

## Can Savings Help Overcome Income Instability?

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This brief explores the role that savings can play in alleviating material hardship for low-income households. We use longitudinal household data from the Survey of Income and Program Participation (SIPP) to examine whether modest liquid assets—sometimes referred to as precautionary or emergency savings, a rainy-day fund, or ready money—can protect against impending hardship for low-income households with non-elderly heads. Such households are at risk of adversity because their monthly incomes are low and highly variable. Compounding this inherent income instability is the likelihood of unanticipated spending needs.

The SIPP is well-designed for such research, as low-income households are oversampled and the members of each survey panel are followed for multiple years. Interviews are conducted at four-month intervals (or waves), and monthly household income is measured at each wave. Detailed information on liquid assets and other components of net worth is gathered approximately every year. Measures of economic well-being are also collected for each panel, indicating hardships related to health, housing, food, and other basic needs.

The analysis here focuses on the following research questions:

- Do lower-income households experience greater relative instability in their monthly incomes than households in higher income ranges?
- After controlling for income level, are households at greater risk of material hardship when their monthly income is more variable?
- When low-income households are able to maintain even a small amount of liquid assets, do they experience less material hardship?

Answers to these questions have important implications for policies to encourage unrestricted savings as a way to self-insure against economic shocks. Such shocks are a major form of economic risk—arguably, *the* major economic risk—to households already operating just above subsistence-level income. Programs and policies to help households manage these risks need to reflect a well-informed understanding of the underlying short-term dynamics of income, assets, and material well-being.

This brief focuses on savings in the form of unrestricted liquid assets. When low- and moderate-income households have wealth, it is often in home equity, retirement savings, or other assets that cannot readily be liquidated to meet short-term needs. Avoiding hardship, however, requires the capacity to replace a sudden income drop or cover an emergency expense without delay.

### Economic Shocks

Even in a strong economy, households across the economic spectrum are subject to unexpected changes in economic needs or resources, commonly referred to as economic shocks. While these changes can be favorable or unfavorable, this analysis focuses on involuntary adverse events that pose a risk of hardship. Events affecting income can take a number of forms and can be categorized generally in three groups:

- reduced earnings—for example, loss of job, reduction in hours, or exit from the household of an income-earning member (through separation, divorce, or incarceration);
- reduced public income support—for example, loss of eligibility or reduction in benefits, as

through expiration of time-limited benefits, inadvertent noncompliance with procedural requirements, or a change in program eligibility criteria; and

- reduced private income support—for example, loss of child support, informal child care, or other financial support from extended family, friends, or charitable organizations.

Expense shocks can take the following forms:

- health status—for example, increased expenses associated with a reduction in employer-provided health coverage, sudden illness or accidental injury, or onset of a mental health condition;
- living arrangements and social networks—for example, unexpected entry into the household of a nonworking partner or dependent, or increased burden of support to one's extended family or friends; and
- major consumer expenses—for example, home or automobile repairs, replacement of appliances, or moving costs.

In the economic life of any given household, such events may not be disruptive if they are short-lived, widely spaced in time, or small in relation to one's economic resources. For those in the middle and upper ranges of the income distribution, these events may only temporarily impede the growth of income or net worth. To cope with minor or isolated shocks, households may temporarily reduce discretionary spending or draw down net worth, by liquidating assets or incurring additional debt. The effects may be dampened by various forms of insurance coverage, and the status quo can be restored without hardship.<sup>1</sup>

However, for those in lower income ranges—the poor and the near-poor, with little available wealth or uncertain access to additional public or private support—vulnerability to unexpected changes in income or expenses is especially pronounced. To begin with, such adverse events are more likely to occur among those with limited resources. A number of factors are at work. One is the nature of lower-wage work, with a much greater reliance on temporary or seasonal employment and much greater susceptibility to layoffs or reductions in hours. A second is the locationally related risks associated with lower-income neighborhoods and communities, including crime and environmental health hazards (e.g., lead paint or communicable respiratory ailments). A third is the

higher rate of unexpected home repairs and breakdown of vehicles, appliances, and other consumer durables, reflecting the higher age or lower quality and reliability of the homes and consumer products that are affordable to lower-income buyers. A fourth is the lack of insurance, including health, life, disability, unemployment, and automobile coverage.

