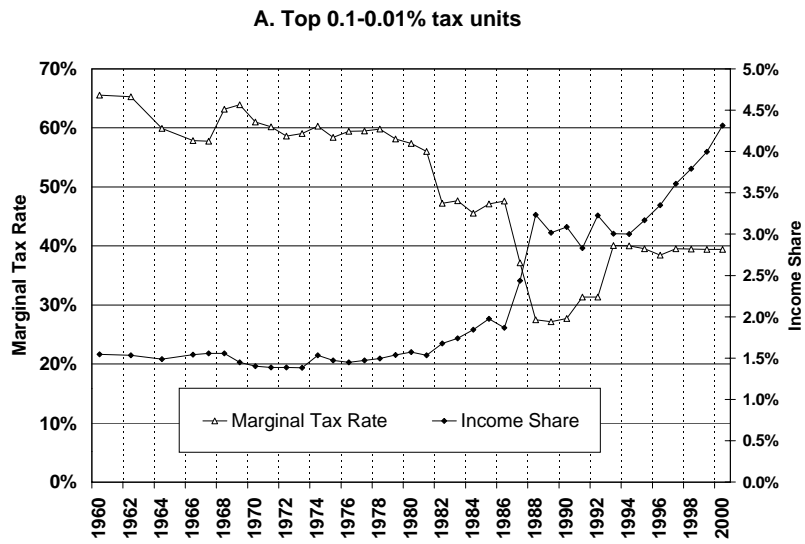
**B. Top 1-5% tax units**



**FIGURE 3.**

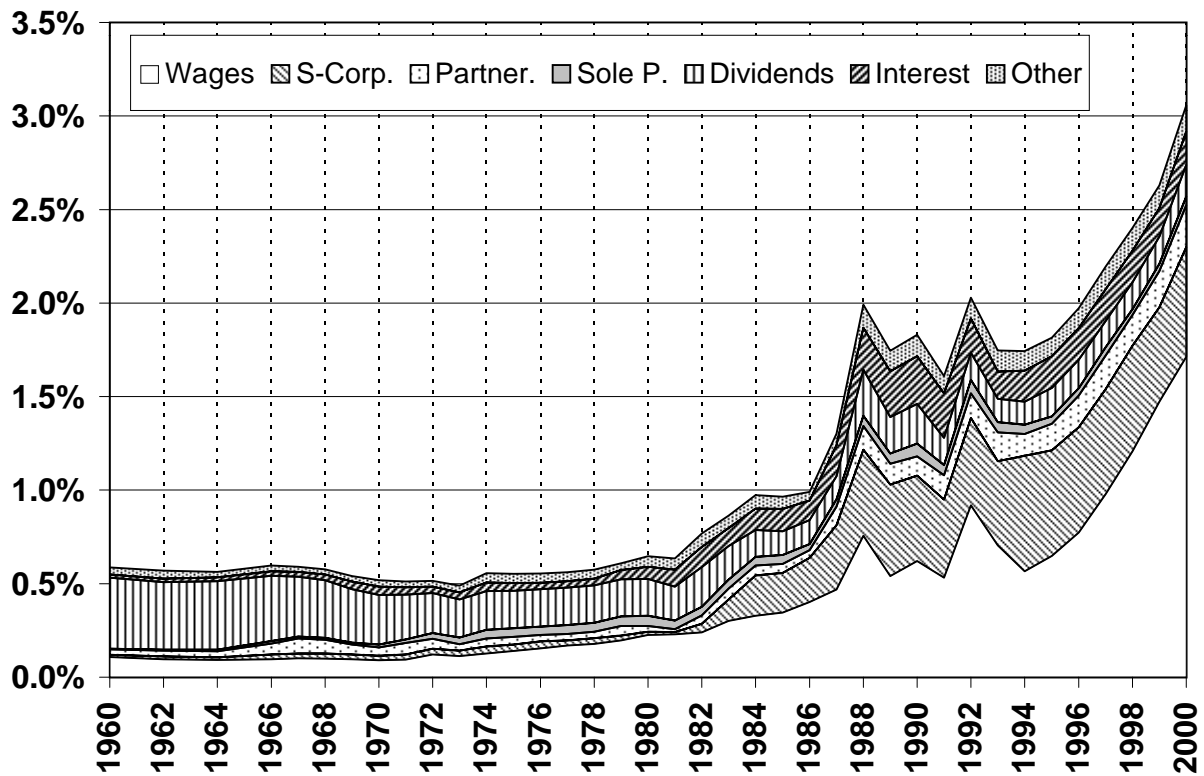
Tax Rates and Income Shares for the Medium-High Income Groups

