

# **Helping hand or anchor: The effect of public assistance on income mobility among the poor**

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## **Introduction**

Means-tested public assistance programs provide cash assistance and in-kind benefits (childcare, healthcare, housing, nutrition, to name just a few) to low-income families thereby helping them to achieve a higher standard of living than would otherwise be possible if they relied solely on earnings from the labor market. In the short-run, these programs alleviate the economic consequences of poverty by providing greater access to food, healthcare, and housing. However, the phase in and phase out of benefits from means-tested programs as well as state and federal income tax schedules create complex incentives regarding work and consumption over a narrow range of income. These incentives may discourage behaviors that allow families to escape poverty and dependence on government programs. Additionally, it can be costly for eligible households and individuals to apply for these benefits due to search costs, establishing eligibility, and transportation to government offices.

There are several public programs that aim to assist the poor and the net impact of these programs on poverty alleviation is unclear. An optimistic view of the package of programs is that they provide benefits that enable families to achieve consistent, full-time employment that provides an adequate standard of living. Under such a utopian scenario, families and individuals would move through the support system until they transitioned to a sustainable income. Among the types of public support available, one might think of the transition as moving from TANF and Food Stamps to the Earned Income Tax Credit, to the “regular” schedule for income tax (above the EITC phase-out). Do public assistance eligible families in reality make such progress? Do the public programs increase the probability that they will? These are the central questions of this research.

According to economic theory, welfare reforms in the mid-1990s, specifically the substitution of Temporary Aid to Needy Families (TANF) for Aid to Families with Dependent Children (AFDC) and the expansion of the earned income tax credit (EITC), as well as the strong

economy in the 1990s should show up in altered work behavior among low-skill, single women with children. Eissa and Liebman (1996), Blank et al. (1999), Ellwood (2000), Meyer and Rosenbaum (2001), Meyer (2002), and Grogger (2003) show a dramatic change in labor supply by low-skill, single parents and link these changes in altered work behavior to the changed incentives created by TANF and the 1993 expansion of the EITC. They find, however, that these labor supply effects are largely on the extensive margin (non-employment versus employment) rather than the intensive margin (number of hours worked in a year).

Food stamp benefits (SNAP) are designed to provide low-income households with basic foodstuffs for home consumption. As such they are not specifically focused on increasing labor supply but the link among nutrition, health, and work effort for individuals and families is intuitively acceptable.

In this paper, we seek to evaluate the incentives and outcomes for families to transition from these programs to a sustainable level of income. Creating a somewhat ad hoc hierarchy, we analyze the potential transition through SNAP as the most basic support mechanism, to TANF, to the EITC, and finally to the “regular” income tax system. Using administrative data for Georgia, we are able to accurately follow TANF, SNAP, and (in the future) EITC usage in the state of Georgia. We supplement these data with information on employment using Georgia Department of Labor ES202 data. In the future, we will attempt to determine the causal impact of these programs on attainment of sustainable employed. The current paper is focused on the trends and paths of SNAP and TANF users as an introduction to the more analytic work we plan to do in the future.

## **SNAP, TANF, and EITC**

These three programs account for a large share of public funds allocated to relatively low income households. They are also credited with reducing poverty on an annual basis for over 30

million individuals and children in the U.S. (Sherman et al, 2013). Less is known, however, of the impact of the transition of poor through these programs to a long-run, sustainable level of income. In this section, we briefly summarize SNAP, TANF, and EITC and highlight some of the program changes in recent years.

*Supplemental Nutrition Assistance Program* (SNAP) or food stamps (pre-1980) is a monthly benefit to help low-income families obtain food. Over the years, SNAP eligibility criteria have changed as have the benefit levels, albeit not dramatically so. SNAP benefits cannot be used to buy alcoholic beverages, cigarettes or tobacco, household supplies such as soap and paper products, medicines, vitamins, pet foods, or any non-food items.

Eligible households are essentially those whose income is less than or equal to the poverty level, or are living in a temporary crisis. (Eligibility criteria are actually more complex.) The amount granted to each household is the difference between the maximum monthly benefit and 30 percent of monthly income (see Table 1).

*Temporary Assistance for Needy Families* (TANF) provides low-income families with cash assistance for up to 48 months in Georgia and replaced the Aid to Families with Dependent Children (AFDC) program in 1996. AFDC was created in 1935 to provide financial support to those in need. To qualify for TANF benefits, the family must contain a dependent child and must prove the absence or disablement of one or both parents. Adult beneficiaries of TANF are required to work or participate in weekly work activities, have less than \$1,000 in resources such as bank accounts, stocks, or bonds, and make less than the listed income limits. Table 2 shows how TANF benefits vary by family size and income.

In 2005 (under the Deficit Reduction Act), TANF strengthened work requirements and in 2009 (under the American Recovery and Reinvestment Act), benefits were increased and the federal

government offered additional, short-term subsidies to states during the recession years of 2009 and 2010.

*Earned Income Tax Credit* (EITC) is a means-tested benefit program that provides a tax credit to working individuals earning low to moderate income. The EITC was established in 1975 and has undergone changes in eligibility and benefits. In the most recent years including the Great Recession, the program was made somewhat more generous. Table 3 illustrates how the credit varies with earnings and number of children.

## **Implications of Tax-Benefit System on Behavior**

The myriad of eligibility rules and regulations for TANF and SNAP (and several other federal, state, and local programs) provide potentially perverse incentive for individuals to engage in the labor force. For example, Figure 1 shows the marginal tax rate (MTR) as earnings increase in \$1,000 increments from \$0 to \$50,000.<sup>1</sup> This figure summarizes the price and income effects created by the tax-benefit system for a married couple with no children (as an illustrative case).

We see in Figure 1 that the incentives facing this household change dramatically over the earnings range between \$0 and \$50,000. The most salient features of this figure are the cliffs, peaks, and plateaus created by the tax-benefit system. In the earnings range between \$0 and \$3,000, which is labeled A in Figure 1, the MTR is -64 percent, meaning that an additional \$100 of earnings increases NHI by only \$36. At \$3,000 of earnings, the MTR is equal to -42.76 percent, meaning that an additional \$100 of earnings increases NHI by approximately \$57. Table 4 shows that this MTR is the result of the combined effect (arithmetic sum) of the phase out of SNAP benefits at a rate of -36

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<sup>1</sup> For purposes of the simulation, we assume that there is only one wage earner in the household. If both adults in the household work, the combined FICA payroll tax rates would be 13.30 percent, which is somewhat more than double the 5.65 percent used in these simulations. For purposes of transparency and simplicity, we also assume that earnings are reduced by the employee share of the FICA payroll taxes. However, economists generally believe that employers take into account the full cost of hiring an employee. This implies that the employee's earnings are reduced by the amount of both the employee and employer shares of the FICA payroll taxes.

percent; the phase in of the EITC at a rate of 7.65 percent; the phase out of HUD benefits at a rate of –30 percent; and the employee’s share of the combined FICA payroll taxes at a rate of –5.65 percent.

In the earnings range labeled B, between \$4,000 and \$12,000, the MTR varies between –22 and –31.54 percent, which is substantially smaller (in absolute value) than the MTR in the earnings range labeled A. The total MTR in the earnings range labeled B reflects the continuing phase out of SNAP benefits at a rate of –25.56 percent; the employee’s share of the combined FICA payroll taxes of –5.65 percent; and the progressive state income tax rates, which vary between 0 and –1.89 percent.<sup>2</sup> By \$7,000, the EITC is completely phased in for a married couple with no children.

As this analysis points out, the current federal and state tax-benefit system creates price and income effects, which create various behavioral incentives to “work around” these tax rates. As an example, to understand the potential influence of the tax-benefit system on the decision to acquire education and skills, consider the following two scenarios. Suppose an adult with no children works full-time (approximately 2,080 hours per year) at \$7.25 per hour, which is the Georgia minimum wage in 2011. In this case, her gross household earnings are \$15,000 per year, and her net household income (NHI) is \$13,954 per year. Now consider a single adult working as a public school teacher earning \$45,000 per year; her NHI is \$35,881. The ratio of gross household earnings for these two single adults is 3 to 1 ( $= \$45,000 \div \$15,000$ ); whereas, the ratio of their NHIs is 2.6 to 1 ( $= \$35,881 \div 13,954$ ). In other words, the tax-benefit system reduces the relative rewards from investing the time, money, and effort into becoming a public school teacher by approximately 13 percent.

