URBAN INSTITUTE
TECHNICAL REPORT

ESTIMATING THE ANTI-POVERTY EFFECTS OF CHANGES IN TAXES AND BENEFITS WITH THE TRIM3 MICROSIMULATION MODEL

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The Urban Institute

April 2007

The Urban Institute is a nonprofit, nonpartisan policy research and educational organization that examines the social, economic, and governance challenges facing the nation. Views expressed in this report are those of the authors and do not necessarily reflect the views of the Institute, its trustees, or its funders.

This work was performed under contract with the Center for American Progress, in support of the Center's Task Force on Poverty. The project used the public version of the TRIM3 microsimulation model. Because TRIM3 simulations require users to input assumptions and/or interpretations about economic behavior and the rules governing federal programs, the estimates produced under this project are attributable only to the authors of this report.

Many individuals contributed to this work. Sheila Zedlewski, director of the Urban Institute's Income and Benefits Policy Center, helped to conceptualize the approach and provided comments on this report. Austin Nichols researched the likely employment impacts of the minimum wage and EITC policies, and Seth Zimmerman contributed to that literature review and to the tabulation of results. Paul Johnson performed programming related to the housing simulation. Kathleen Short at the Bureau of the Census provided guidance in the use of the NAS poverty thresholds. We also acknowledge the long-standing support of HHS/ASPE for the annual updating and maintenance of the TRIM3 microsimulation system, without which this type of analysis would not be possible.

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OVERVIEW

This report describes the methods used to simulate the potential poverty impacts and costs of a set of policies recommended by the Center for American Progress (CAP) Task Force on Poverty (Center for American Progress 2007). The key policy options include increasing the minimum wage, expanding the EITC and other tax credits, and expanding the system for child care subsidies for working parents. These policies were simulated separately and in combination, with and without indirect employment effects. We also simulated the impacts of increasing the participation rate in the Food Stamp Program, rescinding restrictions on legal aliens' eligibility for transfer programs, and increasing the number of housing vouchers. The results were tabulated to determine the changes in the number of people in poverty and the changes in the poverty gap, using a broad definition of income—after taxes and child care expenses and including the value of food and housing aid. All the simulations used the TRIM3 model—the Transfer Income Model, version 3.[1] TRIM3 captures the detailed rules of government programs and the interactions among programs.

The simulations used data from the 2004 Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS), which captures the income and employment characteristics of the civilian non-institutionalized population during calendar year 2003. The ASEC data are augmented with additional data on hourly wages from the April through July 2004 CPS files, and the annual earnings data are adjusted to capture the impact of recent state minimum wage increases. We compared the policy options to a "baseline" reflecting the population, economic circumstances, and government policies in place in 2003, with the exception that some recent changes in federal income tax law are incorporated. We simulated the proposed policies as if they had been fully implemented (in real terms) in CY 2003.

The remainder of this report describes the methods used for the analyses and presents the results. The first section briefly describes the TRIM3 microsimulation model, the input data, and the baseline simulations. The second section discusses the alternative simulations and presents key results. We present more detailed information on the methods and additional results in appendices.

[1] TRIM3 is maintained and developed at the Urban Institute under primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

THE MODEL AND THE BASELINE SIMULATIONS

TRIM3 is a comprehensive microsimulation model of the tax, transfer, and health programs affecting U.S. households. For each household in the input database, TRIM3 determines the amounts of transfer benefits a household could receive and the amounts of tax a household would owe, under either the actual rules of government programs or hypothetical/proposed rules.

Key features of TRIM3 include detailed, state-specific modeling of the rules of tax and transfer programs, monthly simulation of transfer programs, and the modeling of cross-program interactions. More information on TRIM3 is provided in Appendix A, and detailed documentation of the model is available at http://trim.urban.org/.

THE INPUT DATA

The simulations used the TRIM input dataset based on the 2004 ASEC data[2]—the same file used by the Census Bureau to compute the official poverty statistics for calendar year 2003. The 2004 ASEC captures the demographic characteristics and family relationships of civilian noninstitutionalized households as of March 2004, together with detailed income and employment data for the individuals in those households during 2003. While more recent ASEC data are available, we used the data for CY 2003 because they represent the most recent calendar year for which a full set of TRIM3 simulations are available for general use.

As part of the standard annual update of the TRIM3 model, we created an input dataset for the model based on the ASEC data, with several imputations required to allow modeling of the tax and transfer programs. The standard modifications include:

- Allocating respondent-reported annual incomes into monthly amounts to allow monthly modeling of transfer programs.
- Imputing the legal status of each non-citizen in the survey data.
- Imputing child care expenses (in coordination with the modeling of child care subsidies).
- Estimating housing expenses for low-income families.

Because the simulations involve increases to the minimum wage, this project required additional modifications to the standard TRIM input data for CY 2003. We incorporated additional data on hourly wages and modified the earnings of some individuals to capture

[2] The ASEC was formerly referred to as the March CPS income supplement. The ASEC still consists primarily of the March CPS sample, but the sample is expanded by using some households from other months. The ASEC includes all the variables asked in regular monthly CPS interviews, as well as the questions on income and employment during the preceding calendar year.

the impact of state legislation that occurred after 2003 to set state minimum wages higher than the federal minimum wage. We describe these changes briefly below and in more detail in Appendix B.

Current Hourly Wages

Simulations of the impact of an increase in the minimum wage require knowing each worker's current wage in hourly terms. There are two potential sources of information for determining the hourly wage of a person captured in the ASEC data—the person's report of his/her total wages, weeks of work, and usual hours of work during the calendar year (which can be combined to estimate an hourly wage), and the "earnings sample" (ES) data—a set of questions including an explicit question on hourly wage asked of approximately one-quarter of each monthly CPS sample. In general, most analyses of wage rates in the US use the ES data.[3] When hourly wages are computed from the annual data, an unreasonably high number of wages fall below the minimum wage, probably due to inaccuracies in the reporting of either weeks of work or hours per week. Therefore, this project uses the ES data to the greatest extent possible.

To obtain ES data for more workers, we used identification codes to match individuals in the ASEC data without ES data with their data records in the April through July CPS files. After the matching, the ES variables provided a usable hourly wage for 55 percent of CY 2003 wage and salary workers. For the remaining 45 percent, we calculated the hourly wage using the annual variables.

Recent State Minimum Wages

Between 2003 and 2007, many states enacted minimum wages higher than the federal minimum wage. Higher state minimums mean that an increase in the national minimum wage will have smaller effects on poverty and incomes than it would have had in the absence of the state legislation. To avoid overestimating the impacts of national-level minimum wage increases, we modified the earnings of individuals living in states with higher minimum wages who appeared to be covered by the minimum wage law but working at a wage below the state's minimum. The resulting data capture the population in 2003 as if state minimum wage increases effective by January 2007 were in effect in 2003.

THE BASELINE SIMULATIONS

The baseline simulations form the starting point for simulating the policy options. The results of the policy simulations—persons in poverty, tax units receiving a particular tax credit, costs of a transfer program—can be compared against the results of the baseline simulation to estimate the impact of the policy change. This analysis requires baseline simulations of two cash-assistance programs—SSI and TANF, three in-kind

[3] See, for example, CBO (2006) and EPI (2007).

benefit programs—food stamps, housing subsidies, and child care subsidies, and two types of taxes—payroll taxes and federal income taxes.[4]

For this project we used the standard baseline simulations for CY 2003 produced and validated as part of annual updates to the TRIM3 model, with two exceptions. First, the baseline simulations for this project used the ASEC data modified to calculate hourly wage rates as described above and the adjustments to earnings to capture the recent increases in state minimum wages. Second, the baseline captured some post-2003 modifications to tax law particularly relevant to this project. Specifically, the baseline simulation incorporates the current rules for the child tax credit, the EITC, and the child and dependent credit (with dollar amounts deflated to 2003 levels). Using the most recent federal tax code allows us to show the effects of the tax provisions suggested by the CAP Poverty Task Force relative to current law. More details are provided in Appendix A.

ALTERNATIVE POVERTY MEASUREMENT

This analysis focuses on the anti-poverty impact of policies proposed by the CAP Poverty Task Force—both changes in the number of poor individuals and in the poverty gap. In assessing poverty, we used an expanded definition of income and a non-standard set of poverty thresholds.

We used a broader definition of family income than is used in standard poverty measurement.[5] Specifically, the definition of income for determining poverty for this project equals:

- Cash income (earned and unearned income), *plus*
- The value of food stamps, *plus*
- The value of a household's housing subsidy, if any, *minus*
- Federal income tax liability prior to the EITC, *plus*
- The value of the EITC, *minus*
- A family's out-of-pocket child care expenses (either a subsidized family's copayment or a non-subsidized family's payment)

On average, this definition of income results in a higher amount of income than the standard definition, which consists of only cash income.

The poverty thresholds used for this analysis differ from the standard thresholds in two ways. First, we used the ratios among thresholds for different types of families developed as part of work on experimental poverty thresholds described in Short, 2001.

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[4] The TRIM3 system can also simulate state income tax liabilities. However, because of the many changes in states' income tax rules since 2003—including many new state-level EITCs—it would have been inappropriate to use the 2003 state income tax rules as part of an analysis involving changes to the EITC. Project resources did not allow an update of the state income tax model.

[5] This broader definition approximates the definition described by the panel on Poverty and Family Assistance of the National Research Council (1996).

One aspect of that set of ratios is that, unlike in the standard set of thresholds, the thresholds for one-person and two-person families do not vary by elderly status. Second, we find the set of thresholds that, when applied to the expanded income definitions, produces a number of poor individuals that is very similar to the number obtained when the standard thresholds do when applied to only the cash income component of income. (See Appendix C for more details.)

Table 1 compares the resulting thresholds with the standard thresholds for several types of families. Overall, the thresholds are higher, in order to retain the same number in poverty as the standard thresholds despite the use of the broader income measure. Like the standard thresholds, the thresholds for this analysis increase with family size. However, the percentage increases in the threshold due to additional children are smaller than in the standard thresholds.

TABLE 1: ALTERNATIVE POVERTY THRESHOLDS

	Standard 2003 poverty thresholds	Thresholds for this analysis [1]	
		Threshold	As percent of standard threshold
Selected thresholds:			
One adult, non-elderly	9,573	9,900	103.4%
One adult, elderly	8,825	9,900	112.2%
Two adults, family head non-elderly	12,321	13,948	113.2%
Two adults, family head is elderly	11,122	13,948	125.4%
One adult and one child	12,682	14,939	117.8%
One adult and two children	14,824	17,735	119.6%
One adult and three children	18,725	20,354	108.7%
Two adults and one child	14,810	18,801	126.9%
Two adults and two children	18,660	21,361	114.5%
Two adults and three children	21,959	23,794	108.4%
Selected ratios:			
One elderly adult vs. one non-elderly adult	92.2%	100.0%	
Adult with 1 child vs. non-eld adult living alone	132.5%	150.9%	
Single parent with 3 children vs. with 1 child	147.7%	136.2%	
Married couple with 3 children vs. 1 child	148.3%	126.6%	

Notes:

[1] Ratios between thresholds for different family sizes/compositions are taken from the three-parameter scale described in Short, 2001. The levels are set such that, when applied to the expanded definition of income used in this analysis, the number of persons in poverty is approximately the same as with the standard thresholds and cash income.

POLICY SIMULATIONS

We simulated seven of the proposals of the CAP Task Force on Poverty:

(1) Increasing the minimum wage: We simulated an increase to the $7.25 level that has been proposed in Congress and an increase to a higher level proposed by CAP. We simulated these increases with and without employment effects

(2) Expanding the EITC: The expansions increase the EITC for childless workers, make the EITC available to younger childless workers, address the "marriage penalty" in the EITC, and increase the EITC for large families. We simulated the EITC expansions with and without employment effects.

(3) Making the existing child tax credit (CTC) fully refundable.

(4) Expanding child care help: The expansions include higher eligibility thresholds for federally-funded subsidies and greater funding for subsidies, as well as an expanded child and dependent care tax credit (CDCTC). These expansions were simulated with and without employment effects.

(5) Increasing the participation rate in the food stamp program to 85 percent.

(6) Rescinding restrictions on the eligibility of legal immigrants for public aid.

(7) Increasing the number of available housing vouchers by 2 million.

We simulated each option independently for comparison against the baseline. We also simulated the first four policies in combination, with and without employment impacts. We simulated all new policies as fully phased-in, with dollar amounts deflated from the year of full implementation to 2003 dollars.

