The Great Recession and the Social Safety Net

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### Abstract

The social safety net responded in significant and favorable ways during the Great Recession. Aggregate per capita expenditures grew significantly, with particularly strong growth in the SNAP, EITC, UI, and Medicaid programs. Distributionally, the increase in transfers was widely shared across demographic groups, including families with and without children, single-parent and two-parent families. Transfers grew as well among families with more employed members and with fewer employed members. However, the increase in transfer amounts was not strongly progressive across income classes within the low-income population, increasingly slightly more for those just below the poverty line and those just above it, compared to those at the bottom of the income distribution. This is mainly the result of the EITC program, which provides greater benefits to those with higher family earnings. The expansions of SNAP and UI benefitted those at the bottom of the income distribution to a greater extent. The Great Recession which began in 2008 was unprecedented, constituting the largest downturn since the Great Depression. From 2007 to 2009, real GDP fell by 3.1 percentage points, real personal income per capita fell by 8.3 percentage points, and the national unemployment rate rose from 4.6 percent to 9.3 percent. Many individuals dropped out of the labor force, reducing the employment-to-population ratio from 63.0 to 59.3, a level not seen since the early 1980s. Like the Great Depression but unlike the other recessions since World War II, the Great Recession was set off by a financial crisis which spread to other sectors of the economy. Although economic activity has already recovered at a more rapid pace than it did after 1929, employment growth has been particularly slow relative to recent recessions, with an employment level of 143 million in November, 2012, still below the 2007 monthly average of 146 million. Most forecasts predict further recovery but continuing at a slow pace.

This paper addresses the responsiveness of the U.S. social safety net to this major economic downturn. The social safety net, as defined here, includes both all major means-tested transfer programs (or "welfare" programs) and all major social insurance programs. It is important to realize that not all programs are intended for countercyclical income replacement and, consequently, the responsiveness of the safety net as a whole is not clear a priori. Among means-tested programs, some are aimed at the retired elderly or the young and older disabled, for example, whose incomes may not change a great deal during a recession. Among social insurance programs, only the Unemployment Insurance program is explicitly aimed at countercyclical income replacement; the other social insurance programs (Disability Insurance and retirement benefits, for example) are based on past earnings histories and not directly on current unemployment status. Nevertheless, many programs do serve families during a recession and, while it should not be expected that the social safety net should replace all lost income in a major recession like the one the U.S. is currently experiencing, naturally most observers would think that significant replacement should occur in response to such a sizable decline in economic activity.

This paper examines the performance of the social safety net during the Great Recession in four separate ways:

(1) How much did aggregate expenditures from all safety net programs rise? How did this compare to past recessions?

(2) What were the most important programs responsible for the aggregate expenditure increase that occurred?

(3) Since different programs serve different demographic groups, then, if the expenditure increase was different for different programs, did the increase in safety net expenditure favor certain demographic groups over others?

(4) Since different programs serve families at different income levels--for example, means-tested programs typically serve families with lower income than do social insurance programs--did the increase in expenditure primarily benefit the very poor or those at somewhat higher income levels, including those with income above the poverty line?

The first two questions concern the aggregate performance of the safety net, where performance is judged by the strength of its aggregate response. The third and fourth questions concern its distributional performance. For the third, performance is measured by how well the safety net responded by benefitting all demographic groups equally, or at least similarly, rather than disproportionately benefitting certain groups and possibly leaving out other groups entirely. For the fourth, most observers would prefer a safety net that furnishes greater support to those at lower income levels than at higher income levels to one that provides greater support to those at higher income levels. The performance of the safety net in that respect therefore can be judged by the progressivity of its response to the Recession.

A different but equally important measure of performance is how the safety net affected the poverty rate during the Great Recession. This paper does not address that issue. The official government poverty rate for the U.S. population rose from 12.5 percent in 2007 to 15 percent in 2011 (De Navas-Walt et al., 2008, 2012) and rose even more strongly for the non-elderly, for the poverty rate among the elderly fell over that period. Since, as we shall see, transfers rose between those years, the poverty rate would have risen by more in the absence of that increase. This question is left for future work.

There has been very little prior work specifically focusing on the issues addressed here concerning changes in the magnitude and distribution of transfers during the Recession. Ziliak (2011) totaled up total transfers through 2009 using CPS data and found sizable increases in

expenditures. Burtless and Gordon (2011) use aggregate statistics from administrative sources to estimate the increase in total federal government transfers, also finding a very large increase. Gabe and Whitaker (2012) focused specifically on UI, estimating the effect of federal stimulus legislation on the size of the program. Bitler and Hoynes (2010) conducted a state-level econometric analysis suggesting that cash transfers have become less responsive to recessions and in-kind programs have become more responsive.

Our results show that there was a major response of the safety net to the Recession. Aggregate spending in the main safety net programs rose from \$1.6 trillion to \$2.1 trillion from 2007 to 2010. Caseloads over all programs rose from 276 million recipients to 310 million over the same period.<sup>1</sup> The largest contributors to this increase were from the Unemployment Insurance program, the Earned Income Tax Credit, and the Supplemental Nutrition Assistance Program which, combined, accounted for about a third of the rise in spending. Large increases in Social Security retirement and disability benefits and in Medicare and Medicaid also occurred. In addition, the increase was widely distributed, going to all major demographic groups and family types in the population. The increase in transfers went to all income strata within the low income population, although slightly more in percentage terms to those with incomes just below the poverty line or just above it. While there are some programs which displayed a disappointingly small response, the safety net as a whole exhibited a relatively successful performance during the downturn.