We make similar calculations for additional scenarios; the results of these calculations are reported in Table 5. In the case of a single adult with one child, the NHI from skilled labor is two times that from unskilled labor, and, in the case of a single adult with two children, the return to

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<sup>2</sup> The effective state income tax rate varies between 1.88 and 5.66 percent. However, the statutory marginal tax rates vary between 0 and 6 percent, in 1 percentage point increments. The alert reader may wonder what accounts for the wedge between the effective and statutory rates. Since FICA taxes are paid out of pre-tax income, the effective state tax rates are equal to  $0.01 \times (1 - 0.0565) = 0.00944$ ,  $0.02 \times (1 - 0.0565) = 0.0188$ , ...,  $0.06 \times (1 - 0.0565) = 0.0566$ . Similar calculations explain the wedge between the effective and statutory federal income tax rates.

skilled labor is 1.7 times the return to unskilled labor. Turning to a married couple with no, one, and two children, the returns from skilled labor relative to unskilled labor, respectively, are 2.4, 1.9, and 1.7. The tax-benefit system reduces the return to skilled labor by 13 percent, 37 percent, and 47 percent, respectively, for a married couple with no, one, and two children.

As Table 5 shows, the tax-benefit system reduces the returns from skilled labor relative to unskilled labor as household size increases by adding children. Furthermore, the returns from skills are smaller for a married couple, with a given number of children, than for a single adult. As this illustrative example shows, the tax-benefit system may erode the pecuniary rewards from making the necessary sacrifices to acquire the education and skills required to escape poverty. It is our intention to fully analyze the use (take up) of SNAP and TANF and estimate the separate and joint incentives of these programs on labor behavior. Our ultimate goal is to causally determine whether or not these programs serve to help families move up the income chain out of poverty and into the income tax system (as a measure of graduation). In the remainder of this preliminary study, we present detailed descriptive analyses of Georgia's SNAP and TANF administrative data that serve as the basis for the research.

## **Data**

In this study, three separate datasets are utilized. The SNAP and TANF datasets are administered by the Georgia Department of Human Services and range from January 2000 to September 2013. In each set, the unit of observation is an Assistance Unit (AU), typically representing a household. The TANF dataset contains a variable indicating, for each month, whether the AU is enrolled. For a given month, enrollment is observed by the dated receipt from a transferred benefit payment to the AU. Additionally, for each month, a variable is included indicating the zip code of the residence of the AU. Finally, for each month, there is a binary

variable indicating whether an adult is enrolled in the AU or, instead, if the Unit consists only of children. Note that the particular time limits that apply to adults on TANF do not apply to children.

The wage data is administered by the Georgia Department of Labor and ranges from January 2000 to December 2011. The unit of observation is an individual, rather than an AU. For each quarter of a year, there is a variable indicating an individual's income during that period. As the data is collected and administered by the State of Georgia for the purpose of unemployment insurance, income earned out of State is not observed; however, this will not significantly affect the relevant population: low-income individuals. For each month, there is a categorical variable indicating an individual's enrollment status with regard to both TANF and SNAP, extracted from the Department of Human Services datasets. An individual is identified by a Social Security Number (SSN); however, given errors in reporting, a number of individuals are excluded from the dataset. Compared to the TANF dataset above, the error ranges between 1 percent and 5 percent, and compared to the SNAP dataset, the error ranges between 0.5 percent and 4.5 percent.

For each TANF and SNAP, there are separate sets of charts, which are presented below as Figures 2 – 10. For each program, three subsets of the observations are included: all AUs enrolled (Total), AUs in which an adult is enrolled (Adult), and AUs in which no adult is enrolled (Child). The four charts are Total Enrollment, Monthly Retention, Consecutive Enrollment, and Unique Enrollment. For each month, Total Enrollment captures all AUs enrolled in that month. Monthly Retention captures AUs enrolled in both the present month and the previous month. Consecutive Enrollment presents the data in one year intervals. For a given month, Consecutive includes AUs enrolled in the present month and enrolled for the 11, 23, 35,



48, 59, 71 preceding months. These intervals are not mutually exclusive; if an AU is enrolled in the present month and enrolled for 40 of the previous months, then the AU is included in the 12, 24, and 36 month subsets. Unique captures AUs that are enrolled in the present month but have not been enrolled during a previous month during the observation period.

## **TANF and SNAP Trends in Georgia Data**

### *TANF Trends*

Figures 2 – 6 illustrate trends by month in TANF enrollment. The x-axis represent months from January 2000 (1<sup>st</sup> month) through September 2013 (168<sup>th</sup> month) and the grey bars are two recession periods as reported by the National Bureau of Economic Research. Figure 2 shows the total TANF enrollment for each month over the 168 month period for adults, children and total. For the first year and half of the period, TANF enrollment was generally decreasing, although the decrease in children enrollment was small. TANF enrollment began to increase soon after the 2001 recession and continued to increase until the beginning of 2004. Total monthly TANF enrollment has decreased almost continuously since 2004, at first very rapidly, but more slowly since just before the beginning of the Great Recession (December 2007–June 2009). Since 2009 there has been a small increase in the number of adults on TANF, but a continuing decline in total enrollment and child enrollment. Beginning in mid-2003, the number of children enrolled in TANF begin to surpass the number of adults enrolled.

The pattern of TANF enrollment for Georgia is consistent with national trends (Loprest 2012), although Georgia's percentage decrease is larger than the average. Loprest (2012) reports the percentage reduction in TANF enrollment between 1997 and 2001 for each state. Georgia experienced a decrease of 80.6 percent decline, the 4<sup>th</sup> largest percentage decrease.

The decline in TANF enrollment are attributed to several factors, including the economy, the earned income tax credit, TANF policies such as time limits, sanctions, and work requirements (Blank 2002; Grogger and Karoly 2005; Bitler and Hoynes 2010). State policies also have affected TANF enrollment. For example, many states have moved some TANF cases to “solely state-funded” programs (U.S. General Accountability Office 2011).

The pattern seen in Figure 2 is the result of the pattern of retention and new enrollees. Figures 3–6 describe those two patterns.

Figure 3 explore TANF retention. In particular, the figure shows total monthly enrollment and the number of enrollees in a given month who were also enrolled in the prior month. The closer the two lines are to each other, the greater the share of TANF enrollees in any month who were in the program in the prior month. The retention as a percentage of total enrollment is about a percentage point larger in the later years than during the first four years, about 93 percent compared to 92 percent, respectively. This is the case for both adults and children. The average month-to-month retention, i.e., the percentage of a given month’s enrollees who are enrolled in the following month, over the period is 92 percent. The pattern is the same for adults and children.

Figure 4 is another take on retention. It shows for a given month the number of enrollees who have been continuously enrolled for the given number of months. For example, consider the top line (or brown line). For any month the number reflects enrollees in that month who have been enrolled for at least the previous 11 months, that is, for one year. Note that the top line starts on December 2000, since we do observe enrollees before January 2000 and thus cannot determine if any enrollee in 2000 has been in the program for at least 12 months. Likewise, the

other lines represent longer minimum durations and thus the line start at more recent dates. The five lines reflect durations of from at least 1 year (12 months) to at least 6 years (72 months).

In the last month, about 10,079 of the 16,976 total enrollees had been enrolled for at least 12 months. In other words, about 41 percent of the current enrollees had been in the program for less than 12 months. On the other hand 4,562, or 26.9 percent of the current enrollees had been in the program for at least 4 years, and 2,963, or 17.5 percent had been in the program for at least 6 years. So, on one hand there are many recent enrollees, and a substantial percentage of enrollees who have rather long durations. These numbers are consistent with duration patterns nationally. Loprest (2012) reports that 41 percent of FY 2009 cases had been on TANF for less than a year and that only 12 percent had cumulative durations of more than 4 years.