Source: Series obtained from Tables B1 and B2



**FIGURE 4.**  
Tax Rates and Income Shares for the Very Top Groups

Source: Series obtained from Tables B1 and B2



**FIGURE 8.**

The Top 0.01% Income Share and Composition, 1960-2000

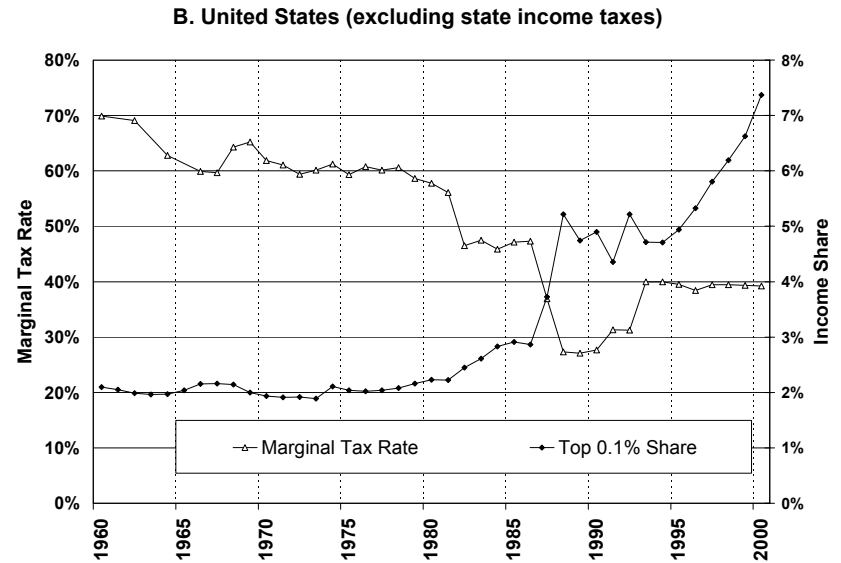
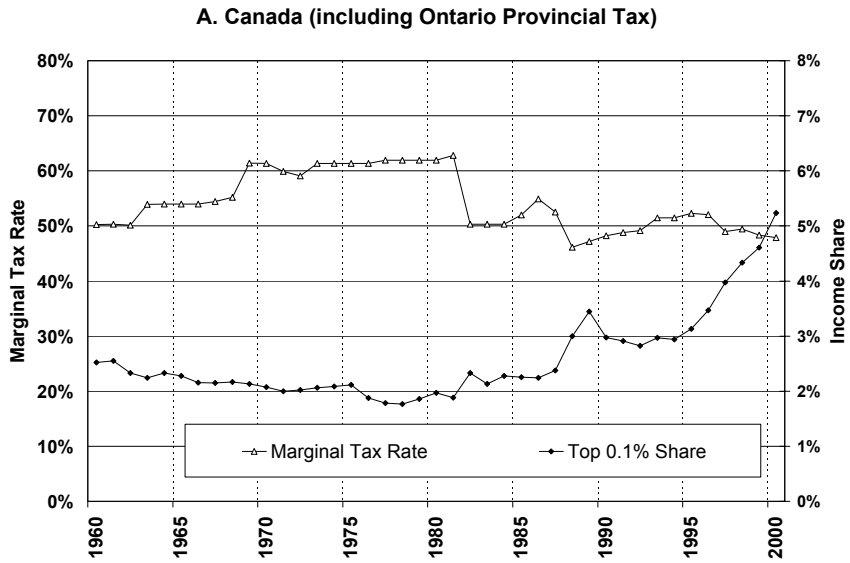
Source: Tables B1 and Table D1 in the working paper version Saez (2004).

The figure displays the income share of the top .01% tax units, and how the top .01% incomes are divided into seven income components: wages and salaries (including exercised stock options), S-corporation profits, partnership profits, sole proprietorship profits, dividends, interest income, and other income.