<sup>&</sup>lt;sup>1</sup> The caseload totals represent the sum of recipients from all programs. However, many recipients receive multiple benefits. The number of individuals receiving any benefit is only a fraction of these totals.

#### I. The Structure of the Social Safety Net

It is useful to begin with a brief discussion of the social safety net, program by program, assessing whether each should be expected to provide countercyclical income support and to discuss the particular demographic groups and income levels each is aimed to serve.

The transfer programs which constitute the social safety net are generally distinguished by whether they are means-tested or social insurance in character. The former base eligibility on having low income and assets, although often other eligibility criteria related to age, family structure, or disability are present. Not all are entitlements but are, instead, limited by funds available. Benefit levels are usually higher for those with lower income, although some programs included in this category in this paper (e.g., the Earned Income Tax Credit) sometimes pay higher benefits to those with higher incomes. Social insurance programs, on the other hand, base eligibility on employment and earnings histories are more likely to be eligible and generally receive higher benefits when eligible. The distributional effect of social insurance programs because many of the most disadvantaged individuals in the country also have the lowest levels of employment and earnings and hence are ineligible for social insurance benefits.

<u>Means-Tested Programs</u>. Among means-tested transfer programs, the largest in terms of expenditure are the Medicaid program, the Earned Income Tax Credit (EITC), Supplemental Security Income (SSI), Subsidized Housing, and the Supplemental Nutrition Assistance Program (SNAP). The Medicaid program subsidizes medical care to a variety of different groups, especially low income mothers and children, on the one hand, and low income elderly and disabled, including long-term care, on the other. The EITC, which operates through the tax system and hence requires filing a tax return, provides a refundable credit to working families (mostly those with children) whose value increases with earnings up to a certain level and then, eventually, is reduced as earnings rise further. It therefore provides its maximum subsidy to those with a middle range of earnings (e.g., in the \$10,000 to \$20,000 range in 2012). Smaller credits are provided to those with earnings below and above this range. The SSI program provides cash benefits to individuals with low income and assets who are over 65, blind, or disabled, and benefits are reduced as income rises so that lower-income individuals receive greater benefits. Around 80 percent of the caseload falls into the disabled category. Subsidized housing programs offer either vouchers for private housing or subsidized rents for public housing, and the amount of the voucher is inversely related to income and the rent payment for public housing is positively related. Income and assets, as well as recipiency in other programs, are used for eligibility determination, but an important feature of housing programs is that they are not an entitlement and limit recipients to the funds available. The consequence is that waiting lists for subsidies are very long, often requiring years of waiting time. The SNAP program provides families with low income and assets a debit card for specified food purchases, the value of which is inversely related to income. The SNAP program is federally funded and is an entitlement program covering all eligibles, and is unrestricted in its demographic eligibility, covering all family types and even unrelated individuals. The Temporary Assistance to Needy Families (TANF) program provides cash assistance to children and their caregivers, mostly to those with only one biological parent present, which are mostly single mothers. Eligibility

requires low income and assets. TANF is not an entitlement program but is limited to the size of a block grant and state funds, and has work requirements and time limits as well.

The top panel in Table 1 shows expenditures, caseloads, and expenditures per recipient in these programs in 2007, just prior to the start of the Great Recession. Medicaid dominates the other programs in magnitude, with expenditures of \$327 billion and 56 million recipients. The EITC, SSI, Housing programs, and SNAP constitute a group with expenditures in the \$30 billion to \$48 billion range but with widely varying numbers of recipients, from only 5 million for Housing programs to 24-26 million for the EITC and SNAP. However, Housing Programs provide a large expenditure per recipient (\$646) while the EITC and SNAP provide much smaller values (\$96 to \$165). The other means-tested programs in the table are much smaller in terms of expenditure: TANF, School Food Programs, Head Start, and WIC.

Which of these programs should be expected to provide additional assistance during a recession? Only three of the programs should be expected to do so: Medicaid, SNAP, and, to a much lesser degree, the SSI program.<sup>1</sup> The reductions in income and assets that accompany a recession should make more families eligible for Medicaid and SNAP, which have very few other restrictions on eligibility. One should expect more elderly families to have incomes that fall enough to make them eligible for SSI as well, although the lower employment rates of the elderly limit this effect. There should be no particular expectation that more families will meet the SSI medical test for disability in a recession, however, and since those families constitute the bulk of the SSI caseload, a large SSI response should not necessarily be expected. Neither should a major response should be expected in housing programs or TANF, since those programs are not entitlements and are limited by the size of their financial allotments.<sup>2</sup> In addition, since

the work requirements in TANF were not relaxed during the recession, it should not be expected to aid the unemployed in a particularly strong way. The responsiveness of the EITC is unclear. On the one hand, as earnings fall during a recession, more families will become eligible for a positive EITC benefit or they may qualify for a higher level of benefit than they had been receiving previously. On the other hand, families whose workers lose employment altogether will lose all their EITC benefits. The net effect is ambiguous, a priori, and depends on the relative numbers of families falling into the two categories.

Aside from the EITC, benefits to recipients in means-tested programs should, for the most part, go to those with the lowest incomes and hence be distributionally favorable. The EITC, as just noted, provides its highest subsidies to those in the middle income ranges, not those at the bottom, so it is an exception. The TANF program is also ambiguous in this sense, for the work requirements in the program mean that, strictly speaking, those who are not working and have no earnings should eventually not receive benefits. Indeed, over time, transfers in the TANF program to those at the bottom of the income distribution have declined and transfers to those higher up in the distribution have increased (Ben-Shalom et al., 2012). As for demographic groups served, the Medicaid, TANF, housing, and EITC programs primarily benefit families with children and not childless individuals or families, and Medicaid and TANF primarily benefit single mother families. The SSI program provides benefits only to the elderly and disabled. SNAP is the only program with near-universal demographic eligibility. Aside from SNAP, therefore, one should not expect all demographic groups to benefit equally from an expansion of the safety net.

