

Food Stamp Benefits Adjust to Earnings With and Without Cross-Program Effects from TANF and SSI Cash Assistance

By

Kenneth Hanson

U.S. Department of Agriculture, Economic Research Service
1800 M Street, suite N-2176
Washington DC 20036
Khanson@ers.usda.gov
1800 M Street, suite N-2176
Washington DC 20036

and

Margaret Andrews

U.S. Department of Agriculture, Economic Research Service
1800 M Street, suite N-2139
Washington DC 20036
Mandrews@ers.usda.gov

Selected Paper prepared for presentation at the American Agricultural Economics Association Annual Meeting in Portland Oregon, July 29–August 1, 2007

The authors are Federal employees of the Economic Research Service, U.S. Department of Agriculture. This article was prepared as part of my official duties and is in the public domain and not subject to copyright even when placed in a copyrighted publication. The views expressed here are those of the authors, and may not be attributed to the Economic Research Service or the U.S. Department of Agriculture.

Abstract

As households participating in the Food Stamp Program and other public assistance programs work more, the additional earnings are partially offset by a reduction in food stamp benefits and cash assistance from Temporary Assistance for Needy Families (TANF) or Supplemental Security Income (SSI). The rate at which food stamp benefits and TANF or SSI cash assistance are reduced with an increase in earnings is referred to as the program's effective benefit reduction rate (EBRR). This report derives FSP EBRRs for earnings with and without cross-program effects from adjustments to TANF or SSI cash assistance due to the additional earnings. The estimated FSP EBRRs are combined with TANF EBRRs and SSI EBRRs to estimate an effective tax rate on earnings in terms of these program benefits. With the authority for TANF programs devolved to States in 1996 Welfare Reform Law, FSP and TANF EBRRs as well as effective tax rates on earnings will vary by State. This report illustrates the treatment of earnings among these programs and the variation in treatment across states.

Table of Contents

Introduction

Program Benefit Formulas

FSP benefit calculation

TANF benefit calculation

SSI benefit calculation

Findings: FSP effective benefit reduction rate (EBRR) for Earnings

Distribution of FSP EBRR by household circumstance

For earnings and TANF or SSI cash assistance without earnings

For earnings with cross-program effects from TANF cash assistance

For earnings with cross-program effects from SSI cash assistance

Comparing FSP EBRR for earnings with those from an econometric model

Effective tax rate on earnings from FSP, TANF, and SSI benefit reductions

Conclusions

References

Box: Food Stamp Benefit Formula

Tables:

Table 1. State TANF Earnings Deductions

Table 2. Food Stamp Program Effective Benefit Reduction Rates without cross-program effects

Table 3. State Food Stamp Program Effective Benefit Reduction Rates with TANF cash assistance

Table 4. Food Stamp Program Effective Benefit Reduction Rates with cross-program effects

Table 5. State effective tax rate for earnings

Table 6. Average national FSP EBRR for earnings

Figures

Figure 1. State Food Stamp Program effective benefit reduction rates for earnings with TANF cash assistance

Figure 2. State effective tax rate for earnings from food stamps and TANF

Introduction

The Food Stamp Program (FSP) is a means-tested entitlement program that provides food benefits to low-income Americans. In 2005, 42.7 percent of the 10.8 million households participating in the FSP also received cash assistance from Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI) or General Assistance (GA). Of these multi-program participants, 11 percent received earnings (512,000 households in 2005). The amount of food stamps a household receives depends on the household's earnings and cash assistance from these other programs. As earnings increase the total resources to a household increases but by less than the earnings due to a reduction in benefits from these programs.¹ With the benefits from TANF, SSI, and GA affecting the level of food stamp benefits (cross-program effects), multi-program participation leads to complex formulas for the increase in household total resources and reduction in food stamp benefits from an increase in earnings.

A program's reduction in benefits from an increase in earnings depends on cross-program effects, where one program's benefits affect a household's benefits from another program. Cross-program effects are particularly important to working households that receive food stamps and cash assistance from TANF or SSI. In working households, an increase in earnings will have a direct effect on food stamps, reducing them, as well as a cross-program effect on food stamps when those earnings reduce receipt of cash benefits from these other programs. In general, cross program effects increase food stamps, partially offsetting the direct reduction in food stamps from the increased earnings. The magnitude of the cross-program effect depends on the program's earnings deduction. In this report, we estimate the impact of a change in earnings on FSP benefits and total resources, taking into account cross-program effects from a change in TANF and SSI cash assistance due to a change in earnings.

A program's reduction in benefits from an increase in earnings also depends on the programs earning deduction. To provide a work incentive and to help offset the cost of working, each program has an earning's deduction that reduces the amount of earnings counted as income for benefit determination. The FSP has a 20% earnings deduction. Similarly, SSI has a nationally uniform earnings deduction of 50 percent of earnings above a standard earnings deduction of \$65 plus work related expenses due to a disability. Since welfare reform in 1996, States set TANF earnings deductions, which are a source of State variation in how earnings affect TANF cash assistance, food stamp benefits through cross-program effects, and total resources through program benefit reductions.²

This report derives FSP effective benefit reduction rates (EBRRs) for earnings -- the rates at which food stamp benefits change as a household receives more earnings, while also receiving cash assistance from TANF or SSI whose benefits also adjust to the change in earnings. The formula by which the FSP adjusts benefits has a statutory rate of 30 percent of net income: as a household's net income increases (decreases) by one dollar, food stamps are reduced (increased) by 30 cents. Often the effective rate on changes in gross income will differ from the 30 percent statutory rate on changes in net income due to the effect of FSP deductions and cross-program effects from a change in cash assistance. Without cross-program effects, the 20 percent earnings deduction in the FSP results in an average FSP EBRR on earnings of -24 percent. Though, the EBRR may be zero for some FSP participants and -36 percent for others depending on income and use of the excess shelter cost deduction in the FSP benefit formula.

¹ Total resources include cash income from the private sector of the economy such as earnings, plus cash and noncash benefits from government assistance programs. Earnings are counted as gross wages that is inclusive of taxes.

² Assistance for Families with Dependent children (AFDC), the predecessor to TANF, had a nationally uniform earnings deduction. It was \$120 plus 1/3 of remaining earnings for the first four months of consecutive earnings. After four months, the earnings deduction was \$120, and after eight months it was \$90. The treatment of earnings by GA is more difficult to track and will not be analyzed in this paper.

Cross-program effects with TANF from an increase in earnings lead to an average FSP EBRR of -7.4 for all States and a range of 9 percent to -36 percent, depending on the State's TANF earnings deduction (as calculated with 2003 TANF earnings deduction regulations). Our analysis illustrates how devolution of TANF policies to States effect food stamp benefits for households participating in both FSP and TANF. Although the FSP retains uniform national eligibility and benefit standards, in terms of common eligibility rules and a common FSP benefit formula, in effect, households that are otherwise similar can receive different amounts of food stamps based on the States in which they reside because of State TANF policies. Cross-program effect with SSI leads to an average FSP EBRR of -11 percent, which is consistent across States given a nationally uniform earnings deduction and benefit formula.

Household income and use or nonuse of the excess shelter cost deduction (shelter deduction) in the FSP benefit formula also influences the rate at which food stamp benefits change in response to an increase in earnings. The FSP EBRR for earnings is lower for households that either do not use the shelter deduction or use it at the maximum value (-24 percent, without TANF or SSI cross-program effects), relative to the EBRR for households that use the shelter deduction at a non-maximum value (-36 percent, without TANF or SSI cross-program effects). When a household using the shelter deduction at a non-maximum value receives additional earnings the amount of shelter deduction is reduced which increases net income and lowers the food stamp benefit amount, resulting in a higher EBRR. This impact of the shelter deduction on the FSP EBRR and household total resources will be explored in this report. When household net income is zero and remains zero with additional earnings, due to low gross income and use of program deductions, then the FSP EBRR is zero in that food stamp benefits are not reduced as earnings increase. This can occur up to some level of earnings as will be illustrated below.

Though the analysis in this paper focuses on estimating the change in food stamp benefits from a change in earnings, we also estimate the change in total resources available to the household from the change in earnings. Both estimates include cross-program effects with TANF and SSI. For instance, an increase in earnings directly increases the resources available to a household but also cause a partially offsetting decrease in resources from program benefits. The reduction in program benefits is an effective tax on earnings (Moffitt 2002). Our estimate of FSP EBRR is an estimate to one component of the effective tax rate on earnings. The EBRR for TANF and SSI add to the effective tax on earnings in context of a reduction in total resources to the household. We provide estimates for these as well. What we do not account for in our estimate of the effective tax rate on earnings is the adjustment to federal and state taxes including the Earned Income Tax Credit (EITC), Medicaid, housing subsidies and childcare subsidies. Considerable research has been carried out on estimating overall effective tax rate on earnings, briefly summarized below. Our analysis provides greater detail on the FSP EBRR, focusing on the impact of State TANF earning deductions and the FSP's shelter deduction on the FSP EBRR, and focusing on the combined EBRR for the FSP and TANF (also SSI) on household total resources.