Figure 5 is the equivalent figure but just for adults. Note that a very small percentage of currently enrolled adults have durations of more than 12 months. And even in the middle years, there were few adults with durations exceeding 2 years.

The average length of any spell on TANF over this period was 6.3 months for adults and 19.1 for children. The average total months on TANF over this period was 11.1 for adults and 27.8 for children. This implies that individuals receiving SNAP benefits had multiple spells. In fact, the average number of spells for adults was 1.76 and 1.45 for children.

Figure 6 shows total new enrollees by month. For each month the number represents enrollees who were not enrolled in any previous month, at least during the period. So these are individuals who are new to the TANF program. The number of new enrollees has generally declined over the first half of the period, but since about the end of 2006, the number of new enrollees each month has been rather constant. This pattern is consistent with the decrease in the national take-up rate for TANF (Loprest 2012). The pattern for adults and children are very

similar to that seen in Figure 6, although the number of new children enrollees is smaller than for adults in the earlier part of the period and about the same in the last decade. Those patterns explain the change in the percentage of enrollees who are adults. The decline in the number of new enrollees and the decline in duration explain the decline in the total number of TANF enrollees.

### *SNAP Trends*

Figures 7 – 10 focus on trends in SNAP participation in Georgia. The trends in SNAP enrollment are just the reverse of those for TANF. While TANF enrollment has been decreasing, SNAP enrollment has been increasing. Figure 7 shows the trends in total monthly enrollment, as well as enrollment by adults and children. As can be seen participation in SNAP increase nearly continuously since the beginning of our period, i.e., January 2000. Beginning with the onset of the Great Recession, SNAP enrollment increased much more rapidly. Beginning at the end of 2012, enrollment started to decline. The pattern seen in Figure 7 is similar to that for the U.S., although the increase since 2007 has been greater in Georgia than for the U.S.; between 2007 and 2011, average monthly SNAP enrollment increase 89.3 percent, which is larger than the 70 percent increase for the U.S. (Congressional Budget Office 2012). This growth since 2007 is attributed to the economic downturn experienced during the Great Recession. The U.S. Department of Agriculture reports that nationally, SNAP participation increases by an average of 2 to 3 million people for each percentage point increase in the unemployment rate (Hanson and Oliveira 2012). There was also an increase in the take-up rate from 54 percent in 2001 to 79 percent in 2013 (Eslami et al. 2012). For an explanation of the trends in SNAP participation see Ganong and Liebman (2013) and Ziliak (2013).

Figure 8 explore SNAP retention. As with Figure 3, Figure 8 shows total monthly enrollment and the number of enrollees in a given month who were also enrolled in the prior month. Until the about the beginning of 2009, the number of retained SNAP enrollees was very close to total SNAP enrollment. After 2009, retained SNAP enrollees decreased as a percentage of total enrollment, partly due to the increase in new enrollees each month. The average month-to-month retention over the period 2000 through 2009 is 93 percent, while the month-to-month retention over the period 2010 through the end of the period is 94.5 percent.

Figure 9 is equivalent to Figure 4 and shows for a given month the number of enrollees who have been continuously enrolled for the given number of months. The five lines reflect durations of from at least 1 year (12 months) to at least 6 years (72 months). As compared to TANF enrollment, the duration of SNAP participants is longer. In December 2008, 49.2 percent of enrollees had been on SNAP for at least 12 months, while in September 2013, 60.6 percent had. There is a similar increase for all durations. For example, the percent on SNAP for at least 3 years increased from 21.9 percent to 30.3 percent over this period.

The average length of a spell on SNAP over this period was 12.0 months for adults and 10.1 months for children. The average time any enrollee spent on SNAP was 26.5 months for adults and 18.6 months for children. This implies that individuals receiving SNAP benefits had multiple spells. In fact, the average number of spells for adults was 2.2 and 1.8 for children.

Figure 10 shows new SNAP enrollees by month. For each month the number represents enrollees who were not enrolled in any previous month, at least during the period. So these are individuals who are new to the SNAP program. The number of new enrollees was generally between 9,000 and 11,000 per month until 2004, and then fell to generally 8,000 to 10,000 per month. (We cannot explain the spike in September of 2005.) But, beginning with the Great

Recession, new enrollment increased, reaching a peak of about 22,000 in August of 2011. The pattern for adults and children are very similar, although the number of new children enrollees is much smaller than for adults. The increase in the number of new enrollees and the increase in duration explain the increase in the total SNAP enrollment.

Total enrollment in SNAP was 400,444 in January 2008. During 2007, the number of new enrollees was 103,067, which added to total enrollment in January 2007 of 387,936 yields 491,003, which is a 26.6 percent increase. Thus, 90,559 SNAP participants dropped out of the program during 2007, which is 23.3 percent of January 2007 enrollment. Doing the same calculations for January 2012, we find that new enrollees were 28.6 percent of January 2011 enrollment. During 2011, 122,687 SNAP participants dropped out of the program during 2011, which is 16.0 percent of January 2011 enrollment. Thus, there was a small increase in the rate of new enrollees and large decrease in the dropout rate. Thus, it appears that the growth in total enrollment was due more to an increase in retention than to an increase in the growth in new enrollees.

## **Program Participation and Income Mobility**

To gain some insight into the question posed in the title of this paper – “helping hand or anchor” – we construct income transition matrices using a sample of individuals that are enrolled in the Supplemental Nutrition Assistance Program (SNAP) or Temporary Aid to Needy Families (TANF) in the year 2000 in the state of Georgia. We match the administrative records from SNAP and TANF for our sample of beneficiaries with Georgia ES202 data for the period 2000-2011. This allows us to track individuals as they experience income transitions over time, even when they are no longer receiving benefits from SNAP or TANF. There are several limitations to

ES202 data. We are not able to track people who leave the state, die during this period, or work in the informal sector.

Tables 6 and 7 are transition matrices for the population of approximately 3.5 individuals that received SNAP benefits sometime in year 2000 in the state of Georgia. Table 6 tracks this sample of individuals for the five year period between 2000 through July, 2005. To construct the income transition matrix, we partition the sample into six income quantiles in year 2000 and in year 2005. The rows in Table 6 correspond to the income quantiles for year 2000, and the columns correspond to the income quantiles for year 2005. Since a large percentage of the sample reports zero income in both years, we create a quantile in both years for individuals that report zero income in either 2000 or 2005 or both. This quantile is labeled \$0 in Table 6. Remarkably, approximately 64 percent of our sample of 3.5 million SNAP beneficiaries reports zero income in both 2000 and in 2005. We partition the remaining 35 percent of the sample (approximately 1.3 million individuals) reporting nonzero income in both years into income quintiles with an equal number of individuals in each income quintile in a given year. The income thresholds for these quintiles are reported in nominal dollars in the cells in the first column of Table 6 for year 2000 and those in the top row for year 2005. For the reader's convenience, the five quintiles with nonzero income are highlighted with a thick border.

The top figure in each cell is the number of individuals in the respective income quantile. For example, there are approximately 2.2 million individuals reporting zero income in 2000 and in 2005. The figure in brackets is the number of individuals in each cell as a percentage of the row sum. In other words, approximately 86 percent of the approximately 2.6 million individuals in the \$0 quantile in year 2000 are in the \$0 quantile in 2005. Moving rightwards along the row labelled \$0 in Table 6, we see that approximately 4 percent who report \$0 income in 2000 report

enough income in 2005 to place them in the first (nonzero) income quintile in 2005. This column is labeled Q1. Approximately, 2 percent of the individuals reporting \$0 income in year 2000 report sufficient income in 2005 to be in the fifth quintile in 2005. This column is labelled Q5.

The diagonal in Table 6 are the individuals who are in the same income quintile in both years. These are the individuals that are not experiencing sufficient income mobility for them to change their ranking in the income distribution, at least in terms of the income range that defines an income quintile. For the reader's convenience, we have bolded the figures in the cells lying on the diagonal of Table 6.

