**Preliminary and incomplete**

# Labor Supply Response of Female Household Heads to Work Incentive Programs: Evidence from Three Randomized Experiments

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**Abstract**

In order to estimate the incentive effects of welfare program to labor supply, many randomized experiments were carried out throughout U.S. in 1990s. The object of these experiments is to estimate overall labor supply effect, and usually does not intend to decompose the labor supply effect into income effect and substitute effect. In this paper, we return to the tradition of the negative income tax experiments in 1960s and 1970s. The main idea is to combine three similar randomized experiments (with different guarantee levels) together, and decompose the welfare program effect on labor supply into two structural parameters: income effect and substitute effect.

**JEL Classification:** C31, C14, I38, J22

**Key Word:** Labor Supply, Structural Model, Welfare Program, Randomized Experiment

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## I. Introduction

Understanding the relationship between welfare program and labor supply is an important topic in labor economics (see reviews by Moffitt 1992, 2002 and by Blank 2000).

During the Clinton administration, the U.S. welfare system was undergoing a major reform. In order to estimate the incentive effects of welfare program to labor supply, many randomized experiments were carried out through U.S. in 1990s, see Greenberg and Shroder (2004) for a comprehensive list of these experiments. The object of these experiments is to estimate overall labor supply effect, and usually ignore the mechanism and economic theory behind the effect, i.e. they do not decompose the labor supply effect into income effect and substitute effect. This "black-box" nature is often criticized, and the contribution to the accumulation of human knowledge from the "reduced form" experiments is also questioned in the literature, e.g. Heckman (1992) and Heckman and Smith (1995).

In this paper, we return to the tradition of the negative income tax (NIT) experiments in 1960s and 1970s (e.g. Burtless and Hausman, 1978), and decompose the welfare program effect on labor supply into two structural parameters: income effect and substitute effect.[1]

One difficulty to decompose the effect into income and substitute effect using these 1990s experiments is that these experiments are not design to estimate structural model, and one experiment usually has only one guarantee level, so it is difficult to

[1] See Table A1. for some earlier results on female heads from NIT experiments which were summarized in Moffitt (1982).

Estimate two structural parameters using one experiment.

Our idea is to combine a series of similar randomized experiments (with different guarantee levels) together, and hence it is possible to estimate a more structural labor supply model.

The paper is organized as follows: in Section 2, we present the model, and discuss related econometric issues, especially the issue of kink budget constraint. Section 3 describes three randomized experiments used in this paper. The main empirical results are in Section 4. Section 5 concludes the paper.

## II. Analytical and Econometric Framework

The simple method to estimate the effect of an experiment on the labor supply is to estimate the following equation:

$$H = \alpha T + X\beta + \varepsilon \tag{1}$$

where $H$ is the labor supply variable, e.g. hours of work per week, $T$ is the treatment indicator, and $X$ are other control variables, such as age, educational level, race, and family size, etc.

In order to estimate the substitute effect and income effect, we proceed with the text-book static labor supply model, which is the working-horse in the welfare incentive to labor supply literature (Moffitt, 2002).

Following the textbook model, such as Deaton and Muellbauer (1983), an individual will choose hours of leisure $L$ and consumption $C$ under the budget constraint $N + WT = PC + WL$ to maximize her utility $U(L,C)$. $T$ is total

available time i.e. 24 hours per day, $W$ is wage rate and $P$ is price. So $N+WT$ is full income, which is exogenous, and the labor supply is defines as $H=T-L$.

In order to accommodate the features of labor supply related with welfare programs, following Moffitt (1983 and 2005), we define the benefit of a welfare program as $B=G-tWH-rN$, where $G$ is the guarantee level and $t$ is the tax rate. We have the model of the labor supply response to the welfare programs.[2]

$$Max \quad U(H,Y) \tag{2}$$

$$s.t. \quad N+WH+B=Y \tag{3}$$

where we normalize the price $P$ to 1 and relabeled $C$ as disposable income $Y$.

One difficulty to estimate the labor supply model is the kink budget constraint (see Figure 1 for an illustration). There are several approached proposed to deal with this issue, which include "virtual" income technique of Hall (1973), instrumental variable approach, and maximum likelihood estimator of Burtless and Hausman (1978), see Hausman (1985), Moffitt (1990) for surveys on these methods.