With devolution of State control over TANF, changes to State cash welfare programs may have been made without full consideration of possible cross-program effects with food stamps. For example, the effect of the earnings deductions of State TANF programs on food stamp benefits has not previously been examined in the literature. Given the interest in modifying and synthesizing existing programs into a comprehensive work support system, cross-program effects from TANF and SSI on FSP benefits and household total resources are systematically examined here in detail.

Program Benefit Formulas

Program benefits issued is based on a measure of household net income, which is the sum of all sources of "countable" income net of program deductions. In general, the FSP, TANF, and SSI include the same sources of countable income, though some minor exceptions do exist. Each program also has specific rules for deducting a portion of income from some sources and for deducting a portion of some household expenses to determine the household's net income. All three programs have an earnings deduction, though they differ by program. The FSP also has a number of other deductions, whereas TANF and SSI do not. It is also worth noting, food stamp benefits do not count as income in the benefit formula for TANF or SSI, but the cash assistance from TANF and SSI count as income for the FSP. The deductions and benefit formula for each program are presented below.

Food Stamp Program Benefit Calculation

To be eligible for benefits, household gross income must be at or below 130 percent of the poverty guideline, unless the household contains an elderly or disabled member in which case they are not subject to the gross income criterion. Gross income is the cash or money income from all countable sources for all household members. Also, net income must be at or below 100 percent of the poverty guideline. Net income is calculated by subtracting the deductions listed below from gross income.

1. *Earned income deduction* of 20 percent of the combined monthly gross earnings of household members. Gross earnings include wages and salaries as well as self-employed net income.
2. *Standard deduction* of \$134 for households of one to four people, \$153 for 5-people, and \$175 for 6 or more people, in the continental United States in 2005.³

³ Starting 2003, the Farm Security and Rural Investment Act of 2002 (farm bill) replaced the \$134 standard deduction for all households with a deduction that varies according to household size and is adjusted annually for cost-of-living increases. It sets the deduction at 8.31 percent of the applicable net income limit based on household size. No household will receive less than the deduction in place in 2002 (\$134 for continental U.S.), or more than the standard deduction for a household of six.

3. *Medical deduction* for non-reimbursed medical expenses by elderly or disabled members of the household that are greater than \$35 per month.
4. *Dependent care deduction* for certain expenses for care of children or other dependents while other household members work, seek employment, or go to school. There is a maximum monthly deduction of \$200 per child under age 2 plus \$175 per dependent age 2 or older.
5. *Child support payment deduction* for legally obligated child support payments to somebody who is not a member of the household.
6. *Excess shelter expense deduction* equal to the monthly unsubsidized shelter costs that exceed 50 percent of gross income net of all other deductions. Shelter costs include rent, mortgage payments, utility bills, property taxes, and insurance net of housing subsidies.⁴ There is a maximum deduction for households without an elderly or disabled member of \$388 in 2005.

The use or nonuse of the shelter deduction influences the EBRR for earnings. The shelter deduction is based on the principle that a household is expected to spend no more than 50 percent of its adjusted income on shelter costs. If shelter costs exceed this amount, then the excess can be deducted from income, up to a maximum value. Adjusted income from which the shelter costs are compared is cash income net of all other deductions. In 2005, a majority of FSP households (68.5 percent) used the shelter deduction, with 19.7 percent of those that used the deduction using the maximum deduction. Harkness and Newman (2002) found that 38 percent of food stamp recipients received housing assistance using the 1999 American Housing Survey, while our analysis of the 2003 CPS-ASEC supplement finds that 31 percent of food stamp recipients received housing assistance. These findings

⁴ A standard utility allowance is available to households that incur heating or cooling expenses separately from their rent or mortgage and to households that receive direct or indirect assistance under the Low Income Home Energy Assistance Act of 1981 (LIHEAA). Some states allow homeless households a set amount for shelter costs.

suggest that housing assistance may account for most FSP recipients not using the shelter deduction, though in 2005, 13.6 percent of FSP households had zero gross income and did not need the deduction.

The food stamp benefit formula is used to compute the level of benefits using information on a household's earned and unearned cash income, allowable deductions, and a statutory benefit reduction rate from a maximum benefit. For an algebraic expression of the formula see the Box: Food Stamp Benefit Formula. The level of monthly food stamp benefits is calculated by subtracting 30 percent of household net income, if any, from the maximum benefit amount for the household size. The maximum benefit is based on 100 percent of the cost of the Federal Government's Thrifty Food Plan, and it varies by household size.⁵ For 2005 in the continental United States, the maximum benefit amount ranges from \$149 for a household of one, to \$898 for a household of 8. There is a minimum benefit of \$10 for one- and two-person households. No minimum benefit is set for larger households. The statutory benefit reduction rate of 30 percent of net income reflects the assumption that a household is expected to spend 30 percent of its net income on food.

[Box; Food stamp benefit formula, see the page following references]

The food stamp benefit formula is equation 1 in the Box. After various substitutions, the benefit formula becomes equation 4 or 7 depending on the shelter deduction. If the shelter deduction is zero or the maximum amount, then equation 4 is used to determine a household's benefit amount. If the shelter deduction is between zero and the maximum amount, equation 7 is the relevant one. The appropriate equation can be used to determine the change in benefit which results from a change in income by

⁵ Prior to PRWORA in 1996, the maximum benefit was 103 percent of the Thrifty Food Plan. This was changed in 1996 legislation to 100 percent, but indexing the Thrifty Food Plan to annual food-price inflation still occurs.

source or a change in a deductible expense that may arise from a change in a noncash benefit that affects a deductible expense. It is in context of these equations that we derive the FSP EBRR for earnings for households that also receive TANF and SSI cash assistance.

Simplified reporting and transitional benefits are two State options in the FSP that modify the standard benefit calculation (Trippe 2004). Both options reduce or eliminate the need for recipients to report income changes that do not make them ineligible for the program. Consequently, benefits are not always adjusted as income changes during the certification period. For households participating in the FSP under these options, the EBRRs temporarily fall to zero overriding the rates that would exist under the standard benefit formula. At the time of recertification, these households in the FSP under simplified reporting would have benefits recalculated given the new level of earnings.

TANF Benefit Calculation

Basically, States may provide TANF benefits to a family that it defines as needy, if that family includes a minor child (under age 18) or a pregnant person. There are technical qualifications to this basic rule related to the age of the minor child if they are attending school, living circumstances of unwed mothers under 18, legal aliens, and other stipulations. The major financial eligibility rules are an asset limit, gross income limit, and net income limit all set by States. Countable assets cannot be above a certain limit. The gross income limit pertains to the sum of earned and unearned income. Under the net income test some earnings are deducted from gross income to determine countable net income. The portion of earnings disregarded for the net income eligibility test may be smaller than the portion disregarded when determining a recipient's benefits.

States set the earning disregards for eligibility and benefit determination to provide a work incentive to TANF recipients and offset the costs of working. The rules for TANF earning deductions vary by State and they tend to take a range of values (see Table 1).⁶ The fixed dollar deduction (column 2 in Table 1) is the amount of earnings a household can receive without having any reduction in TANF benefits.

Many States also deduct a percentage of additional earnings beyond the fixed deduction amount (column 3 in Table 1). As will be seen below, most FSP households who work and participate in TANF earn more than the fixed disregard. Often States are more generous in their earnings deductions in the first months of work, and after some time, 4 to 12 months, the earnings deductions are reduced. Our analysis is focused on the cross-program effects with the percent earnings deduction that apply after about a year of earnings.

Twenty-four States including the District of Columbia used both fixed and percentage deductions; 18 States used a percentage deduction only; 7 States used a fixed deduction only; and 2 States had no earnings deduction and a flat grant amount. The percentage deductions ranged from zero to 100 percent with 17 States using 50 percent (including NY at 51%), 4 States using 33.3 percent, and 4 States using 20 percent. For 17 States, the fixed deduction or the percentage deduction changed over the length of period the recipient worked. The earned income deduction used by AFDC when it was replaced by TANF continues to be used by 3 States. This consists of a \$120 fixed deduction plus a 33.3 percentage deduction for four months, then a \$120 fixed deduction only for the next four months, and finally a smaller fixed deduction of \$90 thereafter.

⁶ We use the Urban Institute's *Welfare Rules Database* to specify State TANF earnings deductions (Urban Institute, 2005). For some States we use the earnings deductions that apply after a household member has been working for about a year.