Moreover, when shocks occur for low-income families, these events have greater immediate potential for material hardship, as these families are already operating with small margins above a subsistence level of consumption. With little that is discretionary in their current spending, these families are less able to reduce spending without some material deprivation. This limits the readily available resources (and time allowed) to respond to an adverse event.

## Review of Relevant Literature

Recent analyses by the Urban Institute of data from the Survey of Income and Program Participation indicate that American households at all income levels, but especially those with low incomes, experience substantial within-year income variability. Shocks to either income or expenses are threats to the well-being of low-income families, but recent evidence indicates that households with liquid assets (enough to make them no longer asset-poor) can alleviate the risk of hardship.

### Monthly Income Variability

In an analysis of SIPP data pooled across multiple panels, Acs, Loprest, and Nichols (2009) examine within-year income changes among individuals age 25 to 61 in families with children. They focus on how often individuals experience substantial income drops—defined as a decline of 50 percent or more within a year—by income quintile. Among those with such declines, Acs and coauthors consider whether the individual's monthly income subsequently recovers to its pre-drop level within a year and whether the drop is preceded by earlier income fluctuation. Income changes are measured as changes in average monthly income from one four-month wave to another.

Their findings (based on a pooled analysis of the 1996, 2001, and 2004 SIPP panels) are as follows:

- The highest incidence of substantial income declines is among those in the lowest income quintile: 20 percent experience such drops.

- Among those in the lowest quintile who experience substantial drops, 16 percent make no recovery within a year (i.e., their income remains at less than half of its pre-drop level for at least one year). Another 33 percent make an incomplete recovery (to less than 100 percent of the pre-drop level), while 51 percent make a full recovery (to 100 percent or more of the pre-drop level).
- For more than a third (37 percent) of those with substantial income drops in the lowest quintile, the decline is preceded by a substantial income increase from its level two waves before the drop.

Acs and colleagues note that, for some individuals with substantial income declines, the drop may thus reflect a return to their earlier normal income level following a temporary upward spike. For others, however, “the observed drop following a rapid rise in income can signify very volatile income that makes it difficult for a family to save and plan. It can also represent a ‘false start’ in their attempts to move up the income ladder” (Acs et al. 2009, 8).

### *The Role of Savings in Averting Hardship*

Recent evidence comes from analysis by McKernan, Ratcliffe, and Vinopal (2009), using the 1996 and 2001 SIPP panels. Dividing households into three income groups, this study estimates the percentage of households that experience general deprivation in the year after an involuntary job loss, a health-related work limitation, or a parent leaving the family (through death or divorce).<sup>2</sup> Each household is classified as “liquid-asset poor” or “not liquid-asset poor” based on whether it has enough liquid assets to fund poverty-level consumption for three or more months.

Having liquid assets above the level of asset poverty is associated with a significantly lower rate of general deprivation following all three types of adverse events, for those in the bottom and middle thirds of the income distribution. For those in the bottom third, having higher savings reduces the probability of general deprivation from 51 to 28 percent for an involuntary job loss, from 48 to 31 percent for a health-related work limitation, and from 40 to 16 percent for a parent leaving the family. According to multivariate analysis, households that are not liquid-asset poor are 14 percentage points less likely to suffer general deprivation following an adverse event.

## Measures and Methods

This brief builds upon the McKernan and colleagues study but is distinct in the following respects:

- This analysis explores the implications of monthly income volatility regardless of precipitating events versus the consequences of specific adverse events that affect income and well-being. A low-income household’s hardship often results from multiple related events occurring in sequence (e.g., a mother’s job loss resulting from a child’s serious illness). This study focuses more generally on income variability and its relationship to subsequent hardship, recognizing that effective policy action requires understanding the circumstances that cause income fluctuations.
- This analysis looks at household well-being as measured by specific forms of material hardship versus a general indicator of economic deprivation (reflecting the occurrence of two or more specific forms). This enables one to consider whether savings can mitigate certain hardships that may differ in type (e.g., insecurity in housing versus health versus food) or severity (e.g., missing a utility payment versus having a utility shut off).
- This analysis examines the effects on hardship of limited asset holdings (\$1–\$1,999 of liquid assets, regardless of household size) versus the effects of not being liquid-asset-poor (more than \$4,263 in liquid assets for a family of four). The former is a much more attainable level of savings. Thus, if such holdings can be shown to influence hardship, it is much stronger evidence by which to advocate for measures to promote emergency savings.
- This analysis focuses on a lower segment of the income distribution: those in the lowest income quintile, versus those in the lowest third of the income distribution. If savings can affect hardship among the lowest quintile, then the evidence is more compelling for establishing programs to promote emergency savings among the low-income population, instead of low- and middle-income clientele.

