




Avoiding material hardship: The buffer function of wealth

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Abstract

We assess how a variety of disruptive life-course events impact the economic wellbeing of US households and trace the importance of household wealth in helping families who experience these events avoid entering a spell of material hardship. Using longitudinal data from two panels of the Survey of Income and Program Participation (SIPP), we draw on direct measures of material hardship, disruptive events and household assets. Our analyses reveal that the relationship between disruptive events and the likelihood of experiencing a new spell of material hardship strongly varies across the wealth distribution, suggesting that high household wealth provides an effective private safety net. By distinguishing different types of disruptive events, we demonstrate that divorce, disability and income loss entail a risk of material hardship but also that this risk is effectively buffered by substantial wealth. Different types of hardship – namely, financial, food and medical hardship – respond in similar ways. Like public insurance schemes, wealth insurance helps buffer the effects of disruptive events on material hardship, but unlike public insurance schemes, reliance on private wealth further stratifies the economic wellbeing of households. Policy options for addressing this highly stratified private insurance scheme include disposing of the need for it by funding more robust public insurance, for instance through wealth taxation.

Keywords

wealth, material hardship, social policy, poverty, disruptive events

Introduction

A broad social science literature has studied how disruptive events put households' economic wellbeing at risk. Much of this literature has focussed on how such events push families into income poverty (Brady et al., 2017; McKernan and Ratcliffe, 2005). A more recent literature has begun to draw on direct measures of material hardship and shown that they diverge substantially from measures of income poverty (Heflin, 2017; Iceland and Bauman, 2007; Rodems, 2019) and that they are also differentially

affected by disruptive events (Heflin, 2016). In this contribution, we assess how the relationship between disruptive life-course events and the likelihood of experiencing material hardship differs across the distribution of household wealth. While prior

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research has demonstrated the effectiveness of public safety nets in buffering the harmful effects of disruptive events (Brady et al., 2017; DiPrete, 2002), we show that family wealth also provides an effective but highly stratified private safety net.

The life-course dynamics of poverty have been a focus of social scientific research since at least the 1970s as modern longitudinal household surveys began to permit the investigation of poverty spells (Pfeffer et al., 2020). Early contributions established that poverty is not a fixed state but that many households move in and out of poverty over the life-course (Bane and Ellwood, 1986; Duncan, 1984). Building on this finding, scholars have also shown that entries into a spell of income poverty often follow disruptive life-course events (McKernan and Ratcliffe, 2005). More recent comparative work has shown that the poverty risk entailed by life-course events, such as unemployment, is particularly high in the United States, reflecting underdeveloped public social safety nets and weak working-class political power (Brady et al., 2017).

We seek to make two contributions to this line of research: first, we conceptualize and directly measure material hardship as households' ability to meet their essential needs for food, housing and health. Most research on poverty instead relies on measures of income. In addition to or in lieu of traditional income poverty measures, some scholars have turned to measures of material hardship to directly assess the level of material wellbeing of households. Proponents of this approach argue that measures of material hardship capture the issue that is at the core of our concern about poverty, namely the ability to meet basic necessities, such as access to food, secure housing and healthcare. The empirical literature on material deprivation in the US has been expanding since the late 20th century (Mayer and Jencks, 1989) although multidimensional measures of poverty have long been part of a more robust empirical literature on material deprivation in Europe (GuioAnne-Catherine et al., 2016; Nolan and Whelan, 2011; Ringen, 1988; Townsend, 1979). As a result, studies have convincingly linked material deprivation to working poverty (Crettaz, 2015), welfare state generosity (Nelson, 2012; Saltkjel and Malmberg-Heimonen, 2017) and wealth (Aittomaki et al., 2010;

Christoph, 2010; Loktieva, 2016) for European countries and have forcefully pointed out the inadequacy of income-only measures of poverty (Treanor, 2014). Our contribution seeks to expand on the existing, and smaller, US literature on material hardship. For the US, research has also documented that income poverty and material hardship are distinct concepts and empirical phenomena, with substantive portions of the US population reporting material hardship well above the official income poverty line (Heflin et al., 2009; Iceland and Bauman, 2007). Transitions into and out of material hardship are frequent and more common than transitions into and out of income poverty (Heflin and Butler, 2013; Rodems, 2019) so that more than a third of US households experience a spell of material hardship in a given year with a substantial share of them never officially categorized as poor. Expanding our view to changes in material hardship and their correlates may therefore also capture additional aspects of poverty dynamics and the factors that contribute to them. Gaining a more encompassing picture of economic suffering following disruptive events may also inform social policy efforts that, to a large degree and particularly in the US context, are guided exclusively by measures of income poverty.