For all the policy simulations, the TRIM3 model captured interactions between the direct policy change and the tax and transfer programs included in the analysis. For example, a higher wage means that some families will be eligible for lower TANF or food stamp benefits, and may have to pay a higher amount for subsidized child care and/or housing. A household that becomes newly-eligible for a child care subsidy and that takes that subsidy may have lower child care expenses than in the baseline simulation, which could affect a family's child care deduction for purposes of transfer program computations, and which could also affect the family's CDCTC in the computation of federal income tax liability.

However, some factors are held constant between the baselines and the policy simulations. Unsubsidized housing expenses and unsubsidized child care expenses remain at their baseline levels, even if a family now has a different level of cash income.

Also, a family's decision to participate in a particular program does not change even if the family becomes eligible for a somewhat lower or higher benefit. For example, if a higher minimum wage results in a lower food stamp benefit than the family received in the baseline, we assume that the family receives the reduced food stamps in the policy simulation.

Below, we describe each of the simulations and the key results. The results are summarized in table 2.

RAISING THE MINIMUM WAGE

Methods and Assumptions

We simulated two minimum wage increases—to $7.25 per hour, and to the level proposed by CAP—50 percent of the average national wage. Each increase was simulated with and without indirect effects—job loss and indirect wage increases—for a total of four minimum wage simulations.

The hypothetical minimum wages were applied to the 2003 data in 2003 dollars. Because the most recent Congressional proposals would increase the minimum wage to $7.25 by 2010, we deflated the final wage of $7.25 from 2010 to 2003 dollars, giving a wage of $6.21. The minimum wage proposed by the CAP Task Force on Poverty would be $8.40 in 2006[6], which deflates to $7.67 in 2003 dollars. The use of 2003 dollars avoids overstating the value of the minimum wage relative to other dollar amounts in the 2003 data.

There may be two types of indirect effects from a minimum wage increase. First, most economists predict some level of job loss. Second, research shows that there would be "spillover" effects. That is, many employers would likely increase wages for individuals slightly below or above the range directly affected by the new minimum wage. In the simulations that incorporate indirect effects, we modeled both of these types of effects. We assumed that a minimum wage worker's probability of losing his or her job would equal 0.06 times the percentage increase in the wage. We based this estimate on the best-available literature on the effects of prior increases in minimum wages. We also assume that an employer would provide some wage increases for the workers up to $1 below the current minimum wage and up to $1 above the new minimum wage. (We provide details on the methods and assumptions for the indirect employment and wage effects in Appendix D.)

[6] The CAP Task Force on Poverty suggests setting the minimum wage to half of the average wage for non-farm private sector nonsupervisory employees. The Bureau of Labor Statistics provides those data at http://www.bls.gov/webapps/legacy/cesbtab3.htm. The mean of the January 2006 and December 2006 figures is $16.80, half of which is $8.40.

TABLE 2: EFFECTS OF THE POLICY CHANGES ON POVERTY, TRANSFER BENEFITS, AND TAX LIABILITIES

	Baseline, including state minimum wages	DIFFERENCE BETWEEN THE BASELINE AND EACH POLICY SIMULATION [1]														
		Fed. min wage deflated to $6.21		CAP Task Force min wage deflated to $7.67		EITC: increased for childless workers and larger families and marriage penalty relief		Fully refund-able child tax credit if >=21	CCDF expansion and CDCTC expansion		CAP Task Force min wage, EITC and CTC, CCDF and CDCTC		Increase Food Stamp Program partic. rate to 85%	Remove PRWORA rules for LPRs and refugees	Add 2 million housing vouchers
		Direct Effects Only	With job loss + indirect wage gain	Direct Effects Only	With job loss + indirect wage gain	No work effects	With new workers		No work effects	With new workers	Direct Effects Only	With all employ-ment effects			
Baseline poverty count and change in poverty count (millions)															
Total number poor	35,338	-205	-475	-1,318	-1,691	-1,988	-2,155	-3,258	-999	-2,724	-6,751	-9,128	-1,393	-170	-1,777
By age group															
Children	10,524	-70	-141	-485	-595	-361	-385	-2,095	-597	-1,530	-3,106	-4,324	-627	-74	-74
Non-elderly adults	20,486	-135	-333	-821	-1,080	-1,595	-1,723	-1,129	-395	-1,176	-3,558	-4,690	-688	-79	-1,244
Elderly	4,328	0	-1	-12	-16	-32	-47	-34	-7	-18	-87	-114	-78	-17	-459
By race/ethnicity															
White non-Hispanic	16,948	-81	-206	-446	-531	-942	-985	-1,031	-407	-872	-2,640	-3,254	-480	-18	-868
Black non-Hispanic	7,488	-50	-91	-242	-285	-303	-377	-972	-214	-438	-1,537	-2,047	-161	-7	-285
Hispanic	8,607	-73	-159	-594	-836	-648	-679	-1,118	-331	-1,302	-2,277	-3,385	-644	-117	-560
Other race	2,296	0	-21	-35	-39	-96	-115	-138	-49	-115	-298	-443	-109	-28	-66
Baseline poverty gap and change in poverty gap (billions of 2003 dollars)															
All poor families	$95.082	-0.325	-$0.640	-$2.066	-$2.118	-$3.460	-$5.239	-$7.143	-$2.053	-$6.510	-$13.529	-$19.532	-$5.776	-$0.946	-$5.477
Baseline transfer costs and tax liabilities and changes due to policies (billions of 2003 dollars)															
Transfer Programs															
SSI annual benefits	$34.593	-$0.012	-$0.026	-$0.094	-$0.136	$0.000	$0.000	$0.000	$0.000	-$0.018	-$0.094	-$0.169	$0.000	$1.350	$0.000
TANF annual benefits	$9.295	-$0.004	-$0.008	-$0.078	-$0.048	$0.000	$0.000	$0.000	-$0.023	-$0.853	-$0.103	-$1.038	$0.000	$0.130	$0.000
Food Stamps	$20.793	-$0.079	-$0.150	-$0.529	-$0.685	$0.000	-$0.060	$0.000	-$0.394	-$1.149	-$0.907	-$2.126	$8.673	$0.357	-$0.428
Public/subsidized housing, annual subsidy costs	$22.874	-$0.028	-$0.071	-$0.260	-$0.356	$0.000	-$0.037	$0.000	-$0.175	-$0.477	-$0.435	-$0.965	$0.000	-$0.038	$9.721
CCDF child care subsidies, annual	$5.415	-$0.009	-$0.047	-$0.117	-$0.199	$0.000	$0.001	$0.000	$10.327	$18.025	$10.056	$16.460	$0.000	$0.000	$0.000
Taxes paid by families and individuals															
OASDHI taxes paid by workers	$340.785	$0.245	$0.622	$2.345	$3.407	$0.000	$0.296	$0.000	$0.000	$0.974	$2.345	$5.062	$0.000	$0.000	$0.000
Federal tax liability less credits	$704.982	$0.361	$1.133	$4.366	$7.206	-$22.118	-$22.593	-$13.648	-$1.283	-$2.584	-$31.675	-$30.106	$0.000	$0.000	$0.000
Change in transfer costs minus change in tax liabilities		-$0.739	-$2.057	-$7.789	-$12.038	$22.118	$22.201	$13.648	$11.018	$17.137	$37.847	$37.207	$8.673	$1.799	$9.293

Source: The TRIM3 microsimulation model

Notes:

[1] See text and appendixes for detailed description of each policy option.

Results

Assuming no employment or wage effects, the increase in the minimum wage to the level currently being debated in Congress ($7.25 by 2010) lifts approximately 200,000 people out of poverty. The increase to the CAP-proposed minimum wage ($8.40 in 2006 dollars) reduces poverty by an additional 1.1 million people, for a total reduction of 1.3 million. (See the top half of table 2.) Poverty declines for both children and non-elderly adults, with very minimal impacts on the elderly.

While employers would pay higher wages, the government would benefit from increased tax collections on the increased wages (bottom portion of table 2). With the minimum wage proposed by the CAP Task Force, workers' OASDHI taxes would rise by $2.3 billion and federal income taxes would increase by $4.4 billion.[7] Also, government spending for benefit programs would decline by about $1 billion.

Assuming the expected job loss and indirect wage gains, the minimum wage increases would produce larger reductions in poverty and also larger impacts on government spending and revenue. When the lower minimum wage increase (to $7.25 in 2010) is simulated with the indirect effects, poverty falls by 475,000 people, and the net increase in government revenues (higher taxes paid by individuals plus reduced benefits) is $2.1 billion.[8] When the minimum wage proposed by the CAP Poverty Task Force is combined with the indirect effects, poverty falls by 1.7 million individuals, and the reductions in benefits and increases in tax revenues from individuals sum to over $12 billion.

EXTENDING THE EITC

Methods and Assumptions

We simulated three types of EITC expansions:

- *Childless-worker EITC*: The childless-worker EITC is increased to 20 percent (from the current rate of 7.65 percent) of the first $10,000 in earnings (in 2007 dollars). The credit phases out at a rate of 16 percent, beginning at $12,500 for single childless workers and $14,500 for married childless workers. (In the 2003 dollars of the simulation, the credit applies to the first $8,957 of earnings, and the phaseout begins at $11,196 for singles and $12,987 for couples). Further, this proposal extends the childless-worker EITC to workers age 18–24 without children who are not full-time students.

[7] Employers' OASDHI taxes would also increase due to the higher wages.

[8] The Congressional Budget Office analysis of a minimum wage of $7.25 (H.R. 2, the Fair Minimum Wage Act of 2007, estimate dated January 11, 2007) estimates no significant effect on the federal government's spending or revenues, due to an assumption that any revenue effects of higher minimum wages would be offset by the effects of lost jobs or reduced hours of employment. One difference between the CBO analysis and this analysis is that this analysis assumes indirect wages gains as well as some job loss.

- *Reducing marriage penalties:* This provision excludes one-half of the earnings of a lower-earning spouse if it would result in a larger EITC.
- *EITC for larger families:* This provision increases the EITC for families with three or more children to a phase-in rate of 45 percent and a phase-out rate of 23.69 percent.

We modeled these policies with and without employment impacts. The simulations of the EITC expansions that capture the indirect effects on employment also include indirect effects on other taxes and government benefits.

Expansion of the EITC for childless workers could cause some non-workers to enter the labor force. Based on the best-available research we assumed a 1.4 percentage point increase in employment among childless adults due to the increases in the childless-worker EITC. This results in 574,000 new workers, raising the employment rate among single childless non-disabled adults age 25-64 from 88.8 percent to 90.2 percent. We assume that new workers work at the applicable minimum wage (either federal or state) for 38 weeks and 30 hours per week. Although other aspects of the EITC expansions—the childless-worker EITC for 18-24 year olds, the marriage penalty provisions, and the expansion for larger families—could also have some employment impacts, we do not model any employment changes to those provisions because of a lack of supporting research. (See Appendix D for more details on the employment assumptions.)

Results

Assuming no employment effects, the package of EITC changes proposed by the CAP Task Force reduces poverty by approximately 2.0 million individuals. Of course, poverty declines primarily among non-elderly adults (1.6 fewer poor in this age group), the targeted group. This option reduces the total poverty gap by $3.5 billion, and would cost approximately $22 billion (2003 dollars).[9] A significant share of the benefits would go to individuals with income just above poverty (see Appendix E for more detailed results).

Assuming higher employment among childless workers in response to the higher EITC, poverty would decline by 2.2 million individuals and the poverty gap would fall by $5.2 billion.

MAKING THE CTC FULLY REFUNDABLE

Methods and Assumptions

We simulated the impact of making the child tax credit (CTC) in the federal income tax system fully refundable for all tax units with a head or spouse age 21 or older. Currently, the credit—worth $896 per child in the 2003 simulation—is only partially

[9] TRIM3 estimates of the costs of expanded tax credits do not include any increased administrative costs, and assume that all taxpayers immediately take advantage of new features.

refundable, minimizing its benefit to low-income families. We simulated the refundability assuming that any tax unit that would benefit from the refund will file a tax return to obtain the credit, even if the tax unit does not currently file taxes. This assumption produces a maximum effect since some individuals probably would not file for the refund. Although the ability to receive a CTC refund (or a larger refund) could theoretically cause some small change in employment, we did not model any employment impacts from the refundable CTC due to uncertainty about the presence or possible magnitude of such impacts.