**TABLE 3.**  
**Elasticities of the top 1% income share with respect to net-of-tax rates**

	OLS (Newey-West s.e.)	2SLS (Top Rate Instrument)	OLS (Newey-West s.e.)	2SLS (Top Rate Instrument)	OLS (Newey-West s.e.)	2SLS (Top Rate Instrument)	OLS (Newey-West s.e.)	2SLS (Top Rate Instrument)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Elasticity	1.58 (0.28)	1.70 (0.19)	0.85 (0.21)	-0.02 (0.34)	0.62 (0.12)	0.59 (0.08)	0.68 (0.15)	0.61 (0.09)
Time Trend			YES	YES	YES	YES	YES	YES
Time Trend Square					YES	YES	YES	YES
Time Trend Cube							YES	YES
Adjusted R-Square	0.72	0.71	0.86	0.74	0.98	0.98	0.98	0.98
First Stage t-statistics		10.10		5.37		10.1		11.7

Notes: Estimates obtained by time-series regression of log(top 1% income share) on a constant, log(1 - average marginal tax rate), and polynomials time controls from 1960 to 2000 (38 observations). In columns 1, 3, 5, and 7, simple OLS regression is run, Standard Errors from Newey-West with 8 lags. In columns 2, 4, 6, and 8, 2SLS regression is run using log(1 - top marginal tax rate) as an instrument.



**FIGURE 8**

Marginal Tax Rates and Income Share for the Top 0.1% in Canada and the United States, 1960-2000

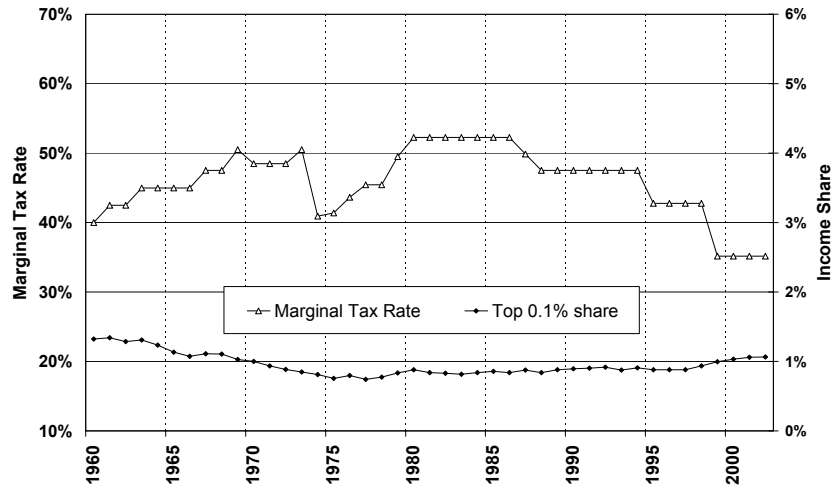
Source: Canada marginal tax rate computations based on Table E1 in Saez and Veall (2003)

Marginal tax rates in Canada include federal and Ontario provincial income taxes, as well as applicable surtaxes and credits

Estimation details are provided in Appendix Section E of Saez and Veall (2003).

United States, Saez (2004) computations using micro tax return data and TAXSIM calculator (does not include state income taxes).

A. Japan



B. United States

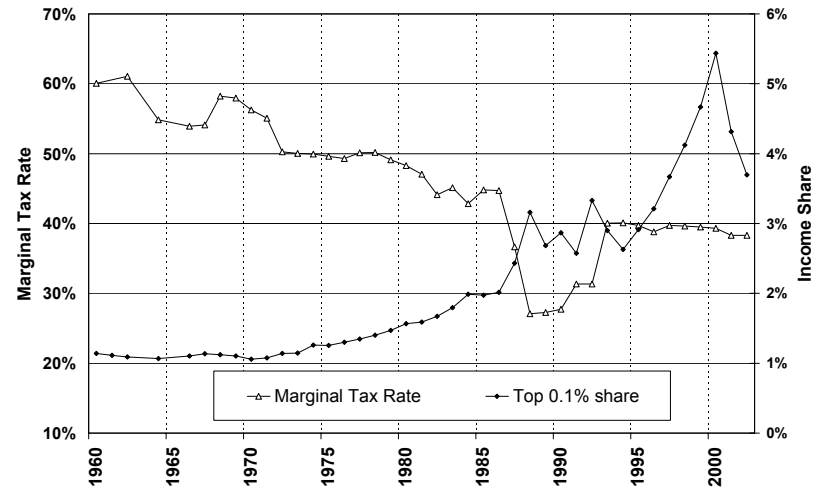


FIGURE 12

Marginal Tax Rates and Top 0.1% Wage Income Share in Japan and the United States, 1960-2002

Source: Japan marginal tax rate computations based on Table 7

Marginal tax rates in Japan exclude local income taxes and social insurance contributions.