Second, rather than studying the dynamics of economic wellbeing in relation to the public safety net typically provided by the welfare state, we investigate the role of the private safety net provided by households' wealth. We define household wealth as net worth, encompassing real assets, financial assets and debts. Household wealth may serve to shield households from experiencing hardship in the wake of disruptive events. A long line of research in economics in fact views wealth as arising partly from 'precautionary savings' to insure against risk (Lusardi, 1998; Skinner, 1988) and this insurance function of wealth has been hypothesized to account for some of the influence of household wealth and families' life-course and intergenerational outcomes (for example, Pfeffer, 2011). Wealth can be hypothesized to play an independent role in buffering the impact of disruptive events over and above the insurance provided by other household characteristics and behaviours. Of course, households may also insure against and compensate for

disruptive events in a variety of other ways: household income will fulfil a partial insurance function against some disruptive events, especially those occurring outside of the labour market. Similarly, households may seek to adjust their working hours to buffer the economic pressure entailed by disruptive events (for example, [Ehlert, 2012](#)). We provide a descriptive assessment of how other features of households' economic position intersect with disruptive events and hardship experiences. However, our focus – as part of the overall focus of this special issue – is on the insurance function of *wealth* independently of these and other household characteristics.

Our empirical analyses thus include measures of consumption (the ability to pay for basic material needs), wealth and income; in other words, the same economic dimensions at the heart of classical theories of permanent income (Haig-Simons income; for a discussion see [Fisher et al., 2015](#)). In this theoretical tradition, changes in any one of these dimensions is fully endogenous to changes in the other two. For instance, consumption is assumed to be fully determined by income and changes in wealth. This endogeneity, of course, holds only in the neo-classical world of perfect credit markets and perfect information, including perfect certainty about the future. Hence, economists themselves have argued for and demonstrated the benefits of a joint consideration of consumption, wealth and income to capture the material wellbeing of households (see [Fisher et al., 2015](#); [Stiglitz et al., 2009](#)). The insight that 'neither measure alone captures the economic wellbeing of all households by itself' ([Fisher et al., 2015](#): 635) is also central to the empirical study of material hardship. As [Mayer \(1993\)](#) states, 'a family's living conditions depend on both how much it consumes and its need for consumption', neither of which can be fully accounted for by either wealth or income. As we argue here, households' ability to maintain sufficient consumption in order to meet their basic needs is not fully accounted for but interacts with income and wealth. Stated differently, we identify important heterogeneities in the link between these three dimensions of economic wellbeing. In this way, we also help expand research on the consumption smoothing function of

wealth by investigating its variation across the wealth distribution, on the one side (see [Ganong et al., 2020](#), for a review of the ambiguity of recent findings from economics on this question), and, on the other side, by focussing on a particular point in the consumption distribution, namely, the important threshold defined by whether a family can meet its essential expenses or not.

We also consider the impact of a wider range of adverse events than is typical for empirical analyses of consumption smoothing. We study both demographic events – namely, getting divorced, having children and the onset of a new disability – and adverse economic effects – namely, an unemployment spell, income loss and relocation. We hypothesize that all of these events challenge the economic wellbeing of a household as they entail either a loss of existing resources or increased need for additional resources. That is, we expect these events to increase households' probability of entering a spell of material hardship, thus creating an insurance need.

Our analyses begin with an aggregate assessment of the relationship between experiencing any event and any hardship before distinguishing different types of events – and different dimensions of hardship.

Data, measures and methods

Data

Our data come from the Survey of Income and Program Participation (SIPP), a household panel survey representative of the national non-institutionalized, civilian population. The SIPP was specifically designed to capture households at the bottom of the income distribution ([Czajka and Denmead, 2008](#)). We draw on the 2008 and 2014 panels, which contain the only two nationally representative US samples with repeated measures of material hardship. The SIPP underwent a significant redesign between the 2008 and 2014 panels, including a decrease in periodicity from three surveys per year to a single annual survey with an event history calendar as well as the elimination of topical modules and re-integration of some of its measures –

including material hardship – in altered form in the main survey. For this study, we have harmonized both panels by imposing the periodicity and measurement restrictions from the 2014 panel on the 2008 panel, that is, we use the same (although less detailed) measure of material hardship across both panels and align the timing of our measures to the extent possible (see [Supplementary Appendix Table A5](#) for more details). To longitudinally link observations we follow household heads across multiple survey waves. Our harmonized dataset provides us with an analytic sample of $N = 71,685$ household heads observed at multiple points in time, namely four waves in the 2008 panel (161,646 person-waves) and three waves in the 2014 panel (56,019 person-waves). All of our analyses control for panel year and apply SIPP household weights.¹