The approached pioneered by Burtless and Hausman (1978) gained popularity due to its internal consistence and its clarity on the linkage between economic theory and econometrics (Moffitt, 1990). However, MaCurdy, Green and Paarch (1990) and MaCurdy (1992) argue that in order to have a well-behaved maximum likelihood function, Hausman's method implicitly imposes positive restriction on the uncompensated substitute and negative restriction on the income effect.

[2] If there is transaction cost or welfare stigma $\theta$ associated with the welfare participation, we can modify equation (2) as $Max \quad U(H,Y)-\theta D$, where $D$ is the indicator for program participation, see Moffitt (1983). We will not consider this case here.

Heim and Meyer (2003) address the critique of MaCurdy, Green and Paarch (1990) and MaCurdy (1992), and propose estimate a structural labor supply model based on direct utility. The direct utility approach was also used in Hoynes (1996) and Keane and Moffitt (1998) before.

In this paper, we apply method proposed by Heim and Meyer (2003). Adopted the model in Heim and Meyer (2003) using the notation here, individual $i$ now faces the following optimization problem:

$$Max \quad U(H, Y, \upsilon_i; \beta) \tag{4}$$

$$s.t. \quad N + WH + B = Y \tag{5}$$

where $\upsilon_i$ captures individual heterogeneity, such as taste for work, with a cumulative distribution function (CDF) $G(\upsilon_i; \sigma_\upsilon)$, known up to parameter $\sigma_\upsilon$; $\beta$ is the parameters to be estimated.

Optimal labor supply $H^*$, which differs from observed labor supply $H$, for individual $i$ is:

$$H^*(\upsilon_i; \beta) = \arg\max U(Y, W, B, H, \upsilon_i; \beta) \tag{6}$$

So the relationship between optimal labor supply $H^*$ and observed labor supply $H$ is as follows:

$$H = \begin{cases} H^*(\upsilon_i; \beta) + \varepsilon_i & \text{if } H^*(\upsilon_i; \beta) > 0 \text{ and } H^*(\upsilon_i; \beta) + \varepsilon_i > 0 \\ 0 & \text{if } \begin{cases} H^*(\upsilon_i; \beta) = 0, \text{ or} \\ H^*(\upsilon_i; \beta) > 0 \text{ and } H^*(\upsilon_i; \beta) + \varepsilon_i \le 0 \end{cases} \end{cases} \tag{7}$$

where $\varepsilon_i$ is random term, such as measurement error, with CDF of $F(\cdot)$.

The corresponding likelihood function is:

$$H = \int_{\upsilon_i} \{ \begin{Bmatrix} I(H^*(\upsilon_i;\beta) = 0) \\ +I(H^*(\upsilon_i;\beta) > 0)[1 - F(H^*(\upsilon_i;\beta);\sigma_\varepsilon)] \end{Bmatrix}^{I(H=0)} \times [I(H^*(\upsilon_i;\beta) > 0) f(H - H^*(\upsilon_i;\beta);\sigma_\varepsilon)]^{I(H>0)} \} dG(\upsilon_i;\sigma_\upsilon) \quad (8)$$

where $I(\cdot)$ is the indicator function.

In order to estimate the above model, we consider two specifications in this paper. One parameterization is assuming the labor supply function is linear. This specification is used in numerous studies. The other parameterization is assuming a quadratic utility function, which is used in Keane and Moffitt (1998), Heim and Meyer (2003) and others.[3]

For quadratic utility specification, we have:

$$U(H,Y;\beta) = \beta_{HH} H^2 + \beta_{YY} Y^2 + \beta_{HY} HY + \beta_H H + \beta_Y Y \quad (9)$$

and where $\beta_Y$ is normalized to 1. Furthermore, assume:

$$\beta_H = X'\alpha + \upsilon \quad (10)$$

which captures the effect of observed variables, such as demographic variables and unobserved taste $\upsilon$. $\beta_{HH}$ and $\beta_{YY}$ are used to calculate uncompensated wage and income elasticity (Keane and Moffitt, 1998).

## III. Data

Data sets in this paper are three randomized data sets from Manpower Demonstration Research Corporation (MDRC). They are data sets on Florida's Family Transition Program (FTP), Connecticut's Jobs First Program (JobFirst) and

[3] Specifying the labor supply function is equivalent to specify the utility function, and vice versa. These two specifications and their related labor supply functions and utility functions can be found in Heim and Meyer (2003).