TANF cash assistance is set by the State. Most states have continued pre-TANF maximum cash benefit schedules, while eighteen States have raised their cash benefit levels since 1995 (Urban Institute, 2005). Cash benefits in all but two States are calculated in one of two ways. In 35 States, a family's benefit is the difference between countable net income and the maximum benefit for a family of its size. In 14 States, a family's benefit is the difference between countable net income and a specified standard, which is greater than the maximum benefit, but the benefit amount cannot be greater than the maximum benefit. Two other states, Arkansas and Connecticut, set benefits at either the maximum benefit or 50 percent.

SSI Benefit Calculation

SSI is a means tested Federal program for cash transfers to people who are 65 or older, or blind, or have a disability. Some states offer a supplement. For adults, a disability exists when you have a physical or mental problem that keeps you from performing "substantial" work and is expected to last at least a year or to result in death. The test for substantial work is whether you are able to engage in work that can earn \$700 per month with impairment-related expenses subtracted. When deciding if a child is disabled, Social Security looks at how his or her disability (physical or mental) affects everyday life, in that there must be severe functional limitations.

An eligible individual cannot have monthly net income in excess of the current federal benefit rate (maximum benefit amount). The amount is the same for all States and is subject to annual increases as dictated by cost of living adjustments. Since 1997, countable resources must be less than \$2,000 for an individual and \$3,000 for a couple. After summing gross income from countable sources, a number of deductions are made to arrive at net income for benefit calculations. The deductions are:

(1) Standard deduction of \$20.

- (2) Earnings deduction of \$65 of earned income (in addition to the \$20 if no unearned income).
- (3) Earnings deduction of work related expenses due to your disability or blindness (monthly).
- (4) Earnings deduction of one-half of the remaining earned income, after deductions 1-3.
- (5) Income set-aside under a plan for achieving self-support are excluded (PASS).

The level of SSI cash assistance is set by subtracting net income from the full federal benefit rate (maximum benefit amount). In 2005, the individual full federal benefit rate was about \$600 per month, while for an eligible couple it was about \$900 per month.

FSP Effective Benefit Reduction Rates (EBRRs) for Earnings

The FSP EBRRs for earnings for food stamp recipients who also receive TANF or SSI cash assistance are presented in this section. Data from the FSP-QC are used to determine the distribution of FSP households with these sources of income over the circumstances that result in different FSP EBRRs for earnings. The distributional analysis is done for FSP households with earnings but no TANF or SSI cash assistance, FSP households with TANF or SSI cash assistance but no earnings, and for FSP households with earnings and TANF or SSI cash assistance. For each combination of income sources, different EBRRs on earnings arise from whether the household's benefits are at the minimum, maximum, (B_{\min} , B_{\max}) or an intermediary level, and whether the household uses the shelter deduction or not and if they do whether it is at the maximum level or some intermediate level of use. FSP EBRRs for earnings may also vary by State for FSP households with cross-program effects from TANF cash assistance due to different State TANF earnings deductions. For six States with the largest FSP caseload, we estimate the FSP EBRRs for earnings with cross-program effects from TANF cash assistance. With these estimated FSP EBRRs we calculate a weighted average over the different household circumstances for comparison with FSP effective tax rates estimated by Ziliak (2007) using

an econometric model. Finally, our estimated FSP EBRRs for earnings for FSP households with TANF or SSI cash assistance are combined with estimates of TANF EBRRs and SSI EBRRs for earnings to provide an estimate of the effective tax rate on earnings in terms of these program benefit reductions. In these calculations we do not account for the effect of the EITC on the effective tax rate.

Distribution of FSP EBRRs by household circumstance

Discussion of the distribution of FSP EBRRs by household circumstance is divided into three parts. We start with a discussion of FSP households with earnings but no TANF or SSI cash assistance. This provides a basis to compare what happens to the FSP EBRRs for earnings when FSP households also receive cash assistance from TANF or SSI. We also present the FSP EBRRs for TANF and SSI cash assistance without earnings for comparison purposes. Finally, we present the FSP EBRRs for earnings when FSP households also receive TANF or SSI cash assistance.

For earnings without cross-program effects and TANF or SSI cash assistance without earnings

Table 2 provides a detailed breakout of the incidence of FSP EBRRs for earnings, TANF cash assistance, and SSI cash assistance (rows of Table 2).⁷ The EBRRs for earnings is calculated for households with earnings but do not receive TANF or SSI cash assistance (no cross-program effects). The FSP EBRRs for these sources of income are derived from either equation 4 or 7 (see Box), depending on whether the shelter deduction is used at a non-maximum level. Five blocks of two-columns in Table 2 identify the relevant FSP EBRR for a change in gross income (for the income source in the corresponding row) and the percent of caseload under the circumstance of the column heading. The FSP EBRR depends on: 1) whether benefits are at the maximum (B_{\max}), minimum (B_{\min}), or an intermediary level, and 2) whether the household is using the shelter deduction at the minimum,

⁷ These values are from the 2005 FSP-QC database and correspond with data reported in USDA-FNS (September 2006).

maximum ($D_H=0$, $D_H=Max$) or an intermediary level. The last block of three-columns, at the far right of table 2, displays the average EBRR and the percent of total caseload for the row source of income.

The average FSP EBRR for earnings without cross-program effects is -0.241, averaged over the circumstances of the household's use or nonuse of the shelter deduction and whether they receive the minimum, maximum benefit amount or some intermediate amount. The FSP EBRRs for earnings without cross-program effects range from -.36 for 43.0 percent of FSP households with earnings but no TANF or SSI cash assistance, -.24 for 36.1 percent of these households, and zero for 20.9 percent of these households. The -.36 FSP EBRR for earnings occurs when the FSP household uses the shelter deduction at a non-maximum level and is derived from equation 7. It is larger than the -.24 FSP EBRR (derived from equation 4) that occurs when the FSP household is either not using the shelter deduction or using it at the maximum level. For a FSP household using the shelter deduction at less than the maximum amount, the additional earnings leads to a lower shelter deduction which increases net income and reduces benefits issued, consequently the FSP EBRR for earnings is larger.⁸ For FSP households with zero net income and maximum benefits, we assume that the additional earnings do not lead to positive net income so that the FSP EBRR for earnings is zero and the additional earnings do not affect benefits. At some level of earnings, the additional earnings will cause the FSP household's net income to shift from zero to a positive value and benefits decline at either -.24 or -.36 depending on the shelter deduction. For a one or two person FSP household with minimum benefits, we assume the additional earnings are small enough that they remain eligible for the minimum benefits and the FSP EBRR is zero, but the additional earnings could cause the household to be ineligible and lose its benefits.

⁸ The additional earnings for FSP households using the shelter deduction at the maximum level could be large enough that the use of the shelter deduction shifts to a less than maximum amount, which would shift the FSP EBRR for earnings from the lower value of -.24 to the larger value of -.36. This section assumes the additional earnings are small enough that such a shift in the FSP EBRR does not occur. In the next section, increases in earnings eventually cause this shift in the FSP EBRR.

The average FSP EBRR for TANF cash assistance is estimated to be -.299, with a range from -.45 for 43.9 percent of FSP households with TANF cash assistance, -.30 for 33.8 percent of these households, and zero for 22.4 percent of these households. Similarly, the average FSP EBRR for SSI cash assistance is estimated to be -.352, with a range from -.45 for 68.3 percent of FSP households with SSI cash assistance, -.30 for 14.8 percent of these households, and zero for 16.8 percent of these households. The FSP EBRR for TANF and SSI cash assistance without cross-program effects with earnings are the same and are larger than the FSP EBRR for earnings without cross-program effects because of the 20 percent earnings deduction.

For earnings with cross-program effects from TANF cash assistance

In 2005, 14.5 percent of FSP households received TANF cash assistance, with 18.6 percent of them also earning income from work (294,000 households). Of these households, 93 percent (272,200 households) did not receive SSI cash assistance.⁹ When a FSP household also participates in TANF, a change in earnings not only has a direct effect on FSP benefits, the earnings change also has a cross-program effect from TANF cash assistance on FSP benefits. As earnings increase, TANF cash assistance is likely to decrease, but not dollar for dollar. TANF earnings deductions determine the reduction in TANF cash assistance from an increase in earnings, which are set by States since welfare reform in 1996. The Urban Institute's (2005) "Welfare Rules Database" provides information on State TANF Earnings deductions, as summarized in Table 1. Due to State specific TANF earnings deductions, the FSP EBRRs for earnings with TANF cash assistance are distinguished by State.

⁹ The remaining 21,800 households with earnings received both TANF and SSI, creating multi-program cross-program effects. We do not assess their FSP EBRRs in this section.

State TANF earnings deductions generally consist of two parts, a fixed deduction (disregard) and a percent of the remaining earnings (percent deduction). For households with very low earnings, a small change in monthly earnings are less than the State TANF disregard, and TANF cash assistance does not adjust for the change in earnings. However, from our tabulation of FSP-QC data (see Table 4) we find that most FSP households have earnings greater than the State TANF disregard so that additional earnings are subject to the State TANF percent deduction, which we focus on in our discussion below.

