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Jeffrey Thompson and Heidi Garrett-Peltier   March 2012

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Introduction and summary

The importance of the Supplemental Nutrition Assistance Program in combating poverty in our country by alleviating hunger was driven home anew during the Great Recession of 2007–2009 and the subsequent tepid economic recovery. Participation in the program rose during the Great Recession as more families turned to the program to help make ends meet, as breadwinners lost their jobs or found new jobs paying much less, pushing them and their families into poverty. The program is credited with preventing a dramatic increase in hunger and food insecurity in spite of the historically high levels of unemployment and underemployment throughout the Great Recession.[1]

In 2009 the Supplemental Nutrition Assistance Program was responsible for lifting the income of 3.6 million Americans over the poverty line, providing an average of less than $300 in monthly food stamps to families in need.[2] In 2010 this program lifted 3.9 million Americans above poverty, including 1.7 million children,[3] as the Great Recession gave way to an initially very slow economic recovery.

The Supplemental Nutrition Assistance Program continues to help Americans struggling to make ends meet today. This program provided $72 billion worth of benefits to nearly 45 million Americans in fiscal year 2011 ending in October last year. Even though our economy is improving, unemployment and wage stagnation continue to make it difficult for millions of Americans to avoid hunger and food insecurity.

The program also plays an important role in sustaining demand for groceries provided by businesses in communities around the country. Our analysis presented in this paper finds that each $1 billion spent by recipients enables nearly 14,000 Americans to find or keep their jobs. That means approximately 1 million workers were employed last year because of this program.

With long-term unemployment still high, and with overall unemployment expected to drop only slowly for several more years, cutting the Supplemental Nutrition Assistance Program is likely to do significant harm to millions of families and workers. Yet that

is exactly what House Republicans proposed to do last year. In the so-called "Ryan budget plan," named after the principal author of the bill, House Budget Committee Chairman Paul Ryan (R-WI), he proposed a $127 billion cut to the program. A cut of that size would result in the loss of more than 174,000 jobs in the first year. This proposal to cut the program by roughly 18 percent fortunately was not enacted.

It is too soon to know if the FY 2013 House leadership budget proposal, which is due out sometime this month, will propose any cuts to this program. (The FY 2012 budget was largely set by the Budget Control Act of 2011, which prevented a shutdown of the federal government in August of last year.) If cuts are proposed, this study offers policymakers a tool to estimate the employment consequences that will result. We detail our findings in the main pages of this report, but briefly, our study estimates that:

• Each $1 billion reduction in the Supplemental Nutrition Assistance Program eliminates 13,718 jobs.
• A 10 percent reduction in the size of the Supplemental Nutrition Assistance Program would cause more than 96,000 job losses.
• These losses would be particularly strong in food-related industries, which would lose as many as 11,000 jobs under a 10 percent cut to the program.
• Job losses will likely have the greatest impact on younger workers, since they account for a disproportionate share of workers in food-related industries—nearly one-third of grocery employees are under 25, compared to just 14 percent of workers in all industries.

FIGURE 1
Job losses from cuts to the Supplemental Nutrition Assistance Program

Three estimates of direct, indirect, and induced job losses*

	Direct job losses	Indirect job losses	Induced job losses	Total jobs lost
Ryan plan budget cuts ($12.7 billion)	81,893	42,546	49,775	174,214
$1 billion in cuts to the Supplemental Nutrition Assistance Program	6,448	3,350	3,919	13,718
10 percent cut to the Supplemental Nutrition Assistance Program	45,138	23,451	27,435	96,023

*For definitions of these categories, please see page 9
Source: Authors' calculations based on IMPLAN 2008. See Methodology section in the Appendix for the description of the calculations.

In the pages that follow, we will first detail exactly how the Supplemental Nutrition Assistance Program works, then present the results of our findings.

How the Supplemental Nutrition Assistance Program works

Eligibility rules

The level of assistance provided by the Supplemental Nutrition Assistance Program depends on household size, income level, and regional cost-of-living calculations, with greater benefits for those in larger households, with lower incomes, and living in more expensive cities. The average per-recipient monthly supplemental nutrition assistance was $133 per month in 2010. The average household included 2.2 members, meaning that the average household benefit was $287.[4]

The overwhelming majority of households receiving this supplemental assistance (85 percent) have incomes below the federal poverty levels of $18,310 for a family of three in 2010, the last year for which complete data are available.[5] Another 11 percent of households in need of supplemental nutrition assistance have incomes of less than 130 percent of the poverty guidelines, or about $25,000 for a family of three.[6] A few households, accounting for 3.5 percent of recipients and 1 percent of total supplemental assistance in 2010, had incomes above the 130 percent of poverty eligibility rule. They qualified because they have an elderly or disabled household member with substantial medical expenses.[7]

Almost half of the households in need of supplemental nutrition assistance (49 percent) have children present, and more than 15 percent have a member who is elderly. Twenty percent of these households have a nonelderly disabled member. Even though most recipient households are poor or near poor, many include working members. Nearly one-third of households with supplemental nutrition assistance had a member who worked in 2010, and for most of those households, that breadwinner was the primary source of income.[8]
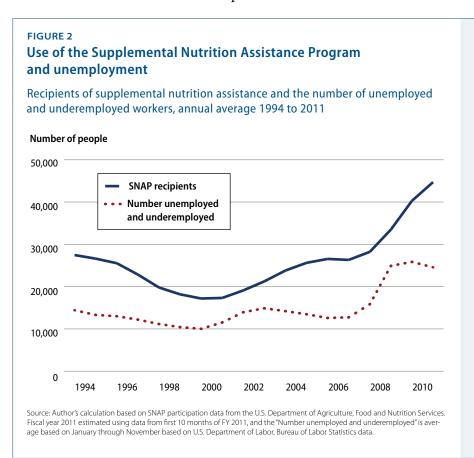
Recent supplemental nutrition assistance history

Following the onset of the Great Recession in late 2007, participation in the Supplemental Nutrition Assistance Program expanded. Following patterns from

previous recessions, as workers lost their jobs, more low-income households became eligible for and enrolled in the program. As the number of unemployed or under-employed workers nearly doubled, enrollment in the program also expanded. The number of recipients rose from 26 million individuals (12 million households) in 2007 to nearly 45 million (21.5 million households) in 2011.[9] (see Figure 2) The total amount of assistance rose from $30 billion to $72 billion over the same period.