Minnesota Family Investment Program (MFIP).[4]

MDRC has designed randomized evaluations for these three programs. The designs follow similar structure, so it is relatively easy to combine the three data sets together. Further more, the guarantee levels in the three programs are different, which make it is possible to identify substitute effect and income effect separately.

Table 1 summarizes the characteristics of these three experiments used in this paper. FTP and MFIP were carried out during 1994 to 1996 and JobFirst was carried out in 1996 and 1997. There are some differences among the target populations for these three experiments; nonetheless, single female head is the main target population of all these experiments. In this paper, we focus on single female heads only.

The treatments in these three experiments are in Table 2. Compared to old AFDC system, one distinct feature of the experiments is time limit, and the other is more generous disregards. The levels of generosity of the disregard are varied among these experiments, which allow us to identify and estimate substitute and income effects of labor supply to the incentive welfare programs.

Table 3 provides some basic information related to welfare on these three states in 1996. Among the three states, Florida had the lowest AFDC average benefit level, about $267 per family per month. The average benefit levels for Connecticut and Minnesota were similar, $463 and $476, respectively. Meanwhile, the numbers of AFDC recipients were 158,628, 200,898 and 57,750 in Connecticut, Florida and Minnesota respectively, accounted for 4.86%, 3.70% and 3.66% of state population in

[4] The FTP data set is analyzed in Grogger and Michalopoulos (2003), and JobFirst is analyzed in Bitler, Gelbach and Hoynes (2005).

each state.

The unemployment was highest in Connecticut, 5.70%, and lowest in Minnesota, 4.00%. Connecticut had the highest annual per capita personal income, about $33,472. The annual per capita income of Florida and Minnesota are $24,616 and $26,267, respectively.

Table 2 and Appendix Table A.2 to A.4 are the information on nonlinear budget constrain.

Table 4 summarizes key variables used in this paper. There is no systematic difference between treated group and control group. One-third of observations have not finished high school, and two-third of them has a kid younger than 6 years.

## IV. Results

Table 5 is estimation results from a quadratic utility function specification.

(preliminary)

## V. Conclusion Remarks

In this paper, we do not discuss issue of limited-duration of the experiment. Some people consider this is an important disadvantage of the randomized experiments, e.g. Moffitt and Kehrer (1981), however, Robins (1984) finds “for single female heads of families in the 20-year program, labor supply is reduced by about the same amount as estimated for 3- and 5-year families.”

On a theoretical point, Metcalf (1973) shows that income effect will be biased

downward and substitute effect will be biased upward in a limited-duration program.

Another important aspect of the welfare reform is not considered is time limits. Grogger and Michalopoulos (2003), Grogger (2003, 2004) find that time limits has important effect on the welfare use and labor supply, especially for the female heads with young children.

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**Figure 1. Kink Budget Constraint with Welfare Program**