Our analysis uses data on four categories of variables: material hardship, income level and variability, assets, and demographic characteristics.

*Material hardship* is measured through eight binary outcomes indicating whether, at any time over the past 12 months (the interval corresponding to waves 6 through 8), the household was

unable to meet its basic living expenses, missed a utility payment, had a utility turned off, had its phone disconnected, missed a rent or mortgage payment, did not go to a doctor because it lacked funds, did not go to a dentist because it lacked funds, or experienced food insecurity.<sup>3</sup> We also construct a measure of multiple hardships, indicating whether the household experienced two or more material hardships. (In this measure, we exclude the inability to meet basic living expenses, as we want to focus on specific operationally defined experiences indicating a matter of health, housing, or food insecurity.)

In measuring *income level and variability*, we eliminate seam bias by using data for only the most recent reference month for each wave 1 through 5 (box 1). We measure household income variability using the coefficient of variation (CV). This common measure of variability is constructed by dividing the standard deviation of each individual household's income by its mean (see Newman 2006 and Nichols and Zimmerman 2008). We compute the CV for total household income, earnings, and total income minus means-tested government transfers.<sup>4</sup>

### BOX 1. SIPP and Seam Bias

The Survey of Income and Program Participation is a series of panel studies conducted by the U.S. Census Bureau. Each panel consists of a nationally representative sample, with overrepresentation among low-income households. The follow-up period for each panel ranges from 32 to 48 months.<sup>a</sup>

The survey is administered in four-month waves using core and topical modules. These waves are broken into four rotations of data collection, so a quarter of the sample is interviewed during each month of a wave. The core module collects data on household income, government program use, and household demographics, referencing each of the four previous months for most questions. The key topical modules for this research are those pertaining to adult well-being (providing measures of material hardship) and assets and liabilities (providing measures of liquid assets, unsecured debt, and other net worth).

This analysis uses the 2001 SIPP panel, using income data from the core modules for waves 1 through 5, the adult well-being module administered at wave 8 (measuring hardships over waves 6, 7, and 8), and the assets and liabilities module administered at wave 3. The 2001 panel covers three years for each household, spanning October 2000–September 2003 for the earliest rotation group and January 2001–December 2003 for the latest rotation group.

SIPP-collected income data exhibit larger month-to-month changes at the seam between one wave and the next (i.e., between the latest month of one wave and the earliest month of the next), rather than between adjacent months within a single wave. This limitation, known as seam bias, has been well documented (see Moore 2007). In any single panel, income reported for the most recent month in each four-month reference period is generally considered the most accurate because of the shorter recall period. *The approach adopted here is to use the income data from only the most recent month of each survey wave, to avoid both the exaggerated monthly income changes at each seam between survey waves and the understated monthly income changes within a wave.* In the 2001 panel, this allows us to use five data points of monthly income (the latest reference month in waves 1 through 5, corresponding to months 4, 8, 12, 16, and 20) before the period during which hardship is measured (waves 6 through 8, corresponding to months 21 through 32). Income quintiles are formed based on average monthly income computed over the five months indicated above.

We use income and demographic information from the wave 1–5 core modules, asset and liability data from the wave 3 topical module, and material hardship data from the wave 8 topical module. We aggregate all income, asset, and hardship information to the household unit, defined as the individuals who share “living quarters with its own entrance and cooking facilities” (Westat 2001, 2-6). Each household head at wave 1 becomes the basis for a longitudinal record, following that anchor person and his or her associated household unit over time.

a. U.S. Census Bureau, “Overview of the Survey of Income and Program Participation (SIPP),” <http://www.census.gov/sipp/overview.html>.

For *assets*, our analysis uses three asset and liability variables for each household, as measured at the end of wave 3: liquid assets (interest-earning assets held at financial institutions), unsecured debt (such as credit card balances, doctor or hospital bills, and student or personal loans), and other net worth (total net worth minus liquid assets and unsecured debt). For liquid assets, we construct dummy variables for each of the following intervals: \$0; \$1–\$1,999; \$2,000–\$9,999; and \$10,000 or more (box 2).