Social Insurance Programs. The largest social insurance programs are the Social Security

Old Age and Survivors' Insurance (OASI) program, Medicare, Social Security Disability Insurance (DI), Unemployment Insurance (UI), and Workers' Compensation. The OASI retirement program provides monthly cash benefits to individuals over age 62 and their spouses, survivors, and dependents and who have sufficient employment and earnings histories over their lifetime to qualify. The program is modestly progressive, providing proportionately higher benefits to those with lower lifetime earnings. Medicare provides subsidized medical care to those over 65 and to DI recipients, covering hospital expenses, prescription drugs, and physician charges. The DI program provides cash benefits to workers with sufficient employment and earnings histories who have experienced a severe mental or physical impairment that prevents them from working. At age 65, DI recipients are moved into the OASI system. The UI program provides cash benefits to those unemployed who have been involuntarily discharged and who have enough employment and earnings histories to qualify. Most states provide 26 weeks of benefits during normal periods but an additional 13 weeks or more are provided under the Extended Benefit program if the unemployment rate in the state rises above certain trigger levels. The Workers' Compensation (WC) program provides cash benefits for workers with less severe, usually temporary, work-based injuries.

As shown in Table 1, OASI and Medicare are by far the largest social insurance programs in terms of both expenditures and recipients, with \$431 to \$486 billion in expenditures and 40 to 44 million recipients. The DI program is also large, with \$99 billion in expenditures (larger than all means-tested programs except Medicaid) but only about 9 million recipients. In 2007, a year with a relatively low unemployment rate (4.6 percent), UI expenditures were \$34 billion and there were almost 8 million recipients. Expenditures in the WC program were larger (\$55 billion).

During a recession, the UI program is explicitly intended to provide relief to those who become unemployed and hence is the program most directly aimed at providing countercyclical assistance. Expenditures and caseloads in the OASI program are mostly affected if the retirement rate speeds up or declines in a recession, and there are motivations in both directions (see the chapter by Munnell and Rutledge, 2013, who find no change in retirement ages), and so it is unclear how it would respond. The Medicare program should be expected to respond relatively little, nor should there be any reason to expect eligibility for the DI program to increase since the number of those with a severe impairment is unlikely to change quickly over any short period of time. However, the application rate among those medically eligible for DI could change during a recession and this could affect expenditures and caseloads.

Distributionally, the UI program provides support to those with no current earnings but only to those with sufficiently high recent employment and earnings, which may exclude those at the very bottom of the skill distribution. UI also provides some support to families with significant incomes from sources other than the recipient's earnings. All demographic groups are served by UI in principle, although the fact that single mothers, for example, tend to have more spotty earnings and employment histories may result in lesser support for them. Medicare goes primarily to the elderly and disabled and to few other groups. The DI program goes only to the disabled, by definition, so benefits necessarily do not go to any non-disabled demographic groups. Thus, once again, we see that social insurance programs are distributionally non-neutral with respect to demographic group and are not guaranteed to go to those with the lowest incomes.

Recession-Specific Legislation. In addition to any normal countercyclical features of safety net programs, the government often enacts special legislation to increase benefits and reduce taxes in a recession over and above those that which would arise under the permanent rules of the programs. The Great Recession was no exception and, in fact, the additional benefits enacted in the legislation were considerably greater than in most past recessions. Beginning in June, 2008, Congress extended benefits for UI recipients and, in 2009, extended them further, ultimately allowing recipients to receive up to 99 weeks of benefits if in a particularly high-unemployment state. Congress also increased UI benefits, encouraged states to broaden eligibility, and reduced the federal income taxation of benefits. In addition, in early 2009, SNAP benefits were increased and states were encouraged to relax eligibility rules, EITC amounts were increased for larger families, supplements to state TANF block grants were provided, the Child Tax Credit was increased, and income and payroll tax rates were temporarily reduced for low income families. One-time additional payments to OASI and SSI recipients were allowed as well as some additional funds for housing programs. These measures were intended to stimulate the economy and to provide low income families with additional relief and constituted a major addition to the safety net during the Recession.

#### III. Aggregate Trends

Figure 1 shows trends in real expenditure per capita from 1990 to 2010 in all major means-tested transfer programs except Medicaid. As expected, some programs showed very little change during the Great Recession, the best example being the TANF program, which has experienced a long-term decline since it was reformed during the mid-1990s. The small increase in TANF spending after 2009 was probably a result of the extra funds provided by the stimulus legislation. There were small increases in spending as well in the SSI and housing programs but these were not large, primarily for the reasons noted above. However, there were major changes in expenditure in the SNAP and EITC programs. Expenditure in SNAP grew the fastest during the Recession, with aggregate expenditures growing from \$30 billion 2007 to \$65 billion in 2010 and real per capita spending increasing from \$136 to \$287, both representing more than a doubling in magnitude. SNAP expenditures had risen previously from 2000 to 2007 as a result of reforms in the program that simplified eligibility procedures, lengthened and simplified recertification, increased vehicle exemption levels, and from a series of outreach programs to encourage families to see if they were eligible. These reforms made access to the program much easier than it had been prior to that time and no doubt made it easier for new recipients to enter when their incomes fell during the Recession. However, the increases in the benefit amount and relaxation of eligibility requirements during the Recession noted previously also no doubt played a major role. Nevertheless, data on the caseloads and benefits for the SNAP program show that most of its increase in expenditure arose from a rise in recipiency rather than benefits per recipient.