Note that there is slight lag in the rate of decline in supple-mental nutrition assistance spending relative to improv-ing unemployment numbers because some new employed workers cannot afford to cover their household expenses on their initial salary, so they continue to rely on food assis-tance until they can afford to exit the program.

Two important pieces of fed-eral legislation also increased program benefits and eligi-bility. The 2008 Farm Bill signed into law by President George W. Bush (the Food, Conservation, and Energy Act of 2008) increased the mini-mum benefit l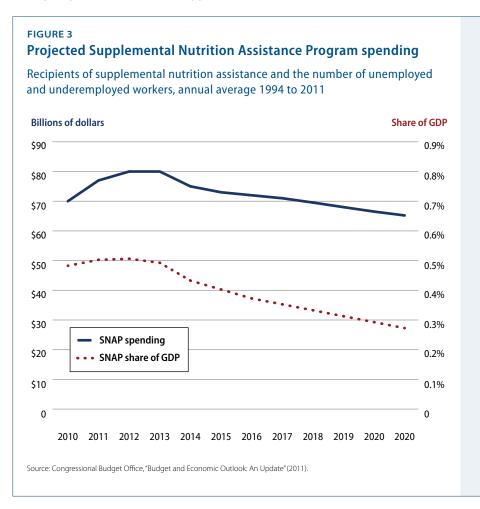evel for one- and two-person households effec-tive October 2008. Beginning then, the minimum benefit, which had been $10 per month, was raised to $14 and indexed to inflation.[10] Changes were also made to eligibility rules to make it less onerous to qualify for the program.

FIGURE 2

Use of the Supplemental Nutrition Assistance Program and unemployment

Recipients of supplemental nutrition assistance and the number of unemployed and underemployed workers, annual average 1994 to 2011

Number of people

Source: Author's calculation based on SNAP participation data from the U.S. Department of Agriculture, Food and Nutrition Services. Fiscal year 2011 estimated using data from first 10 months of FY 2011, and the "Number unemployed and underemployed" is aver-age based on January through November based on U.S. Department of Labor, Bureau of Labor Statistics data.

The American Recovery and Reinvestment Act of 2009, signed into law by President Obama, also included some changes to the program that were imple-mented in April 2009. The biggest change was a temporary benefit increase, which varied by household size. The benefit increase ranged from $24 for a single person

to $126 for a family of seven. Prior to the Recovery Act, a household of four with a monthly net income of $980, for example, qualified for $294 in supplemental nutrition assistance, and saw their assistance rise to $374.[11] This temporary increase was effectively phased out in early 2011 when the standard inflation-adjustment process "caught up" with the temporary boost. In total, the Supplemental Nutrition Assistance Program spending rose as each of these pieces of legislation was implemented. (see Figure 3)

According to the Congressional Budget Office projections in Figure 3, spending on the program will peak in FY 2012 at slightly more than 5 percent of gross domestic product and then decline to the pre-recession level of approximately 4 percent of GDP by 2015 and below 3 percent of GDP by 2021.

Projected Supplemental Nutrition Assistance Program spending

Recipients of supplemental nutrition assistance and the number of unemployed and underemployed workers, annual average 1994 to 2011

Source: Congressional Budget Office, "Budget and Economic Outlook: An Update" (2011).

Putting the program in recent economic perspective

Expanded supplemental nutrition assistance enrollment and benefits added $100 billion in additional spending into our economy between 2008 (the depths of the Great Recession) and 2011.[12] This additional $100 billion supported millions of low-income households, and prevented the losses of several hundred thousand jobs during each of the last four years.[13] In these early stages of economic recovery, these benefits continue to play an important role in both helping low-income families meet their basic needs and sustaining demand for the goods and services provided by businesses in communities around our country.

Today the size of the Supplemental Nutrition Assistance Program, with $72 billion in benefits and 45 million recipients in FY 2011, remains economically important, particularly for food-related industries. Nearly 90 percent of supplemental nutrition assistance benefits ($64 billion) is spent in grocery stores. Total spending by recipients of the assistance is equivalent to 7 percent of all spending by households with incomes under $30,000, and 14 percent of total grocery store sales (for 2010).[14]

The consequences of cutting the Supplemental Nutrition Assistance Program on jobs

In this section we present estimates of the employment consequences of a substantial reduction in the Supplemental Nutrition Assistance Program. We present three different scenarios. The first estimates the consequences of the $127 billion in cuts proposed by House Republicans last year under the Ryan budget plan but never enacted.

The next two scenarios presume the House leadership will propose similar cuts to the program in their FY 2013 budget proposal, so we offer policymakers two tools to estimate the impact on job losses due to such proposals. One tool estimates the level of jobs lost due to each $1 billion cut in supplemental nutrition assistance. The other tool estimates the job losses due to a 10 percent reduction in the current size of the program (equivalent to $7.2 billion).

All three scenarios assume the cuts are implemented immediately. We also assume that the reduction in supplemental nutrition assistance is accomplished by rolling back eligibility for the program, achieved by scaling back the 130-percent-of-poverty eligibility rule until the targeted 10-year budget savings are obtained. (See the Methodology appendix on page 19 for a complete breakdown of our calculations using the IMPLAN 2008 model.)