Finally, *demographic characteristics* are included as covariates in the estimated models. As measured at wave 1, these include characteristics of the household head (age, gender, marital status, race, ethnicity, and whether graduated from high school or college) and household composition (number of household members and whether the household includes a child under age 6).

For each of the eight measures of hardship, logistic regressions were run on the full sample of households with nonelderly heads and on each of the lower three income quintiles. We present the analysis for the lowest quintile. The marginal effects for each covariate were estimated at the sample means. We focus here on the results pertaining to the monthly income level, variability of monthly income, liquid assets, unsecured debt, and other net worth (total net worth excluding liquid assets and unsecured debt). The estimated marginal effects for liquid asset holdings indicate the effect on the incidence of hardship relative to the holding of no liquid assets. The variables for unsecured debt and other net worth are expressed in thousands of dollars. Nonfinancial variables are also included as

covariates: age, race, ethnicity, gender, marital status, education, and household size.

## Findings

This section presents the findings from the analysis, focusing on households with nonelderly heads. We first provide descriptive statistics on the key outcomes and covariates. We then review the results of the multivariate analysis.

### Descriptive Statistics

**Material hardship measures.** Table 1 shows the percentage of households experiencing each material hardship for the lowest three income quintiles. For each outcome, the incidence declines with income, as one expects. In all sample subgroups, the most frequent outcome is the general measure of unmet essential expenses (29 percent for the lowest quintile). This is followed by the specific hardship measures, in the following order: missed utility payments, forgone dentist visit, forgone doctor visit, missed housing payment, phone shutoff, food insecurity, and utility shutoff.<sup>5</sup> In the lowest quintile, nearly a quarter of the sample (24 percent) experienced multiple specific hardships.

**Coefficient of variation for monthly household income.** Households in the lowest income quintile show the greatest income volatility. Table 2 indicates the mean value by income quintile of the coefficient of variation for earned income, total income minus means-tested transfers, and total income.

### BOX 2. Measuring Liquid Assets

For the multivariate analysis, we constructed binary indicators (or “dummy variables,” each equal to zero or one) according to specific ranges of nonzero liquid asset holdings. The dollar thresholds used in constructing these variables were selected to maintain reasonable subgroup sizes in estimating the effects of liquid assets on near-term hardship, for households with nonelderly heads. Particular attention was given to the distribution of assets in the lowest quintile, where 70 percent of households reported holding no liquid assets in the 2001 SIPP panel. The value \$1,999 was set as the upper bound of the first nonzero interval, representing 20 percent of the bottom income quintile. Note that \$2,000 was the median response among families in the lowest income quintile to the 2007 Survey of Consumer Finances question, “How much do you and your family need to have in savings for unanticipated emergencies and other unexpected things that may come up?” (see Bucks et al. 2009). The \$2,000 value was also used as a benchmark in recent research on the capacity of households to access resources to cope with economic shocks (Lusardi, Schneider, and Tufano 2010). The next interval was set at \$2,000–\$9,999, encompassing 6 percent of those in the bottom income quintile. The remaining 4 percent of households hold \$10,000 or more in liquid assets.

TABLE 1. Percentage of Households with Nonelderly Heads Experiencing Material Hardship, by Income Quintile

Hardship measure	Lowest quintile	Second quintile	Middle quintile
<b>General</b>			
Unmet essential expenses	28.6	19.8	12.9
<b>Specific</b>			
Missed utility payment	20.4	14.1	8.7
Missed housing payment	12.8	9.1	5.7
Utility shutoff	3.9	2.3	1.5
Phone shutoff	10.4	6.4	4.4
Forgone doctor visit	14.6	9.6	6.1
Forgone dentist visit	16.2	12.3	7.5
Food insecurity	6.7	2.9	1.2
Two or more of the above	23.9	16.2	9.5
Sample size	3,435	3,436	3,435

Source: Authors' calculations based on data from the 2001 Survey of Income and Program Participation.

Note: Food insecurity is measured over a four-month reference period. All other hardships are measured over a 12-month period.

Several examples will provide some intuition to these estimates (table 3). Each household's CV is based on five data points—that is, the most recent reference month in waves 1 through 5 (months 4, 8, 12, 16, and 20). Consider an example in which these monthly values for a household's earned income are \$1,000, \$500, \$1,000, \$1,500, and \$1,000. This data series yields a CV of 0.35, approximating the mean value for earnings in the middle quintile (0.36). In contrast, the monthly series \$1,000, \$100, \$1,000, \$1,900, and \$1,000 yields a CV of 0.64, approximating the mean value for the lowest quintile, both for earned income (0.653) and for total income minus means-tested transfers (0.637).