Expenditure in the EITC program, while not rising at the same rate as for SNAP, also grew strongly, with aggregate expenditure rising from \$49 billion to \$59 billion and per capita real spending rising from \$217 to \$242, a 12 percent increase. This answers the question of whether there were more individuals whose earnings dropped to zero than individuals whose earnings dropped down into the positive or larger EITC range, for the latter appears to have

dominated the former. While the stimulus bill increasing benefits for families with three or more children no doubt played a role, it is unlikely to be responsible for a major part of the growth. In fact, expenditures per recipient actually declined during the Recession; the growth was entirely an increase in the number of recipients.

Medicaid spending (not shown) also grew rapidly during the Recession, with aggregate spending growing from \$327 billion in 2007 to \$401 billion in 2010 and with real per capita expenditure rising from \$1,459 to \$1,658, a 14 percent increase. As noted above, this program should be expected to exhibit countercyclical trends.

Figure 2 shows trends in the major social insurance programs, with all of them showing considerable growth during the Recession. As expected, both on the basis of normal countercyclical behavior as well as the large stimulus additions, the UI program grew the most. Aggregate spending between 2007 and 2010 increased from \$34 billion to \$142 billion and real per capita expenditure grew from \$150 to \$581, almost a four-fold increase. However, there was significant growth in OASI, Medicare, and DI as well, although the Medicare trend is mostly a continuation of long-term trends without a particular deviation during the Recession. Expenditure in the OASI and DI programs, while also trending upward over the long term, grew somewhat faster during the Recession. For the OASI program, this may have been partly the result of stimulus legislation providing for one-time increases in benefits. For the DI program, expenditure increases are best interpreted as an increase in the participation rate of medically eligible individuals, many of whom may have been employed but lost jobs during the downturn and applied for DI as a result. Thus, somewhat surprisingly, the social insurance programs other than UI also exhibited a fairly strong and noticeable positive response to the Recession. Indeed,

taken together, the increases in spending on social safety net programs, both means-tested and social insurance, constitute a significant and major response to the Recession.

Aggregate per capita spending over a longer-period, from 1970 to 2010, is shown in Appendix Figure A-1. The figure shows the trend in expenditure for the programs shown in Table 1 and hence does not include all safety net programs but does include the most important ones. Despite the ups and downs of several of the individual programs, total spending has exhibited a continuous upward trend over time. In addition, the growth of spending during the Great Recession dominated the growth during the recession of the early 1990s. But that recession had a peak annual unemployment rate of only 7.5 percent, considerably below the Great Recession peak annual rate of 9.6 percent. Interestingly, the early 1980s recession, which had a peak unemployment rate of 9.7 percent had only slightly less growth in real per capita spending—14 percent from 1979 to 1982 compared to 18 percent from 2007 to 2010. The greater growth in spending in the Great Recession did not, in fact, stem from UI—in fact, social insurance spending grew by the same percent in both recessions. UI growth in the Great Recession was vastly greater than that in the early 1980s recession—about 280 percent in the former compared to 100 percent in the latter—but Medicare growth was 26 percent in the early 1980s recession compared to 13 percent in the Great Recession. Because Medicare spends about four times the amount spent on UI, even at its 2010 peak, Medicare growth dominates UI growth. Instead, the big difference in the two recessions was in means-tested program spending, which grew by 17 percent in the Great Recession but only 2 percent in the early 1980s recession. Most of the major means-tested programs today were much smaller thirty years ago.

#### IV. Distribution

While the safety net program as a whole exhibited strong aggregate growth during the Recession, that does not mean that all demographic or income groups benefitted equally, especially given the uneven growth across different programs that serve different such groups. We may define different demographic groups defined by family structure: single-parent families, two-parent families, and childless families and individuals, for example. Single-parent families have, historically, been the major recipients of the TANF program yet that was one of the programs that responded very little to the recession. Consequently, it is possible that those families did not share in the increases. The EITC provides support primarily to families with children. Another demographic distinction is between the elderly and disabled, on the one hand, and the non-elderly, non-disabled, on the other. Over the last thirty years, increases in safety net expenditures have grown much more rapidly for the elderly and disabled than for the rest of the population (Ben-Shalom et al., 2012), and it is of interest to know if this relative growth continued into the Great Recession. The OASI and SSI programs primarily benefit these groups, for example. Another important distinction is between employed and non-employed families. While the bulk of increased UI spending should be expected to benefit primarily the latter, the growth in EITC spending should benefit primarily the former.

It is also of interest to know the incidence of expenditure growth across different portions of the income distribution. Many of the programs in the safety net, particularly the social insurance programs, benefit families above the poverty line as well as those below, and the former may have received a significant portion, or even the bulk, of the increased spending. The EITC should also primarily affect those who are not at the very bottom of the income distribution, but rather those slightly higher up. Even UI benefits, which are not directly based on family income, may be received disproportionately by those who are not at the very bottom of the income distribution. Over the last thirty years, most of the growth of safety net expenditures in the U.S. has gone to those families with incomes above 50 percent of the poverty line and, indeed, per-family expenditures for those below that level have actually fallen for some groups (Ben-Shalom et al., 2012). Whether this trend has been maintained into the Great Recession is an important policy question.