Our two tools enable policymakers to scale up or down to reflect different size cuts. To estimate job losses from a 20 percent cut, for example, one would double the estimates from the 10 percent cut scenario. The same can be said for an increase. If the program were to be increased in absolute dollars or an increase is expressed as a percentage, the estimates we provide can be multiplied by the proposed level of increase to generate estimates of the potential new employment resulting from any additional spending by recipients of supplemental nutrition assistance.

This section includes total job losses, and job losses in food-related industries, resulting from the reduced consumer spending following any cuts in supplemental nutrition assistance. The consequences are estimated for the entire U.S. economy and separately for each state. Further national-level results show the job losses for the dif-

ferent food-related sectors, including grocery stores, trucking and warehousing, and agriculture and food manufacturing. National-level results also show the net employment impact if any reduction in the Supplemental Nutrition Assistance Program is used to finance federal income tax cuts, as proposed by House Republicans.

The key assumptions that are relevant to the calculations include:

- Cuts to the program would result in reduced consumer spending in all sectors, not just food-related industries. The electronic benefit transfer card used by recipients to access supplemental nutrition assistance can only be used directly for food-related purchases, but the low-income recipients of this program adjust their overall purchases as they would in response to an increase or a decrease in overall income.

- Each dollar of reduced assistance results in a $1 reduction in consumer spending. The low-income households that receive this assistance have little or no savings and spend all of their income every year.

- Each dollar in federal income tax cuts—the likely proposed alternative use of funds dedicated to supplemental nutrition assistance in our net impact calculations—will result in less than $1 in increased consumer spending. Affluent households have considerable disposable income and tend not to consume all of any tax cut they get.

The results of our study

Our first scenario looks at the FY 2011 budget proposed by House Budget Committee Chairman Ryan as it relates to funding the Supplemental Nutrition Assistance Program. His plan would have cut the program by $127 billion over 10 years.[15] Details of the way Rep. Ryan and his colleagues in the House leadership would direct these cuts to be made were never fully detailed, including whether the cuts would be implemented through smaller benefits, reduced eligibility, or some combination of the two. Rep. Ryan indicated he would like to convert the program to a block grant starting in 2015, which would end its "automatic stabilizer" feature, but the timing of potential cuts was never officially unveiled.

For our analysis, we distribute the cuts evenly across a 10-year budget window: $127 billion in total cuts implies annual reductions of approximately $12.7 billion.

If the budget savings are postponed to the end of the 10-year timeframe, the effective size of the program reduction (the cuts relative to the overall annual budget) will be larger. In other words, if the total cuts of $127 billion are implemented only in the 2015-2021 timeframe, as opposed to beginning in 2012, the annual program reduction in each of the ensuing years would be more than 26 percent, or $18 billion per year on average.

A reduction on par with the proposed cuts in the Ryan plan would eliminate 174,000 jobs: approximately 82,000 direct job losses (from reduced employment at the businesses experiencing a direct decline in business following any cuts, such as the job lost by a checker at a grocery store that sees declining sales); more than 42,000 indirect job losses (at the establishments that provide goods and services to the businesses suffering the direct job losses, such as a cleaning service no longer hired by a struggling supermarket); and close to 50,000 induced job losses (eliminated as workers lose their jobs through the direct and indirect channels and in turn reduce their own spending, such as when newly unemployed grocery checkers and custodians cancel their vacations).

Our second scenario is based on the finding that every $1 billion reduction in supplemental nutrition assistance will result in the loss of nearly 14,000 jobs nationally. Any cuts will result in lower levels of consumer spending by former assistance recipients, which in turn will trigger the estimated job losses. Approximately half of those jobs (6,500) will be direct job losses. Another 3,400 jobs will be eliminated indirectly, and another 3,900 jobs will be "induced" job losses. In total, employment losses from cutting supplemental nutrition assistance by $1 billion would be nearly 14,000.[16] A larger reduction in the program—10 percent of its current size—would result in a loss of 96,000 jobs.

How these cuts would affect food-related industries

Because low-income households spend a relatively large portion of their income on food, as well as other necessities, food-related industries will suffer disproportionate job losses from any cut in spending by recipients of supplemental nutrition assistance.[17] The extent of the impact will also depend on the extent to which spending on some other household budget items by recipients of supplemental nutrition assistance are "fixed," at least in the short term, and thus not able to be reduced.[18] These "fixed" costs can include rent, electricity, heating oil, and water.

If we assume that no budget items are fixed—that all spending by recipients of assistance can be reduced in proportion to their share of the household budget—then food-related industries will account for 8 percent of total employment losses for every $1 billion in cuts to the Supplemental Nutrition Assistance Program. A 10 percent reduction in spending on the program would result in employment losses of 7,300 in food-related industries. Cuts to the program as proposed by the Ryan plan would have led to the loss of 13,289 jobs in this industry. (See Figure 4 for a complete breakdown of jobs losses in food-related industries.)

FIGURE 4

Job losses in food-related industries under three spending reduction scenarios

Assuming households receiving supplemental nutrition assistance can adjust their household budgets to buy more food

	Direct job losses	Indirect job losses	Induced job losses	Total jobs lost
Ryan plan proposed FY 2011 supplemental nutrition assistance cuts of $12.7 billion				
All food-related industries	5,222	4,270	3,797	13,289
Retail (including grocery stores)	2,546	100	1,058	3,704
Food manufacturing and agriculture	1,933	2,984	1,967	6,884
Trucking and warehousing	743	1,186	772	2,701
$1 billion cut in supplemental nutrition assistance				
All food-related industries	411	336	299	1,046
Retail (including grocery stores)	200	8	83	292
Food manufacturing and agriculture	152	235	155	542
Trucking and warehousing	59	93	61	213
10 percent cut in supplemental nutrition assistance				
All food-related industries	2,878	2,353	2,093	7,325
Retail (including grocery stores)	1,403	55	583	2,041
Food manufacturing and agriculture	1,066	1,645	1,084	3,795
Trucking and warehousing	410	653	425	1,489

Source: Authors' calculations based on IMPLAN 2008. See Methodology section in the Appendix for the description of the calculations.