For working FSP households who also receive TANF cash assistance, earnings have a direct and a cross-program effect on FSP benefits. The direct effect takes one of two values depending on whether the FSP household is using the shelter deduction at less than the maximum amount (-.36), or whether they either do not use the shelter deduction or use it at the maximum amount (-.24).¹⁰ First, consider the situation where the FSP household uses the shelter deduction at less than the maximum amount. In this case, the FSP EBRR combines the -.36 direct effect with the cross-program effect of earnings on TANF cash assistance. Earnings reduce TANF cash assistance by $(1-z)$, where z is the State's TANF percent earnings deduction. The reduced TANF cash assistance increases FSP benefits by 45 percent (see Table 2, shelter deduction at less than the maximum amount). Combining the direct and cross-program effects, an increase in earnings reduces FSP benefits by $-[0.36 - 0.45(1-z)]$ times the change in earnings. Rearranging terms, the FSP EBRR for earnings is $[0.09 - 0.45z]$, which varies according to the State percent earnings deduction. Similarly, for FSP households who do not use the shelter deduction or use it at the maximum amount, the FSP EBRR for earnings with cross-program effect from TANF cash assistance is $-[0.24 - 0.3*(1-z)]$, or upon rearranging terms $[0.06 - 0.3z]$.

Table 3 presents the FSP EBRR for earnings by State with cross-program effect from TANF cash assistance (using percent earnings deduction in Table 1), for the two alternative circumstances relative to the FSP household's use or nonuse of the shelter deduction. Consider the circumstance where the FSP household uses the shelter deduction at less than the maximum amount. In states where the TANF percent earnings deduction is 50 percent, as in Pennsylvania and sixteen other States, FSP benefits are reduced by 13.5 percent of the change in earnings. If instead, the State TANF earnings deduction is 33 percent, as in Kentucky and three other States, FSP benefits are reduced by 5.85 percent of the change in earnings. When the State TANF earnings deduction equals the FSP earnings deduction of 20 percent, as in Nebraska and three other States, the direct and cross-program effects offset each other and the FSP EBRR is zero, i.e., there is no change in the FSP benefits due to increased earnings. For a State with TANF earnings deduction less than 20 percent, as in Texas and six other States, the FSP EBRR is positive so FSP benefits actually increase with earnings due to the cross-program effect from TANF. For two states with a fixed TANF grant amount (Wisconsin and Arkansas), there is no cross-program affect from earnings due to change in TANF cash assistance, and FSP benefits only adjust by the direct effect of earnings on FSP benefits.

Now consider the circumstances where the FSP household either does not use the shelter deduction or uses it at the maximum amount. In states where the TANF percent earnings deduction is 50 percent, as in Pennsylvania and sixteen other States, FSP benefits are reduced by 9 percent of the change in earnings (Table 3). For the 50 percent TANF earnings deduction and all other percent earnings deductions, the FSP EBRR for earnings with cross-program effects from TANF cash assistance are one-

¹⁰ The direct effect can be zero if earnings are small enough that net income remains less than or equal to zero (see table 2). Also, the direct effect can be zero for a one or two person household with minimum benefits if they remain eligible for FSP benefits with the additional earnings. These circumstances are less likely to occur and not discussed.

third less when the FSP household either does not use the shelter deduction or uses it at the maximum amount, relative to using the shelter deduction at less than the maximum amount.

The distribution of FSP households among the different FSP EBRRs for earnings with TANF cash assistance under various circumstances pertaining to the FSP household's use of the shelter deduction and receipt of maximum and minimum benefits are presented in Table 4 for a selection of six States.¹¹ The table also makes the distinction whether the earned income is less than the TANF fixed deduction ($Y_E < Y_E$ disregard), where there is a 100 percent deduction, or whether the earned income is in the TANF percent deduction range ($Y_E > Y_E$ disregard). The average State FSP EBRRs for earnings, including both direct and cross-program effects, range from -0.09 to -0.14 for five of six States. For one State, Texas, the average FSP EBRR is a positive 0.062. Among these six States, a large percent of FSP households are subject to the TANF earned income percent deduction and use the FSP shelter deduction at the maximum amount or zero. Under these circumstances, 43.6 percent of FSP households with earnings and TANF cash assistance in California have an FSP EBRR of -0.09. A significant percent of FSP households with TANF cash assistance and earnings, in these six States, use the FSP shelter deduction at less than the maximum amount and consequently have a larger FSP EBRR (by one-third) than that for FSP households that either do not use the shelter deduction or use it at the maximum amount. A reduction in FSP benefits from an increase in earnings is larger due to the shelter deduction.

Figure 1 ranks the FSP EBRR for earnings with cross-program effect from TANF cash assistance, under the circumstance of the FSP household using the shelter deduction at less than the maximum amount.

While most States have a FSP EBRR between -.0225 and -.135, some have a zero and even positive FSP

¹¹ We have chosen these States based on their large FSP caseload sample size in the FSP-QC database. They account for 50 percent of FSP households with both earnings and TANF cash assistance.

EBRR for earnings. Prior to welfare reform in 1996, the AFDC percent earnings deduction was 33 percent, which leads to a FSP EBRR of -0.0585, an earnings deduction still used by 4 States. Many States have increased their TANF earnings deduction, which results in a larger negative FSP EBRR, which implies a greater reduction in FSP benefits from the increase in earnings. What the net effect of these changes in TANF cash assistance and FSP benefits to a change in earnings will be discussed below in context of the effective tax rate on earnings from these programs.

For earnings with cross-program effects from SSI cash assistance

The first row of results in Table 4 reports the FSP EBRRs for earnings with cross-program effects from SSI cash assistance. In 2005, 7.3 percent of FSP households with SSI cash assistance received earnings (210,000 households). Of these households, 90 percent (188,000 households) did not receive TANF cash assistance. The FSP EBRR for earnings with cross-program effects from SSI cash assistance (without TANF) combines the cross-program effect of the change in SSI benefits from the additional earnings on FSP benefits with the direct impact of the change in earnings on FSP benefits.

The Cross-program effect from SSI cash assistance depends on the SSI earnings deduction that applies to the additional earnings. As can be seen by the distribution of FSP households with SSI cash assistance and earnings in Table 4, most (74.6 percent) have enough earnings that the 50 percent earnings deduction applies to any additional earnings ($Y_E > Y_E$ disregard columns). The FSP EBRR for earnings also depends on the FSP households use or nonuse of the shelter deduction. For instance, assume that the household uses the FSP shelter deduction between zero and the maximum value and that they receive less than the maximum benefits. Under these circumstances, SSI cash assistance decrease by 50 percent of the additional earnings which increases FSP benefits by 45 percent of the decrease in

SSI cash assistance (see Table 2 for the 45 percent FSP EBRR for SSI cash assistance). Consequently, the cross-program effect from a reduction in SSI cash benefits, due to the additional earnings, increases FSP benefits by 22.5 percent of the earnings.

The direct effect from the additional earnings under these circumstances will decrease FSP benefits by 36 percent of earnings (see Table 2). The net result (36-22.5) is a reduction in food stamp benefits of 13.5 percent of the additional earnings. As seen from the first row of Table 4, this FSP EBRR for earnings with cross-program effects from SSI cash assistance occurs for 47.7 percent of FSP households who receive SSI cash assistance and have earnings.

The other blocks of columns in the first row of Table 4 presents the FSP EBRRs for earnings with cross-program effects from SSI cash assistance for other circumstances pertaining to the use or nonuse of the FSP shelter deduction, receipt of maximum and minimum FSP benefits, and whether the household's earnings are greater than or less than the SSI fixed earnings deduction (disregard). For instance, 26.9 percent of FSP households with SSI cash assistance and earnings have a FSP EBRR for earnings of -.09 when the FSP shelter deduction is either not used or used at the maximum level. In this case FSP benefits are reduced by 9 percent of the additional earnings.

Comparing the FSP EBRR for earnings with those from an econometric model

We estimate an average national FSP EBRR for earnings from our analysis and compare it with a similar estimate from an econometric model in Ziliak (2007). These two approaches to estimating the relationship between FSP benefits and earnings are similar but some differences exist which we discuss.