Computed for the average wage earner in the top 0.1% with only wage income, a non-working spouse and two children

United States, Saez (2004) computations using micro tax return data and TAXSIM calculator (does not include state income taxes).

FIGURE 2 – Ratio mean income above  $z$  divided by  $z$ ,  $z_m/z$ , years 1992 and 1993

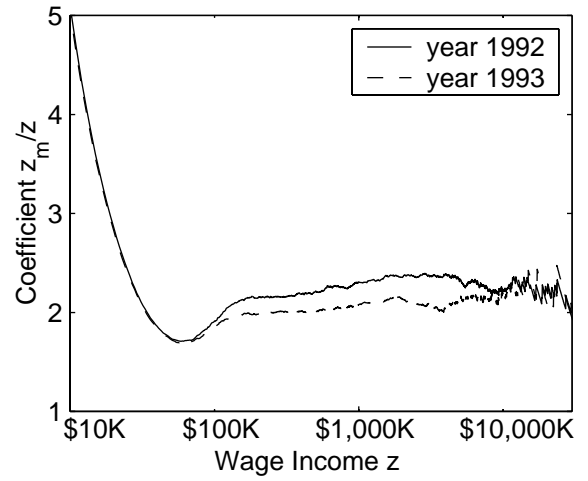
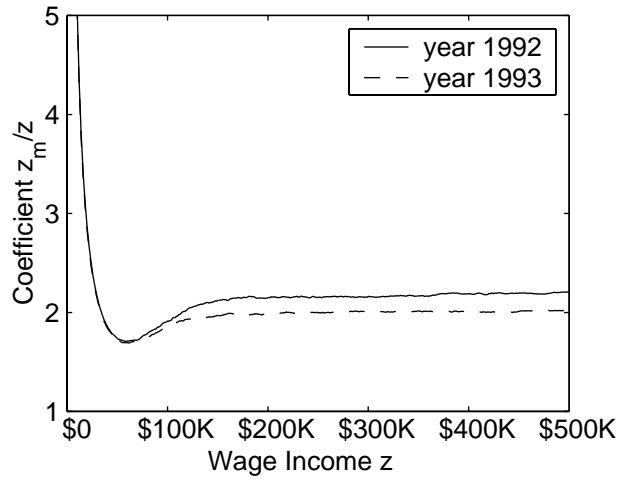
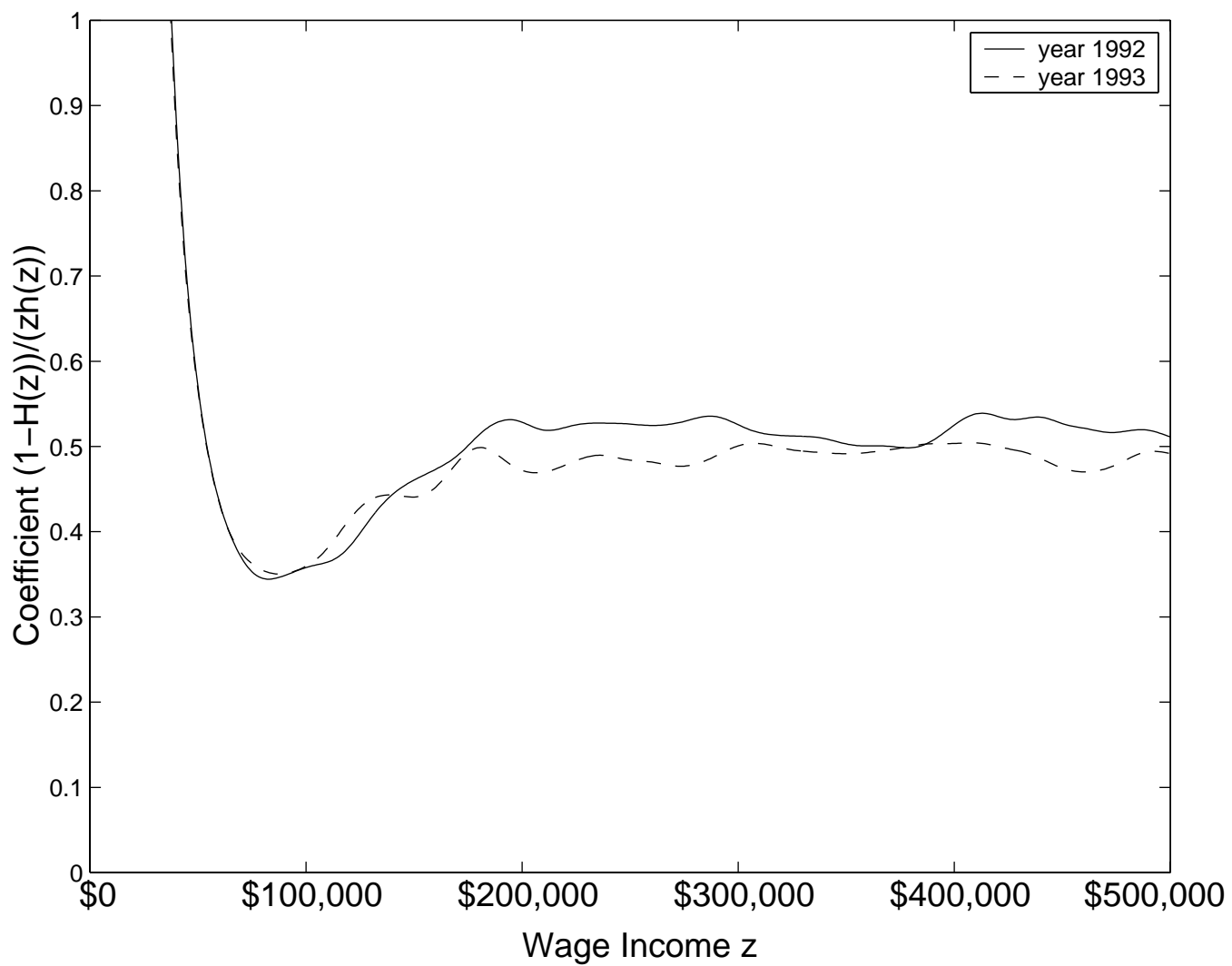