Results

TRIM3 estimated that a fully-refundable child tax credit would cost $13.6 billion in 2003 dollars.[10] However, more than half of that total—$7.1 billion—would reduce the poverty gap. The fully-refundable child tax credit would reduce poverty by 3.3 million people, including, 2.1 million children.

EXPANDING CHILD CARE ASSISTANCE

This simulation included expansions of the child care subsidy system and the Child and Dependent Care Tax Credit (CDCTC). We modeled these expansions with and without assumptions about effects on parents' employment.

Expanded Child Care Subsidies. This option included higher eligibility thresholds, a national-level minimum-work requirement, nationally-established copayments, and subsidies available to any eligible family wanting to receive them. The subsidy system that is simulated here is consistent with—but not necessarily identical to—the system proposed by the CAP Task Force on Poverty.

Many aspects of the expanded subsidy system would remain the same as the current CCDF subsidy system. Family eligibility would require: (a) at least one child under age 13 or a disabled teenager; (b) employment of the family head and the spouse in a married-couple families, and (c) income under the eligibility thresholds. However, the system simulated in this analysis alters several aspects of the eligibility rules, creates a national copayment formula, and increases the number of subsidies. Changes to eligibility and copayment rules are the following:

- *Income Thresholds:* Families are eligible with monthly income up to 200 percent of the poverty guideline for their family size (with higher guidelines in Alaska and Hawaii).[11] These limits are higher than the current-law limits in most states.

[10] To the extent that some families would *not* begin to file tax returns even if they could benefit from the policy change, the poverty and cost impacts would be lower.

[11] The CAP Poverty Task Force proposal would apply the higher thresholds only to working parents, not students. (States would be able to continue providing child care subsidies to students, but the higher thresholds would not be required.) However, that aspect of the proposal is not captured in the simulation; the simulation applies the higher threshold to both working and student families.

In the cases in which states' current thresholds for either initial or continuing eligibility exceed these amounts, the higher amounts are used.[12]

- *Definition of working:* a national-level definition of work would replace the current variability in definitions across states: the head of the family (and also the spouse in a married-couple family) must be working at least 20 hours per week to be eligible.[13] This is more stringent than the current rules in the states that currently have no minimum hours requirement, but less stringent than the minimums imposed in other states.

- *Age limit for disabled teens:* Instead of having each state establish the maximum age for a disabled teenager, disabled teens would be eligible up to age 18 in all states.

- *Income definitions:* In all states, income would be defined as gross cash income, without any deductions or exclusions.

- *Copayments:* A national-level system of copayments would be imposed. In every state, a family's copayment is equal to 3 percent of income below the poverty guideline and 10 percent of income above the poverty guideline. Under the proposed system, no families would be exempted from copayments.

Perhaps the most significant change in the proposed subsidy system is to allow all eligible families that want subsidized child care to receive such care. However, even with full funding and no impediments to receiving subsidies, some eligible families might not feel that they need subsidies. For instance, a parent in a two-earner couple with school-age children might prefer to restrict her employment to school hours, eliminating the need for any type of child care. Other families that require some sort of non-parental care might prefer to have children cared for by relatives outside the subsidy system.

The simulation assumes that, in the absence of any new employment due to the increased subsidies, half of the eligible families would want to receive subsidies through this program. The assumption is based on the fact that approximately half of families who are not low-income use paid non-parental care (Giannarelli 2003). We used the following three steps to select participating families. First, we assumed that all families eligible in the baseline who are still eligible for subsidies continue to receive subsidies. Second, we assumed that newly-eligible families who had unsubsidized child care expenses in the baseline simulation would begin to participate. Third, we chose from among the remaining eligible families to reach a 50 percent participation rate. We used the same

[12] According to the October 2003 CCDF State Plans, there were 14 states in which the initial eligibility threshold for a family of 3 was higher than 200 percent of the poverty guideline. There were an additional 4 states in which a limit higher than 200 percent of poverty was used to determine if a family already receiving subsidies could remain eligible.

[13] CAP's full proposal for an expanded subsidy system would allow a family to remain eligible for one month without meeting this requirement, to allow a parent who becomes unemployed or unemployed one month of continued child care to facilitate regaining employment. However, this aspect of the proposal was not incorporated into the simulation.

relative probabilities of participation across different types of families (by ages of children, marital status, and lower vs. higher income) incorporated in the baseline simulation, increased proportionately to achieve the desired overall participation level.

Expanded CDCTC. This simulation also expands the child and dependent care credit (CDCTC) in the federal income system. The credit helps families pay for child care by allowing them to take a credit equal to a percentage of their allowable child care expenses. Under current law, the percentage falls from 30 percent for the lowest-income tax units to 20 percent for the highest-income tax units. The CAP Poverty Task Force proposal increases the maximum credit percentage to 50 percent and makes the credit fully refundable. The credit begins phasing out starting at AGI of $30,000, reaching the lowest level of 20 percent at AGI of $60,000. The maximum allowable expenses remain unchanged at $3,000 per child for up to 2 children. (These 2007 dollar amounts were deflated to 2003 dollars for purposes of the simulation.)

Note that copayments paid by families enrolled in the CCDF subsidy system (or the proposed expanded subsidy system) may count as allowable expenses. Thus, the lowest-income families could receive half of the amount of their copayment as a tax refund under the proposal.

Employment Effects

Expanded child care help could increase parents' work effort. Based on our review of the available literature, we assume that employment would increase by 8 percentage points for unmarried parents and by 3 percentage points for married parents with employed spouses. (We do not model any effect on hours of work for parents already in the labor market.) The simulation estimated 1.2 million new married workers and 0.7 million new unmarried workers. As in the simulation of increased employment due to an expanded childless-worker EITC, we assumed that new workers work for 38 weeks and for 30 hours per week, at the prevailing minimum wage (federal or state). All of the new workers are simulated to participate in the subsidy program, raising the participation rate from 50 percent (in the simulation without employment impacts) to 59 percent of families eligible for the subsidy in the average month of the year. More details on the employment effects are provided in Appendix D.

Results

Assuming no employment effect, the expansions to child care subsidies and child care tax credits reduce poverty by a total of 1.0 million people, including 600,000 fewer children in poverty. Poverty declines due to reduced out-of-pocket child care expenses for some families and due to higher child care tax credits. This option reduces the poverty gap by $2.1 billion. Government expenditures increase by approximately $11.0 billion, due primarily to the estimated $10.3 billion cost of the child care subsidies.[14] The cost of the higher CDCTC is $1.3 billion. The higher subsidy and tax credit costs are somewhat

[14] This estimated cost does not include any increase in administrative costs.

offset by lower government payments for food stamps, housing subsidies, and TANF benefits.

When we assume that employment would increase due to the increased availability of subsidies, the number of people raised above the poverty level increases to 2.7 million and the poverty gap declines by $6.5 billion. Non-child care benefit program costs would decline with increases in employment and taxes would increase. However, since all of the new workers are assumed to participate in the subsidy program, net government costs would increase by $17.1 billion relative to the baseline.

COMBINED SIMULATION OF MINIMUM WAGE, TAX CREDIT, AND CHILD CARE PROPOSALS

We tested the combined impacts of the CAP Task Force on Poverty proposals for a higher minimum wage, expanded tax credits (EITC, CTC, and CDCTC) and the increased child care subsidies. The combined policies were imposed with and without the indirect employment and wage assumptions.

Without the indirect effects, poverty falls by 6.8 million individuals—a 19 percent reduction from the baseline level of 35.3 million. The reduction in poverty is less than the sum the impacts of the individual proposals, since an individual raised out of poverty by more than one proposal counts only once in the combined simulation.

With the indirect effects all in place—including job loss due to the minimum wage increase, indirect wage increases due to the minimum wage increase, and increased employment due to the EITC and child care subsidy expansions—poverty falls by a total of 9.1 million individuals—a 26 percent reduction from the baseline. Estimated government costs would increase by $37.2 billion primarily due to the child care subsidy costs and the increased tax credits, offset somewhat by higher OASDHI taxes and lower transfer payments. The poverty gap declines by $19.5 billion (in 2003 dollars). Thus, slightly more than half of the increase in government costs goes to reduce the poverty gap. Of course, significant benefits derive for families with incomes just above poverty (see Appendix E).

INCREASING THE FSP PARTICIPATION RATE

The simulation of increased participation in the Food Stamp raised the overall participation rate—the percentage of households eligible to receive food stamps in the average month of the year who actually do receive that benefit—from approximately 55 percent to 85 percent. The simulation retained the current relative differences across different types of households in their likelihoods of receiving food stamps for which they are eligible.

The higher FSP participation level would reduce poverty by 1.4 million individuals and would cost an estimated $8.7 billion (in 2003 dollars). The higher food stamp participation rate would lower the poverty gap by $5.8 billion.

REMOVING RESTRICTIONS ON LEGAL ALIENS' ELIGIBILITY FOR AID

The PRWORA legislation of 1996 placed new restrictions on the eligibility of legally-resident non-citizens for public benefits. We simulated the impacts of removing those restrictions, treating legal non-citizens (legal permanent residents and refugees/asylees) the same as citizens for purposes of eligibility for SSI, TANF, and food stamps. (TRIM3 does not model immigrant restrictions for purposes of housing and child care subsidies.) We assumed that immigrants newly-eligible for a benefit would have the same likelihood of receiving the benefit as immigrant of similar characteristics who are eligible under current law. The simulation retained the rules that prohibit temporary and undocumented aliens from receiving public benefits.

The removal of restrictions on legal aliens' eligibility for public benefits would reduce poverty by an estimated 0.2 million people. Most of the individuals who become newly-eligible for benefits remain poor. However, the poverty gap would decline by $0.9 billion—accounting for approximately one-half of the $1.8 billion in increased benefit costs.

INCREASING THE NUMBER OF HOUSING VOUCHERS

Methods

This simulation assumed that 2 million new housing assistance vouchers would become available. We simulated the proposal as fully phased-in in 2003, and increased the number of households with housing assistance from the 4.5 million in the CY 2003 ASEC data to 6.5 million. Because housing expenses affect the computation of the excess shelter deduction in the Food Stamp Program, we re-simulated FSP eligibility and benefits.

We chose the households to receive the new vouchers from among households with at least one elderly person, disabled person, or child, since virtually all currently-subsidized households have at least one person of those types. We also restricted the new households to those in which the primary family has cash income under 125 percent of the poverty threshold. That limit is below the actual maximum income threshold for housing vouchers. (Public housing authorities may provide vouchers to households with income up to 80 percent of the area's median income.) However, in practice, most voucher recipients have lower income. When we restricted the new voucher recipients to households with income under 125 percent of poverty, the average tenant payments and average subsidy amounts for the newly-subsidized households were very close to those

for the currently-subsidized households.

Among households that met the demographic requirements and were under 125 percent of poverty, we randomly selected 18 percent to receive the 2 million new subsidies. By randomly selecting the new recipients, we implicitly assumed that families with children, the elderly, and disabled individuals would all be equally likely to receive the new vouchers; different assumptions would yield different impacts on poverty. We estimated subsidy amounts and tenant payments in the same manner for the newly-subsidized households as for the currently-subsidized households. (See the discussion of TRIM3's simulation of public and subsidized housing in Appendix A.)

Results

The simulation reduces poverty by 1.8 million people, due to the value of the new housing subsidies. The new subsidies would cost an estimated $9.7 billion[15], which would be offset somewhat by savings in the Food Stamp Program (since lower housing expenses would result in lower food stamp benefits for some families), resulting in a total estimated government cost increase of $9.3 billion. The poverty gap falls by an estimated $5.5 billion.

[15] The estimated cost of the increased housing vouchers does not include any increase in administrative costs.

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Appendix A: The TRIM3 Model and the Baseline Simulations

THE TRIM3 MICROSIMULATION MODEL

TRIM3 is a comprehensive microsimulation model of the tax, transfer, and health programs affecting U.S. households. The model's input database is based on each year's Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS). For each household in the input database, TRIM3 determines the amounts of transfer benefits a household could receive and the amounts of tax a household would owe, under either the actual rules of government programs or hypothetical/proposed rules. This project made use of TRIM3 simulations of the following taxes and transfers:

Supplemental Security Income (SSI)
Temporary Assistance for Needy Families (TANF)
The Food Stamp Program
Public and subsidized housing
Child Care and Development Fund (CCDF) child care subsidies
Payroll taxes
Federal income taxes

At the point this project was conducted, the most recent year for which baseline simulations of all these programs were available was 2003. Those simulations were used as the starting point for this project.