Food-related job losses would be somewhat larger if we assume (in the short run at least) that some household budget items are effectively fixed. This is a reasonable assumption given that rents and energy costs have generally been increasing nationally.[19] Assuming that the housing and utility costs of low-income families

who need supplemental nutrition assistance are fixed, and concentrating the reduction in household spending from a 10 percent cut in supplemental nutrition assistance across all other household budget categories, our analysis points to a decline in employment in food-related industries of nearly 11,400.

Assuming some fixed budget costs, food-related industries would account for 12 percent of all job losses if the Supplemental Nutrition Assistance Program were cut by 10 percent. Nearly 3,200 of these lost jobs would be in grocery stores, 5,900 in food manufacturing and agriculture, and 2,300 in the trucking and warehousing sectors.

Assuming that some household budget costs are fixed in the short term, the cuts to supplemental nutrition assistance that would have happened under the Ryan plan in 2011 would have caused nearly 21,000 job losses in food-related sectors. (see Figure 5)

FIGURE 5
Job losses in food-related industries under three spending reduction scenarios

Assuming households receiving supplemental nutrition assistance cannot adjust their household budgets to buy more food
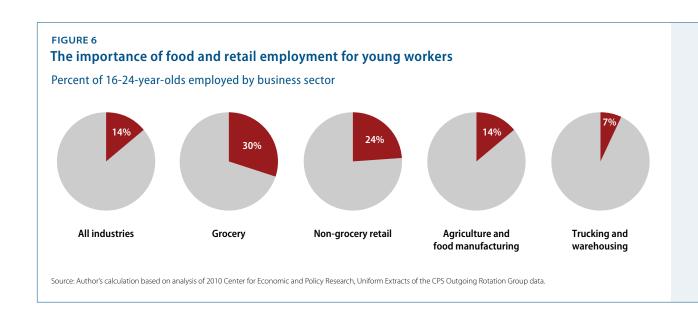
	Direct job losses	Indirect job losses	Induced job losses	Total jobs lost
Ryan plan proposed FY 2011 supplemental nutrition assistance cuts of $12.7 billion				
All food-related industries	8,095	6,618	5,885	20,598
Retail (including grocery stores)	3,946	155	1,640	5,741
Food manufacturing and agriculture	2,997	4,625	3,049	10,671
Trucking and warehousing	1,152	1,838	1,196	4,186
$1 billion cut in supplemental nutrition assistance				
All food-related industries	637	521	463	1,622
Retail (including grocery stores)	311	12	129	452
Food manufacturing and agriculture	236	364	240	840
Trucking and warehousing	91	145	94	330
10 percent cut in supplemental nutrition assistance				
All food-related industries	4,462	3,648	3,244	11,353
Retail (including grocery stores)	2,175	85	904	3,164
Food manufacturing and agriculture	1,652	2,549	1,680	5,882
Trucking and warehousing	635	1,013	659	2,307

Notes: "Fixed" expenditures include spending on shelter and utilities. Consumer Expenditure Survey data for 2009 show that households with incomes below $30,000 dedicate 35 percent of all expenditures to shelter and utilities.
Source: Authors' calculations based on IMPLAN 2008. See Methodology section in the Appendix for the description of the calculations.

Young workers in food-related industries

Many of the workers expected to lose their jobs following any cuts to the Supplemental Nutrition Assistance Program, particularly in grocery stores, are young. Nearly 14 percent of all workers in the United States are under 25, compared to 30 percent of workers in grocery stores. Other food-related sectors have fewer young workers, with only 7 percent of trucking and warehouse workers under 25. These workers would be particularly hard hit in the retail and food sectors of our economy. (see Figure 6)

The importance of food and retail employment for young workers

Percent of 16-24-year-olds employed by business sector

All industries	Grocery	Non-grocery retail	Agriculture and food manufacturing	Trucking and warehousing
14%	30%	24%	14%	7%

Source: Author's calculation based on analysis of 2010 Center for Economic and Policy Research, Uniform Extracts of the CPS Outgoing Rotation Group data.

The consequences of cutting supplemental nutrition assistance to pay for personal income tax cuts

Some proponents of cuts to the Supplemental Nutrition Assistance Program argue that by pairing the program reductions with cuts to federal income tax, an ensuing increase in consumer spending will sufficiently offset any negative economic consequences from the cuts to the program. Our analysis finds that any cuts to the Supplemental Nutrition Assistance Program are not completely offset in the jobs market by tax changes that potentially raise consumer spending. The net employment effect of the program cuts and the tax cuts will still be a significant decline in jobs.