Before embarking on a discussion of income mobility among SNAF and TANF beneficiaries, we would like to sound a cautionary note about income transition matrices as a measure of income mobility, as least as it is measured here. Given the way an income transition matrix is constructed with equal numbers in each income quintile that is except for the zero quintile, for everyone that moves to a higher income quintile someone must move to a lower income quintile. On the other hand, if someone moves to a lower income quintile, someone must move to a higher income quintile. In other words, changing ranks in the income distribution is like a zero-sum game in that for every "winner" in the income mobility game there must be a "loser" in the game in terms of relative rank. Of course, everyone's income could be increasing and thus better off in absolute terms. However, that is not what an income transition matrix measures; rather, it measures changes in relative rankings, and relative rankings by their very nature is like a zero-sum game.

Since there is so much information in a transition matrix, it is difficult to make sense of it all. Therefore, we construct an index of income mobility in the following manner. First, add the percentages reported in brackets in the cells lying on the diagonal of the matrix; then, we divide



this sum by six, and subtracting the resulting figure from 100. The resulting index ranges between 0 and 100. This index is bounded between 0 and 100, and income mobility increases as the index increases from zero to 100. To make matters more concrete, consider the following hypothetical example. Suppose there is no income mobility; in this case, the figures in brackets in the cells lying along the diagonal of the matrix would be equal to 100, indicating that 100 percent of the individuals in a given income quantile in year 2000 are in the same income quantile in year 2005. The sum of these figures would equal 600; dividing this sum by six and subtracting the result from 100 results in an income mobility index of zero, meaning that there is no income mobility. Taking the opposite extreme, suppose no one is in the same income quantile in year 2000 and in year 2005; in this case, the figures in brackets would be equal to zero, and the income mobility index would be equal to 100, indicating “complete” income mobility.

The mobility index for Table 6 is approximately equal to 70. This is indicative of a high degree of income mobility. The mobility index for the transition matrix that has a thick border around it in Table 6, consisting of the individuals reporting nonzero income in both years, is equal to 81. In other words, income mobility among the individuals in the nonzero income subsample experiences more income mobility than for the sample as a whole. It is clear from Table 6 that those reporting zero income in year 2000 experience very little income mobility. In fact, the income mobility index for those reporting \$0 income in 2000 and in 2005 is 14, which is very close to zero. In contrast, as previously noted, those in the nonzero income quintiles in year 2000 experience considerably more income mobility, according to our measure of mobility. In other words, there appears to be two different groups or experiences in Table 6. There is a group of SNAP beneficiaries in year 2000 reporting no income in 2000 who appear to be trapped in this the zero income quantile; then, there is a population of SNAP beneficiaries in year 2000

reporting nonzero income in year 2000, who experience considerable income mobility, according to our index.

Turning to Table 7, it is constructed with the same initial sample of 3.5 million SNAP beneficiaries in year 2000. However, Table 7 compares the income quantiles of these individuals in year 2000 with their income quantile in July, 2011. There is considerable attrition in this sample. We are only able to track approximately 0.9 million individuals over this 11 year period. Table 7 exhibits the same patterns as Table 6. The mobility index for Table 7 is 75, which is slightly greater than the corresponding value for Table 6. The mobility index for the transition matrix with the thick border in Table 7, those reporting nonzero income in both years, is 86, which is also slightly larger than the corresponding value for Table 6. Finally, there is a large number of individuals reporting zero income in 2000 and in 2011. The mobility index for this cell is 20, which is somewhat larger than the corresponding value for Table 6 but still small compared to that of the other group. It should come as no surprise that there is more income mobility in Table 7 than in 6 because we should increase expect that income mobility would increase with the passage of time, at least up to a point.

Tables 8 and 9 track individuals who receive TANF benefits sometime in year 2000 in the state of Georgia; otherwise, Tables 8 and 9 are constructed in exactly the same manner as Tables 6 and 7, respectively. Generally speaking, TANF beneficiaries exhibit similar patterns as our sample of SNAP beneficiaries. More specifically, the mobility index for Table 8 (9) is 75 (66), and the index for the matrix with a thick border in Table 8 (9), consisting of those individuals reporting nonzero income in both years, is 85 (76). Finally, there is a large number of individuals in our sample of TANF beneficiaries reporting zero income in both years. The mobility index for this cell in Table 8 (9) is 22 (15). The degree of income mobility for our

sample of TANF beneficiaries differs from that of sample of SNAP beneficiaries in two important ways. First, the income mobility index is smaller for our sample of TANF beneficiaries than the corresponding figure for our sample of SNAP beneficiaries. Second, in the case of TANF beneficiaries, income mobility appears to decrease over time. This is in sharp contrast to experience of our sample of SNAP beneficiaries for whom income mobility increased with the passage of time. These differences may reflect the fact that the average TANF beneficiary faces more difficult economic circumstances than the average SNAP beneficiary. Of course, there may be other explanations as well.

Finally, turning to the question posed in the title to this paper, do these programs provide a “helping hand or do they serve an anchor.” Based on the evidence reported here, it appears that there are two different groups or experiences in our sample of beneficiaries. For one group, program participation appears to be an anchored. Those are the individuals reporting zero income in both years. For the other group, those reporting nonzero income in both years, program participation appears to provide a helping hand. Unfortunately, more than 50 percent of our sample of program beneficiaries is in the group for whom program participation appears to be an anchor; that is those individuals reporting zero income in both years.

These first impressions should be interpreted with caution. Although there are a large number of individuals in our sample, it only tracks individuals in one cohort of program participation, namely program beneficiaries in the year 2000. Further analysis is required to determine whether the experience for this cohort is typical or exceptional. In addition, we are not able to account for people that leave the state, are institutionalized for one reason or another, or work in the informal sector. Furthermore, we do not have a counterfactual group with which to benchmark the experiences of our sample of program beneficiaries. The individuals in our

sample may be faring better or worse in terms of income mobility than a sample of otherwise identical individuals except for program participation. It would also be interesting to merge the SNAP and TANF records in order to examine the influence that participating in both programs has on individual outcomes in the labor market and otherwise. Nevertheless, the simple tables presented here raise many fascinating questions that merit further investigation.

## **Summary and Conclusions**

We have presented a first look at the administrative data for TANF and SNAP in Georgia as they pertain to the potential for these programs to reduce poverty. Future research will identify the incentives of these programs on labor behavior, and estimate whether or not the programs provide support to help families significantly and sustainably reduce poverty.

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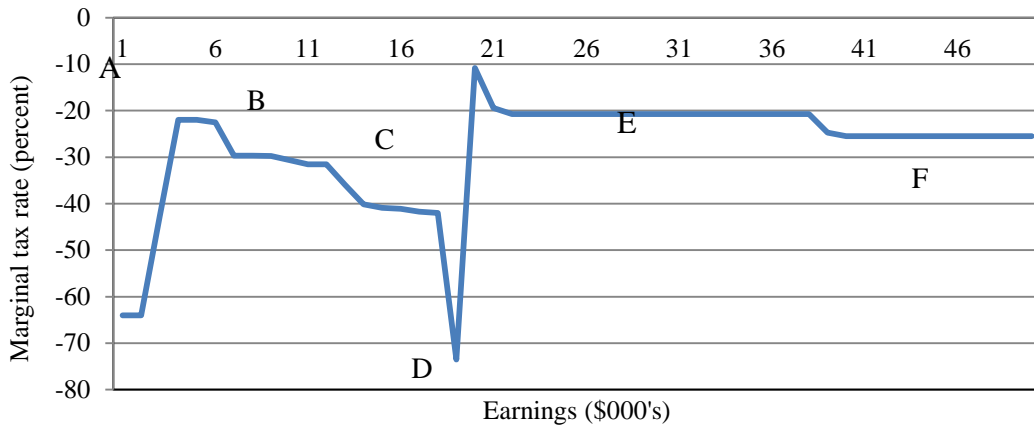
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**Figure 1. Marginal Tax Rates for a Married Couple with No Children, by Earnings**