Key features of TRIM3 include the following:

- Detailed modeling of the rules of tax and transfer programs: For both tax and transfer programs, rules are modeled in as much detail as the input data will support. For example, in modeling CCDF subsidies, the state-level variations in eligibility thresholds are captured, as well as the state-specific details of the rules governing the amount of the total child care cost the family must pay from its own income.

- Monthly simulation of transfer programs: Since most transfer programs provide benefits on a monthly basis, the model simulates eligibility, benefits, and participation on a monthly basis. To enable monthly simulations, an individual's CPS-reported annual income amounts are allocated across the months of the calendar year in a manner that is consistent with the individual's other reported employment data, such as the number of weeks of work vs. weeks of unemployment. Monthly simulations allow more accurate modeling of current law, and also allow more accurate estimation of the potential impacts of new employment, when new workers might work less than full-year.

- Modeling of interactions across programs: The results of one simulation can be passed to a subsequent simulation to capture interactions across programs. For

example, a change in a family's CCDF copayment may affect benefits from the transfer programs that subtract child care expenses from earnings in defining net income, and may affect the amount of a family's child and dependent care tax credit.

Detailed documentation of TRIM3 is available at http://trim.urban.org/.

THE INPUT DATA

The simulations for this project used the TRIM input dataset based on the 2004 ASEC data. The 2004 ASEC captures the demographic characteristics and family relationships of civilian noninstitutionalized households as of the point of the survey (for most households, March 2004), together with detailed income and employment data for the individuals in those households for calendar year 2003. The detailed annual income data are needed to compute the poverty rate; in fact, the ASEC is the file used by the Census Bureau to produce each year's official poverty statistics. As part of each year's annual update of the TRIM3 model, an input dataset is created for the model that is based on the ASEC data, with several imputations required to allow modeling of the tax and transfer programs. Note that while TRIM is updated annually, the most recent calendar year for which a full set of simulations were available for public use was 2003.

During each year's annual update of the TRIM3 model, the ASEC data are augmented in several ways to allow more exact modeling of the tax and transfer programs. The modifications include the following:

- *Monthly incomes*: Monthly income amounts are needed to simulate the transfer programs, which generally determine eligibility and benefits on a monthly basis. However, the ASEC collects annual rather than monthly amounts. TRIM3 allocates the annual amounts across the months of the year, with different methods used for different types of income. Earnings are allocated in manner consistent with the information reported by the respondent on the number of weeks s/he worked during the year and his/her number of spells of unemployment. Specific weeks of employment are chosen in such a way that the overall trend in the unemployment rate in the resulting data matches the trend according to Bureau of Labor Statistics data.
- *Immigrant legal status:* An immigrant's legal status helps determine if s/he is eligible for public aid. The ASEC data indicate if an individual is a citizen, but do not report a non-citizen's legal status. As part of the standard TRIM3 annual update, a legal status—legal permanent resident, refugee/asylee, temporary alien, or undocumented alien—is imputed to each non-citizen in the ASEC data.
- *Information needed to model income taxes:* Several pieces of information needed to simulate federal income tax liability are not available in the ASEC data. These variables—itemized deduction amounts, capital gains income, and IRA deductions—are imputed as part of the standard TRIM3 annual update.

- *Corrections for under-reporting of child support income by TANF recipients:* TANF recipients may under-report the child support income paid on their behalf since they do not generally receive that income directly. TRIM3 procedures correct for this under-reporting.
- *Child care expenses:* Child care expenses are imputed in coordination with the modeling of child care subsidies, discussed below.
- *Housing expenses for low-income families:* Housing expenses are needed for low-income families who might be eligible for food stamps, in order to compute the appropriate excess shelter deduction. Housing expenses are assigned in coordination with the modeling of public and subsidized housing, discussed below.

Information on the methods for these procedures is available at the TRIM3 website, http://trim.urban.org/.

THE BASELINE SIMULATIONS

The baseline simulations form the starting point for simulating the policy options. The results of the policy simulations—persons in poverty, tax units receiving a particular tax credit, costs of a transfer program—can be compared against the results of the baseline simulation to estimate the impact of the policy change. This analysis requires baseline simulations of two cash-assistance programs—SSI and TANF, three in-kind benefit programs—food stamps, housing subsidies, and child care subsidies, and two types of taxes—payroll taxes and federal income taxes.[16]

The baseline simulations for this project are the same as the standard baseline simulations for CY 2003 produced and validated as part of annual updates to the TRIM3 model, with two exceptions. First, the baseline simulations for this project use the modified version of the ASEC data described above, with the adjustments to earnings to capture the recent increases in state minimum wages. Second, in the case of the simulation of federal income taxes, some recent changes in tax law that are particularly relevant to this project are modeled even though they were not in place in 2003.

Transfer Programs: Simulation Methods

The transfer programs simulated as part of this analysis are SSI, TANF, food stamps, housing subsidies, and federal child care subsidies through the Child Care and Development Fund (CCDF). All these transfer program simulations operate on a monthly basis; for example, a family or individual might be eligible for a program in one month but not the next if income has risen. The simulations follow the real-world rules for

[16] The TRIM3 system can also simulate state income tax liabilities. However, because of the many changes in states' income tax rules since 2003—including many new state-level EITCs—it would have been inappropriate to use the 2003 state income tax rules as part of an analysis involving changes to the EITC. Project resources did not allow an update of the state income tax model.

eligibility and benefits to the greatest extent possible, including each program's definition of gross and net income, the group of people who comprise the family or household for purposes of that program, variations in rules across states, and so on.

Since not all families and individuals eligible for a benefit receive that benefit, the simulations must determine which of those eligible for a benefit will receive it. In the simulations of SSI, TANF, the Food Stamp Program, and CCDF child care subsidies produced as part of each year's updating of the TRIM3 model, a simulated caseload is selected from among those individuals, families, or households simulated to be eligible for the benefit. Exact methods vary, but the general approach is the same across these four simulations. First, participation is assigned to all those who are simulated to be eligible who reported receipt of the benefit in the ASEC interview. Then, a portion of the eligible families or individuals who did not report the benefit are chosen as recipients. Non-reporting eligible units are selected in such a way that the size and characteristics of the simulated caseload come acceptably close to targets from administrative data. Thus, the simulations correct for the under-reporting of transfer program benefits in the ASEC data, providing a better starting point for the simulation of alternative policies.

Other key points about the simulations of the transfer programs are as follows:

- *SSI*: TRIM3 simulates whether adults are eligible for SSI based on age or disability, the amount of potential benefit, and whether the benefit is received. TRIM3 also simulates the children's SSI caseload and benefits. The model simulates federal SSI payments and the supplemental payments provided in some states.

- *Child care subsidies (and child care expenses)*: TRIM3 simulates only one type of child care subsidy—those funded through CCDF. For CCDF, TRIM3 models whether a family is eligible for subsidies, the amount of copayment a family would have to pay, and whether the subsidies are received. State-specific rules for eligibility, including income thresholds, income definitions, and minimum-hours requirements, as well as detailed state rules for copayments, are taken from the biennial State Plan documents (in this case, the state plans submitted in October 2003). For families that are simulated to receive CCDF-funded subsidies, the family's out-of-pocket child care expense equals the copayment required of the family. For families not subsidized through CCDF, equations are applied to impute the probability that the family has some expenses, and if so, the amount of expense. The results of the imputations are aligned such that the percentage of families with expenses and the average expense amount, overall and for families of different income levels, matches data from the National Survey of America's Families.

- *TANF*: TRIM simulates the cash benefits provided with TANF funds as well as the cash payments provided to certain categories of families—generally two-parent families and/or immigrant families—through separate state programs in some states. The model simulates eligibility for TANF, potential benefits, and whether benefits are received.

- *Public and subsidized housing (and housing expenses)*: For households that report in the ASEC that they live in public or subsidized housing, TRIM3 simulates the amount the family would be required to pay towards the rent and imputes the amount of subsidy the household receives. Subsidy is estimated as the fair market rent (FMR) for an apartment of the needed size (based on household composition) in the state of residence[17], minus the household's required payment. Because detailed data on the size and characteristics of subsidized households has not generally been available, TRIM3 does not assign housing subsidies to any additional households in baseline simulations. For non-subsidized low-income households, the model assumes that the household's rent equals the lesser of (a) the FMR for the required number of bedrooms and state of residence, and (b) 60 percent of household income.

- *Food Stamp Program*: TRIM3 simulates whether each household is eligible for food stamps, the amount of potential benefit, and whether each eligible household participates in the program.

TRIM3 also captures the interactions across the transfer programs. Cash income from SSI and TANF affects the food stamp benefit, and affects the rental payment required from a household in subsidized housing. The copayment required of a family with subsidized child care affects the child care expense deductions used in determining housing payments, food stamp benefits, and TANF benefits in some states. The housing payment required of a family with a housing subsidy affects the amount of excess shelter deduction that household can claim in determining its food stamp benefit.

Baselines used in this Analysis

For this project, we created a set of baseline simulations identical to the standard CY 2003 simulations publicly available, with the exception that we incorporated the modification to earnings to capture post-2003 state-level minimum wage legislation. Because of the slightly higher incomes, TRIM3 simulates slightly fewer individuals and families eligible for various benefits than in the standard 2003 simulations, and slightly lower government benefits than in those standard simulations.

Federal Taxes: Simulation Methods

Payroll taxes and federal income taxes were simulated for this analysis. TRIM3 captures the different payroll tax rates for the self-employed vs. non self-employed, and

[17] Fair market rents (FMRs) vary by locality. We compute an average fair market rent for each apartment size for each state, weighting the local FMRs according to population.

for certain federal workers. The federal income tax simulation is very detailed, following the real-world tax rules to the greatest extent possible. TRIM3 divides each household into potential tax units based on family relationships and incomes, computes gross income, subtracts deductions and exemptions, and computes and applies tax credits. The simulation of the child and dependent care tax credit (CDCTC) uses the child care expenses simulated by TRIM3's Child Care module—including both the expenses imputed for families without child care subsidies and the copayments calculated for subsidized families.

TRIM3 assumes full compliance with tax rules. That is, the model assumes that all families that must file a tax return do so and all families eligible for tax credits receive them. CDCTC provides one exception to this assumption. TRIM3 finds more tax units eligible for this tax credit than actually receive it. As part of the standard baseline modeling procedures, a subset of eligible tax units is randomly selected to not take the credit, such that the simulated use of the credit in each AGI category matches administrative data.

Baselines for this Analysis

For this project, we produced identical to the standard, public-use CY 2003 simulations, with two exceptions. First, the baselines incorporate the modification to earnings to capture post-2003 state-level minimum wage legislation, producing slightly higher payroll and federal income taxes

Second, the baseline federal income tax simulation incorporates post-2003 changes to the child tax credit (CTC), earned income tax credit (EITC), and CDCTC, to provide a more appropriate baseline for modeling expansions of those credits. Specifically, the following rules were modeled.

- Child Tax Credit: We included the current $1,000 value of the credit (deflated to $896 to reflect 2003 dollars) and the current phase-out points (2007 values of $75,000 single and head of household, $110,000 joint) deflated to 2003 dollars. We modeled the credit as 15 percent refundable for earned income above $10,500. (The tax law indexes the 2003 value of $10,500 for inflation.) Families with three or more children have the option of receiving a refundable credit calculated under a different formula, if this results in a higher refundable credit. (The refundable credit is capped by the amount by which the tax unit's social security and Medicare payroll taxes—including one half of the self-employment tax—exceed the unit's EITC.)

- EITC: EGTRRA increased the starting point and ending point of the phaseout point for joint filers by $2,000, effective 2005. (In 2008, this increased to $3,000). These points are indexed for inflation. We obtain the starting point of the phaseout for joint filers from the 2005 1040 instructions, and deflate to 2003. (TRIM3 calculates the end-point as a function of the starting point, maximum credit, and phase-out rate).

- Child and Dependent Care Credit: The child and dependent care credit maximum qualifying expense and phase-out brackets are not indexed for inflation. We take the 2007 values and deflate to 2003 dollars.

Other tax law changes since 2003 that would have limited impact on low-income filers—such as deductibility limits for IRA contributions—are left at their 2003 levels.

Appendix B: Identifying Minimum Wage Workers and Modifying Wages

Because the simulations involve increases to the minimum wage, this project required that the standard TRIM input data for CY 2003 be modified in two ways: by obtaining additional data on hourly wages, and by modifying the earnings of some individuals to capture the impact of state legislation that occurred after 2003 to set state minimum wages higher than the federal minimum wage.