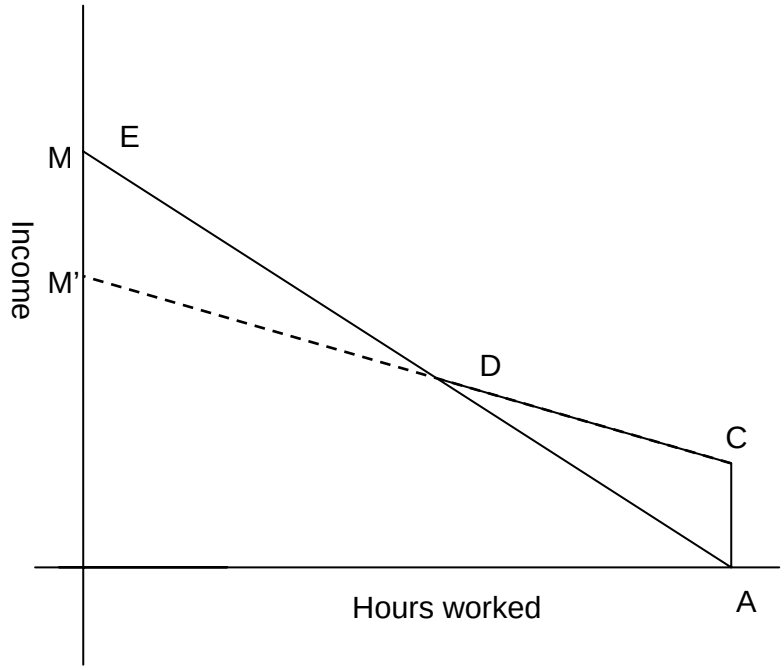

**Table 1. Summary of the Three Randomized Experiments**

| Program | Demonstration Period | Treatments | Target Population |
|---|---|---|---|
| Florida's Family Transition Program (FTP) | May 1994 - October 1996 | Enhanced earning disregards, work requirement, sanctions, time-limits | AFDC recipients and applicants. Total sample size: 5,430 individuals. Public file consists 2,815 single-parents. Among 2,815, 1,730 have follow-up survey. 2,257 individuals randomized after Feb. 28, 1995 and 356 two-parent cases were not included in the public file. |
| Connecticut's Welfare Reform Initiative (JobFirst) | January 1996 - February 1997 | Enhanced earning disregards, work requirement, sanctions, time-limits, family cap | AFDC recipients and applicants. Total sample size: 6,115 individuals. There are 4,803 single-parents and 387 two-parents cases. Public file only consists single-parent. Among 4,803 single-parents, 2,424 female single parents have follow-up survey. |
| Minnesota Family Investment Program (MFIP) | April 1994 - March 1996 | Enhanced earning disregards only; Enhanced earning disregards, work requirement, sanctions | AFDC recipients and applicants. The number of families in the study: 14,639. The final sample size used in MDRC report is 11,473. Among them, 9,217 are single-parent families and 2,256 are two-parent families. Both single and two-parent families are in public file. The follow-up survey was restricted to these 4,586 families who entered the study between April 1, 1994 and October 31, 1994. 3,720 families responded to the survey. |

**Table 2. Treatments of the Three Randomized Experiments**

| Program | Treatment |
|---|---|
| Florida's Family Transition Program<br>-FTP | Time limit: 24 months<br>Disregards: first $200 plus one-half of any remaining |
| Connecticut's Welfare Reform Initiative<br>-JobFirst | Time limit: 21 months<br>Disregards: all earned income below poverty level |
| Minnesota Family Investment Program<br>-MFIP | Disregards: Benefit=min( Maximum grant, 120% maximum grand – net income) |
| AFDC<br>(Control Group) | Disregards: $90-120 per month |

**Note:** Federal poverty line in 1996 for family of 4: $15,600.

**Table 3. Some Information on the Three States**

(Year 1996)

| | Connecticut | Florida | Minnesota |
|---|---|---|---|
| AFDC Maximum Amount (Family of 4) per Month | 639.00 | 364.00 | 621.00 |
| AFDC No. of Families in July | 57100.00 | 200898.00 | 57750.00 |
| AFDC No. of Recipients in July | 158628.00 | 533637.00 | 170181.00 |
| AFDC Average Benefit per Family in July | 463.02 | 267.21 | 475.78 |
| AFDC Average Benefit per Recipient in July | 166.38 | 101.05 | 161.97 |
| State Population (thousands) | 3267.00 | 14427.00 | 4648.00 |
| Personal Income per Capita | 33472.00 | 24616.00 | 26267.00 |
| Unemployment Rate (%) | 5.70 | 5.10 | 4.00 |