In this section we assume that any cuts to the Supplemental Nutrition Assistance Program are offset by federal income tax cuts. The impact of federal income tax cuts on employment are difficult to model, depending in large part on the details of how they are implemented, whether through marginal rate reductions or increasing exemptions and deductions. To obtain simple estimates, we rely on CBO estimates of employment impacts from reductions in the federal personal income tax.[20]

Federal income taxes are disproportionately paid by higher-income households with substantial resources and higher levels of savings. Previous research finds that only a portion of income tax cuts are spent by these households.[21] The Congressional Budget Office's "Policies for Increasing Economic Growth and Employment in the Short-term" from February 2010 concludes that the consequences for employment from reducing the personal income tax range from one to six jobs gained per $1 million in overall costs to the federal budget due to lower tax revenue. Here we take the midpoint of that range, and assume cuts in the income tax result in 3.5 jobs gained per $1 million in uncollected tax revenue.[22]

With these assumptions, we can calculate the implied net employment consequences from our three scenarios for supplemental nutrition assistance cuts. As we detailed in the previous section of this paper, reduced spending from a $1 billion cut in the program would result in 13,700 fewer jobs due to reduced spending by recipients of supplemental nutrition assistance. Our analysis finds that a same-sized reduction in federal income taxes would offset only one-quarter of those job

losses by generating 3,500 jobs. The net impact of a $1 billion cut in supplemental nutrition assistance would thus be a 10,200-job decline in employment. Under a larger cut of 10 percent, net job loss rises to 71,500. The largest cuts considered in this paper, from the Ryan plan for FY 2011, would result in a net job losses of 130,000. (see Figure 7)

FIGURE 7

Net employment gains and losses from cuts used to finance federal income tax cuts

	$1 billion SNAP Reduction	10 percent SNAP Reduction	Ryan plan budget cuts ($12.7B)
Gross job losses from cuts to supplemental nutrition assistance	13,718	96,023	174,214
Gross job gains from federal income tax cuts	3,500	24,500	44,450
Net job losses	10,218	71,523	129,764

Source: Authors' calculations based on IMPLAN 2008. See Methodology section in the Appendix for the description of the calculations.

A nationwide snapshot of the consequences of cuts to the Supplemental Nutrition Assistance Program

State-by-state job losses due to cuts to the program

Supplemental nutrition assistance is an important source of food for low-income households in every state. If this spending is cut, then job losses from these cuts will be felt in every state. In this section we present only one of our scenarios for cuts to the program: a 10 percent overall reduction in supplemental nutrition assistance spending. The consequences of a cut at this level range from $5 million in reduced spending by low-income households in Wyoming to $645 million in reduced spending in California.[23] In 10 states the size of the cuts would exceed $200 million.

Because of this reduced spending on food, every state will experience employment losses. The states with the greatest number of job losses include California, Florida, and Texas, with losses of 9,000 in California and approximately 8,000 in Florida and Texas. Losses will be considerable even in some relatively small states. In Idaho, Maine, and West Virginia, for example, job losses would be approximately 550. Total job losses exceed 500 in 40 states.

In the coming weeks, the House Republicans will release their budget proposal. That budget proposal is likely to include a deep cut to the Supplemental Nutrition Assistance Program. Policymakers and advocates can calculate the impact of what any level of cut will mean in terms of spending on household food and resulting job losses using this state-by-state chart below, which shows the impact of a 10 percent cut. (See Figure 8 or go to our interactive map at http://interactives. americanprogress.org/projects/snap-cuts/ to see a more comprehensive view of the consequences of cutting supplemental nutrition assistance in all 50 states and the District of Columbia.) Once the details of the Republican proposal are known, an updated interactive map will be available.

FIGURE 8

Nationwide snapshot of the employment consequences of cutting supplemental nutrition assistance

State-by-state breakdown of job losses due to a 10 percent reduction in the Supplemental Nutrition Assistance Program

	All industries				Cuts to SNAP
	Direct job losses	Indirect job losses	Induced job losses	Total jobs lost	($ millions)
AK	105	39	58	203	18
AL	1,023	460	594	2,078	162
AR	471	199	269	939	70
AZ	1,084	612	677	2,373	162
CA	3,840	2,598	2,565	9,003	645
CO	474	259	293	1,026	74
CT	330	146	191	667	60
DC	110	38	59	207	24
DE	122	55	71	248	20
FL	3,520	2,256	2,304	8,080	500
GA	1,863	1,013	1,150	4,026	284
HI	263	137	160	559	41
IA	372	134	203	709	56
ID	262	125	155	542	35
IL	1,807	963	1,108	3,878	289
IN	896	376	510	1,782	134
KS	294	119	166	578	44
KY	820	366	476	1,662	123
LA	899	376	512	1,787	137
MA	758	372	453	1,583	124
MD	589	282	349	1,219	101
ME	274	129	161	564	36
MI	2,072	1,040	1,245	4,357	302
MN	462	231	277	971	68
MO	982	477	584	2,043	138
MS	588	233	330	1,151	90
MT	145	66	85	296	19
NC	1,608	800	964	3,372	229
ND	65	22	35	122	10

	All industries				Cuts to SNAP
	Direct job losses	Indirect job losses	Induced job losses	Total jobs lost	($ millions)
NE	175	73	99	347	25
NH	101	44	58	203	16
NJ	637	344	392	1,374	117
NM	406	166	229	801	62
NV	261	126	155	542	49
NY	2,850	1,300	1,663	5,812	514
OH	2,062	1,034	1,239	4,334	287
OK	609	280	356	1,245	91
OR	820	445	506	1,771	117
PA	1,730	849	1,032	3,611	258
RI	179	85	106	369	26
SC	878	426	522	1,826	130
SD	115	46	64	225	16
TN	1,330	696	810	2,836	198
TX	3,645	2,035	2,270	7,950	585
UT	293	168	184	644	39
VA	778	363	457	1,598	130
VT	93	40	53	186	13
WA	974	530	601	2,105	157
WI	783	375	464	1,622	110
WV	300	91	158	549	48
WY	25	8	13	47	5
Average	**885**	**460**	**538**	**1,883**	**137**
TOTAL US	**45,138**	**23,451**	**27,435**	**96,023**	**7,000**

Source: Authors' calculations. See Methodology section in the Appendix for the description of the calculations.

Conclusion

Cuts to the Supplemental Nutrition Assistance Program would not only leave millions of low-income families struggling but also would result in tens of thousands of job losses. Even cuts of 10 percent—half as large as proposed in the FY 2011 Ryan budget plan—would result in a loss of 96,000 jobs. All economic sectors would be affected but food-related industries would suffer disproportionately, losing nearly 11,400 jobs. At a time when poverty is rising and the country is struggling to add jobs, these are cuts we can scarcely afford.