Given our estimated average FSP EBRRs for earnings for households with earnings only and for households with earnings and TANF or SSI cash assistance, we calculate an average national FSP EBRR. The average FSP EBRR for earnings with or without cross-program effects from TANF or SSI cash assistance (from Table 2 and 4) are averaged over the different circumstances pertaining to the household's use and nonuse of the shelter deduction and whether they receive the maximum benefit, minimum benefit, or some intermediate value. The average national FSP EBRR is estimated using these average FSP EBRRs and the shares of FSP households with the different combination of earnings and cash assistance from TANF or SSI as weights. The average national FSP EBRRs are reported in table 6 for 2003-2005.¹² We include an estimate for 2003 for comparison with an estimate by Ziliak (2007), where 2003 is the last year of his analysis. In 2003, our estimated average national FSP EBRR for earnings is -21.1 percent. It is slightly larger at -21.8 in 2004 and at -22.0 in 2005. The average national FSP EBRR has been rising since 2000 as the FSP caseload has shifted towards more households with earnings only and less with TANF cash assistance and earnings.¹³

Ziliak's estimated FSP effective tax rate follows an econometric tradition of estimating effective tax rates for AFDC and TANF. For the FSP, the approach is to use the FSP-QC data to estimate an econometric model of food stamp benefits relative to earnings, unearned income, and a set of dummy variables for family size. Ziliak estimates the coefficients of the model by State and over time (1983-2003). The earnings coefficient is the average effective tax rate, that is, the average relation between benefits and earnings. Given State caseload shares, a weighted average national FSP effective tax rate for earnings is calculated to be -15.2 percent in 2003.

¹² For the 21,781 FSP households with earnings that also receive cash assistance from both TANF and SSI, we have calculated a FSP EBRR of positive 0.0736, assuming a TANF percent earnings deduction of 50 percent along with the 50 percent earnings deduction for SSI, and given that 52 percent of these households do not use the shelter deduction and 43 percent use the shelter deduction at less than the maximum level and receive less than the maximum benefit amount.

The econometric model results in a weighted average national effective tax rate that is 6 percentage points less than the average national FSP EBRR estimated from our analysis. There is one technical difference in how the data are used in the two approaches. Households with an elderly person were excluded from the FSP-QC data used in with the econometric model but not in our analysis. Households with an elderly person account for 2.7 percent of households with earnings in 2003. With sensitivity analysis, we find little effect of excluding the elderly on the average national FSP EBRR in our analysis, with the average national FSP EBRR only going from -21.1 percent to -21.2 percent.

We suggest that the difference between our estimated average national FSP EBRR and Ziliak's estimated FSP effective tax rates is a difference between a marginal tax rate and an average tax rate. In the econometric model, the effective tax rate is the coefficient for earnings with respect to benefits issued. It represents the average benefit amount per dollar of earnings for households with earnings. Whereas, in our analysis, we estimate a marginal effective tax rate on earnings over all households with earnings. It represents how a small change in earnings will effect benefits given the initial circumstance of the household with respect to receiving the minimum or maximum benefit amount, or whether they use the shelter deduction or not and if so if they use it at the maximum level. Our analysis assumes that the change in earnings is small enough that the change in household net income does not shift them into a different circumstance with respect to the shelter deduction or receipt of minimum or maximum benefit amount, which would lead to a different FSP EBRR.

Also, our analysis does omit some circumstances that could influence the effective tax rate for the FSP that are implicitly taken into account in the econometric model of Ziliak. For instance, we do not

¹³ Average national FSP EBRRs were calculated to be -20.0 in 2000 and 2001 and -20.5 in 2002.

account for use of the childcare deduction. It is possible that a household is using the childcare deduction while working but they are not deducting all of their child care expenses nor are they deducting the maximum amount, while receiving maximum benefits. In this case, additional earnings could be deducted and not counted as net income, which would lower the FSP EBRR in our analysis. We would expect this to be a very small number of households having little effect on the average national FSP EBRR, given that only 65,700 households are using the child care deduction and receiving maximum benefits in 2003.

Effective tax rate on earnings from FSP, TANF and SSI benefit reductions

The FSP EBRR can be combined with an EBRR for TANF or SSI cash assistance to derive an effective tax rate on earnings as the benefit reduction by these programs in response to an increase in earnings. The change in household total resources, when they participate in the FSP and TANF or SSI, from a change in earnings is the change in earnings net of the change in FSP benefits and TANF or SSI cash assistance.¹⁴ Table 5 provides estimates for these effective tax rates. Figure 2 illustrates the State variation in effective tax rates due to State variation in TANF earnings deductions. The effective tax rates also vary by the FSP household's use or nonuse of the shelter deduction.

Across all States, the average (not weighted by State caseload) effective tax rate with TANF cash assistance is 68.4 percent for a non-maximum use of the shelter deduction and 65.3 percent for either the use of the shelter deduction at the maximum amount or nonuse of the shelter deduction. This average effective tax rate combines a TANF EBRR of 59 percent with a FSP EBRR of 9.5 percent or 6.3 percent, with the larger FSP EBRR for the use of the shelter deduction at less than the maximum amount. In result, the household loses about 70 percent of its earnings mostly as a reduction in TANF

cash assistance. So long as the household also receives TANF cash assistance, the reduction in FSP benefits is relatively small. If the household were not receiving TANF cash assistance, then the FSP EBRR increases to 24 percent or 36 percent depending on the shelter deduction (see Table 2). It should be noted that we have used the TANF earnings deductions that apply after the household member has been working for a number of months, the number of which varies by state (see Table 1). If the TANF participant is just starting to work, the TANF earnings deduction is larger, resulting in a lower TANF EBRR and lower effective tax rate on earnings and a higher level of total resources.

A lower TANF earnings deduction results in a larger TANF EBRR and hence larger effective tax rates. The FSP EBRR is smaller for a larger TANF EBRR, partially offsetting the increase in the effective tax rate from a larger TANF EBRR. For instance, a TANF earnings deduction of 50 percent results in an effective tax rate of 63.5 percent for a non-maximum use of the shelter deduction and an effective tax rate of 59 percent for either the use of the shelter deduction at the maximum amount or nonuse of the shelter deduction. The TANF EBRR is 50 percent while the FSP EBRR for the non-maximum use of the shelter deduction is 13.5 percent. While a 33 percent TANF earnings deduction results in an effective tax rate of 72.9 percent or 70.9 percent depending on the shelter deduction. In this case the TANF EBRR is 67 percent while the FSP EBRR for the non-maximum use of the shelter deduction is 5.85 percent, less than the 13.5 percent FP EBRR with a 50 percent TANF earnings deduction.

For all States the effective tax rate with SSI cash assistance is 63.5 percent for a non-maximum use of the shelter deduction and 59.0 percent for either the use of the shelter deduction at the maximum amount or nonuse of the shelter deduction. This effective tax rate combines a SSI EBRR of 50 percent with a

¹⁴ The EITC would further increase household income from the change in earnings, which we do not include in our analysis.

FSP EBRR of 13.5 percent or 9 percent, with the larger value for use of the shelter deduction at less than the maximum amount.

Conclusions

This report derives FSP effective benefit reduction rates (EBRRs) for earnings -- the rates at which food stamp benefits are reduced as a household receives more earnings, with and without cross-program effects from adjustments to TANF or SSI cash assistance due to the additional earnings. The estimated FSP EBRRs are combined with TANF EBRRs and SSI EBRRs to estimate an effective tax rate on earnings in terms of these program benefits.

The goal of estimating FSP EBRRs and effective tax rates for earnings from the FSP and TANF (or SSI) is to illustrate several things about the treatment of earnings in the system of public assistance for low-income households. First, the estimated rates illustrate how program interactions between the FSP and TANF (or SSI) influence the net increase in household resources (income and noncash benefits) from earnings, given the reduction in program benefits from the earnings and the cross-program effects from TANF (or SSI) cash assistance to FSP benefits. Estimates for these rates have not been presented as in this report since welfare reform legislation in 1996 devolved the setting of TANF earnings deductions to States. Second, the report illustrates the State variation in FSP EBRRs and effective tax rates as result of State variation in TANF earnings deduction. Third, the report illustrates how the estimated FSP EBRRs and effective tax rates vary with the use or nonuse of the FSP shelter deduction. Fourth, the FSP EBRRs and effective tax rates affect household incentives to participate in the FSP and labor market. Though the analysis in this report does not estimate the incentive effects, the analysis does estimate the tax rates under various circumstances for comparative purposes.

In 2005, 29.3 percent of all FSP households worked, 14.5 percent received TANF cash assistance, and 18.4 percent of FSP households with TANF cash assistance received earnings (about 290,000 households). For SSI recipients, the percent working was 1.9 percent in 2005 (210,000 households). While the number of households receiving food stamps that are working and participating in these other cash assistance programs is small, they are of policy significance given the interest in promoting work among adult members of low-income households.

The FSP EBRRs for earnings are affected by the cash assistance received from TANF or SSI. For FSP households that receive TANF or SSI cash assistance, the FSP EBRRs for earnings has a direct effect on FSP benefits, as well as a cross-program effect through the impact of earnings on the amount of cash assistance received from these programs, which count as income in the FSP benefit formula. The direct effect from an increase in earnings is to reduce FSP benefits by 36 percent of the additional earnings if the household uses the shelter deduction at a non-maximum amount and by 24 percent if they either use the shelter deduction at the maximum amount or do not use it. The cross-program effect partially offsets the direct effect by increasing FSP benefits. That is, the additional earnings decrease the cash assistance from the other program, by an amount that depends on that program's earning deduction, which lowers FSP net income, leading to an increase in FSP benefits. The combined direct and cross-program effect of additional earnings on FSP benefits is generally a reduction in FSP benefits but by less than the direct effect, which implies negative EBRRs but one's that are smaller in absolute value than those based only on the direct effect. Though for some TANF earnings deductions, the FSP EBRRs are zero or positive.