**Source:** Moffitt(2002). (http://www.econ.jhu.edu/People/Moffitt/DataSets.html)

**Note:** Federal poverty line in 1996 for family of 4: $15,600.

**Table 4. Summary of Key Variables**

| | FTP | | | | JobFirst | | | | MFIP | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Control | | Treatment | | Control | | Treatment | | Control | | Treatment | |
| Variable | Mean | Std. Error | Mean | Std. Error | Mean | Std. Error | Mean | Std. Error | Mean | Std. Error | Mean | Std. Error |
| Age less 20 | 0.06 | 0.25 | 0.08 | 0.27 | 0.09 | 0.28 | 0.09 | 0.29 | 0.14 | 0.34 | 0.14 | 0.34 |
| Age between 20 to 24 | 0.26 | 0.44 | 0.25 | 0.43 | 0.22 | 0.41 | 0.21 | 0.40 | 0.26 | 0.44 | 0.25 | 0.43 |
| Age between 25 to 34 | 0.45 | 0.50 | 0.45 | 0.50 | 0.41 | 0.49 | 0.41 | 0.49 | 0.39 | 0.49 | 0.38 | 0.49 |
| Age between 35 to 44 | 0.20 | 0.40 | 0.19 | 0.39 | 0.23 | 0.42 | 0.24 | 0.43 | 0.18 | 0.38 | 0.20 | 0.40 |
| Age older than 45 | 0.03 | 0.18 | 0.03 | 0.17 | 0.05 | 0.22 | 0.05 | 0.22 | 0.04 | 0.19 | 0.03 | 0.16 |
| Black | 0.52 | 0.50 | 0.53 | 0.50 | 0.39 | 0.49 | 0.39 | 0.49 | 0.55 | 0.50 | 0.56 | 0.50 |
| Hispanic | 0.01 | 0.09 | 0.02 | 0.12 | 0.23 | 0.42 | 0.22 | 0.41 | 0.02 | 0.15 | 0.03 | 0.16 |
| White | 0.45 | 0.50 | 0.44 | 0.50 | 0.36 | 0.48 | 0.37 | 0.48 | 0.55 | 0.50 | 0.56 | 0.50 |
| Never Married | 0.50 | 0.50 | 0.50 | 0.50 | 0.67 | 0.47 | 0.66 | 0.47 | 0.61 | 0.49 | 0.61 | 0.49 |
| Highschool or GED | 0.55 | 0.50 | 0.53 | 0.50 | 0.60 | 0.49 | 0.59 | 0.49 | 0.46 | 0.50 | 0.46 | 0.50 |
| No Degree | 0.39 | 0.49 | 0.41 | 0.49 | 0.02 | 0.14 | 0.02 | 0.13 | 0.12 | 0.33 | 0.12 | 0.32 |
| Less than Highschool | 0.39 | 0.49 | 0.41 | 0.49 | 0.33 | 0.47 | 0.35 | 0.48 | 0.34 | 0.47 | 0.35 | 0.48 |
| Has kid younger than 2 | 0.43 | 0.50 | 0.43 | 0.49 | 0.38 | 0.49 | 0.38 | 0.49 | | | | |
| Has kid between 2 to 5 | 0.26 | 0.44 | 0.27 | 0.45 | 0.24 | 0.43 | 0.23 | 0.42 | | | | |
| Has kid younger than 6 | | | | | | | | | 0.72 | 0.44 | 0.72 | 0.44 |
| No Child | 0.02 | 0.13 | 0.02 | 0.14 | 0.11 | 0.32 | 0.09 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 |
| One Child | 0.39 | 0.49 | 0.41 | 0.49 | 0.39 | 0.49 | 0.41 | 0.49 | 0.54 | 0.50 | 0.53 | 0.50 |
| Two Children | 0.30 | 0.46 | 0.29 | 0.46 | 0.27 | 0.45 | 0.27 | 0.44 | 0.25 | 0.43 | 0.25 | 0.43 |
| Three Children | 0.19 | 0.39 | 0.17 | 0.37 | 0.22 | 0.41 | 0.24 | 0.42 | 0.12 | 0.32 | 0.12 | 0.33 |
| Previous Year Earning | 1853.18 | 3762.50 | 1724.38 | 3545.19 | 2936.22 | 5358.06 | 2552.44 | 5021.20 | 3965.32 | 5980.11 | 3978.17 | 6327.73 |
| Previous Year Employed | 0.46 | 0.50 | 0.47 | 0.50 | 54.19 | 49.84 | 49.44 | 50.01 | 0.62 | 0.49 | 0.61 | 0.49 |
| Previous Year AFDC | 1978.54 | 1702.33 | 1946.18 | 1752.28 | 3388.33 | 3113.58 | 3596.06 | 3126.07 | 2188.81 | 2894.36 | 2210.07 | 2899.35 |
| No. of Observations | 1319 | | 1335 | | 2220 | | 2235 | | 2765 | | 2538 | |

**Note:** MFIP only inculdes single family head household. Treated group does not include MFIP Incentive only, and control group doesn't include AFDC/No Services.