To conduct this investigation, we extend the work of Scholz et al. (2009), Moffitt and Scholz (2010), and Ben-Shalom et al. (2012) to the Great Recession. Using the 2004 panel of the Survey of Income and Program Participation (SIPP), these authors documented the degree to which families of different demographic and economic characteristics, and at different places in the income distribution, received safety net transfers. Their results for the year 2004 will constitute the pre-Recession benchmark for the purpose of this paper. The national unemployment in the months of the SIPP interviews used in their 2004 analysis averaged 5.7 percent. Here, we will use the 2008 SIPP panel, covering both the early period of the Great Recession, September 2008 to March 2009--when the unemployment rate averaged 7.3 percent but the safety net expansions arising from Congressional legislation had just barely begun--and a later period, September 2010 to March 2011--when the unemployment rate averaged 9.3 percent and the expansions were fully in place. We will call the first period "2008" and the second period "2010."

The SIPP is a nationally-representative household survey which periodically enlists a random sample of the U.S. nonstitutional population and follows them for several years. The survey interviews families every four months, collecting information on the demographic and economic characteristics of the family as of the interview date, as well as receipt of private income and public income for each of the four months prior to the interview. Because the survey is intended to measure program participation, a reasonably complete set of questions on receipt of different transfer programs is included. Using the data for the two periods in the 2008 panel noted above, we define, for each person in the SIPP, their "market" income in each of the four months prior to interview, constructed as the sum of their wage and salary income, selfemployment income, capital income (interest, dividends, and rent), and defined benefit pension income. We then average that market income over the past four months and sum across individuals in the family to obtain an average family amount. We use this income amount to classify families into different portions of the pre-tax, pre-transfer income distribution: income less than 50 percent of the official government poverty line for their family size; income greater than 50 percent but less than 100 percent of that poverty line; and income greater than 100 percent but less than 150 percent of that line.<sup>3</sup>

Post-transfer income is computed by adding together the reported receipt of each transfer program in each of the four months prior to interview, averaging over the four months and summing over all individuals in the family. The transfers we include are the EITC, Child Tax Credit, SSI, Housing subsidy amounts, SNAP, TANF, General Assistance, WIC, General Assistance, Veterans programs, Foster Child payments, OASI, DI, UI, and Workers' Compensation. We exclude Medicaid and Medicare because the families in the survey did not know the total amount being spent on them from these programs.<sup>4</sup>

For demographic groups, we define five groups: the elderly (reference person 62 and over), the disabled (receiving SSI-disability or DI), and three non-elderly non-disabled types--one-parent families with children under 18, two-parent married families with children under 18, and childless families and unrelated individuals.<sup>5</sup> For the disabled, we simply define the category as receiving disability-related incomes, for the SIPP has insufficient information to determine medical eligibility for disability programs. In addition, we defined two other mutually exclusive demographic groups in the non-elderly, non-disabled population defined by employment in the family: "employed" families are those with at least one adult who worked all of the four months prior to interview, and "nonemployed" families are those with no adult who worked all of those four months.

<u>Findings</u>. We first show trends in safety net expenditure for the different demographic groups and different portions of the income distribution. Figure 3 shows the real average monthly expenditure per family in each of the seven demographic groups in 2004, 2008, and 2010, with expenditure summed over all transfer programs and the average taken over all families in the population in each group, regardless of income. In 2004, expenditures fell into an expected pattern given what is known about relative incomes and program eligibility--higher for single-mother families (\$414) than for two-parent families (\$242) and childless families and individuals (\$101), and higher for the nonemployed (\$353) than for the employed (\$161).<sup>6</sup> The elderly and disabled received much higher amounts, however (\$1,245 and \$1,277, respectively),

mainly from the greater rate of receipt of OASI for the elderly and the relatively high benefit levels for DI and SSI.

Average per family total transfers rose for all groups in the early Recession (2008) and later Recession (2010). From 2004 to 2008, all non-elderly non-disabled groups experienced increases in transfers, ranging between 16 and 20 percent. The elderly received the smallest increase, 6 percent, and disabled families experienced a 10 percent increase. As shown in Appendix Table A-1, the increases for the non-elderly non-disabled population were primarily from increases in expenditure from three programs: SNAP, the EITC, and UI. All demographic groups benefitted from these programs, including the EITC and UI programs which are aimed at those either currently working or with work histories. Because the stimulus legislation had only barely begun in 2008, these increases can be interpreted as resulting mainly from the automatic countercyclical features of the programs.

From 2008 to 2010, transfers strongly rose again for all non-elderly non-disabled groups, increasing by from 16 to 20 percent for the different groups. The elderly and disabled experienced much smaller gains (5 percent or less). As shown in Appendix Table A-1, the sources of the gains for the non-elderly non-disabled families were different for different types of families. Single and two-parent families benefitted from all programs, while childless and non-employed families primarily benefitted from SNAP and UI increases and not the EITC. Families with at least one employed member also benefitted from all three programs. Interpreted as resulting from an increase in automatic countercyclical increases as well as the stimulus expansions, the benefits from the social safety net as a whole were remarkably widespread across all demographic groups; none was left out.

Figure 4 shows the pattern of average transfers received by place in the pre-tax pretransfer income distribution, focusing only on families with incomes less than 150 percent of the poverty line but averaging over all demographic groups. Average transfers increased for the three income groups in the low income population noted previously: those in deep poverty (pretax, pre-transfer income less than 50 percent of the poverty line), those in shallow poverty (50 percent to 100 percent of the poverty line), and those in near poverty (100 percent to 150 percent of the poverty line). Interestingly, average transfers to those in shallow poverty are not much smaller than those in deep poverty, even prior to the Recession, indicating that the U.S. transfer system is not strongly progressive within the poor population.<sup>7</sup> Independent of this, however, the increase in average transfers were approximately 8 percent from 2004 to 2008 and from 2008 to 2010 for those in deep poverty, while the corresponding rates of increase for those in shallow poverty were 9 percent and 10 percent, respectively; and those for families in near poverty were about 11 percent over both time intervals. Thus the Great Recession safety net response was not particularly progressive.