Appendix

Methodology for employment estimates

Estimating employment using IMPLAN

The employment estimates in this report are derived from an input-output model, which allows us to observe relationships between different industries in the production of goods and services. We can also observe relationships between consumers of goods and services, including households and governments, and the various producing industries.

For our purposes specifically, the input-output modeling approach enables us to estimate the effects on employment resulting from an increase or decrease in household spending. For instance, we can estimate the number of jobs directly created by household spending on food, housing, and health care. We can also estimate the jobs that are indirectly created in other industries that supply goods and services to the food, housing, and health care industries, such as the employment created in financial services or construction. Overall, the input-output model allows us to estimate the economywide employment results of a change in spending.

For this report we use the IMPLAN 3.0 software and IMPLAN 2008 data set constructed by the Minnesota IMPLAN Group, Inc. This data provides 440-industry level detail and is based on the Department of Commerce's Bureau of Economic Analysis input-output tables. We developed our national estimates using the U.S. national dataset, and the estimates for 50 states plus the District of Columbia using the state-level data.

Using IMPLAN we estimate both the direct and indirect effects of changes in household spending. We then estimate the induced effects by multiplying the combined direct plus indirect effects by 40 percent. Induced effects refer to the additional employment that is created when workers in the direct and indirect

industries spend (or fail to spend) their paychecks and stimulate additional demand (or lower demand) in the economy. The methodology for using an induced multiplier of 40 percent is discussed in other PERI publications.[24]

Translating cuts to supplemental nutrition assistance into changes in consumer spending

Like other low-income and hardship-based transfers, supplemental nutrition assistance is assumed to be entirely spent by their recipients. These low-income recipients have little if any savings, and use all of the benefit to meet their basic needs. Program statistics show that 80 percent of the assistance is spent within two weeks of receipt, and 97 percent is spent within one month.[25]

Supplemental nutrition assistance can only be used to purchase food-related items, but the net addition of the assistance means that low-income families can spend their own income across a range of household budget categories. The addition of supplemental nutrition assistance enables low-income recipients to spend more on food-related items, but the net increase on food is considerably less than 100 percent of the net increase in household resources. Instead of rising by 100 percent of the size of the food assistance, the best research on this question finds that total household spending rises by 100 percent of the size of the benefit, but the share of total spending devoted to food remains the same.[26] Following this literature, we assume that each dollar reduction in assistance functions exactly like a dollar reduction in family income. The reduction is modeled here to be spread equally across all categories that are already in the consumption basket of low-income households.

Tax cuts, particularly those affecting high-income families, have a very different impact on household spending. Affluent households save considerable portions of their incomes, and in response to tax cuts are expected to save some of the net increase in after-tax income. According to the Survey of Consumer Finances, just 34 percent of low-income households had any savings in 2007, while 85 percent of high-income households had savings. The typical (median) net worth (assets less debts) for those with high incomes was more than $1.1 million. Data from the Consumer Expenditure Survey (2008) show that low-income households actually spend more than they make (after-tax income) while high-income households spend just 64 percent of their income on average.[27]

A number of studies have found that consumption does respond to tax changes, and that the response is smaller among higher-income households. The 2006 study "Household Expenditure and the Income Tax Rebates of 2001" published in the *American Economic Review* found that high-income households spent roughly half of their 2001 income tax rebates on nondurable goods.[28] And Jonathan Parker found in "The Reaction of Household Consumption to Predictable Changes in Social Security Taxes," also published in *American Economic Review*, that when the earnings of high-income households rose beyond the Social Security payroll tax cap ($72,600 in 1999), spending increased by one-half of the predictable increase in after-tax income.[29]

The 50 percent increase in spending by high-income households likely overstates the reduction in spending among households toward the top of the income distribution. The "high-income" category used by Johnson actually begins at $69,000, and the one used by Parker is at the Social Security cap, leaving both of these groups closer to "middle-income" than "high-income."

Acknowledging this evidence, the Congressional Budget Office has consistently modeled income tax cuts as a very weak mechanism for creating jobs. CBO estimates that each $1 million in income tax cuts will generate between one and six jobs.[30] We use the mean of this range (3.5 jobs) to estimate the jobs created by federal income tax cuts financed by reductions in SNAP benefits.

Methodology for national estimates

At the national level, we model the effects of changes in household spending that result from changes in the Supplemental Nutrition Assistance Program. IMPLAN's Social Accounting Matrix divides households into various income classes as shown in the table below. We derive the distribution of the changes in spending that would occur through either a change in taxes or a change in nutrition assistance, and then use IMPLAN to estimate the employment that would result from a $1 million change in household spending as distributed in the table below.

Household income category within IMPLAN	SNAP program change (Distribution of spending)
Less than $10,000	-
$10,000–$15,000	27.3%
$15,000–$25,000	47.7%
$25,000–$35,000	20.9%
$35,000–$50,000	4.1%
$50,000–$75,000	-
$75,000–$100,000	-
$100,000–$150,000	-
$150,000 and above	-

The household income distribution of low-income families who rely on supplemental nutrition assistance is calculated by the authors using 2009 Food Stamps Quality Control data provided by Mathematica Policy Research. The Food Stamps Quality Control data is an edited version of the data from monthly case reviews conducted by state agencies in charge of distributing federal supplemental nutrition assistance to assess the accuracy of eligibility determinations and assistance.[31]

The households that would be harmed by cuts in supplemental nutrition assistance, however, do not simply reflect the full income distribution of all current recipients. In this paper we model the impacts of cuts accomplished by restricting eligibility rules. IMPLAN categories are based on income group, but eligibility for assistance is based on income relative to poverty, which is also a function of household size. Cuts would be distributed across household income levels by identifying those beneficiary households with incomes between 100 percent and 130 percent of federal poverty guidelines. These marginal households are the ones that will be affected by program cuts achieved by restricting eligibility through the income rules. As the previous table shows, 27.3 percent of these marginal households have incomes between $10,000 and $15,000. Each $1 million cut in the program is assumed to be spread across low-income households following this distribution.