IDENTIFYING THE CURRENT HOURLY WAGE

To simulate the impact of an increase in the minimum wage, it is necessary to know each worker's current wage in hourly terms. There are two potential sources of information for determining the hourly wage of a person captured in the ASEC data.

- The CY 2003 annual data. The ASEC includes extensive information about each person's employment during the calendar year. Four pieces of information—annual wage/salary income, annual weeks worked, annual weeks worked part-time (if different from full-time), and usual hours worked—can be combined to estimate each worker's hourly wage, as follows:
    - When all weeks of work are either part-time or full-time:
      Hourly wage = Annual wages and salary / Weeks worked / Usual hours per week
    - When there are both part-time and full-time weeks:
      If the usual hours of work is 35 or more, treat that as the hours worked in the full-time weeks, and assume 20 hours for the part-time weeks.
      If the usual hours of work is <35, treat that as the hours worked in the part-time weeks, and assume 40 hours for the full-time weeks.
      Hourly wage = Annual wages and salary / [(Part-time weeks * part-time hours) + (Full-time weeks * full-time hours)]

- The "earnings sample" (ES) data. In every month of the CPS, the approximately one-quarter of the CPS sample who are in the outgoing rotation group[18] are asked a series of detailed questions related to their current earnings that include the following:
    - whether a person is an hourly worker
    - the person's hourly wage (for hourly workers)
    - weekly earnings and hours worked per week (for non-hourly workers); in this case, the hourly wage can be inferred as weekly earnings divided by hours worked per week

[18] A household is in the CPS sample for 4 months, then is out of the sample for 8 months, then returns for another 8 months. Households in their 4th or 8th month are considered the "outgoing rotation groups".

An implied hourly wage can be computed for every worker with CY 2003 earnings in the ASEC data, but the ASEC includes ES data for less than a quarter of those workers. The other individuals who worked during 2003 either were not in the outgoing rotation group in that month, or were not working in that month.

For workers with both types of data in the ASEC data, the two hourly wages are often different, for at least three reasons. First, the ES questions refer to the point in time at which they are asked—some time between March and July of the year following the year for which annual income is collected. By that point, a person may be in a different job than s/he had during the calendar year, or s/he may be in the same job but may have obtained a raise. Second, when questions are not answered by the respondent they are filled in by the Census Bureau through "allocation" (imputation) procedures. For workers with ES data in the ASEC data, there are more discrepancies between the two sources when one or both is based on imputed data.[19] Third, even when information is reported by the respondent, there may be reporting errors; in particular, individuals who did not work the entire year may not remember exactly how many weeks they worked, and those who worked different numbers of hours in different weeks probably do not report the exact mean hours.

In general, the ES data are what is used for most analyses involving wages. When hourly wages are computed from the annual data, an unreasonably high number of wages fall below the minimum wage, probably due to inaccuracies in the reporting of either weeks of work or hours per week. For this project, the ES data could not be used exclusively, because the focus on poverty requires the use of the entire ASEC sample. However, the ES data are used to the greatest extent possible.

To obtain ES data for more workers, we used identification codes to match individuals in the ASEC data without ES data with their data records in the April through July CPS files. In theory, all of the workers in the ASEC data should have been in the outgoing rotation group in one of those subsequent months. However, due to attrition from the sample or matching problems (such as errors in household identification codes) not everyone can be matched. Further, for some of those whose records can be found in a subsequent month, the ES data do not provide an hourly wage because the person was not working in the month in which s/he was in the outgoing rotation group. Finally, even when a person was working in the outgoing rotation group, the ES data do not always provide an hourly wage; when a non-hourly worker reports that his/her weekly hours are "variable," a wage cannot be computed.

After the matching, the ES variables were available and provided a usable hourly wage for 55 percent of CY 2003 wage and salary workers. For the remaining 45 percent, the hourly wage was obtained through use of the annual variables as described above.

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[19] We tested the possibility of not using the ES hourly wage when it was imputed by the Census Bureau if the annual employment variables were actually reported. However, this approach resulted in a distribution of hourly wages with too many workers below the minimum wage compared with published data from the Bureau of Labor Statistics.

Table B1 shows the resulting distribution of hourly wages for the workers who are the focus of this analysis—those in families with incomes below poverty.

RECENT STATE MINIMUM WAGES

Between 2003 and 2007, many states have enacted minimum wages that are above the federal minimum wage. Due to those increases, any national-level increase in the minimum wage will have a smaller effect on incomes than it would have had in the absence of the state legislation. To avoid overestimating the impacts of national-level minimum wage increases, we modified the earnings of individuals living in states with minimum wages above the current federal minimum who appeared to be covered by the minimum wage law but working at a wage below the state's minimum. Table B2 shows the state minimum wages as of January 2007, in actual dollars and deflated to 2003 dollars.

The steps were as follows:

- *Exclude from any adjustment individuals who would not be covered by the minimum wage law*: Some individuals—farmers, waiters, and some others—are not covered by the minimum wage law, and may legally be paid an hourly rate below the minimum wage. Further, individuals who are self-employed are not affected by minimum wages. We therefore exclude from the adjustments any workers who were self-employed (farm or non-farm)[20], and any workers with an hourly wage under $5.00 per hour. (Although the actual minimum wage is $5.15, the use of the $5.00 cutoff allows for some tolerance due to reporting errors.)

- *Identify affected individuals:* For non-excluded individuals, earnings are increased for those in states with a minimum wage law and with hourly earnings below the January 2007 level in 2003 terms. Note that the adjustment was performed regardless of whether an individual reported being an hourly worker or a non-hourly worker in the ES data; the ES data are not available for all individuals, and even a worker who does not report being paid on an hourly basis may be affected by a minimum wage increase. (If a worker earns a salary equivalent to $6.00/hour in a company that also has workers earning $5.15/hour, a state minimum wage increase to a level above $6.00/hour will likely cause a raise for the non-hourly worker.)

[20] For individuals with both self-employment and wage and salary earnings, a minimum wage increase could affect the wage and salary portion of earnings. However, for individuals with both types of earnings for whom ES data were not available, an hourly wage could be estimated only by assuming the same hourly earnings from both self-employment and non-self-employment. Because that assumption would be unlikely to be true, and since there were very few low-wage individuals with self-employment earnings in the input data, we excluded all individuals with any self-employment income from any wage adjustments.

TABLE B1: WORKERS IN POVERTY BY HOURS PER WEEK AND HOURLY WAGE *

Any Number of Weeks Worked during CY 2003

Hours Per Week [2]	Hourly Wage Rate [1]						
	SE	<5.00	5.00-6.20 [4]	6.21-7.66 [4]	7.67-9.99	10.00+	Total
1-19	101,116	146,238	142,030	230,182	180,276	328,614	1,128,456
(row %)	9.0%	13.0%	12.6%	20.4%	16.0%	29.1%	100.0%
(col. %)	14.6%	9.5%	14.3%	15.5%	11.9%	17.2%	13.9%
20-34	156,829	441,777	346,187	425,518	389,910	528,666	2,288,887
(row %)	6.9%	19.3%	15.1%	18.6%	17.0%	23.1%	100.0%
(col. %)	22.6%	28.8%	34.9%	28.7%	25.8%	27.7%	28.2%
35+	435,882	948,254	502,938	829,229	938,633	1,052,165	4,707,101
(row %)	9.3%	20.1%	10.7%	17.6%	19.9%	22.4%	100.0%
(col. %)	62.8%	61.7%	50.7%	55.8%	62.2%	55.1%	57.9%
Total	693,827	1,536,269	991,155	1,484,929	1,508,819	1,909,445	8,124,444
	8.5%	18.9%	12.2%	18.3%	18.6%	23.5%	100.0%

Source: Urban Institute tabulations of CY 2003 CPS data with April-July outgoing rotation group data and TRIM3

Notes:

* Workers are defined as people with earnings of at least $100 during CY 2003, who are not members of the military. Poverty is defined using the cash income of the broadly-defined family and standard poverty thresholds for 2003. Income is CPS-reported cash income with 2 exceptions: TRIM-simulated TANF and SSI income amounts are used, and wages are adjusted to reflect state-specific minimum wage increases that occurred after CY 2003.

[1] Hourly wage is from the earnings-sample (ES) data when available; if there is no ES data for a worker, the wage is computed as annual earings divided by weeks worked divided by usual hours worked. Wage rates are adjusted to reflect state-specific minimum wage increases that occurred after CY 2003.

[2] Hours-per-week is the number reported as the "usual" hours worked, during the weeks of the calendar year when this person was working.

[3] Workers with hourly wage under $5/hour are assumed to not be covered by minimum wage rules.

[4] The workers from $5.00 to $6.20 benefit from the increase to $7.25 ($6.21 in 2003 $), and also benefit from minimum wage proposed by the CAP Task Force on Poverty. The workers from $6.21 to $7.66 benefit from the Task Force minimum wage ($7.67 in 2003 $).

TABLE B2: STATE MINIMUM WAGES IN EFFECT IN JANUARY 2007

	Jan. 2007 level	Deflated to 2003 dollars [1]
Alaska	7.15	6.40
Arizona	6.75	6.05
Arkansas	6.25	5.60
California	7.50	6.72
Colorado	6.85	6.14
Connecticut	7.65	6.85
Delaware	6.65	5.96
District of Columbia	7.00	6.27
Florida	6.67	5.97
Hawaii	7.25	6.49
Illinois	6.50	5.82
Maine	6.75	6.05
Maryland	6.15	5.51
Massachusetts	7.50	6.72
Michigan	6.95	6.22
Minnesota	6.15	5.51
Missouri	6.50	5.82
Montana	6.15	5.51
Nevada	6.15	5.51
New Jersey	7.15	6.40
New Mexico	6.75	6.05
New York	7.15	6.40
North Carolina	6.15	5.51
Ohio	6.85	6.14
Oregon	7.80	6.99
Pennsylvania	6.25	5.60
Rhode Island	7.40	6.63
Vermont	7.53	6.74
Washington state	7.93	7.10
Wisconsin	6.50	5.82

Notes:

[1] The 2007 values are deflated to 2003 using the actual CPI figures through 2006 and the projection for 2007 in the Congressional Budget Office's Budget and Economic Outlook released on 1/24/07. See Appendix D, Table D-1, "CBO's Year by Year Forecasts and Projections for Calendar Years 2007 to 2017". On the web at http://www.cbo.gov/ftpdocs/77xx/doc7731/01-24-BudgetOutlook.pdf

- *Make the adjustment:* An affected worker's annual earnings are increased by the ratio of the new minimum wage to the current hourly wage (except that if the current hourly wage is from $5.00 to $5.14, the ratio of the new minimum wage to $5.15 is used). Because the TRIM3 model uses monthly earnings to compute transfer program eligibility and benefits, each month's earnings were increased by the same ratio.

The resulting data capture the population in 2003, but as if state minimum wage increases were already in effect.

IMPOSING HIGHER FEDERAL MINIMUM WAGES

In the simulations of higher federal minimum wages, we followed the same steps as described above. For all wage and salary workers with an hourly wage of $5.00 or higher (including those who do not report being paid hourly), if that wage is less than the new national-level minimum wage the model increased worker's earnings by the ratio of the new minimum wage to the current hourly wage (except for workers currently earning from $5.00 to $5.14, we used the ratio of the new minimum wage to $5.15). Note that the "current hourly wage" incorporates any adjustment already made to capture higher state minimum wages. The model adjusted each month's earnings by the same ratio.

Appendix C: Poverty Status And Poverty Gap

The main interest of the CAP Task Force on Poverty is on the anti-poverty impact of the various policy proposals—both changes in the number of poor individuals and in the poverty gap. The CAP Task Force requested that the analysis use an expanded definition of income and also use a non-standard set of poverty thresholds. The non-standard thresholds are adjusted such that the total number of people in poverty in 2003 remains the same as with the standard thresholds and standard income definition.

INCOME DEFINITION

In order to assess poverty in a manner that captures the impacts of the proposals on families' economic well-being, we use a broader definition of family income than is used in standard poverty measurement. Specifically, the definition of income for determining poverty for this project equals:

- Cash income (earned and unearned income), *plus*
- The value of food stamps, *plus*
- The value of a household's housing subsidy, if any, *minus*
- Federal income tax liability prior to the EITC, *plus*
- The value of the EITC, *minus*
- A family's out-of-pocket child care expenses (either a subsidized family's copayment or a non-subsidized family's payment)

On average, this definition of income results in a higher amount of income than the standard definition, which consists of only cash income. In all cases, we used TRIM3 simulated values that correct for underreporting of income and assign values to in-kind benefits as described in Appendix A.