Table A-2 shows the contributions of SNAP, the EITC, and UI to the transfers for each income group. While those in deep poverty saw increased transfers from the SNAP program and from UI, they saw little increases from the EITC. That program's support mostly went to families in shallow poverty, who also receive the highest transfers from this program, with those in near poverty receiving quite a bit more than those in deep poverty as well.

A finer-grained examination of these distributional trends can be gleaned by focusing on both demographic groups and place in the income distribution jointly. Table 2 shows average expenditures broken out in this way and Table 3 shows the corresponding percent increases. All types of families, both demographic and in every income stratum, experienced some increases in transfers after 2004 and after 2008 in almost every case. However, the relative increases for those in shallow poverty versus those in deep poverty shows up differentially across demographic groups in the way that would be expected if the relative targets of the EITC, on the one hand, and SNAP and UI, on the other, are behind the patterns of transfers. Thus single-parent and two-parent families in shallow poverty benefit particularly from the EITC, while the childless do not, leading to a smaller differential by income for the latter group. Likewise, employed families benefit more from the EITC than nonemployed families, leading to particularly large increases in transfers for those in shallow poverty, especially from 2004 to 2008 (20 percent versus 6.8 percent for those in deep poverty). On the other hand, nonemployed families in deep poverty saw greater increases in transfers than those in shallow poverty, for this group receives little in EITC payments and mainly relies on UI and SNAP.

Tables A-3, A-4, and A-5 in the Appendix confirm these interpretations by showing transfers from the SNAP, the EITC, and UI for the different demographic and income groups. The largest transfers for any of the groups arise from the EITC for single-parent and two-parent families in shallow poverty. The next largest average transfers are those from the SNAP for single-parent and two-parent families in deep poverty. Employed families in shallow poverty and single-parent and two-parent families in near poverty also receive high levels of EITC transfers. The impact of stimulus legislation is undoubtedly partly behind the increases in UI transfers to nonemployed families from 2008 to 2010, and to childless individuals and families in poverty as well.

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These patterns are to a large degree expected, based on the structure of the programs that experienced the largest expansions during the Recession, both from automatic triggers of higher transfers as incomes fell and from the stimulus legislation, which further expanded the three main programs most responsible for the increase (SNAP, the EITC, and UI). The SNAP program directs greater support to families, the lower their income; the UI program, while eligibility partially directed to those somewhat higher in the permanent income distribution and not basing benefits or eligibility on family income per se, provided its greatest support during the Recession to those with the lowest family incomes; but the EITC, which provides greater assistance to those higher up the income distribution even in normal economic environments, did so as well during the Recession. On net, these structural features are responsible for the relatively even increases in transfer to all families below the poverty line, both those far below it as well as those with incomes closer to it.

### V. Work Disincentives

An important issue in assessing the response of the safety net in the Recession is whether the increase in transfer payments to the low income population was pushed up by work disincentives of those programs. To the extent that the increase in expenditure documented here was the result of voluntary reductions in work effort, those observed expenditure increases overstate the income replacement effect of the increases because pre-transfer income may have been reduced as a result of the programs. In theory, the effect of an increase in program generosity during a downturn has ambiguous effects on work disincentives. On the one hand, a more generous program would be expected to increase whatever disincentives were already present. On the other hand, a recession reduces job opportunities or, in the language of economic research, reduces the arrival rate of job offers (if not the offered wage itself), and this leads to a lower level of work even in the absence of any increase in work disincentives. Thus the work disincentives of a program during a recession could be larger or smaller than they are during more normal economic times.

For the most part, direct econometric evidence on work disincentives of transfer programs during a major recession are lacking. An exception is unemployment insurance, where at least two studies have been conducted. Rothstein (2011) studied the effects of differential UI extensions across states and over time to ascertain the effect of those extensions on lengths of unemployment spells. Rothstein found only a very small effect, and most of the effect arose from individuals' extending their unemployment spells rather than dropping out of the labor force. Schmieder et al. (2012) studied the German unemployment insurance system and estimated work disincentives in both recessions and normal economic periods, finding that work disincentives were smaller during recessions than during normal periods.

Aside from these two studies of UI programs, there have been no studies specifically examining work disincentives of other programs during downturns. The literature on work disincentives during normal periods is moderately large, however. For the two most important programs in the Recession, the SNAP program and the EITC, the literature shows them to have very small effects on work effort. Currie (2003) surveyed the literature on the effects of Food Stamps and found that most studies estimate the program to have only small or zero effects on labor supply, with the maximal estimate suggesting a one-hour-per-week disincentive. These small estimates are generally attributed to the small size of the benefit relative to income. In a more recent contribution, Hoynes and Schanzenbach (2012) found work disincentives of the Food Stamp program in its early years to be non-trivial for single mothers but small and insignificant for the population as a whole. For the EITC, the evidence suggests that the program has had a positive impact on the employment rates of single mothers but no effect on their hours of work if working, little or no effect on the labor supply of married men, and small negative effects on the employment rates and hours of work of married women of approximately 1 percent and 1-to-4 percent, respectively (Hotz and Scholz, 2003; Eissa and Hoynes, 2006). While studies of the effects of these programs in the Recession may show different effects, these studies provide little evidence that the expenditure increases reported here attributable to work disincentives to any significant degree.