Comparing the CVs for total income with those for total income less means-tested transfers, one can see in table 2 how means-tested transfers dampen the variation in household income in the

lowest quintile. This quintile derives about one-sixth of its income from means-tested transfers, moderating the earnings gains and losses experienced by such households.

**Holdings of liquid assets.** Table 4 shows households in the bottom three income quintiles by their liquid assets. More than two-thirds of those in the lowest quintile (70 percent) hold no liquid assets. This proportion drops to slightly below half for the second quintile (48 percent) and to about a third for the middle quintile (34 percent).

### Multivariate Estimates

For each of the eight measures of hardship and for the “multiple hardship” measure, logistic regressions were run on each of the lower three income quintiles of the sampled households with nonelderly heads. The marginal effects for each

TABLE 2. Coefficient of Variation of Monthly Household Income for Households with Nonelderly Heads, Mean Household Value by Income Quintile

	Lowest quintile	Second quintile	Middle quintile
Earned income	0.653	0.442	0.360
Total income minus means-tested transfers	0.637	0.383	0.324
Total income	0.499	0.370	0.321
Sample size	3,435	3,436	3,435

Source: Authors' calculations based on data from the 2001 Survey of Income and Program Participation.

TABLE 3. Illustrative Examples of the Coefficient of Variation (CV) of Monthly Income

Monthly income					Standard deviation	Mean	CV <sup>a</sup>
Month 4	Month 8	Month 12	Month 16	Month 20			
\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$0	\$1,000	0.00
1,000	900	1,000	1,100	1,000	71	1,000	0.07
1,000	800	1,000	1,200	1,000	141	1,000	0.14
1,000	750	1,000	1,250	1,000	177	1,000	0.18
1,000	700	1,000	1,300	1,000	212	1,000	0.21
1,000	670	1,000	1,330	1,000	233	1,000	0.23
1,000	600	1,000	1,400	1,000	283	1,000	0.28
1,000	500	1,000	1,500	1,000	354	1,000	0.35
1,000	400	1,000	1,600	1,000	424	1,000	0.42
1,000	330	1,000	1,670	1,000	474	1,000	0.47
1,000	300	1,000	1,700	1,000	495	1,000	0.49
1,000	250	1,000	1,750	1,000	530	1,000	0.53
1,000	200	1,000	1,800	1,000	566	1,000	0.57
1,000	100	1,000	1,900	1,000	636	1,000	0.64
1,000	0	1,000	2,000	1,000	707	1,000	0.71
2,000	0	1,000	0	2,000	1,000	1,000	1.00

Source: Authors' calculations based on data from the 2001 Survey of Income and Program Participation.  
a. Standard deviation/mean.

covariate were estimated at the sample means. We focus here on the results pertaining to liquid assets, monthly income level, and variability of monthly income. For each dummy variable associated with nonzero holdings of liquid assets, the estimated marginal effect indicates the effect on the incidence of hardship relative to the holding of no liquid assets. Each regression also included the following covariates: age, race, ethnicity, gender, marital status, education, household size, unsecured debt, and other net worth.

Table 5 shows the effects of liquid assets, monthly income level, and income variability on the multiple hardship measure for the lowest

income quintile. The key findings from this table are as follows:

- Holding liquid assets of up to \$1,999 (versus having no such assets) significantly reduces the incidence of multiple hardship, by 5.1 percentage points. Progressively larger effects are found with larger asset holdings: 10.6 percentage points for \$2,000–\$9,999 and 13.7 percentage points for \$10,000 and above.
- Higher monthly income is significantly associated with lower likelihood of hardship. An additional \$1,000 in monthly income

TABLE 4. Amount of Liquid Assets Held by Households with Nonelderly Heads, Percentage Distribution by Income Quintile

	Lowest quintile	Second quintile	Middle quintile
\$0	69.8	47.6	33.6
\$1–\$1,999	19.7	30.0	29.4
\$2,000–\$9,999	6.5	13.7	21.7
\$10,000 or more	4.0	8.7	15.3
Sample size	3,435	3,436	3,435

Source: Authors' calculations based on data from the 2001 Survey of Income and Program Participation.