At the national level, we estimate the total effect on employment of a change in supplemental nutrition assistance, and we also isolate the effects on food-related sectors. As mentioned above, the IMPLAN data consists of 440 industries. We identify the food-related industries which are a subset of these 440 industries, as shown in the table below.

Agriculture, animal husbandry, hunting, and fishing	Oilseed farming, grain farming, vegetable and melon farming, fruit farming, tree nut farming, sugarcane and sugar beet farming, all other crop farming, cattle ranching and farming, dairy cattle and milk production, poultry and egg production, commercial fishing, commercial hunting and trapping, support activities for agriculture and forestry
Food manufacturing	Flour milling and malt manufacturing, wet corn milling, soybean and other oilseed processing, fats and oils refining and blending, breakfast cereal manufacturing, sugar cane mills and refining, beet sugar manufacturing, chocolate and confectionery manufacturing, confectionery manufacturing from purchased, nonchocolate confectionery manufacturing, frozen food manufacturing, fruit and vegetable canning, pickling, an drying, fluid milk and butter manufacturing, cheese manufacturing, dry, condensed, and evaporated dairy product, ice cream and frozen dessert manufacturing, animal (except poultry) slaughtering, poultry processing, seafood product preparation and packaging, bread and bakery product manufacturing, cookie, cracker, and pasta manufacturing, tortilla manufacturing, snack food manufacturing, coffee and tea manufacturing, flavoring syrup and concentrate manufacturing, seasoning and dressing manufacturing, all other food manufacturing, soft drink and ice manufacturing
Food retail	Retail stores—food and beverage
Food trucking	Transport by truck
Food warehousing	Warehousing and storage

Methodology for state estimates

For each of the 50 states plus the District of Columbia, we use state-specific data to estimate the employment effects of a change in the Supplemental Nutrition Assistance Program. We model the change in household spending according to the household income distribution presented in the table above. While we apply the same spending distribution in each state, the effects on household spending in each industry will differ between states, since the composition of spending is different from state to state. As an example, in all 50 states plus the District of Columbia, we assume that households earning between $10,000 and $15,000 will account for 27.3 percent of the change in spending that results from any cuts to the program. But this income bracket spends 10 percent of its income on private hospital services in California, and 7.5 percent of its income on this in New York.

At the state level we estimate the total effects of a change in household spending on employment, and we also isolate the effects on food-related industries. For these estimates we aggregate all of the food industries shown in the above table (including agriculture, food manufacturing, food retail, trucking, and warehousing).

Indirect and induced effects at the state level

The input-output model has three tiers of employment creation—direct, indirect, and induced. At the national level the direct and indirect effects are derived in

the model and we add 40 percent to account for the induced effect, as described above. At the state level, however, the indirect and induced effects are muted because there are out-of-state "leakages," meaning that some goods and services are sourced from out of state (lowering indirect effects) and some household spending goes to out-of-state purchases (lowering induced effects). Thus while direct effects at the state level are, on average, similar to national-level direct effects, the indirect and induced state-level effects are always lower.

In this study, however, we are analyzing the effects of a program change that would affect all 50 states plus the District of Columbia. Thus if household spending in one state, say Massachusetts, is reduced, and households in Massachusetts tend to buy goods and services in both their home state and in Connecticut, then the true effect of a program change is reduced spending and employment both in Massachusetts and in Connecticut.

To account for leakages between states, we calculate a category called "imputed indirect effects." We compare the indirect effects at the state level to the national indirect effects, and we adjust the state-level results so that the state with the highest indirect effect is equivalent to the national level indirect effect. We calculate this imputed indirect factor to be 1.62, and we multiply all of our state-level indirect results by this factor to account for leakages between states, which in reality will affect the outcome of any program change that affects all states within the nation. We maintain the induced effects at 40 percent of the direct plus indirect effects, which is the same as the national-level induced multiplier, for the same reason.

While state-level direct effects can be either lower or higher than the national direct effects, the state-level indirect and induced effects are lower in all cases. But when analyzing a federal program that will impact all states, the total employment impacts in each state should sum up to the total national estimates. To account for this discrepancy, we calculate the "job gap" between the national results and the aggregated state results, and we adjust each state's total jobs by the proportion of total program spending attributable to the state. This yields, for each state, a level of imputed employment that we combine with the model-driven estimates.

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Acknowledgements

Endnotes

1   Mark Nord and Mark Prell, Food Security Improved Following the 2009 ARRA Increase in SNAP Benefits (Department of Agriculture, 2010).

2   Ibid.

3   Food and Nutrition Service, Characteristics of Supplemental Nutrition Assistance Program Households, Fiscal Year 2010 (Department of Agriculture, 2011).

4   "SNAP Average Monthly Benefits per Person," available at http://www.fns.usda.gov/pd/18SNAPavg$PP.htm.

5   "Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2010 – Table 3-1. September 2011," available at http://www.fns.usda.gov/ora/menu/Published/snap/SNAPPartHH.htm.

6   Eligibility rules for the Supplemental Nutrition Assistance Program include several income-oriented tests. First, recipients of Temporary Assistance for Needy Families, Social Security Insurance, and General Assistance are deemed to be "categorically eligible" based on their qualifying for these other low-income programs. In recent years, the term "categorically eligible" has been broadened to include a range of noncash services financed through the Temporary Assistance for Needy Families program. Noncategorically eligible households must have incomes below 130 percent of the federal poverty threshold. Households with an elderly or disabled member may also qualify by having net income that is below 100 percent of poverty, where net excludes a range of health and medical expenses. For further details on SNAP eligibility, see: "Eligibility," available at http://www.fns.usda.gov/snap/applicant_recipients/eligibility.htm.