### VI. Summary

The social safety net has responded in significant and favorable ways during the Great Recession. In aggregate, per capita expenditures have grown in total over all major programs, with particularly strong growth in the SNAP, EITC, UI, and Medicaid programs. Expenditures have also grown by smaller degrees for the DI, SSI, OASI, and Medicare programs. Distributionally, the increase in transfers was widely shared across multiple demographic groups, including families with and without children, single-parent and two-parent families, and, to a lesser degree, the elderly and the disabled. Transfers grew as well among families with more employed members and with fewer employed members. The increase in transfer amounts was, however, not strongly progressive across income classes within the low-income population. The percent increase in transfers was positive for all income groups but was slightly larger for those just below the poverty line and those just above it, compared to those at the bottom of the income distribution. This is mainly the result of the EITC program which, looked at as a distributional program rather than one to induce work incentives, is regressive within low income ranges and provides greater benefits to those with higher family earnings. The expansions of SNAP and UI benefitted those at the bottom of the income distribution to a greater extent.

The most important legislative extension in the Recession was that in the UI program, and the stimulus expansions have already begun to be withdrawn as the economy recovers. However, the EITC program should remain more or less in place as the recovery occurs, regardless of whether the benefit increase for larger families is maintained. The future of the SNAP program primarily depends on whether the eligibility requirements which were relaxed during the Recession and whether the SNAP reforms of the 2000s are maintained. The withdrawal of the UI benefits will primarily affect those at the bottom of the income distribution, according to the figures here, and any contraction in SNAP benefits will as well. The maintenance of the EITC more or less in its permanent structure will continue to benefit those with somewhat higher incomes. The progressivity of the safety net is therefore likely to decrease after the recovery.

# Endnotes

1. The school lunch and breakfast programs are two others, but are much smaller in expenditure.

2. The TANF program has a Contingency Fund but that was depleted early in the Recession. Congress added extra funds for some periods but those were eventually depleted as well.

3. The 2008 poverty line for a family of 4 was \$21,200.

4. See Burtless and Svaton (2010) for a study of including expenditures for those programs from a different data set.

5. While the three non-elderly, non-disabled family type groups are mutually exclusive, the elderly and disabled groups are allowed to be overlapping. The overlap is small because no elderly person can receive DI. The overlap can occur if someone in the family other than the reference person is less than 62 and receive DI, because SSI-disabled can be received by elderly families, and because DI and SSI recipients could have other family members receiving Social Security.

6. Average expenditures for single-mother families in 2004 were, however, lower than they were in 1993, however, because of welfare reforms in the mid-1990s (Ben-Shalom et al., 2012).

7. Ben-Shalom et al. (2012) show that this was not always the case, for transfers to those in deep poverty have been falling over time while those in shallow poverty have been rising.

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	Expenditures (millions)	Caseloads (thousands of recipients)	Monthly Expenditures per Recipient
Means Tested Programs			
Medicaid	326,951	56,821	480
EITC	48,540	24,584	165
SSI	41,205	7,360	467
Housing Aid	39,436	5,087	646
SNAP	30,373	26,316	96
TANF	11,624	4,138	234
School Food Programs	10,916	41,600	22
Head Start	6,889	908	632
WIC	5,409	8,285	54
Social Insurance Programs			
OASI	485,881	40,945	989
Medicare	431,443	44,010	816
DI	99,086	8,920	926
WC	55,195	NA	NA
UI	33,656	7,642	367

Table 1: Annual Expenditures and Caseloads in Social Insurance and Means-tested Programs, FY 2007

EITC (Earned Income Tax Credit), SSI (Supplemental Security Income), SNAP (Supplemental Nutrition Assistance Program), TANF (Temporary Assistance to Needy Families Program), WIC (Special Supplemental Nutrition Program for Women, Infants, and Children), OASI (Old-Age and Survivors Insurance), DI (Social Security Disability Insurance Program), WC (Workers' Compensation), UI (Unemployment Insurance)

Sources: Various administrative data sources.

				Between 50% and			Between 100% and		
	Une	der 50%	ó of	100% of Poverty			150% of Poverty		
Income Range	Po	verty L	ine	Line			Line		
Year	2004	2008	2010	2004	2008	2010	2004	2008	2010
Nonelderly, nondisabled									
Single-parent families	618	726	769	565	741	869	442	488	561
Two-parent families	530	688	775	559	757	827	414	522	607
Childless families and individuals	217	239	326	191	224	294	131	161	204
Employed families	345	370	464	384	480	575	271	323	376
Nonemployed families	369	433	506	528	575	581	292	<b></b> <sup>1</sup>	<b></b> <sup>1</sup>
Elderly families and individuals	1199	1295	1365	1373	1444	1517	1362	1449	1493
Disabled families and individuals	1219	1362	1459	1479	1613	1679	1429	1524	1605

Table O. Arranges	Correspondent Err	man ditana a lar	In come o Domoo	and Dama an	antia Cassa
Table 2: Average	Government Ex	penaltures by	income Range	and Demogr	apnic Group

Source: Author's calculations using 2004 wave 1, 2008 waves 2 and 8 SIPP.

Notes: Elderly families and individuals are those families and unrelated individuals headed by an individual age 62 or older. Disabled families and individuals are those with anyone in the family who received SSI or DI. The Nonelderly, nondisabled families and individuals are mutually exclusive from the Elderly and Disabled. Single-parent families are families with children under 18 in the household and with one parent present. Two-parent families are families with children under 18 in the household and two married parents present. Childless families and individuals are those without a child under 18 in the household and families are those with at least one person over 15 who worked in all four months prior to the interview. Nonemployed families are those without any such person. The single-parent, two-parent, and childless groups overlap with the employed and nonemployed groups; they are not mutually exclusive.