POVERTY THRESHOLDS

The poverty thresholds used for this analysis differ from the standard thresholds in two ways. First, we use the ratios among thresholds for different types of families (by family size and by number of related children) developed by David Betson and described in Short, 2001. Second, we find the set of thresholds that, when applied to the expanded income definitions, produces a number of poor individuals that is very similar to the number obtained when the standard thresholds are applied to only the cash income component of income. The resulting poverty thresholds are shown in table C1.

Both the standard poverty thresholds applied to cash income and the revised poverty thresholds applied to expanded income produce approximately 35.3 million individuals in poverty in the adjusted-2003 data. Note that this figure is lower than the Census Bureau's figure of 35.9 million people in poverty because the TRIM3 figures

TABLE C1: POVERTY THRESHOLDS FOR THIS ANALYSIS VS. STANDARD 2003 THRESHOLDS

THRESHOLDS USED FOR THIS ANALYSIS (APPLIED TO AN EXPANDED INCOME DEFINITION)

Size of family unit	Number of related children under 18 years								
	None	One	Two	Three	Four	Five	Six	Seven	>= Eight
One person (unrelated individual), <65	9,900								
One person (unrelated individual), 65+	9,900								
Two persons, family head <65	13,948	14,939							
Two persons, family head 65+	13,948	14,939							
Three persons	21,361	18,801	17,735						
Four persons	26,126	23,794	21,361	20,354					
Five persons	30,543	28,371	26,126	23,794	22,834				
Six persons	34,700	32,650	30,543	28,371	26,126	25,204			
Seven persons	38,654	36,700	34,700	32,650	30,543	28,371	27,483		
Eight persons	42,442	40,567	38,654	36,700	34,700	32,650	30,543	29,682	
Nine persons or more	46,089	44,281	42,442	40,567	38,654	36,700	34,700	32,650	31,814

STANDARD 2003 POVERTY THRESHOLDS (APPLIED TO CASH INCOME)

Size of family unit	Number of related children under 18 years								
	None	One	Two	Three	Four	Five	Six	Seven	>= Eight
One person (unrelated individual), <65	9,573								
One person (unrelated individual), 65+	8,825								
Two persons, family head <65	12,321	12,682							
Two persons, family head 65+	11,122	12,634							
Three persons	14,393	14,810	14,824						
Four persons	18,979	19,289	18,660	18,725					
Five persons	22,887	23,220	22,509	21,959	21,623				
Six persons	26,324	26,429	25,884	25,362	24,586	24,126			
Seven persons	30,289	30,479	29,827	29,372	28,526	27,538	26,454		
Eight persons	33,876	34,175	33,560	33,021	32,256	31,286	30,275	30,019	
Nine persons or more	40,751	40,948	40,404	39,947	39,196	38,163	37,229	36,998	35,572

incorporate the state minimum wage increases and also use TRIM-simulated SSI and TANF income in place of the under-reported figures in the ASEC data.

Appendix D: Indirect Employment and Wage Effects

Three of the CAP Poverty Task Force policies—higher minimum wages, expanded EITCs, and expanded child care subsidies—potentially could have indirect effects on workers as well the direct effects. Higher minimum wages might cause some job loss and likely will result in some "spillover" effects where workers with wages slightly below the old minimum wage or slightly above the new minimum wage receive wage increases. The expanded childless-worker EITC and expanded child care subsidies could each prompt additional individuals to enter the labor force. This appendix describes our methods for modeling these indirect effects.

INDIRECT EFFECTS OF A MINIMUM WAGE INCREASE

Job Loss

While debate still continues, recent literature seems to indicate that a minimum wage increase would lead to a small, negative effect on employment. Neumark and Wascher (2006) document the evidence from over 100 recent studies. In the studies that they review that apply most generally to the low-wage population, the elasticities range from 0 (Yelowitz 2005), to -0.06 to -0.15 (Neumark et al 2004), -0.11 (Keil et al 2001), and -0.19 to -0.24. Effects for teens alone are generally estimated to be higher. Other economists question whether an increase in the minimum wage leads to a decline in employment. For example, Bernstein and Schmitt (1998) failed to find any systematic, significant job loss associated with the 1996-97 minimum wage increase, and Card and Krueger (1995) also found no measurable negative impact on employment.

Given this uncertainty, and the fact that the minimum wage increase would occur in the future when fewer workers would be earning the minimum than reflected in the 2003 adjusted data, we assumed a relatively conservative employment estimate of –0.06. Specifically, for a worker who would receive a wage increase due to the new minimum wage, the probability of losing his/her job equals 0.06 times the percentage increase in the wage. For example, a worker earning exactly $5.15 would have a wage increase of $6.21, (20.6 percent), and the probability of job loss for this worker would be 1.2 percent. Given the uncertainties of the exact job loss impacts, the same elasticity was used for both teenagers and adults. We did not model any reductions in hours-of-employment, since the literature fails to find any consistent effects.

Indirect Wage Increases, "Spillover" Effects

We assumed that employers would maintain some consistency in relative wage rates for workers earning just below or above the new minimum wage rates. While there is general agreement that these types of adjustments occur in the labor market, there is little research evidence detailing the exact range of adjustment.

We assumed that some adjustment would occur for workers with hourly wages within $1.00 of the new minimum wage, but this adjustment would be proportional and phase out to zero at the ends of the range. Specifically, we assumed that the higher minimum wages would affect workers with hourly wages between $4.15 and $5.15, and workers earning up to $1.00 higher than the new minimum wage. Chart D1 displays the assumed new wages when we modeled indirect wage increases.

Implementing the Indirect Effects

When TRIM3 randomly selects a worker to lose his/her job, the model changes all his/her monthly earnings to $0, and the model sets other ASEC variables related to employment in a manner consistent with being a non-worker. The model also increases earnings in each month by the ratio of the new wage to the current wage for workers that receive indirect wage increases (in the same manner described in Appendix B for simulating new state minimum wages).

EMPLOYMENT INCREASE DUE TO EITC EXPANSION

Assumptions

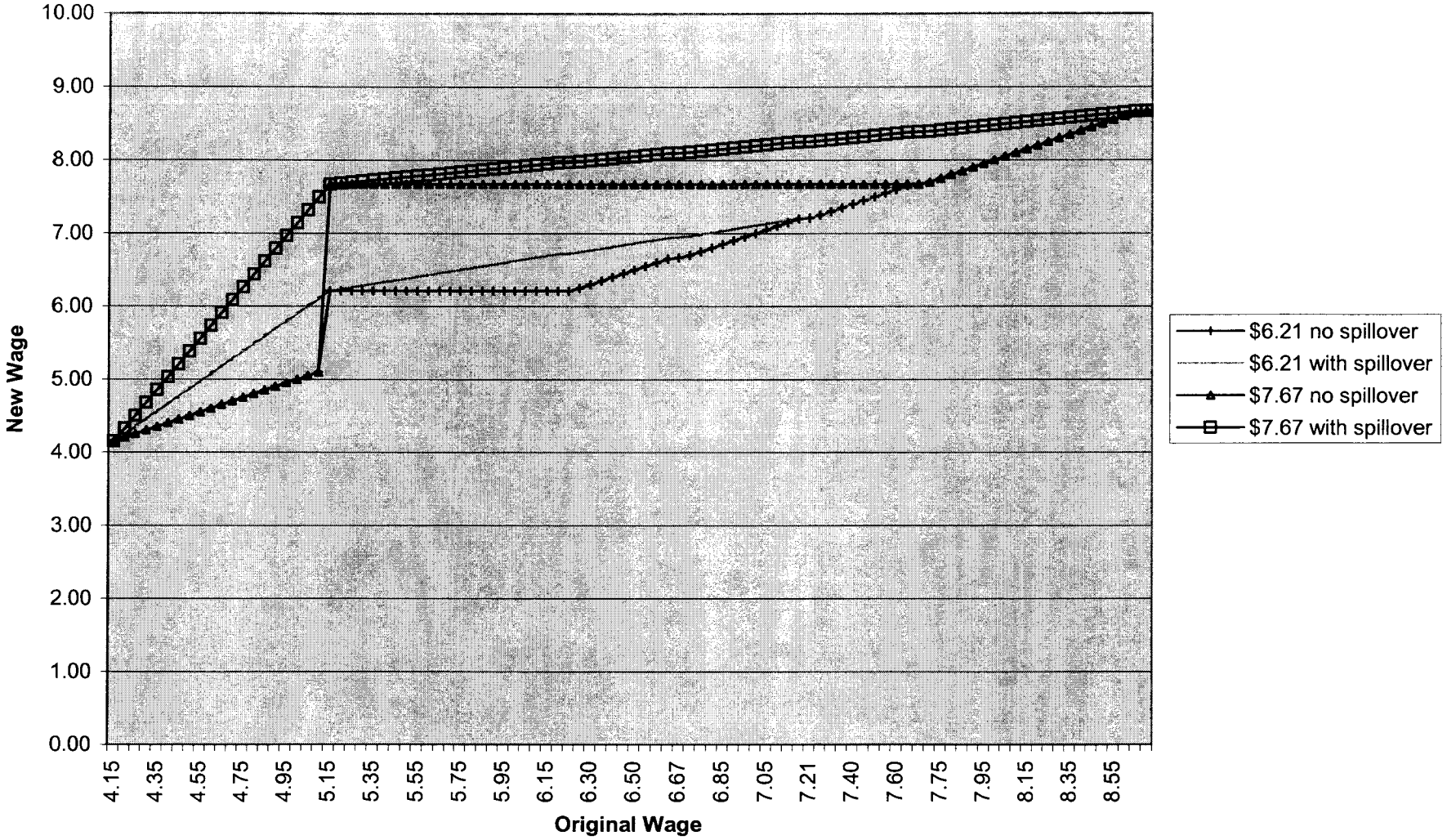
Numerous analysts have considered the impact of a higher EITC on parent's employment. Grogger's analysis (2003) produces results fairly consistent with Meyer and Rosenbaum (2001) and others, and provides elasticities. Grogger estimates that a $1,000 increase in the maximum EITC credit leads to a 3.6 percent increase in employment for female-headed families. Very little (negative) effect has been found on employment for secondary earners in two-parent couples (Eissa and Leibman 1996), and the literature finds very little positive effect on work for primary earners in two-parent couples. Some found effects in larger families (Hotz, Mullin and Scholz 2005). The literature does not document a consistent effect on hours of work.

We assumed that the effect of an increase in the EITC for childless unmarried adults would not be as large as for female-headed families, since effects for singles likely would be on the intensive rather than the extensive margin. We assume that the employment effect for single, childless adults would be approximately one-half that found for female-headed families. We assume a 1.8 percentage point increase in employment (one-half of 3.6) due to a $1,000 increase in credit for childless adults. We do not model an employment effect for two-earner childless couples. We also do not assume employment effects from the marriage penalty reduction, the extension of EITC eligibility to 18 to 24 year olds, or the expansion for larger families, due to the lack or research on which to base these estimates.

Implementation

Because the maximum credit for a childless worker would be somewhat less than $1,000, the estimates above suggest an increase in the employment rate of approximately 1.4 percentage points among childless unmarried adults. We assumed that the effect

Chart D1:
New Hourly wages with and w/out spillover



applies only to non-disabled adults and that a non-working individual currently receiving more in Unemployment Insurance (UI) or Workers Compensation (WC) than s/he would receive from working would not take a job. Given these restrictions to the group of potential new workers, we selected 14 percent of the group to achieve the desired increase in employment among unmarried childless non-elderly non-disabled adults. This resulted in 574,000 new workers, raising the employment rate among single childless non-disabled adults age 25-64 from 88.8 percent to 90.2 percent.

We assumed that new workers receive the minimum wage (either federal or state) for 38 weeks and 30 hours per week for a total of 1140 hours of work during the calendar year. This is consistent with the fact that most workers in poverty do not work full-time, full-year. (For all workers in the CY 2003 ASEC data in families in poverty, the mean hours of work during the year was 1172, with a median of 1040.) The model changed all ASEC variables related to employment to reflect the new employment status. Also, the model sets UI and WC to $0 for new workers receiving these benefits in the baseline.

EMPLOYMENT EFFECTS OF INCREASED CHILD CARE SUBSIDIES

Assumptions

Increased availability of child care subsidies could induce more parents of young children to enter the labor force. For instance, a non-working single mother currently relying on a combination of child support and public assistance or a married mother with a working spouse might each decide to enter the labor force if low-cost child care were available.