**Figure 2. TANF Total Enrollment**

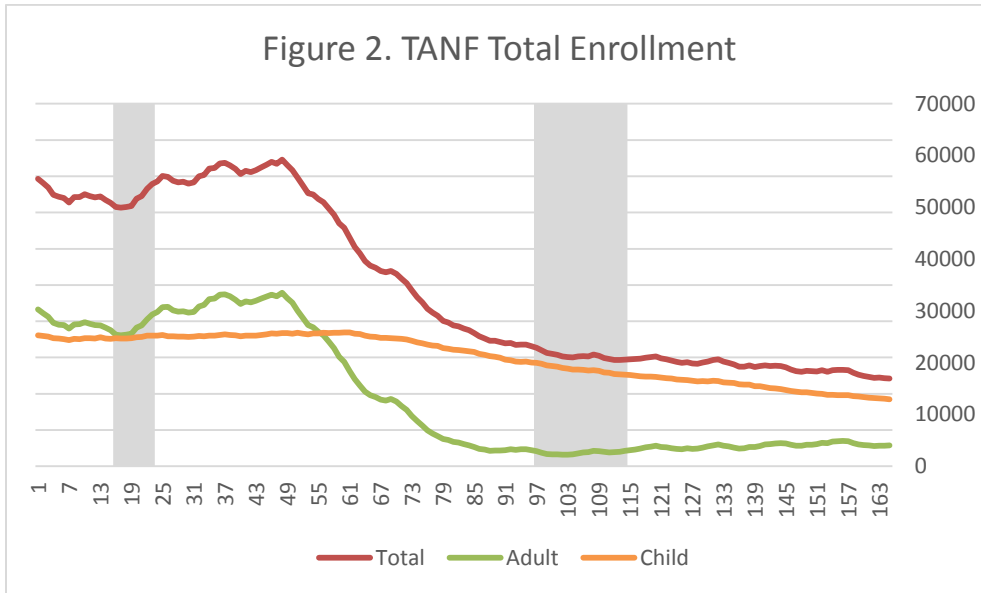


Figure 3. Total Monthly TANF Retention

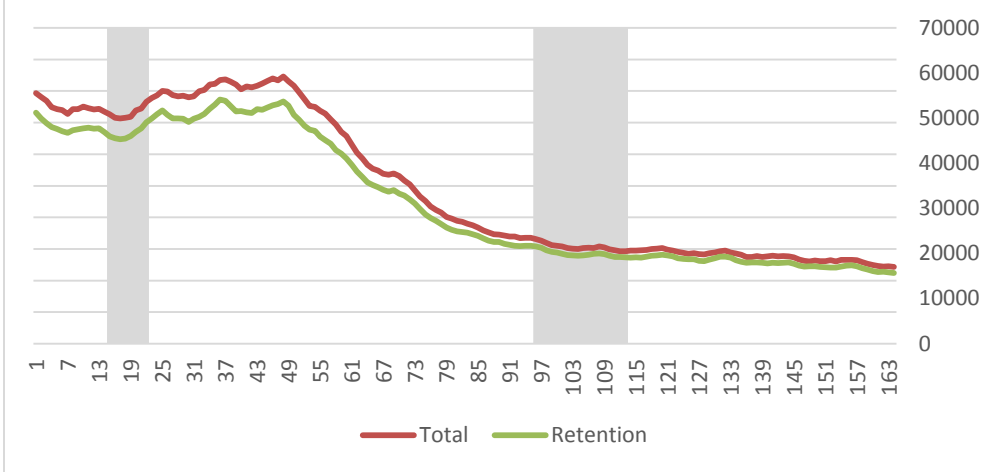


Figure 4. Consecutive Total TANF Enrollment by Year

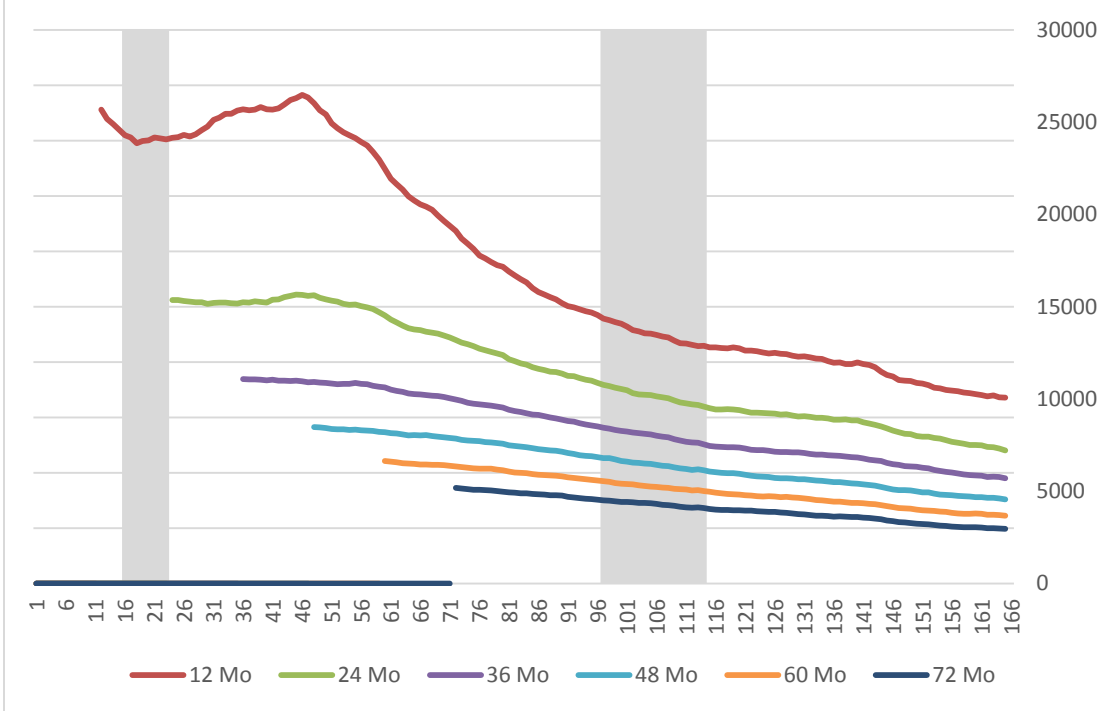




Figure 5. Consecutive Adult TANF Enrollment by Year

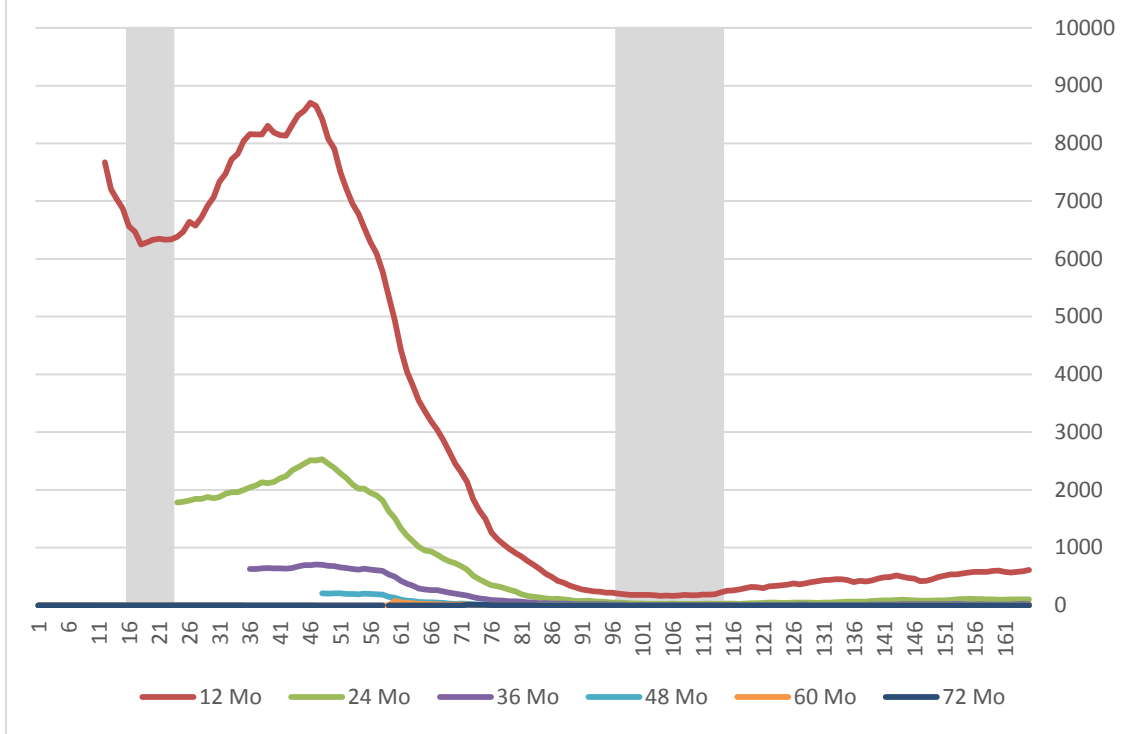