**Table 5. Estimates from Quadratic Utility Specification**

| | Coefficient | Std. Error |
|---|---|---|
| Work Taste Parameters | | |
| Age between 20 to 24 | 0.159 | 0.093 |
| Age between 25 to 34 | 0.345 | 0.445 |
| Age between 35 to 44 | 0.756 | 1.221 |
| Age older than 45 | -0.341 | 0.834 |
| Black | -0.242 | 0.133 |
| Never Married | 0.296 | 0.586 |
| Highschool or GED | 0.120 | 0.356 |
| College | 0.341 | 0.235 |
| Has kid younger than 6 | -0.435 | 0.324 |
| Constant | 1.245 | 0.563 |
| | | |
| Utility Function Parameters | | |
| $\beta_{HH}$ | 0.016 | 0.003 |
| $\beta_{YY}$ | 0.033 | 0.009 |
| $\beta_{HY}$ | -0.022 | 0.018 |
| | | |
| Log Likelihood | -17708.654 | |

**Note:** $\beta_{YY}$ and $\beta_{HY}$ is timed by 100

**Table A.1. Effects of Negative Income Tax on Hours per Week of Female Heads**

| Study | | Sample | Net-wage Effect | Substitution Effect | Income Effect |
|---|---|---|---|---|---|
| Seattle-Denver | | | | | |
| | Keeley et al. (1978a, b) | All races | 4.00 + | 1.62 * | -0.680 * |
| | | | (0.2) | (0.08) | (0.12) |
| | Robins and West (1978) | All races | 4.18 + | 1.90 * | -0.065 * |
| | | | (0.21) | (0.10) | (0.11) |
| Gary | | | | | |
| | Moffitt (1979) | Black | -3.24 | 3.55 + | -0.19 * |
| | | | (0.16) | (0.18) | (0.34) |
| | Hausman (1979) | Black | 0.60 | 2.00 + | -0.04 * |
| | | | (0.03) | (0.10) | (0.07) |

**Source:** Table 5 in Moffitt(1981)

**Note:** * Underlying coefficient(s) significant at the 10 percent level.

+ No significant level attached because Slutsky equation used to calculate value.

Elasticities are in parenthese.

**Table A.2. U.S. Federal Tax Rate Schedules for Head of Household: 1994-1999**

| Year | If taxable income is over | But not over | The tax is |
|---|---|---|---|
| 1994 | | | |
| | $0 | $30,500 | 15% of the amount over $0 |
| | $30,500 | $78,700 | $4,575.00 plus 28% of the amount over 30,500 |
| | $78,700 | $127,500 | $18,071.00 plus 31% of the amount over 78,700 |
| | $127,500 | $250,000 | $33,199.00 plus 36% of the amount over 127,500 |
| | $250,000 | no limit | $77,299.00 plus 39.6% of the amount over 250,000 |
| 1995 | | | |
| | $0 | $31,250 | 15% of the amount over $0 |
| | $31,250 | $80,750 | $4,687.50 plus 28% of the amount over 31,250 |
| | $80,750 | $130,800 | $18,547.50 plus 31% of the amount over 80,750 |
| | $130,800 | $256,500 | $34,063.00 plus 36% of the amount over 130,800 |
| | $256,500 | no limit | $79,315.00 plus 39.6% of the amount over 256,500 |
| 1996 | | | |
| | $0 | $32,150 | 15% of the amount over $0 |
| | $32,150 | $83,050 | $4,822.50 plus 28% of the amount over 32,150 |
| | $83,050 | $134,500 | $19,074.50 plus 31% of the amount over 83,050 |
| | $134,500 | $263,750 | $35,024.00 plus 36% of the amount over 134,500 |
| | $263,750 | no limit | $81,554.00 plus 39.6% of the amount over 263,750 |
| 1997 | | | |
| | $0 | $33,050 | 15% of the amount over $0 |
| | $33,050 | $85,350 | $4,957.50 plus 28% of the amount over 33,050 |
| | $85,350 | $138,200 | $19,601.50 plus 31% of the amount over 85,350 |
| | $138,200 | $271,050 | $35,985.00 plus 36% of the amount over 138,200 |
| | $271,050 | no limit | $83,811.00 plus 39.6% of the amount over 271,050 |
| 1998 | | | |
| | $0 | $33,950 | 15% of the amount over $0 |
| | $33,950 | $87,700 | $5,092.5.00 plus 28% of the amount over 33,950 |
| | $87,700 | $142,000 | $20,142.50 plus 31% of the amount over 87,700 |
| | $142,000 | $278,450 | $36,975.50 plus 36% of the amount over 142,000 |
| | $278,450 | no limit | $86,097.50 plus 39.6% of the amount over 278,450 |
| 1999 | | | |
| | $0 | $34,550 | 15% of the amount over $0 |
| | $34,550 | $89,150 | $5,182.50 plus 28% of the amount over 34,550 |
| | $89,150 | $144,400 | $20,470.50 plus 31% of the amount over 89,150 |
| | $144,400 | $283,150 | $37,598.00 plus 36% of the amount over 144,400 |
| | $283,150 | no limit | $87,548.00 plus 39.6% of the amount over 283,150 |