Unfortunately, the evidence of these effects is relatively new and thin (mostly because of data limitations). A summary of recent literature by Schaefer, Kreader, NCCP, Ann Collins and Abt Associates (2006) provides a wide range of estimates often with varying study groups. One study estimated that a $1,000 annual increase in subsidies resulted in an 11 percent increase in the probability of employment for low-income families (not on welfare), (Bainbridge, Meyers and Waldfogel, 2003). Another study estimated that a 50 cent per hour subsidy would increase employment for unmarried women by 8–9 percent and for married women by 5 percent. The 50 cent per hour subsidy would amount to about a $1000 per year increase in subsidies for a full time minimum wage worker. (Han and Waldfogel 2001). Houser and Dickert-Conlin (1998) estimated a very modest effect of child care subsidies on labor force participation – a subsidy equal to 50 percent of the price of care would increase labor force participation of single parents by 4.2 percent and secondary earners by 4.1 percent.

For this analysis, we used the lower end of the range of the estimated elasticities—8 percent if unmarried and 3 percent if married. The elasticities apply only to parents with children under age 13. Ideally we would be able to model variations in the

probability of employment by the age of the youngest child (e.g. under 6 and 7 to 13), but the available studies do not easily lend themselves to an age breakout.[21]

Implementation

To impose the assumed changes, employment must increase from 81 percent to 89 percent of unmarried adults with a child under age 13, and from 82 to 85 percent of married adults with a child under age 13. (We did not estimate any increased employment for adults with special-needs teenagers.) To choose the new workers, we assumed that the only adults who might begin working would be those who would gain eligibility for subsidies by doing so. Thus, we did not assume any increased employment for parents in families whose income (with the new wages) would exceed the eligibility thresholds; and we did not assume any increased employment for married individuals whose spouses were neither working at least 20 hours per week nor students.

The simulation produces 1.2 million new workers among married persons and 0.7 million new workers among unmarried persons. Similar to other simulations with positive employment effects, new workers work for 38 weeks, 30 hours per week, at the prevailing minimum wage (federal or state). (See the discussion of increased employment due to the EITC, above, for more details.) In the simulation with employment effects, all of the families with new workers (who by definition qualify for a subsidy) take the subsidy, increasing the number of families ever receiving the subsidy during the calendar year by 1.9 million relative to the simulation of expanded child care help without the additional employment.

[21] Baum (2002) estimates the effects of a 30 percent subsidy at one and two years after childbirth, but estimates apply to women with incomes at or below poverty in the year preceding childbirth. The percentage increase in employment was higher one year after childbirth, but not dramatically different from the estimate two years after childbirth.

Appendix E: Additional Simulation Results

This appendix provides additional detail on the effects of the simulated policies on poverty. Table E1 shows how each policy option changes the distribution of individuals by their family's income relative to the poverty threshold, using the thresholds described in Appendix C. The tables shows results when the thresholds are applied to four different definitions of family income—(a) cash income, (b) cash plus the value of food and housing benefits, (c) cash plus food and housing aid minus payroll and income taxes, plus refundable tax credits, (d) all of the above less out-of-pocket child care expenses. The last income definition is the primary definition used for this project; however, the other income definitions allow closer analysis of how each policy option affects families' economic well-being. Each column of the table shows how each policy option changes the number of families in a particular percent-of-poverty category with each income definition. Note that all changes are relative to the baseline (not to a prior policy option).

Tables E2, E3, and E4 are structured in an identical manner to table E1, but each of these tables focuses on a different age group. Table E2 shows the impacts of each policy option on the distribution of children by family income as a percentage of poverty, E3 shows results for non-elderly adults, and E4 shows TRIM3's estimates for persons age 65 and older.

Table E5 shows the impacts of each simulation on the poverty gap. Results are shown for the four definitions of income, for all families, and for three subsets of families: families with related children, families with elderly heads, and families without either related children or elderly heads.

Table E1: Change in people in poverty in 2003, in thousands [1]

ALL COLUMNS SHOW CHANGE FROM THE BASELINE

	Baseline, including state minimum wages	Fed. min wage deflated to $6.21		CAP Task Force min wage deflated to $7.67		EITC Expansions		Fully refundable child tax credit if >=21	CCDF expansion and CDCTC expansion		CAP Task Force min wage, EITC and CTC, CCDF and CDCTC		Increase Food Stamp Program partic. rate to 85%	Remove special rules for LPRs and refugees	Add 2 million housing vouchers
		Direct Effects Only	With job loss + indirect wage gain	Direct Effects Only	With job loss + indirect wage gain	No work effects	With new workers		No work effects	With new workers	Direct Effects Only	With all employ-ment effects			
Population	288,281														
Total Cash Income															
<50%	15,246	-83	-124	-336	-301	0	-274	0	8	-1,203	-328	-2,114	0	-123	0
50<100	27,507	-77	-241	-821	-1,231	0	145	0	-3	-361	-824	-1,662	0	24	0
Total Poor	42,753	*-160*	*-365*	*-1,157*	*-1,532*	*0*	*-129*	*0*	*5*	*-1,564*	*-1,152*	*-3,776*	*0*	*-99*	*0*
100<150	32,557	18	32	-345	-460	0	71	0	-6	401	-350	-135	0	63	0
150<200	30,791	2	-9	265	150	0	-22	0	0	873	265	1,507	0	-8	0
200<300	53,590	81	97	353	472	0	-1	0	2	292	353	940	0	0	0
300+	128,590	59	245	884	1,370	0	81	0	-1	-2	884	1,464	0	44	0
Plus Food and Housing Benefits															
<50%	9,656	-58	-55	-205	-143	0	-213	0	2	-872	-199	-1,272	-780	-143	-771
50<100	27,607	-129	-347	-977	-1,365	0	75	0	117	-856	-864	-2,520	-331	-5	-1,036
Total Poor	37,263	*-187*	*-402*	*-1,182*	*-1,508*	*0*	*-138*	*0*	*119*	*-1,728*	*-1,063*	*-3,792*	*-1,111*	*-148*	*-1,807*
100<150	36,629	51	88	-317	-521	0	70	0	-93	565	-420	-210	930	98	1,612
150<200	31,949	-7	-17	251	158	0	-12	0	-27	886	234	1,581	88	-6	190
200<300	53,762	82	84	357	524	0	3	0	2	279	357	985	79	12	5
300+	128,678	61	247	891	1,347	0	77	0	-1	-2	892	1,436	14	44	0
Less Federal Tax Plus EITC															
<50%	9,182	-28	-24	-179	-116	-278	-488	-1,041	0	-793	-1,401	-2,089	-687	-134	-705
50<100	24,932	-166	-391	-1,059	-1,536	-1,620	-1,564	-2,129	-28	-1,103	-4,321	-6,088	-688	-50	-1,036
Total Poor	34,114	*-194*	*-415*	*-1,238*	*-1,652*	*-1,898*	*-2,052*	*-3,170*	*-28*	*-1,896*	*-5,722*	*-8,177*	*-1,375*	*-184*	*-1,741*
100<150	42,805	61	134	-153	-498	-122	-61	2,348	-36	701	1,220	627	1,136	118	1,468
150<200	40,408	33	-22	206	426	1,249	1,257	675	-104	902	2,181	4,232	183	-17	270
200<300	62,732	51	184	622	764	449	495	94	159	283	1,346	1,984	52	71	13
300+	108,222	49	119	563	960	322	361	53	9	10	975	1,334	4	12	-10
Less Child Care Expenses															
<50%	9,429	-29	-9	-188	-116	-285	-497	-1,089	-236	-1,017	-1,635	-2,315	-709	-139	-734
50<100	25,909	-176	-466	-1,130	-1,575	-1,703	-1,658	-2,169	-763	-1,707	-5,116	-6,813	-684	-31	-1,043
Total Poor	35,338	*-205*	*-475*	*-1,318*	*-1,691*	*-1,988*	*-2,155*	*-3,258*	*-999*	*-2,724*	*-6,751*	*-9,128*	*-1,393*	*-170*	*-1,777*
100<150	43,615	68	214	87	-312	96	166	2,610	243	1,172	1,534	1,519	1,178	109	1,545
150<200	40,251	35	0	48	307	1,145	1,159	487	615	1,316	2,949	4,445	162	-23	229
200<300	62,724	42	95	567	712	463	507	121	109	205	1,258	1,810	41	71	12
300+	106,353	60	166	616	984	284	323	40	32	31	1,010	1,354	12	13	-9

Source: The TRIM3 microsimulation model

Notes:

Table E2: Change in children in poverty in 2003, in thousands [1]

ALL COLUMNS SHOW CHANGE FROM THE BASELINE

	Baseline, including state minimum wages	Fed. min wage deflated to $6.21		CAP Task Force min wage deflated to $7.67		EITC Expansions		Fully refundable child tax credit if >=21	CCDF expansion and CDCTC expansion		CAP Task Force min wage, EITC and CTC, CCDF and CDCTC		Increase Food Stamp Program partic. rate to 85%	Remove special rules for LPRs and refugees	Add 2 million housing vouchers
		Direct Effects Only	With job loss + indirect wage gain	Direct Effects Only	With job loss + indirect wage gain	No work effects	With new workers		No work effects	With new workers	Direct Effects Only	With all employ-ment effects			
Population	73,139														
Total Cash Income															
<50%	5,438	-41	-65	-140	-147	0	-28	0	5	-742	-134	-1,121	0	-23	-23
50<100	9,043	-15	-50	-265	-418	0	15	0	-2	-51	-267	-553	0	-13	-13
Total Poor	*14,481*	*-56*	*-115*	*-405*	*-565*	*0*	*-13*	*0*	*3*	*-793*	*-401*	*-1,674*	*0*	*-36*	*-36*
100<150	9,364	26	29	51	45	0	12	0	-4	210	47	246	0	32	32
150<200	8,686	-6	16	50	43	0	-6	0	0	461	50	739	0	-12	-12
200<300	14,012	30	29	138	240	0	-1	0	1	122	138	439	0	-3	-3
300+	26,596	6	41	166	237	0	8	0	0	0	166	250	0	19	19
Plus Food and Housing Benefits															
<50%	2,315	-29	-27	-82	-69	0	-6	0	0	-530	-78	-625	-241	-33	-33
50<100	9,829	-34	-99	-353	-529	0	-6	0	72	-372	-276	-1,107	-268	-22	-22
Total Poor	*12,144*	*-63*	*-126*	*-435*	*-598*	*0*	*-12*	*0*	*72*	*-902*	*-354*	*-1,732*	*-509*	*-55*	*-55*
100<150	11,466	31	44	64	47	0	9	0	-55	320	-5	247	444	48	48
150<200	8,858	-4	15	64	59	0	-4	0	-18	468	53	785	27	-15	-15
200<300	14,046	29	25	136	262	0	0	0	1	115	136	459	33	4	4
300+	26,625	7	42	171	230	0	7	0	0	-1	170	241	5	18	18
Less Federal Tax Plus EITC															
<50%	1,992	-9	2	-52	-25	-27	-30	-625	-1	-486	-673	-996	-190	-29	-29
50<100	7,802	-54	-108	-389	-551	-278	-292	-1,395	-10	-539	-1,816	-2,759	-424	-52	-52
Total Poor	*9,794*	*-63*	*-106*	*-441*	*-576*	*-305*	*-322*	*-2,020*	*-11*	*-1,025*	*-2,489*	*-3,755*	*-614*	*-81*	*-81*
100<150	13,747	25	16	22	-32	-100	-93	1,520	-10	427	1,204	988	534	64	64
150<200	11,728	16	14	134	222	312	317	426	-80	434	708	1,896	68	-5	-5
200<300	16,076	12	56	190	186	62	66	43	94	157	410	609	10	21	21
300+	21,794	10	20	95	200	31	32	31	7	7	167	262	2	1	1
Less Child Care Expenses															
<50%	2,136	-9	8	-54	-24	-30	-33	-654	-140	-619	-809	-1,129	-201	-32	-32
50<100	8,388	-61	-149	-431	-571	-331	-352	-1,441	-457	-911	-2,297	-3,195	-426	-42	-42
Total Poor	*10,524*	*-70*	*-141*	*-485*	*-595*	*-361*	*-385*	*-2,095*	*-597*	*-1,530*	*-3,106*	*-4,324*	*-627*	*-74*	*-74*
100<150	14,155	28	56	151	68	25	39	1,711	152	682	1,423	1,522	553	60	60
150<200	11,583	21	35	45	147	247	254	299	376	734	1,144	2,021	64	-7	-7
200<300	15,992	7	6	167	166	66	70	60	58	104	354	512	3	20	20
300+	20,885	14	44	122	214	23	22	25	11	10	185	269	7	1	1