TABLE 5. Effects of Liquid Assets and Income on Multiple Hardships: Households with Nonelderly Heads, Lowest Income Quintile

Dependent variable: multiple hardships	
	Marginal effects estimated at sample means
Liquid assets: \$1–\$1,999 <sup>a</sup>	–0.051**
Liquid assets: \$2,000–\$9,999 <sup>a</sup>	–0.106**
Liquid assets: \$10,000 or more <sup>a</sup>	–0.137**
Monthly income	–0.053**
Income variability (CV)	0.035*
	Summary statistics
Mean of dependent variable	0.239
Sample size	3,435

Source: Authors' calculations based on data from the 2001 Survey of Income and Program Participation.

Notes: Other included covariates are age, race, ethnicity, gender, marital status, education, household size, unsecured debt, and other net worth.

\*  $p < .05$ ; \*\*  $p < .01$

a. Effects of holding liquid assets are estimated relative to those with no liquid assets.

reduces the incidence of multiple hardships by 5.3 percentage points.

- Lower monthly income variability (controlling for one's average monthly income) is significantly associated with a lower incidence of multiple hardships. The estimated coefficient implies a 3.5 percentage point reduction in the likelihood of multiple hardships when the coefficient of variation is reduced from 1 to 0. This movement in the CV is equivalent to a reduction in the standard deviation of monthly income from a value equaling mean income to a value of 0.

We now turn to the effects of savings on the incidence of specific hardships among low-income households with nonelderly heads, for those in the lowest income quintile. These findings are shown in table 6. Specifically, this table shows the estimated effect of having up to \$1,999 in liquid assets versus having no assets.

For this lowest quintile, modest holdings of liquid assets are associated with a significantly lower rate of hardship for six of the eight outcomes under study—all except phone shutoff and forgone dentist visit. The estimated effects, expressed in relation to the sample-specific

TABLE 6. Effects of Liquid Assets on Material Hardship among Households with Nonelderly Heads, Lowest Income Quintile

Dependent variable	Marginal effect, estimated at sample means, for \$1–\$1,999 in liquid assets <sup>a</sup>	Mean of dependent variable	Marginal effect as a proportion of sample mean of dependent variable
Unmet essential expenses	–0.044*	0.286	–0.154
Missed utility payment	–0.042**	0.204	–0.206
Missed housing payment	–0.040**	0.128	–0.313
Utility shutoff	–0.013*	0.039	–0.333
Phone shutoff	–0.012	0.104	–0.115
Forgone doctor visit	–0.041**	0.146	–0.281
Forgone dentist visit	–0.017	0.162	–0.105
Food insecurity	–0.017*	0.067	–0.254

Source: Authors' calculations based on data from the 2001 Survey of Income and Program Participation.

Note: Other included covariates are age, race, ethnicity, gender, marital status, education, household size, monthly income, income variability, unsecured debt, and other net worth.

\*  $p < .05$ ; \*\*  $p < .01$ .

a. Marginal effect is measured relative to having no liquid assets.



average incidence of the associated type of hardship, are in the range of 10 to 33 percent.

To elaborate on one example, consider the effect of liquid assets on avoiding a missed housing payment (i.e., a missed rent or mortgage payment). Compared with households with no liquid assets, those with up to \$1,999 in such assets (at month 12) have a significantly lower near-term risk of missing a housing payment (during months 21–32). The proportional effect is -31 percent (-0.040/0.128).

## Summary and Implications

This analysis of data from the 2001 SIPP panel builds on a growing body of evidence regarding the factors that may enable low-income families to achieve greater economic stability.

*Do lower-income households experience greater relative instability in their monthly incomes?* As measured by the coefficient of variation, households in the lower quintiles do indeed have considerably more variable monthly incomes than households in the upper income ranges. This variability reflects the volatility of earnings among those with low incomes, and it is only partly offset through the receipt of means-tested transfers.

*What is the relationship between income instability and material hardship among low-income households?* In multivariate analysis of the incidence of multiple forms of material hardship, we find that higher income instability (controlling for one's income level) is related to a higher incidence of hardship.