Since welfare reform in 1996, states set the TANF earnings deductions. The magnitude of the cross-program effect depends on State TANF earnings deductions which range from 0 to 100 percent with an average of 41 percent in 2003. Most States allow a fixed amount of income to be disregarded and a percentage of additional earnings above the disregard that are deducted. Often States are more generous in their earnings deductions in the first months of work, and after some time, 4 to 12 months, the earnings deductions are reduced. Table 4 illustrates that most FSP households have enough earnings that they earn more than the fixed disregard. For this reason, our analysis focused on the cross-program effects with the percent earnings deduction that apply after an initial period of earnings.

The two most common State TANF percentage deductions on earnings are 50 percent (17 States) and 33 percent (4 States), where the 33 percent one corresponds to the pre-welfare reform AFDC earnings deduction (see Table 1). For TANF participants in a State with a 33 percent earnings deduction food stamp benefits can fall by 5.85 percent of additional earnings, while they can fall by 13.5 percent in a State with a 50 percent earnings deduction, with both estimates for a FSP household using the shelter deduction at a non-maximum amount. These FSP EBRRs are one and one-half times larger than when the FSP household either does not use the shelter deduction or uses it at the maximum amount. For a State TANF earnings deduction of 20 percent (4 States), the FSP EBRR is zero and there is no change in FSP benefits. For a State with TANF earnings deduction less than 20 percent (7 States), the FSP EBRR is positive so FSP benefits actually increase with earnings due to the cross-program effect from TANF. For two states with a fixed TANF grant amount (Wisconsin and Arkansas), there is no cross-program affect from earnings due to change in TANF cash assistance, and FSP benefits only adjust by the direct affect of earnings on FSP benefits.

As a general pattern, FSP EBRRs become larger in absolute value as the percentage TANF earnings deduction increases. In other words, the more generous TANF is with its earnings deduction, the less TANF cash assistance is reduced by the earnings but the positive cross-program effect on FSP benefits is smaller and hence the reduction of FSP benefits is larger because there is less cross-program offset to the direct effect of earnings on FSP benefits. Figure 1 illustrates the distribution of State FSP EBRRs for earnings with cross-program effects from TANF cash assistance for a non-maximum shelter deduction. It is interesting to note the distribution about the pre-welfare reform AFDC earnings deduction of 33 percent with a FSP EBRR of -0.0585 for a non-maximum shelter deduction. States have gone in opposite directions with the percent earnings deductions, some larger and some smaller. Another point illustrated by Figure 1 is that the FSP EBRR for earnings with cross-program effects from TANF or SSI cash assistance is smaller in absolute value than that for FSP households with earnings that do not receive TANF or SSI cash assistance (-.36 with a non-maximum shelter deduction), except for three States with a fixed TANF cash assistance amount or a 100 percent earnings deduction. In other words, when FSP households that receive TANF or SSI cash assistance earn more income, they have a smaller reduction in FSP benefits than FSP households that do not receive TANF or SSI cash assistance. Across States the average FSP EBRR for earnings with cross-program effect from TANF cash assistance is about -.095, or -9.5 percent of earnings, compared to a benefit reduction rate of -36 percent of earnings with no cross-program effect.

Household total resources increase from additional earnings, but by less than the additional earnings due to the reduction of food stamp benefits and TANF or SSI cash assistance that occur in response to the additional earnings. The FSP EBRR can be combined with an EBRR for TANF or SSI cash assistance to derive an effective tax rate on earnings as the benefit reduction by these programs in response to an

increase in earnings. Table 5 provides estimates for these effective tax rates, while Figure 4 illustrates the State variation in effective tax rates due to State variation in TANF earnings deductions. The effective tax rates also vary by the FSP household's use or nonuse of the shelter deduction but not by as much as the FSP EBRR since the TANF or SSI EBRR is not influenced by the shelter deduction. Across all States, the average effective tax rate on earnings with TANF cash assistance is about 70 percent for a non-maximum use of the shelter deduction. This average effective tax rate combines a TANF EBRR of 59 percent with a FSP EBRR of 9.5 percent. This is twice the effective tax rate on earnings for a FSP household that does not receive TANF or SSI cash assistance, where the effective tax rate is 36 percent for a non-maximum use of the shelter deduction. For all States, except for those with either a 100 percent TANF earnings deduction or fixed TANF amount of cash assistance, the effective tax rate with cross-program effects from TANF or SSI cash assistance is larger than that for FSP households that do not receive TANF or SSI cash assistance.

Cross-program effects from TANF or SSI cash assistance on FSP benefits are an important consideration when integrating government assistance programs into a support system for low-income households. State and local welfare policymakers may find this review of FSP EBRRs and effective tax rates informative in considering changes to programs which interact with food stamps, while FSP policymakers may find this review useful on how changes in other programs affect food stamp benefits.

References

- Harkness, Joseph and Sandra Newman. *Effects of Housing Assistance on Food Spending*. Joint Center for Poverty Research, Policy Briefs, 4(3), 2002.
http://www.jcpr.org/policybriefs/vol4_num3.html
- MaCurdy, Thomas and Frank McIntyre. "Helping Working Poor Families: Advantages of Wage-based Tax Credits over the EITC and Minimum Wage." *Employment Policies Institute*, April 2004.
http://www.epionline.org/studies/macurdy_04-2004.pdf
- Moffitt, Robert. "Welfare Programs and Labor Supply." In Alan J. Auerbach and Michael D. Intriligator eds., *Handbook of Public Economics, Vol. 4*, North-Holland, 2002.
- Ohls, James C. and Harold Beebout. *The Food Stamp Program: Design Tradeoffs, Policy, and Impacts*. Washington DC: Urban Institute Press, 1993.
- Trippe, Carole, Liz Schott, Nancy Wemmerus, and Andrew Burwick. *Simplified Reporting and Transitional Benefits in the Food Stamp Program: Case Studies of State Implementation*. Prepared by Mathematica Policy Research, Inc. for U.S. Department of Agriculture, Economic Research Service, E-FAN-04-003, May 2004.
<http://ers.usda.gov/publications/efan04003/efan04003.pdf>
- U.S. Department of Agriculture, Food and Nutrition Service. *Characteristics of Food Stamp Households: Fiscal Year 2005*. Prepared by Allison Barrett of Mathematica Policy Research, Inc. Report No. FSP-06-CHAR, September 2006.
<http://www.fns.usda.gov/oane/MENU/Published/FSP/FILES/Participation/2005Characteristics.pdf>
- U.S. Department of Agriculture, Food and Nutrition Service. *Technical Documentation for the Fiscal Year 2005 FSPQC Database and QC Minimodel*. Prepared by Allison Barrett and Daisy Ewell of Mathematica Policy Research, Inc. September 2006. <http://host4.mathematica-mpr.com/fns/fnsqcdata/2005/qcfy2005.pdf>
- Urban Institute. *Welfare Rules Databook: State TANF Policies as of July 2003*. April 2005.
http://www.urban.org/UploadedPDF/411183_WRD_2003.pdf
- Ziliak, James P. "Effective Tax Rates and Guarantees in the Food Stamp Program." Unpublished draft report, August 2007.

Box: Food Stamp Benefit Formula.

$$(1) \quad B = \max [B_{\min}, B_{\max} - rY_{\text{net}}]$$

Where,

B: Dollar value of food stamp benefits received by a household

B_{\min} : Minimum food stamp benefit

B_{\max} : Maximum food stamp benefit, which varies with household size

r: Statutory benefit reduction rate from maximum benefits, $r = 0.3$

Y_{net} : Household monthly cash income net of deductions

Net income (Y_{net}) is gross countable cash income net of FSP deductions, not gross income net of taxes:

$$(2) \quad Y_{\text{net}} = Y_g - D_E - D_S - D_D - D_M - D_H - D_C$$

where,

Y_g : Gross countable cash income

D_E : Earnings deduction

D_S : Standard deduction

D_D : Dependent care deduction, net of subsidies and subject to a maximum

D_M : Medical deduction, expenses for the elderly and disabled net of subsidies

D_H : Excess shelter cost deduction, net of subsidies and subject to a maximum

D_C : Child support payment deduction

Gross income Y_g is all sources of countable cash income without deductions and without tax deductions:

$$(3) \quad Y_g = Y_{\text{Earn}} + Y_{\text{Tanf}} + Y_{\text{SSI}} + Y_{\text{Other}}$$

where,

Y_{Earn} : Earnings of wages and salaries plus self-employed income

Y_{Tanf} : Temporary Assistance for Needy Families (TANF) cash assistance

Y_{SSI} : Supplemental Security Income (SSI) cash assistance

Y_{Other} : other sources of cash income

Substitute (3) into (2) and (2) into (1), substitute for D_E with the earnings deduction rate (e) times earnings, and include subsidies. For eligible households that receive more than B_{\min} the result is:

$$(4) \quad B = B_{\max} + rD_H - r(1-e)Y_{\text{Earn}} + r[D_S + D_D + D_M + D_C] - r[Y_{\text{Tanf}} + Y_{\text{SSI}} + Y_{\text{Other}}]$$