Figure 6. TANF Unique Monthly Enrollment

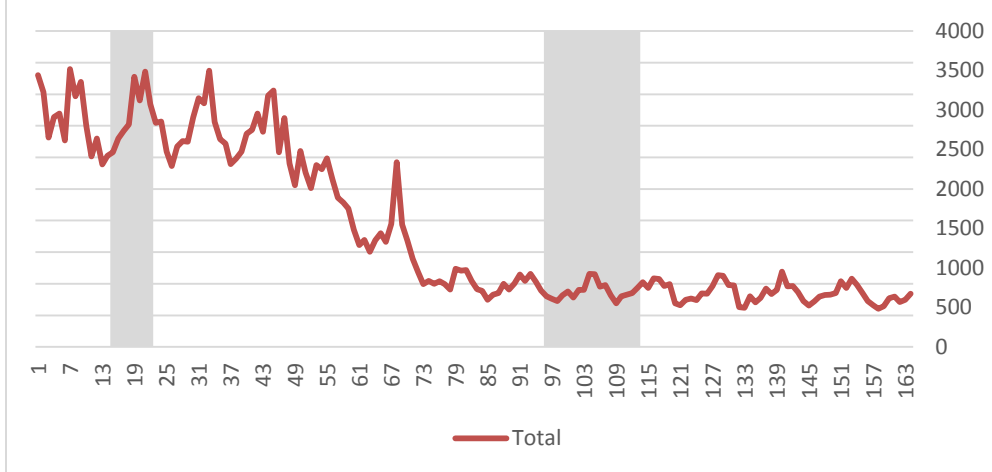


Figure 7. SNAP Monthly Enrollment

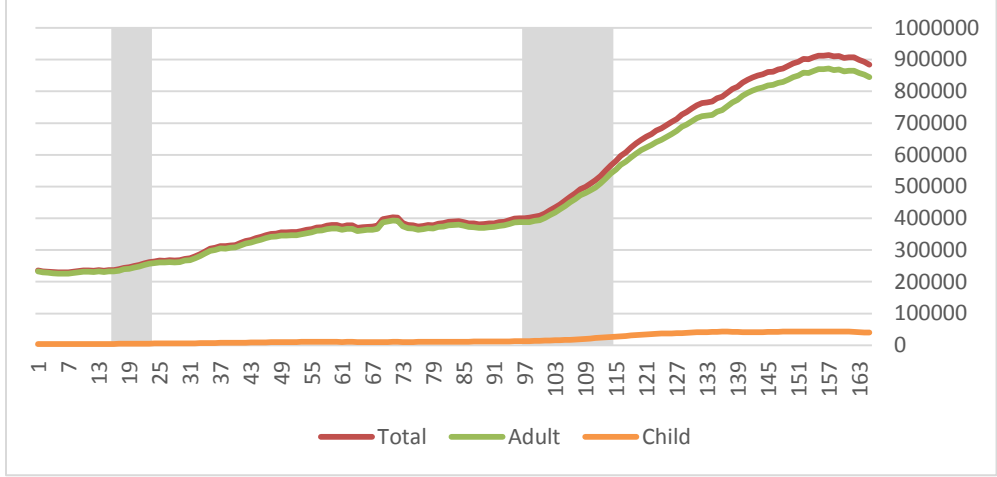


Figure 8. Total Monthly SNAP Retention

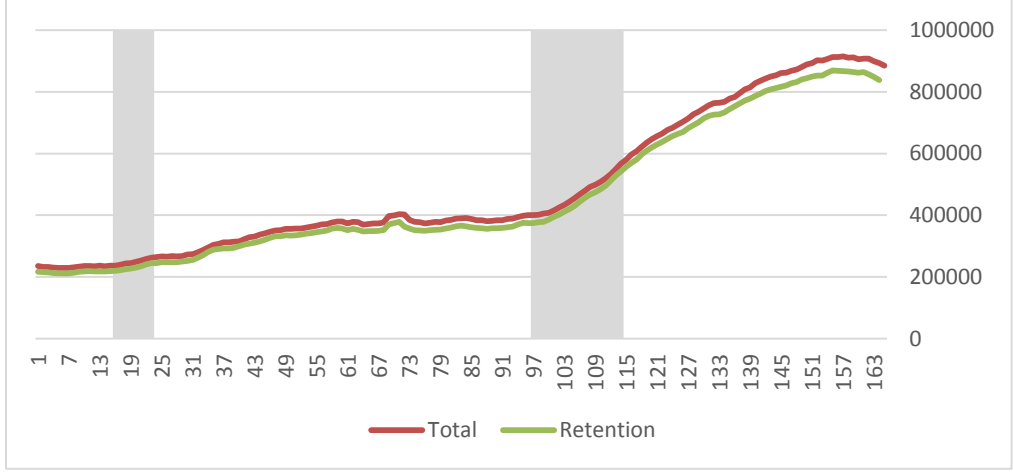


Figure 9. Consecutive Total SNAP Enrollment by Year

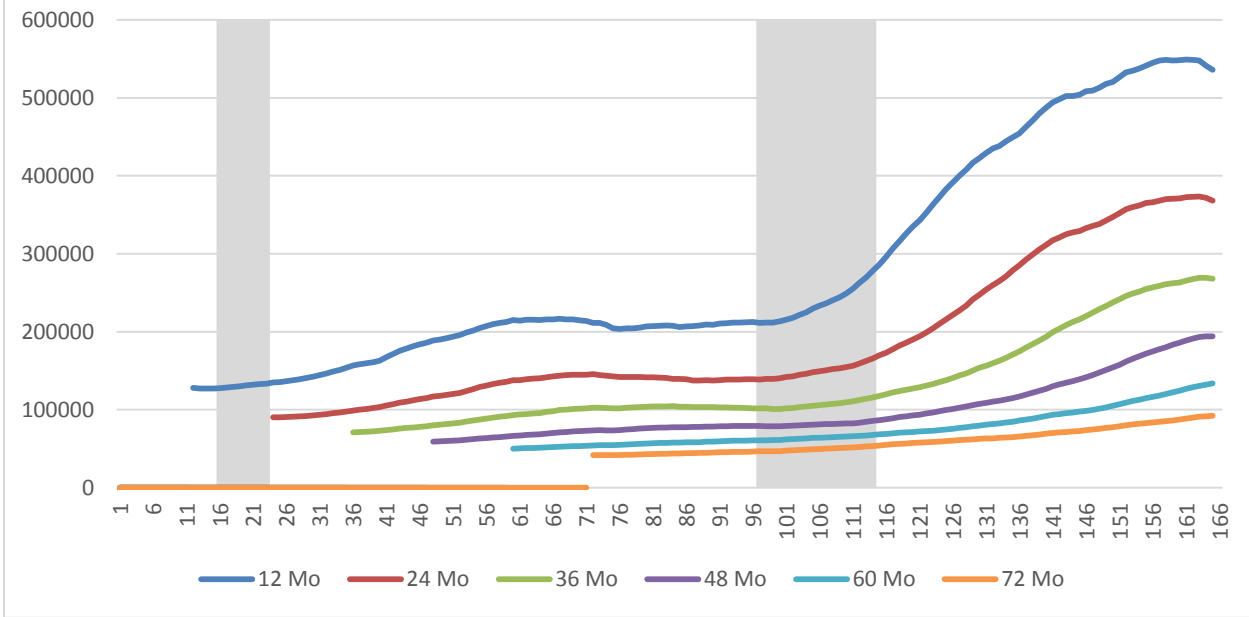
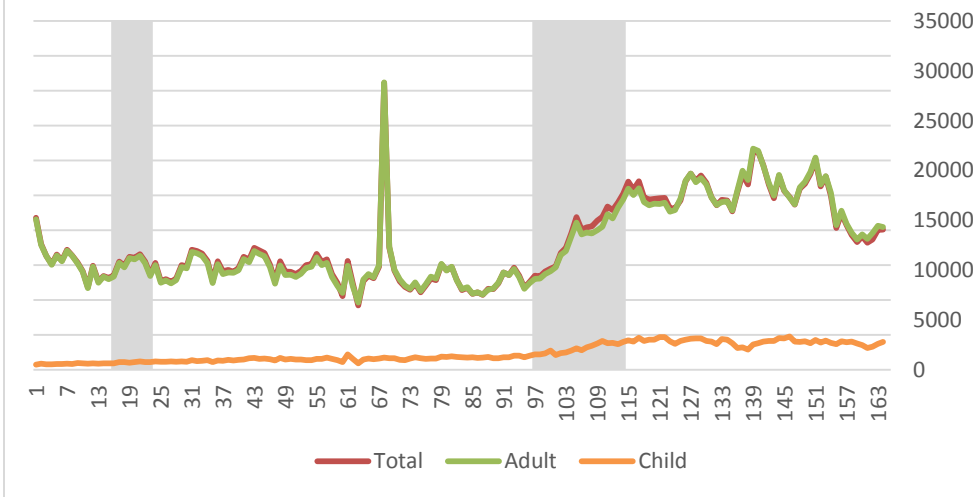