**Source:** IRS 1994, 1995, 1996, 1997, 1998 and 1999 Tax Schedules.

**Note:** Standard deductions are $5,600, $5,750, $5,900, $6,050, $6,250 and $6,350 for head of household in 1994, 1995, 1996, 1997, 1998 and 1999 respectively.

**Table A.3. U.S. Earned Income Credit Parameters, 1994-1999**

| Year | Credit Rate (%) | Flat Region | | Maximum Credit | Phase-out Region | | |
|---|---|---|---|---|---|---|---|
| | | Beginning Income | Ending Income | | Phase-out Rate (%) | Beginning Income | Ending Income |
| 1994 | | | | | | | |
| No Children | 7.65 | 4,000 | 5,000 | 306 | 7.65 | 5,000 | 9,000 |
| One Child | 26.30 | 7,750 | 11,000 | 2,038 | 15.98 | 11,000 | 23,755 |
| Two Children | 30.00 | 8,425 | 11,000 | 2,528 | 17.68 | 11,000 | 25,296 |
| 1995 | | | | | | | |
| No Children | 7.65 | 4,100 | 5,130 | 314 | 7.65 | 5,130 | 9,230 |
| One Child | 34.00 | 6,160 | 11,290 | 2,094 | 15.98 | 11,290 | 24,396 |
| Two Children | 36.00 | 8,640 | 11,290 | 3,110 | 20.22 | 11,290 | 26,673 |
| 1996 | | | | | | | |
| No Children | 7.65 | 4,220 | 5,280 | 323 | 7.65 | 5,280 | 9,500 |
| One Child | 34.00 | 6,330 | 11,610 | 2,152 | 15.98 | 11,610 | 25,078 |
| Two Children | 40.00 | 8,890 | 11,610 | 3,556 | 21.06 | 11,610 | 28,495 |
| 1997 | | | | | | | |
| No Children | 7.65 | 4,340 | 5,430 | 332 | 7.65 | 5,430 | 9,770 |
| One Child | 34.00 | 6,500 | 11,930 | 2,210 | 15.98 | 11,930 | 25,750 |
| Two Children | 40.00 | 9,140 | 11,930 | 3,656 | 21.06 | 11,930 | 29,290 |
| 1998 | | | | | | | |
| No Children | 7.65 | 4,460 | 5,570 | 341 | 7.65 | 5,570 | 10,030 |
| One Child | 34.00 | 6,680 | 12,260 | 2,271 | 15.98 | 12,260 | 26,473 |
| Two Children | 40.00 | 9,390 | 12,260 | 3,756 | 21.06 | 12,260 | 30,095 |
| 1999 | | | | | | | |
| No Children | 7.65 | 4,530 | 5,670 | 347 | 7.65 | 5,670 | 10,200 |
| One Child | 34.00 | 6,800 | 12,460 | 2,312 | 15.98 | 12,460 | 26,928 |
| Two Children | 40.00 | 9,540 | 12,460 | 3,816 | 21.06 | 12,460 | 30,580 |

**Source:** 2000 Green Book, Table 13-12.

**Table A.4. U.S. Federal Poverty Line, 1994-1999**
**(US $)**

| Year | First Person | Each Additional Person | Four-Person Family |
|---|---|---|---|
| 1994 | 7,360 | 2,480 | 14,800 |
| 1995 | 7,470 | 2,560 | 15,150 |
| 1996 | 7,740 | 2,620 | 15,600 |
| 1997 | 7,890 | 2,720 | 16,050 |
| 1998 | 8,050 | 2,800 | 16,450 |
| 1999 | 8,240 | 2,820 | 16,700 |

**Source:** U.S. Department of Health and Human Services homepage
Link: http://aspe.hhs.gov/poverty/figures-fed-reg.shtml