Where,

e : Earnings deduction rate, $e = 0.2$

The shelter deduction is constrained by a maximum deduction and by a minimum of zero:

$$(5) \quad D_H = \min \{ D_{\max}, \max [D_h, 0] \}$$

Where (note the distinction in subscript h and H),

$$(6) \quad D_h = C_H - 0.50 [Y_G - D_S - D_E - D_D - D_M - D_C]$$

where,

C_H : Shelter cost (including utilities) net of housing subsidies

Assuming the shelter deduction is D_h and not zero or the maximum, substitute (6) into (4), explicitly include subsidies with the deductions, and rearrange terms to get:

$$(7) \quad B = B_{\max} + r C_H + 1.5r[D_S + D_D + D_M + D_C] - 1.5r[Y_{\text{Tanf}} + Y_{\text{SSI}} + Y_{\text{Other}}] - 1.5r(1-e)Y_{\text{Earn}}$$

Table 1. State TANF earnings deductions, July 2003

	TANF fixed	TANF percent	
Alabama	0	20	100% for the first 3 months, 20% thereafter
Alaska	150	33	for first 12 months
Arizona	90	30	
Arkansas	0	100	no disregards, flat grant amount
California	225	50	
Colorado	0	66.7	for 12 months, then \$120 and 33% for 4 months, \$120 for next 8 months, \$90 thereafter
Connecticut	0	100	100% of the federal poverty level
Delaware	120	33	for 4 months, \$120 for next 8 months, \$90 thereafter
Washington DC	160	66.7	
Florida	200	50	
Georgia	120	33	for 4 months, \$120 for next 8 months, \$90 thereafter
Hawaii	200	36	stated as 20%, \$200, and 36% of remainder
Idaho	0	40	
Illinois	0	67	
Indiana	0	75	
Iowa	0	70	20% of gross earnings plus 50% of earnings net of diversions
Kansas	90	40	
Kentucky	120	33	100% for two months, then as reported for 4 months, \$120 for next 8 months, then \$90
Louisiana	120	0	plus \$900 over 6 months
Maine	108	50	
Maryland	0	40	
Massachusetts	120	50	for recipients nonexempt from work requirements. For exempt replace percent with 33.3
Michigan	200	20	
Minnesota	0	38	
Mississippi	90	0	100% for first 6 months, \$90 thereafter
Missouri	90	66.6	for first 12 months, then \$90 thereafter
Montana	200	25	
Nebraska	0	20	
Nevada	0	50	100% for 3 months, 50% for months 4-12, \$90 or 20% (which ever is greater) thereafter.
New Hampshire	0	50	
New Jersey	0	50	100% for 1 month, then 50% thereafter
New Mexico	125	50	
New York	90	51	
North Carolina	0	27.5	100% for 3 months then 27.5% thereafter
North Dakota	180	25	\$180 or 27% whichever is greater after one year
Ohio	250	50	
Oklahoma	120	50	
Oregon	0	50	
Pennsylvania	0	50	
Rhode Island	170	50	
South Carolina	100	0	50% for 4 months, \$100 thereafter
South Dakota	90	20	
Tennessee	150	0	
Texas	120	0	\$120 and 90% of remainder for 4 months, \$120 after 4 months
Utah	100	50	

Vermont	150	25	
Virginia	90	0	\$120 and 33% of remainder in first 4 months, \$120 next 8 months, \$90 thereafter
Washington	0	50	
West Virginia	0	40	
Wisconsin	0	100	no disregards, flat grant amount
Wyoming	200	0	
average	85.1	41.0	

1. Source: Urban Institute (April 2005), Welfare Rules Databook, Table II.A.1.

Table 2. Food Stamp Program Effective Benefit Reduction Rates (EBRR) without cross-program effects, 2005

	Ynet = 0		Bmin		DH max		Ynet > 0		B > min, < max		DH > 0, < max	%	Cases	avg ebrr	cases, thous.	% of total cases
	Bmax	% Cases	% Cases	% Cases	DH = 0	% Cases	DH = 0	% Cases								
Sources of YG:																
YE only, no TANF or SSI	0	18.4	0	2.5	-0.24	14.7	-0.24	21.4	-0.36	43.0	-0.241			-0.241	2697.7	24.9
TANF cash assistance	0	21.6	0	0.8	-0.3	9.8	-0.3	24.0	-0.45	43.9	-0.299			-0.299	1583.9	14.6
Supplemental Security Income (SSI)	0	10.9	0	5.9	-0.3	0.1	-0.3	14.7	-0.45	68.3	-0.352			-0.352	2871.6	26.5

Caseload data are from USDA-FNS, FSP-QC 2005

1. Cases with zero gross income (13.64 percent or 1479.983 thousand cases) are included in the Ynet = 0, Bmax category.

Note: An effective benefit reduction rate measures the rate of reduction in FSP benefits from an increase in cash income

Table 3. State FSP Effective Benefit Reduction Rate for earnings with TANF cash assistance
(Given State TANF Earning Deductions, July 2003¹)

	FSP EBRR non-max shelter deduction	FSP EBRR max or 0 shelter deduction
Alabama	0.0000	0.0000
Alaska	-0.0585	-0.0390
Arizona	-0.0450	-0.0300
Arkansas	-0.3600	-0.2400
California	-0.1350	-0.0900
Colorado	-0.2102	-0.1401
Connecticut	-0.3600	-0.2400
Delaware	-0.0585	-0.0390
Washington D.C.	-0.2102	-0.1401
Florida	-0.1350	-0.0900
Georgia	-0.0585	-0.0390
Hawaii	-0.0720	-0.0480
Idaho	-0.0900	-0.0600
Illinois	-0.2115	-0.1410
Indiana	-0.2475	-0.1650
Iowa	-0.2250	-0.1500
Kansas	-0.0900	-0.0600
Kentucky	-0.0585	-0.0390
Louisiana	0.0900	0.0600
Maine	-0.1350	-0.0900
Maryland	-0.0900	-0.0600
Massachusetts	-0.1350	-0.0900
Michigan	0.0000	0.0000
Minnesota	-0.0810	-0.0540
Mississippi	0.0900	0.0600
Missouri	-0.2097	-0.1398
Montana	-0.0225	-0.0150
Nebraska	0.0000	0.0000
Nevada	-0.1350	-0.0900
New Hampshire	-0.1350	-0.0900
New Jersey	-0.1350	-0.0900
New Mexico	-0.1350	-0.0900
New York	-0.1395	-0.0930
North Carolina	-0.0338	-0.0225
North Dakota	-0.0225	-0.0150
Ohio	-0.1350	-0.0900
Oklahoma	-0.1350	-0.0900
Oregon	-0.1350	-0.0900
Pennsylvania	-0.1350	-0.0900
Rhode Island	-0.1350	-0.0900
south Carolina	0.0900	0.0600
South Dakota	0.0000	0.0000
Tennessee	0.0900	0.0600
Texas	0.0900	0.0600
Utah	-0.1350	-0.0900
Vermont	-0.0225	-0.0150
Virginia	0.0900	0.0600

Washington	-0.1350	-0.0900
West Virginia	-0.0900	-0.0600
Wisconsin	-0.3600	-0.2400
Wyoming	0.0900	0.0600
average	-0.0945	-0.0630

1. Source: Urban Institute (April 2005), Welfare Rules Databook, Table II.A.1.

Table 4. Food Stamp Program Effective Benefit Reduction Rates (EBBR) on earnings with cross-program effects from TANF and SSI, 2005

	Ynet = 0		Bmin		Ynet > 0								avg ebrr	cases, thous.
	Bmax				B > min, < max				B > min, < max					
	% Cases	% Cases	DH max or =0	% Cases	YE < YE disregard		YE > YE disregard		YE < YE disregard		YE > YE disregard			
				DH max or =0	% Cases	DH >0, <max	% Cases	DH max or =0	% Cases	DH >0, <max	% Cases			
Households with YE and: SSI only, no TANF	0	4.2	0	12.3	-0.24	0.9	-0.36	8.1	-0.09	26.9	-0.135	47.7	-0.120	188.0
TANF only, no SSI														
- NY	0	9.2	0	0.0	-0.24	7.3	-0.36	0.0	-0.09	58.3	-0.135	25.1	-0.104	12.7
- CA	0	5.0	0	2.3	-0.24	5.1	-0.36	10.4	-0.09	43.6	-0.135	33.4	-0.134	80.5
- TX	0	26.8	0	1.7	-0.24	0.0	-0.36	0.0	0.06	6.2	0.09	65.3	0.062	23.7
- FL	0	36.1	0	0.0	-0.24	15.4	-0.36	9.3	-0.09	16.6	-0.135	22.6	-0.116	6.8
- IL	0	17.0	0	0.0	-0.24	0.0	-0.36	0.0	-0.141	44.6	-0.2115	38.4	-0.144	3.3
- PA	0	21.0	0	0.0	-0.24	0.0	-0.36	0.0	-0.09	38.9	-0.135	40.1	-0.089	12.8