Figure 10. Unique Monthly SNAP Enrollment



**Table 1. Maximum Monthly SNAP Benefit by Household Size**

Household Size	Monthly Benefit	Household Size	Monthly Benefit
1	\$200	8	\$1,202
2	\$367	9	\$1,352
3	\$526	10	\$1,502
4	\$668	11	\$1,652
5	\$793	12	\$1,802
6	\$952	13	\$1,952
7	\$1,052		

Georgia Department of Human Services: Division of Family and Children Services (2012). Retrieved June 28, 2012 from website: [http://dfcs.dhs.georgia.gov/sites/dfcs.dhs.georgia.gov/files/imported/DHR-DFCS/DHR-DFCS\\_Food\\_Stamps/English.pdf](http://dfcs.dhs.georgia.gov/sites/dfcs.dhs.georgia.gov/files/imported/DHR-DFCS/DHR-DFCS_Food_Stamps/English.pdf)

**Table 2. Monthly TANF Benefit by Family Size and Income**

Family Size	Monthly Income	Maximum Monthly Benefit
2	\$659	\$235
3	\$784	\$280
4	\$925	\$330
5	\$1,060	\$378
6	\$1,149	\$410
7	\$1,243	\$672
8	\$1,319	\$713
9	\$1,389	\$751
10	\$1,487	\$804
11	\$1,591	\$860
12	\$1,635	\$884
13	\$1,679	\$908

Georgia Department of Human Services (2012) Eligibility Requirements for TANF. Retrieved on June 20, 2012 from Georgia Department of Human Services Division of Family and Children Services website <http://dfcs.dhr.georgia.gov/portal/site/DHS-DFCS/menuitem.5d32235bb09bde9a50c8798dd03036a0/?vgnextoid=2bea2b48d9a4ff00VgnVCM100000bf01010aRCRD>.

**Table 3. EITC by Earnings and Number of Children**

Income If Single	Income If Married	Number of Qualified Children	Maximum Credit Received
\$43,998	\$49,078	3	\$5,751
\$40,964	\$46,044	2	\$5,112
\$36,052	\$41,132	1	\$3,094
\$13,660	\$18,740	0	\$464

IRS (March 30, 2012). EITC, Earned Income Tax Credit, Questions and Answers .Retrieved June 11, 2012 from web site: <http://www.irs.gov/individuals/article/0,,id=150513,00.html>

**Table 4. Marginal Tax Rates for a Married Couple with One 9 Year child, by Type of Program and Tax**

Point	Earnings	Total	SNAP	TANF	EITC	FICA	CTC	Fed Tax	State Tax	HUD	CAPS
A	1,000	-23.25	-36.00	0.00	34.00	-5.65	0.00	0.00	0.00	-15.60	0.00
	2,000	-64.85	-36.00	-27.20	34.00	-5.65	0.00	0.00	0.00	-30.00	0.00
	3,000	-127.21	-25.56	-100.00	34.00	-5.65	0.00	0.00	0.00	-30.00	0.00
	4,000	-108.15	-24.00	-100.00	34.00	-5.65	0.00	0.00	0.00	-12.50	0.00
	5,000	-95.65	-24.00	-100.00	34.00	-5.65	0.00	0.00	0.00	0.00	0.00
B	6,000	-4.45	-24.00	-8.80	34.00	-5.65	0.00	0.00	0.00	0.00	0.00
	7,000	4.35	-24.00	0.00	34.00	-5.65	0.00	0.00	0.00	0.00	0.00
	8,000	4.35	-24.00	0.00	34.00	-5.65	0.00	0.00	0.00	0.00	0.00
	9,000	3.35	-24.00	0.00	33.00	-5.65	0.00	0.00	0.00	0.00	0.00
	10,000	-29.65	-24.00	0.00	0.00	-5.65	0.00	0.00	0.00	0.00	0.00
C	11,000	-29.65	-24.00	0.00	0.00	-5.65	0.00	0.00	0.00	0.00	0.00
	12,000	-29.65	-24.00	0.00	0.00	-5.65	0.00	0.00	0.00	0.00	0.00
	13,000	-30.52	-24.00	0.00	0.00	-5.65	0.00	0.00	-0.87	0.00	0.00
	14,000	-31.40	-24.00	0.00	0.00	-5.65	0.00	0.00	-1.75	0.00	0.00
	15,000	-31.54	-24.00	0.00	0.00	-5.65	0.00	0.00	-1.89	0.00	0.00
	16,000	-32.23	-24.00	0.00	0.00	-5.65	0.00	0.00	-2.58	0.00	0.00
	17,000	-32.48	-24.00	0.00	0.00	-5.65	0.00	0.00	-2.83	0.00	0.00
	18,000	-33.06	-24.00	0.00	0.00	-5.65	0.00	0.00	-3.41	0.00	0.00
	19,000	-33.42	-24.00	0.00	0.00	-5.65	0.00	0.00	-3.77	0.00	0.00
	20,000	-33.89	-24.00	0.00	0.00	-5.65	0.00	0.00	-4.24	0.00	0.00
	21,000	-34.37	-24.00	0.00	0.00	-5.65	0.00	0.00	-4.72	0.00	0.00
	22,000	-43.16	-24.00	0.00	-8.79	-5.65	0.00	0.00	-4.72	0.00	0.00
	23,000	-50.65	-24.00	0.00	-15.98	-5.65	0.00	0.00	-5.02	0.00	0.00
D	24,000	-157.61	-130.32	0.00	-15.98	-5.65	0.00	0.00	-5.66	0.00	0.00
E	25,000	-36.17	0.00	0.00	-15.98	-5.65	0.00	-8.88	-5.66	0.00	0.00
	26,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
	27,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
	28,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
F	29,000	-88.49	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	-51.76
	30,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
G	31,000	63.27	0.00	0.00	-15.98	-5.65	100.00	-9.44	-5.66	0.00	0.00
H	32,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
	33,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
	34,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
	35,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.43	-5.66	0.00	0.00
	36,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
	37,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.43	-5.66	0.00	0.00
	38,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.44	-5.66	0.00	0.00
	39,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.43	-5.66	0.00	0.00
	40,000	-36.73	0.00	0.00	-15.98	-5.65	0.00	-9.43	-5.66	0.00	0.00
	I	41,000	-29.32	0.00	0.00	-8.57	-5.65	0.00	-9.44	-5.66	0.00
42,000		-20.75	0.00	0.00	0.00	-5.65	0.00	-9.43	-5.66	0.00	0.00
43,000		-25.10	0.00	0.00	0.00	-5.65	0.00	-13.79	-5.66	0.00	0.00
44,000		-25.46	0.00	0.00	0.00	-5.65	0.00	-14.15	-5.66	0.00	0.00
45,000		-25.46	0.00	0.00	0.00	-5.65	0.00	-14.15	-5.66	0.00	0.00
46,000		-25.46	0.00	0.00	0.00	-5.65	0.00	-14.15	-5.66	0.00	0.00
47,000		-25.46	0.00	0.00	0.00	-5.65	0.00	-14.15	-5.66	0.00	0.00
48,000		-25.46	0.00	0.00	0.00	-5.65	0.00	-14.15	-5.66	0.00	0.00
49,000		-25.46	0.00	0.00	0.00	-5.65	0.00	-14.15	-5.66	0.00	0.00
50,000		-25.46	0.00	0.00	0.00	-5.65	0.00	-14.15	-5.66	0.00	0.00