FIGURE 4 – Hazard Ratio  $(1-H(z))/(zh(z))$ , years 1992 and 1993



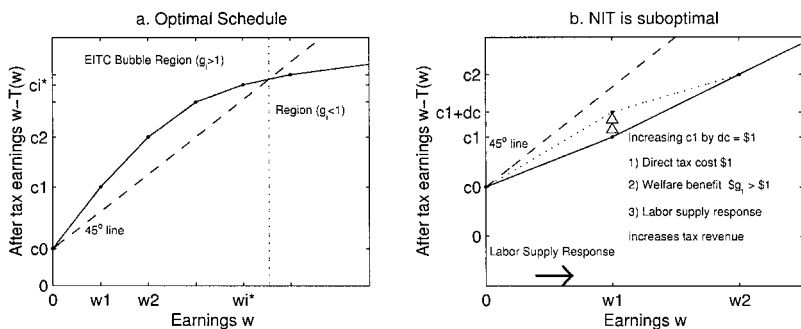


FIGURE II

from a situation with lower transfers to the working poor earning  $w_1$  than to the unemployed, increasing the transfer to the working poor by one dollar costs one dollar in lost tax revenue but provides a welfare benefit valued  $g_1$  dollars. This benefit is higher than one when  $g_1 > 1$ ; that is, when the government values an extra dollar distributed to the working poor more than an extra dollar distributed uniformly over all individuals. This extra transfer to the working poor also encourages some of the unemployed to join the labor force which, in an NIT situation, increases tax revenue. As a result, it is unambiguously good to increase at the margin the transfer to low income workers implying that the initial situation depicted in Figure IIb is suboptimal. Note that if, as discussed above, the government does not value redistribution to the unemployed as much as to the working poor ( $g_0 < g_1$ ), the EITC result is reinforced because a lower  $g_0$  implies relatively higher weights for all the other groups including the working poor.

Finally, in two important cases, the EITC bubble disappears. First, when the government cares mostly about the welfare of the worse-off individuals (the extreme case being the Rawlsian objective), it might be the case that all weights (except  $g_0$ ) are below one. In this case,  $i^* = 0$ , and  $T_i \leq T_0$  for all  $i$ , implying that the negative marginal tax rate component of the welfare program disappears and the transfer program is a classic negative income tax. Second, when the government has no redistributive tastes, then there is no guaranteed income, and the weights  $g_i$  are