Caseload data are from USDA-FNS, FSP-QC 2005

Note: An effective benefit reduction rate measures the rate of reduction in FSP benefits from an increase in cash income

Table 5. State effective tax rate on earnings
 (Given State TANF Earning Deductions, July 2003¹)

	Effective tax rate on earnings non-max shelter deduction	Effective tax rate on earnings max or 0 shelter deduction	TANF/SSI EBRR
Earnings, no TANF or SSI	0.360	0.240	0.0000
SSI	0.635	0.590	-0.5000
State TANF			
Alabama	0.800	0.800	-0.8000
Alaska	0.729	0.709	-0.6700
Arizona	0.745	0.730	-0.7000
Arkansas	0.360	0.240	0.0000
California	0.635	0.590	-0.5000
Colorado	0.543	0.473	-0.3330
Connecticut	0.360	0.240	0.0000
Delaware	0.729	0.709	-0.6700
Washington D.C.	0.543	0.473	-0.3330
Florida	0.635	0.590	-0.5000
Georgia	0.729	0.709	-0.6700
Hawaii	0.712	0.688	-0.6400
Idaho	0.690	0.660	-0.6000
Illinois	0.542	0.471	-0.3300
Indiana	0.498	0.415	-0.2500
Iowa	0.525	0.450	-0.3000
Kansas	0.690	0.660	-0.6000
Kentucky	0.729	0.709	-0.6700
Louisiana	0.910	0.940	-1.0000
Maine	0.635	0.590	-0.5000
Maryland	0.690	0.660	-0.6000
Massachusetts	0.635	0.590	-0.5000
Michigan	0.800	0.800	-0.8000
Minnesota	0.701	0.674	-0.6200
Mississippi	0.910	0.940	-1.0000
Missouri	0.544	0.474	-0.3340
Montana	0.773	0.765	-0.7500
Nebraska	0.800	0.800	-0.8000
Nevada	0.635	0.590	-0.5000
New Hampshire	0.635	0.590	-0.5000
New Jersey	0.635	0.590	-0.5000
New Mexico	0.635	0.590	-0.5000
New York	0.630	0.583	-0.4900
North Carolina	0.759	0.748	-0.7250
North Dakota	0.773	0.765	-0.7500
Ohio	0.635	0.590	-0.5000

Oklahoma	0.635	0.590	-0.5000
Oregon	0.635	0.590	-0.5000
Pennsylvania	0.635	0.590	-0.5000
Rhode Island	0.635	0.590	-0.5000
south Carolina	0.910	0.940	-1.0000
South Dakota	0.800	0.800	-0.8000
Tennessee	0.910	0.940	-1.0000
Texas	0.910	0.940	-1.0000
Utah	0.635	0.590	-0.5000
Vermont	0.773	0.765	-0.7500
Virginia	0.910	0.940	-1.0000
Washington	0.635	0.590	-0.5000
West Virginia	0.690	0.660	-0.6000
Wisconsin	0.360	0.240	0.0000
Wyoming	0.910	0.940	-1.0000
average	0.684	0.653	-0.5899
maximum	0.910	0.940	0.0000
minimum	0.360	0.240	-1.0000

1. Source: Urban Institute (April 2005), Welfare Rules Databook, Table II.A.1.

Table 6 Weighted Average national FSP EBRR for earnings

	2003 avg ebrr	2003 % cases with earnings	2003 cases with earnings	2004 avg ebrr	2004 % cases with earnings	2004 cases with earnings	2005 avg ebrr	2005 % cases with earnings	2005 cases with earnings
Earnings only, no TANF or SSI	-0.239	80.8	2046.5	-0.240	82.9	2400.2	-0.241	84.8	2697.7
Earnings with SSI, no TANF	-0.107	6.7	168.8	-0.122	6.2	178.6	-0.120	5.9	188.0
Earnings with TANF, no SSI	-0.090	11.4	289.8	-0.109	10.2	296.2	-0.093	8.6	272.2
Earnings with TANF and SSI	0.074	1.1	27.5	0.074	0.7	21.4	0.074	0.7	21.8
Weighted Average	-0.210	100.0	2532.6	-0.217	100.0	2896.3	-0.219	100.0	3179.7

Figure 1. State FSP EBRR for earnings with TANF cash assistance and with non-maximum shelter deduction

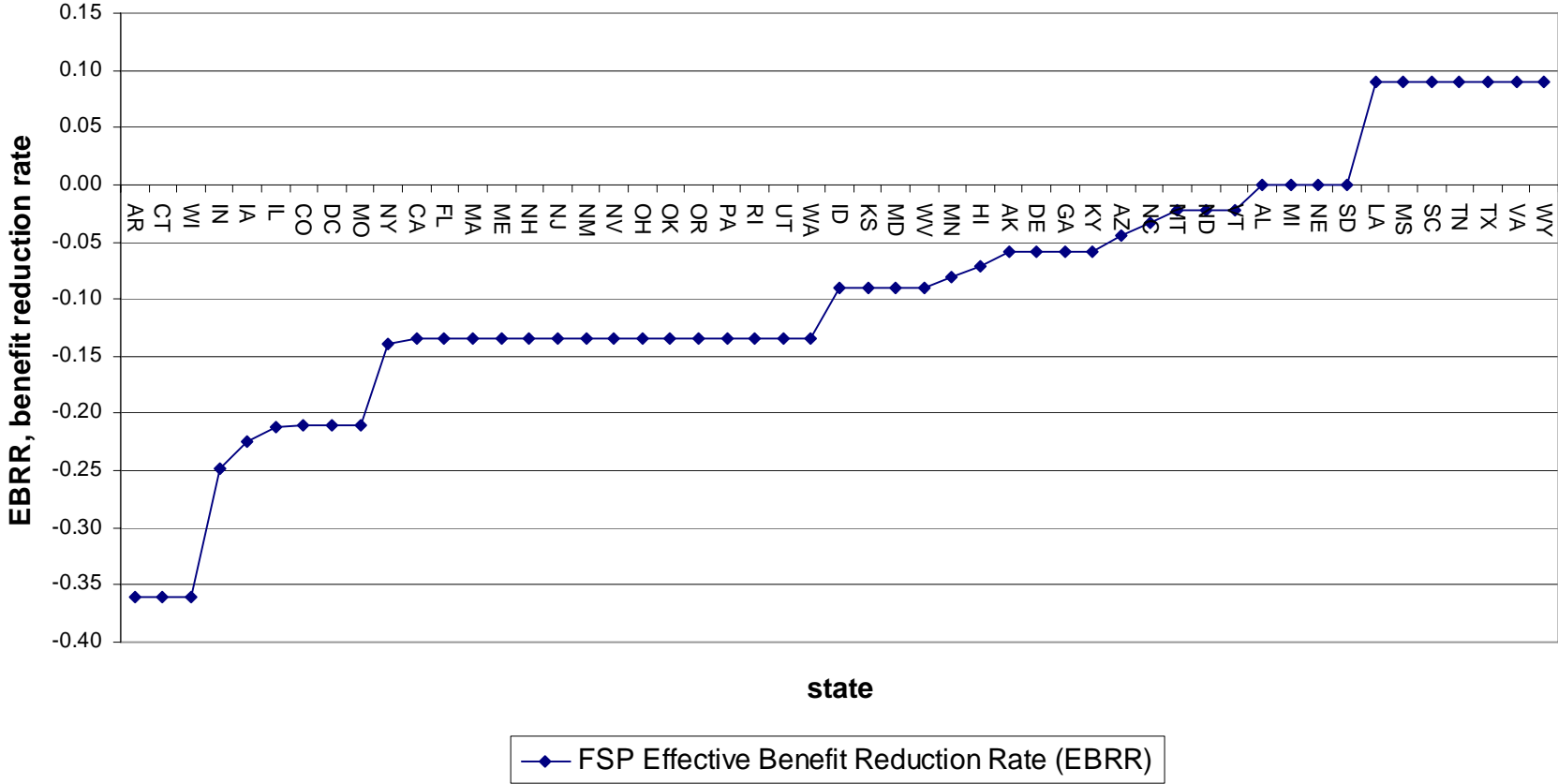


Figure 2. State effective tax rate for earnings from food stamps and TANF, with non-maximum shelter deduction