Source: The TRIM3 microsimulation model

Notes:

Table E3: Change in persons 18-64 in poverty in 2003, in thousands [1]

ALL COLUMNS SHOW CHANGE FROM THE BASELINE

	Baseline, including state minimum wages	Fed. min wage deflated to $6.21		CAP Task Force min wage deflated to $7.67		EITC Expansions		Fully refundable child tax credit if >=21	CCDF expansion and CDCTC expansion		CAP Task Force min wage, EITC and CTC, CCDF and CDCTC		Increase Food Stamp Program partic. rate to 85%	Remove special rules for LPRs and refugees	Add 2 million housing vouchers
		Direct Effects Only	With job loss + indirect wage gain	Direct Effects Only	With job loss + indirect wage gain	No work effects	With new workers		No work effects	With new workers	Direct Effects Only	With all employ-ment effects			
Population	180,483														
Total Cash Income															
<50%	9,000	-42	-59	-193	-150	0	-244	0	3	-455	-191	-979	0	-72	23
50<100	14,217	-60	-194	-541	-804	0	142	0	-1	-305	-542	-1,084	0	24	13
Total Poor	*23,217*	*-102*	*-253*	*-734*	*-954*	*0*	*-102*	*0*	*2*	*-760*	*-733*	*-2,063*	*0*	*-48*	*36*
100<150	16,656	0	28	-351	-442	0	58	0	-2	198	-352	-308	0	26	-32
150<200	17,161	6	-42	208	120	0	-23	0	0	397	208	758	0	0	12
200<300	33,009	48	71	199	231	0	-1	0	1	166	199	492	0	3	3
300+	90,440	48	196	678	1,045	0	68	0	-1	-1	678	1,121	0	19	-19
Plus Food and Housing Benefits															
<50%	6,653	-29	-28	-120	-71	0	-207	0	2	-335	-118	-637	-425	-90	-640
50<100	14,149	-92	-245	-605	-823	0	96	0	45	-482	-569	-1,376	-98	16	-657
Total Poor	*20,802*	*-121*	*-273*	*-725*	*-894*	*0*	*-111*	*0*	*47*	*-817*	*-687*	*-2,013*	*-523*	*-74*	*-1,297*
100<150	18,442	27	60	-343	-514	0	60	0	-38	254	-377	-399	412	47	1,223
150<200	17,639	-6	-45	188	121	0	-16	0	-9	403	182	796	60	1	91
200<300	33,109	50	61	201	258	0	2	0	1	161	201	514	42	8	1
300+	90,491	50	197	679	1,029	0	65	0	-1	-1	681	1,102	9	18	-18
Less Federal Tax Plus EITC															
<50%	6,501	-19	-26	-125	-88	-246	-453	-413	1	-300	-720	-1,079	-381	-84	-578
50<100	13,498	-112	-282	-659	-974	-1,316	-1,230	-699	-16	-557	-2,432	-3,235	-305	-2	-623
Total Poor	*19,999*	*-131*	*-308*	*-784*	*-1,062*	*-1,562*	*-1,683*	*-1,112*	*-15*	*-857*	*-3,152*	*-4,314*	*-686*	*-86*	*-1,201*
100<150	22,205	42	125	-139	-411	-1	51	807	-27	277	50	-293	539	52	1,058
150<200	22,998	15	-37	80	222	934	929	234	-23	455	1,460	2,306	108	-11	162
200<300	39,609	40	132	421	562	361	404	50	64	123	909	1,325	38	38	-13
300+	75,672	34	88	422	689	268	299	21	1	2	733	976	1	7	-6
Less Child Care Expenses															
<50%	6,604	-20	-17	-132	-89	-250	-459	-432	-96	-391	-818	-1,172	-392	-86	-604
50<100	13,882	-115	-316	-689	-991	-1,345	-1,264	-697	-299	-785	-2,740	-3,518	-296	7	-640
Total Poor	*20,486*	*-135*	*-333*	*-821*	*-1,080*	*-1,595*	*-1,723*	*-1,129*	*-395*	*-1,176*	*-3,558*	*-4,690*	*-688*	*-79*	*-1,244*
100<150	22,600	46	165	-29	-327	92	147	881	89	489	145	62	558	47	1,139
150<200	22,979	11	-37	6	170	886	885	173	234	566	1,778	2,385	90	-15	123
200<300	39,694	36	95	398	540	377	418	60	52	101	887	1,255	34	39	-13
300+	74,724	42	110	446	697	240	273	15	20	20	748	988	6	8	-5

Source: The TRIM3 microsimulation model

Notes:

Table E4: Change in people age 65+ in poverty in 2003, in thousands [1]

ALL COLUMNS SHOW CHANGE FROM THE BASELINE

	Baseline, including state minimum wages	Fed. min wage deflated to $6.21		CAP Task Force min wage deflated to $7.67		EITC Expansions		Fully refundable child tax credit if >=21	CCDF expansion and CDCTC expansion		CAP Task Force min wage, EITC and CTC, CCDF and CDCTC		Increase Food Stamp Program partic. rate to 85%	Remove special rules for LPRs and refugees	Add 2 million housing vouchers
		Direct Effects Only	With job loss + indirect wage gain	Direct Effects Only	With job loss + indirect wage gain	No work effects	With new workers		No work effects	With new workers	Direct Effects Only	With all employ-ment effects			
Population	34,659														
Total Cash Income															
<50%	808	0	0	-3	-4	0	-2	0	0	-6	-3	-14	0	-28	0
50<100	4,247	-2	3	-15	-9	0	-12	0	0	-5	-15	-25	0	13	0
Total Poor	*5,055*	*-2*	*3*	*-18*	*-13*	*0*	*-14*	*0*	*0*	*-11*	*-18*	*-39*	*0*	*-15*	*0*
100<150	6,537	-8	-25	-45	-63	0	1	0	0	-7	-45	-73	0	5	0
150<200	4,944	2	17	7	-13	0	7	0	0	15	7	10	0	4	0
200<300	6,569	3	-3	16	1	0	1	0	0	4	16	9	0	0	0
300+	11,554	5	8	40	88	0	5	0	0	-1	40	93	0	6	0
Plus Food and Housing Benefits															
<50%	688	0	0	-3	-3	0	0	0	0	-7	-3	-10	-114	-20	-98
50<100	3,629	-3	-3	-19	-13	0	-15	0	0	-2	-19	-37	35	1	-357
Total Poor	*4,317*	*-3*	*-3*	*-22*	*-16*	*0*	*-15*	*0*	*0*	*-9*	*-22*	*-47*	*-79*	*-19*	*-455*
100<150	6,721	-7	-16	-38	-54	0	1	0	0	-9	-38	-58	74	3	341
150<200	5,452	3	13	-1	-22	0	8	0	0	15	-1	0	1	8	114
200<300	6,607	3	-2	20	4	0	1	0	0	3	20	12	4	0	0
300+	11,562	4	8	41	88	0	5	0	0	0	41	93	0	8	0
Less Federal Tax Plus EITC															
<50%	689	0	0	-2	-3	-5	-5	-3	0	-7	-8	-14	-116	-21	-98
50<100	3,632	0	-1	-11	-11	-26	-42	-35	-2	-7	-73	-94	41	4	-361
Total Poor	*4,321*	*0*	*-1*	*-13*	*-14*	*-31*	*-47*	*-38*	*-2*	*-14*	*-81*	*-108*	*-75*	*-17*	*-459*
100<150	6,853	-6	-7	-36	-55	-21	-19	21	1	-3	-34	-68	63	2	346
150<200	5,682	2	1	-8	-18	3	11	15	-1	13	13	30	7	-1	113
200<300	7,047	-1	-4	11	16	26	25	1	1	3	27	50	4	12	5
300+	10,756	5	11	46	71	23	30	1	1	1	75	96	1	4	-5
Less Child Care Expenses															
<50%	689	0	0	-2	-3	-5	-5	-3	0	-7	-8	-14	-116	-21	-98
50<100	3,639	0	-1	-10	-13	-27	-42	-31	-7	-11	-79	-100	38	4	-361
Total Poor	*4,328*	*0*	*-1*	*-12*	*-16*	*-32*	*-47*	*-34*	*-7*	*-18*	*-87*	*-114*	*-78*	*-17*	*-459*
100<150	6,860	-6	-7	-35	-53	-21	-20	18	2	1	-34	-65	67	2	346
150<200	5,689	3	2	-3	-10	12	20	15	5	16	27	39	8	-1	113
200<300	7,038	-1	-6	2	6	20	19	1	-1	0	17	43	4	12	5
300+	10,744	4	12	48	73	21	28	0	1	1	77	97	-1	4	-5

Source: The TRIM3 microsimulation model
Notes:

Table E5: Change in poverty gap, 2003, by type of family, income definition, and simulation [1] (millions of 2003 $)

ALL COLUMNS SHOW CHANGE FROM THE BASELINE

	Baseline, including state minimum wages	Fed. min wage deflated to $6.21		CAP Task Force min wage deflated to $7.67		EITC Expansions		Fully refundable child tax credit if >=21	CCDF expansion and CDCTC expansion		CAP Task Force min wage, EITC and CTC, CCDF and CDCTC		Increase Food Stamp Program partic. rate to 85%	Remove special rules for LPRs and refugees	Add 2 million housing vouchers
		Direct Effects Only	With job loss + indirect wage gain	Direct Effects Only	With job loss + indirect wage gain	No work effects	With new workers		No work effects	With new workers	Direct Effects Only	With all employ-ment effects			
ALL FAMILIES (incl 1-person)															
Total cash income	127,452	-462	-900	-3,208	-3,640	0	-1,720	0	16	-6,058	-3,188	-12,944	0	-770	0
Plus food & housing	98,015	-351	-642	-2,325	-2,514	0	-1,605	0	207	-4,420	-2,135	-9,593	-6,234	-987	-5,879
Less fed tax + EITC	92,696	-308	-603	-1,950	-1,947	-3,382	-5,160	-6,744	20	-4,603	-11,349	-17,477	-5,623	-928	-5,315
Less child care exp.	95,082	-325	-640	-2,066	-2,118	-3,460	-5,239	-7,143	-2,053	-6,510	-13,529	-19,532	-5,776	-946	-5,477
Families with related children															
Total cash income	59,412	-314	-644	-2,287	-2,867	0	-169	0	16	-6,058	-2,268	-10,227	0	-369	0
Plus food & housing	38,187	-222	-417	-1,533	-1,857	0	-126	0	197	-4,441	-1,353	-7,114	-3,334	-549	-3,474
Less fed tax + EITC	31,322	-167	-280	-1,035	-1,076	-551	-687	-6,745	9	-4,625	-7,848	-12,184	-2,649	-488	-2,902
Less child care exp.	33,708	-185	-317	-1,151	-1,247	-628	-766	-7,143	-2,064	-6,532	-10,028	-14,238	-2,802	-506	-3,063
Families with elderly heads															
Total cash income	12,625	-7	-15	-27	-42	0	-42	0	0	0	-27	-89	0	-177	0
Plus food & housing	10,495	-5	-13	-19	-33	0	-38	0	0	0	-19	-77	-1,006	-148	-1,289
Less fed tax + EITC	10,551	-6	-15	-25	-39	-54	-94	0	0	0	-70	-130	-1,009	-149	-1,292
Less child care exp.	10,551	-6	-15	-25	-39	-54	-94	0	0	0	-70	-130	-1,009	-149	-1,292
Families/individuals without related children or elderly heads															
Total cash income	55,415	-142	-240	-894	-732	0	-1,509	0	0	0	-894	-2,627	0	-224	0
Plus food & housing	49,332	-122	-211	-772	-623	0	-1,440	0	11	22	-762	-2,401	-1,894	-289	-1,115
Less fed tax + EITC	50,824	-135	-309	-891	-833	-2,778	-4,380	0	10	22	-3,432	-5,164	-1,965	-292	-1,123
Less child care exp.	50,824	-135	-309	-891	-833	-2,778	-4,380	0	10	22	-3,432	-5,164	-1,965	-292	-1,123

Source: The TRIM3 microsimulation model

Notes:

[1] See text and appendixes for detailed description of methods and policy options.