**Table 5. The Effect of Martial Status on the Ratio of Net Household Incomes, by the Number of Children**

<b>Number of children</b>	<b>-----Marital Status-----</b>	
	<b>Single</b>	<b>Married</b>
No children	2.6	2.4
One child	2.0	1.9
Two children	1.7	1.7

**Table 6: Income mobility among SNAP beneficiaries between 2000 and July 2005**

Quintile (threshold)	\$0	Q1: \$2,062	Q2: \$6,036	Q3: \$11,009	Q4: \$18,293	Q5: \$46,500	Row Sums
\$0	<b>2,217,888</b> [86]	97,725 [4]	83,297 [3]	66,280 [3]	53,013 [2]	42,911 [2]	2,561,114 [100]
Q1: \$2,102	101,505 [55]	<b>22,631</b> [12]	20,243 [11]	17,304 [9]	13,257 [7]	10,338 [6]	185,278 [100]
Q2: \$6,104	87,065 [47]	18,690 [10]	<b>23,163</b> [13]	23,282 [13]	18,954 [10]	14,125 [7]	185,279 [100]
Q3: \$11,584	78,820 [43]	14,289 [7]	19,750 [10]	<b>28,997</b> [16]	25,771 [14]	17,655 [10]	185,282 [100]
Q4: \$19,042	73,363 [39.6]	10,750 [6]	14,880 [8]	22,018 [12]	<b>36,699</b> [20]	27,566 [15]	185,276 [100]
Q5: \$48,618	67,528 [36]	8,200 [4]	10,929 [6]	14,372 [8]	24,585 [13]	<b>59,664</b> [32]	185,278 [100]
Column Sums	2,626,169 [75]	172,285 [5]	172,262 [5]	172,253 [5]	172,279 [5]	172,259 [5]	3,487,507 [100]

Notes:

1. The sample consists of the approximately 3.5 million individuals enrolled in SNAP in year 2000.
2. The top figure in each cell is the number of beneficiaries, and the figure in square brackets is the number in each cell as a percentage of the row sum.
3. The columns are the quintiles in 2000, and the rows are the quintiles in year 2005.

**Table 7: Income mobility among SNAP beneficiaries between 2000 and 2011**

Quintile (threshold)	\$0	Q1: \$2,768	Q2: \$5,397	Q3: \$10,090	Q4: \$16,606	Q15: \$42,375	Row Sums
\$0	<b>509,869</b> [80]	35,314 [6]	32,630 [5]	27,585 [4]	20,225 [3]	13,700 [2]	639,323 [100]
Q1: \$1,149	33,769 [66]	<b>3,826</b> [7]	3,646 [7]	3,699 [7]	3,432 [7]	3,153 [6]	51,525 [100]
Q2: \$3,450	29,723 [58]	3,887 [8]	<b>4,145</b> [8]	4,525 [9]	4,676 [9]	4,570 [9]	51,526 [100]
Q3: \$7,001	26,595 [52]	3,318 [6]	4,070 [8]	<b>5,332</b> [10]	6,083 [12]	6,128 [12]	51,526 [100]
Q4: \$11,964	22,725 [44]	2,627 [5]	3,754 [7]	5,778 [11]	<b>8,509</b> [17]	8,133 [16]	51,526 [100]
Q5: \$28,941	19,613 [38]	1,968 [4]	2,680 [5]	4,012 [8]	8,004 [16]	<b>15,249</b> [30]	51,526 [100]
Column Sums	642,294 [72]	50,940 [6]	50,925 [6]	50,931 [6]	50,929 [6]	50,933 [6]	896,952 [100]

Notes:

1. The sample consists of the approximately 3.5 million individuals enrolled in SNAP in year 2000.
2. The top figure in each cell is the number of beneficiaries, and the figure in square brackets is the number in each cell as a percentage of the row sum.
3. The columns are the quintiles in 2000, and the rows are the quintiles in year 2011.



**Table 8: Income mobility among TANF beneficiaries between 2000 and 2005**

Quintile (threshold)	\$0	Q1: \$1,186	Q2: \$3,802	Q3: \$8,049	Q4: \$14,679	Q5: \$43,155	Columns Sums
\$0	<b>158,935</b> [77.78]	11,965 [5.86]	11,072 [5.42]	9,677 [4.74]	7,695 [3.77]	5,004 [2.45]	204,348 [100]
Q1: \$885	9,173 [60.82]	<b>1,212</b> [8.04]	1,156 8	1,249 8	1,240 8	1,051 7	15,081 [100]
Q2: \$2,626	7,998 [53.03]	1,216 [8.06]	<b>1,338</b> 9	1,488 10	1,609 11	1,433 10	15,082 [100]
Q3: \$5,551	7,318 [48.52]	1,006 [6.67]	1,273 8	<b>1,597</b> 11	1,990 13	1,897 13	15,081 45
Q4: \$11,013	6,621 [43.9]	816 [5.41]	1,177 8	1,676 11	<b>2,314</b> 15	2,478 16	15,082 51
Q5: \$41,590	6,349 [42.1]	460 3	652 4	986 7	1,826 12	<b>4,808</b> 32	15,081 58
Row Sums	196,394 70	16,675 6	16,668 6	16,673 6	16,674 6	16,671 6	279,755 100

Notes:

1. The sample consists of the approximately 280 thousand individuals enrolled in TANF in year 2000.
2. The top figure in each cell is the number of beneficiaries, and the figure in square brackets is the number in each cell as a percentage of the row sum.
3. The columns are the quintiles in 2000, and the rows are the quintiles in year 2005.

**Table 9: Income mobility among TANF beneficiaries between 2000 and 2011**

Quintile (threshold)	\$0	Q1: \$1,478	Q2: \$4,716	Q3: \$9,122	Q4: \$15,468	Q5: \$43,267	Columns Sums
\$0	<b>173,866</b> 85	9,515 5	8,324 4	6,350 3	4,149 2	2,144 1	204,348 100
Q1: \$885	6,961 46	<b>2,149</b> 14	1,896 13	1,808 12	1,464 10	803 5	15,081 100
Q2: \$2,626	5,543 37	1,835 12	<b>2,122</b> 14	2,251 15	2,036 14	1,295 9	15,082 100
Q3: \$5,551	4,729 31	1,375 9	1,888 13	<b>2,500</b> 17	2,752 18	1,837 12	15,081 100
Q4: \$11,013	3,994 26	953 6	1,370 9	2,317 15	<b>3,586</b> 24	2,862 19	15,082 100
Q5: \$41,590	3,306 22	444 3	671 4	1,046 7	2,284 15	<b>7,330</b> 49	15,081 100
Row Sums	198,399 71	16,271 6	16,271 6	16,272 6	16,271 6	16,271 6	279,755 100

## Notes:

1. The sample consists of the approximately 280 thousand individuals enrolled in TANF in year 2000.
2. The top figure in each cell is the number of beneficiaries, and the figure in square brackets is the number in each cell as a percentage of the row sum.
3. The columns are the quintiles in 2000, and the rows are the quintiles in year 2011.