7   Ibid.

8   Ibid.

9   FY 2011 figures are estimates calculated by PERI based on the first 10 months of the fiscal year.

10 The 2008 Farm Bill changed the name of the program to SNAP and also implemented a number of additional eligibility changes, including increasing the standard deduction, eliminating the cap on the dependent care deduction, dropping most education and retirement accounts from "countable resources," and indexing resource eligibility limits to inflation. For details on these SNAP-related policy changes, see: Food and Nutrition Service, Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2009 (Department of Agriculture, 2010).

11 Mark Nord and Mark Prell, "Food Security of SNAP Recipients Improved Following the 2009 Stimulus Package," Amber Waves 9 (2) (2010). The increase was a constant dollar amount, by household size, so households previously receiving less than the maximum benefit received a larger benefit change in percentage terms.

12 The $100 billion estimate is calculated by summing the annual differences between spending in the years from 2008 to 2011 and the baseline year of 2007.

13 The IMPLAN model used in this study, described in detail below and in the appendix, shows that each $1 million in additional SNAP benefits creates nearly 14 jobs.

14 Grocery store sales are based on 2010 Census Bureau monthly retail sales data. Spending of low-income households is based on Bureau of Labor Statistics' Consumer Expenditure Survey data for 2010.

15 Dorothy Rosenbaum, "Ryan Budget Would Slash SNAP Funding by $127 Billion Over Ten Years: Low Income Households in All States Would Feel Sharp Effects" (Washington: Center on Budget and Policy Priorities, 2011). The $127 billion in SNAP reductions were budgeted over 2012 to 2021.

16 This estimated employment impact is relatively modest compared to other similar estimates. Per $1 million in SNAP cuts, these IMPLAN estimates indicate a gross decrease of 13.8 jobs including direct, indirect, and induced employment. In analyzing the employment impacts of unemployment insurance, the Congressional Budget Office (2011) identifies previous studies finding between 4 and 19 jobs created per $1 million, leaving our estimate only slightly higher the midpoint of the CBO range. In addition, economists at the USDA Economic Research Service have calculated employment impacts from SNAP spending (Hanson, 2010). The USDA estimates indicate that $1 million in SNAP spending generates between 10 and 18 FTE jobs, depending on the assumptions used in the model. Hanson indicates his "preferred" estimate is 11 FTE jobs per $1 million, the estimate which includes only Type 1 multipliers (direct and indirect effects only). Our preferred approach is somewhat larger because we include induced effects as well.

17 Households with incomes between $10,000 and $30,000 (roughly the same income grouping as is impacted by the scaling-back in SNAP eligibility) devote 10 percent of their purchases to food for home consumption, compared to just 6 percent among those with incomes of $70,000 and higher, see: Table 2. Income before taxes: Average annual expenditures and characteristics, Consumer Expenditure Survey, 2010," available at http://www.bls.gov/cex/2010/Standard/income.pdf.

18 In the short term, housing is a difficult budget item to reduce. Moving to find a cheaper apartment, for example, can be costly and time consuming. Over a longer period of time, though, it is reasonable to expect that households experiencing permanent reductions in their incomes will be able to find more affordable, lower quality and possibly less safe housing.

19 Federal Reserve Board, "The U.S. Housing Market: Current Conditions and Policy Considerations" (2012), p. 8.

20 Congressional Budget Office, "Budget and Economic Outlook: An Update" (2011).

21 Previous studies have found that households in the top half of the income distribution spend as little as half of a federal income tax cut. (See Thompson and Garrett-Peltier [2010] for a brief summary of this literature.)

22 Congressional Budget Office, "Policies for Increasing Economic Growth and Employment in the Short-term" (2010).

23 State-level portion of total SNAP cuts are calculated by multiplying the state share of total SNAP benefits in June 2011 by the size of the total cuts projected.

24 See, for example: Robert Pollin, Jeannette Wicks-Lim, and Heidi Garrett-Peltier, "Green Prosperity: How Clean Energy Policies Can Fight Poverty and Raise Living Standards in the United States" (Washington: Political Economy Research Institute, 2009), p. 33.

25 Center for Budget and Policy Priorities, "Policy Basics: Introduction to the Supplemental Nutrition Assistance Program (SNAP)" (2011).

26 Hilary Hoynes and Diane Whitmore Schanzenbach, "Consumption Responses to In-kind Transfers: Evidence from the Introduction of the Food Stamp Program," American Economic Journal: Applied Economics 1 (4) (2009): 109–139.

27 For more detail on the savings of affluent households and the relative benefits of temporary progressive taxes during a downturn, see: Christopher Carroll, "Why Do the Rich Save So Much." Working Paper 6549 (National Bureau of Economic Research, 1998); Karen Dynan, Jonathan Skinner, and Stephen Zeldes, "Do the Rich Save More?" Working Paper 7906 (National Bureau of Economic Research, 2000); Peter Orszag and Joseph Stiglitz, "Budget Cuts vs. Tax Increases at the State Level: Is One More Counter-Productive than the Other During a Recession?" (Washington: Center on Budget and Policy Priorities, 2001).

28 David Johnson, Jonathan Parker, and Nicholas Souleles, "Household Expenditure and the Income Tax Rebates of 2001," American Economic Review 96 (5) (2006): 1589–1610.

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31 Joshua Leftin and others, "Technical Documentation for the Fiscal Year 2009 SNAP QC Database and QC Minimodel: Final Report" (Washington: Mathematica Policy Research, 2010).

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