<sup>&</sup>lt;sup>1</sup> Sample sizes too low for reliability

			Retween <sup>4</sup>	50% and	Between 100% and		
	I Indon 5	COO/af			1500 of Device the		
	Under 5	0% 01	100% 01	Poverty	150% 01	Poverty	
Income Range	Poverty	y Line	Lir	ne	Liı	ne	
	2004-	2008-	2004-	2008-	2004-	2008-	
Year	2008	2010	2008	2010	2008	2010	
Nonelderly, nondisabled							
Single-parent families	14.8	5.6	23.7	14.7	9.3	13.0	
Two-parent families	22.9	11.2	26.2	8.4	20.8	14.0	
Childless families and							
individuals	9.0	26.9	14.7	24.0	18.4	21.1	
Employed families	6.7	20.2	20.1	16.4	16.1	14.3	
Nonemployed families	14.8	14.4	8.0	1.2	1	<b></b> <sup>1</sup>	
Elderly families and							
individuals	7.4	5.2	5.0	4.8	6.0	3.0	
<b>Disabled families and</b>							
individuals	10.5	6.6	8.3	4.0	6.3	5.0	

Table 3: Percent Change in Government Expenditures by Income Range and Demographic Group

Source: Author's calculations using 2004 wave 1, 2008 waves 2 and 8 SIPP.

Note: See Table 2 notes for definition of groups.

<sup>1</sup> Sample sizes too low for reliability



	Food Stamps				EITC		Unemployment		
Program							I	nsuranc	e
Year	2004	2008	2010	2004	2008	2010	2004	2008	2010
Nonelderly, nondisabled									
Single-parent families	68	97	130	97	107	120	26	35	44
Two-parent families	12	26	37	34	46	63	33	48	67
Childless families and individuals	5	8	15	4	6	7	30	40	61
Employed families	10	18	27	24	30	39	26	36	46
Nonemployed families	60	79	99	0	2	2	79	103	185
Elderly families and individuals	5	7	12	4	5	5	7	15	20
Disabled families and individuals	38	59	88	23	28	34	12	23	39

Table A-1: Average Government Expenditures on Different Programs by Year and Demographic Group

Source: Author's calculations using 2004 wave 1, 2008 waves 2 and 8 SIPP, and NBER TAXSIM.

	Fo	od Stan	nps		EITC		Unemployment			
Program							Insurance			
Income Range	2004	2008	2010	2004	2008	2010	2004	2008	2010	
Under 50% of Poverty										
Line	43	60	82	18	21	23	36	50	85	
Between 50% and 100% of										
Poverty Line	31	53	76	108	124	148	30	56	62	
Between 100% and 150%										
of Poverty Line	11	23	36	57	65	80	32	43	53	

Table A-2: Average Government Expenditures on Different Programs by Income Range and Year

Source: Author's calculations using 2004 wave 1, 2008 waves 2 and 8 SIPP, and NBER TAXSIM

	Under 50% of			Betw	een 509	% and	Between 100% and		
	Po	verty L	ine	100%	6 of Po	verty	150% of Poverty		
Income Range		-			Line	-		Line	-
Year	2004	2008	2010	2004	2008	2010	2004	2008	2010
Nonelderly, nondisabled									
Single-parent families	169	224	257	89	141	170	27	45	75
Two-parent families	113	158	195	51	109	149	16	45	58
Childless families and individuals	21	31	47	15	22	39	7	14	25
Employed families	70	88	121	45	74	103	14	29	44
Nonemployed families	70	93	112	11	15	25	4	17	33
Elderly families and individuals	9	13	23	4	8	14	3	4	11
Disabled families and individuals	52	78	109	34	65	107	14	37	62

Table A-3: Average Government Expenditures on Food Stamps by Income Range and Demographic Group

Source: Author's calculations using 2004 wave 1, 2008 waves 2 and 8 SIPP.

	Un	der 50%	6 of	Betw	een 509	% and	Between 100% and		
	Poverty Line			100% of Poverty			150% of Poverty		
Income Range		-			Line	-		Line	-
Year	2004	2008	2010	2004	2008	2010	2004	2008	2010
Nonelderly, nondisabled									
Single-parent families	65	77	71	276	307	348	186	193	217
Two-parent families	114	133	152	261	305	363	111	136	185
Childless families and individuals	8	9	9	36	39	52	10	17	21
Employed families	72	79	95	162	176	214	74	84	105
Nonemployed families	0	1	1	0	36	25	0	9	22
Elderly families and individuals	2	2	3	15	18	21	12	14	16
Disabled families and individuals	11	12	16	102	136	150	62	71	86

Table A-4: Average Government Expenditures on EITC by Income Range and Demographic Group

Source: Author's calculations using 2004 wave 1, 2008 waves 2 and 8 SIPP, and NBER TAXSIM.

	Under 50% of			Betw	een 509	% and	Between 100% and		
	Po	verty L	ine	100%	6 of Po	verty	150% of Poverty		
Income Range					Line			Line	
Year	2004	2008	2010	2004	2008	2010	2004	2008	2010
Nonelderly, nondisabled									
Single-parent families	47	71	95	26	41	21	20	19	19
Two-parent families	118	195	251	53	95	86	55	74	105
Childless families and individuals	80	89	160	47	79	108	38	54	60
Employed families	64	75	99	43	72	76	40	54	64
Nonemployed families	87	117	198	66	170	186	41	<b></b> <sup>1</sup>	<b></b> <sup>1</sup>
Elderly families and individuals	5	10	22	8	16	26	13	15	20
Disabled families and individuals	7	15	34	16	45	57	23	39	43

Table A-5: Average Government Expenditures on Unemployment Insurance by Income Range and Demographic Group

Source: Author's calculations using 2004 wave 1, 2008 waves 2 and 8 SIPP.

<sup>&</sup>lt;sup>1</sup> Sample size too low for reliability