*Does holding liquid assets lower the incidence of material hardship among low-income households?* Based on multivariate analysis of the lowest income quintile, holding liquid assets in modest amounts (up to \$1,999, compared with having no such assets) is significantly related to a lowered incidence of material hardship for six of the eight hardship outcomes studied. This suggests that liquid asset holdings provide a buffer stock of financial resources, enabling households to respond to circumstances that would otherwise bring hardship.<sup>6</sup> Additionally, it suggests that those who are able to save and accumulate such a buffer stock are not doing so at the expense of important housing, food, and health needs.

What are the implications of this analysis for policymakers and program practitioners? First, program strategies should acknowledge that low-income households are less able to avoid hardship not only because their incomes are low but also because their incomes are more variable.

Programs that require client participation over multiple months need to address the income volatility and emergency needs of participants, if program dropout is to be minimized. Second, initiatives to promote low-income saving can avert hardship for low-income households, even if the amount of accumulated liquid assets is relatively modest. Such a buffer stock can enable households to fend off minor shocks to income or expenses and avert the more serious consequences that might otherwise result.

## Notes

1. Major or multiple shocks, however, can lead to significant hardship for people at all income levels, especially during an economic downturn. During the recent Great Recession, one indicator of this hardship was the heightened pace of personal filings under Chapters 7 and 13 of the federal bankruptcy statute (American Bankruptcy Institute, "Consumer Bankruptcy Filings Surge Past One Million during First Nine Months of 2009," press release, October 2, 2009).
2. A household is considered generally deprived if it experienced two or more of the following ten hardships within the past 12 months: food insecurity, food insufficiency, trouble paying basic bills, not seeing a doctor when needed, not seeing a dentist when needed, inability to pay rent or mortgage, inability to pay utility or medical bills, having phone service disconnected, having gas or electric service cut off because of inability to pay, or eviction from home or apartment because of inability to pay.
3. Unlike the other hardship measures, food security is measured over the previous four months.
4. Earnings include money from wages, salaries, and personal business profits. Means-tested government transfers include Temporary Assistance to Needy Families, the Supplemental Nutrition Assistance Program (previously known as Food Stamps), Social Security Income, and the Special Supplemental Nutrition Program for Women, Infants, and Children.
5. One other hardship variable available from SIPP is eviction from one's home or apartment. We excluded this from the analysis, however, as its incidence over 12 months was very low, less than 0.5 percent in each income quintile (for both total households and those with nonelderly heads).
6. As with any nonexperimental analysis, the estimated effects of liquid assets as precautionary savings should be interpreted somewhat cautiously as evidence of causal relationships. These estimates may capture the influence of underlying individual traits that are correlated with both savings behavior and the avoidance of near-term hardship. For example, individuals with greater future orientedness (and thus who tend to budget for their anticipated expenses) may also tend to be better at reacting to adverse events.

## References

- Acs, Gregory, Pamela Loprest, and Austin Nichols. 2009. "Risk and Recovery: Documenting the Changing Risks to Family Incomes." *Perspectives on Low-Income Working Families Brief 14*. Washington, DC: The Urban Institute.
- Bucks, Brian K., Arthur B. Kennickell, Traci L. Mach, and Kevin B. Moore. 2009. "Changes in U.S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances." *Federal Reserve Bulletin*, February 2009, pp. A1–A56.
- Lusardi, Annamaria, Daniel Schneider, and Peter Tufano. 2010. "Households @ Risk: U.S. Households' Capacity to Cope with Risk." Working paper. New York: TNS Global.
- McKernan, Signe-Mary, Caroline Ratcliffe, and Katie Vinopal. 2009. "Do Assets Help Families Cope with Adverse Events?" *Perspectives on Low-Income Working Families Brief 10*. Washington, DC: The Urban Institute.
- Moore, Jeffrey C. 2007. "Seam Bias in the 2004 SIPP Panel: Much Improved, but Much Bias Still Remains." U.S. Census Bureau, Statistical Research Division, presented at the PSID Event History Calendar Research Conference, December 5–6.
- Newman, Constance. 2006. "The Income Volatility See-Saw: Implications for School Lunch." Economic Research Report 23. Washington, DC: U.S. Department of Agriculture, Economic Research Service.
- Nichols, Austin, and Seth Zimmerman. 2008. "Measuring Trends in Income Variability." Washington, DC: The Urban Institute.
- Westat. 2001. *Survey of Income and Program Participation Users' Guide (Supplement to the Technical Documentation)*. 3rd ed. Washington, DC: U.S. Census Bureau.

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