To study the risk of entering a spell of material hardship, we necessarily restrict our analytic sample to those households not experiencing material hardship at baseline (time 1), which is approximately 80% of the total sample. Conversely, one in five responding households already experience material hardship at baseline and are therefore not included in this analysis. It is important to note that this restriction of course yields a more advantaged sample and disproportionately excludes less affluent households (see [Supplementary Appendix Table A6](#) for details). Our reported findings should thus be interpreted as very conservative estimates of material hardship levels and the extent of disruption experienced by US households. Furthermore, in models that distinguish between different types of disruptive events, we restrict the sample to those at risk of experiencing an event. For instance, only household heads who are married are part of the analytic sample for the assessment of the impact of divorce.

Measures

Material hardship. Material hardship refers to a set of basic material needs measured across four domains: financial hardship, food hardship, medical hardship and housing hardship. Financial hardship is defined as the reported inability to pay rent or mortgage or an inability to pay a utility bill. Food hardship is defined using a shortened version of the US government food

insecurity scale, assessed through a validated five question version in the 2008 panel and the standard six question short version in the 2014 panel. These questions inquire about whether or not people ran out of food and could not afford to buy more, were unable to afford balanced meals, cut the size of or skipped meals due to cost, ate less than they felt they should due to a lack of money or were ever hungry and did not have enough money for food. Medical hardship, for the purposes of this study and due to the data limitations of the 2014 SIPP, is limited only to a binary measure of health insurance coverage. Households are coded as in medical hardship if any member of the household lacks health insurance. Housing hardship is limited to a measure of housing quality. Households that report at least two of four markers of poor housing quality (cracks in ceiling or walls, large holes in floors, problems with pests or vermin, nonfunctional plumbing) are marked as experiencing housing hardship.

Our analyses rely on both an aggregate measure of hardship, capturing whether households experience any of the aforementioned hardships, as well as separate measures of the distinct dimensions of hardship. We measure hardship at baseline and either one or 2 years later (time three; for details see [Supplementary Appendix Table A5](#)).

Disruptive events

Disruptive events are measured during the intervening period (time 2) between our two measures of material hardship. We include three demographic events that we consider disruptive, namely, whether a divorce occurred, whether children were added to the household, and whether a new disability was reported.² Furthermore, we include three adverse economic events, namely, whether any household member experiences a spell of unemployment, whether in any given month the household experienced a loss of income of 25% below their mean income during the time window, and whether the household moved or relocated.

A few additional notes on these measures are in order. First, our measure of income loss is intended to capture sudden fluctuations of income that may be difficult for households to absorb. Several of the

other disruptive events analysed here may also trigger sudden income loss, making income losses one channel through which some of the disruptive effect of these events may emerge. Since we are chiefly interested in the overall size of the disruptive effects of different events, we are presenting our main analyses without adjustments for income loss (though controls for baseline income remain). Stability analysis that do control for the mediating role of income losses are reported in [Supplementary Appendix Table A6](#) and show that the events for which we find an elevated risk of entering material hardship do so even once their association with income loss is controlled for. Second, the information SIPP collects on individuals' motives for geographic relocation does not allow us to cleanly distinguish forced moves – such as those resulting from eviction or foreclosure – from desired moves and we suspect that outside of these constraints, doing so is often challenging as individuals' motivations for relocation may often be mixed and open to interpretation (for example, wanting to move to a safer neighbourhood for their children).

Household wealth

Like most prior research, we draw on a measure of total household net worth. Net worth is a summary measure of the value of all assets minus debts. Assets captured in the SIPP wealth module include housing equity (value of all homes, including mobile homes, minus any mortgages or other debts), financial assets (a variety of bank accounts and financial products), real assets (farms, businesses), private retirement savings and other debts. Unlike household income, net worth can be zero (no assets at all) and negative (more debts than assets). While debts are an important component of net worth, they are also conceptually distinct as access to credit itself forms an important dimension of inequality generation ([Dwyer, 2018](#)). Accordingly, the population in net debt also cannot easily be considered as the most disadvantaged group on a continuum of wealth; for instance, while some may be in debt without any assets (unsecured debt, for example, revolving credit card balances) others may hold debt against an asset that may appreciate over time (for example, mortgages or business debt). In

[Supplementary Appendix Table A4](#), we provide additional analyses that distinguish between these two groups. We use a categorical measure of net worth that distinguishes those with negative, zero and positive net worth. Furthermore, we define the following categories of positive net worth: \$1–\$50,000, >\$50,000–\$200,000, >\$200,000–\$500,000, and >\$500,000 and above (in US\$, 2014), dividing the sample in bins of approximately 20–24% of the population (see [Supplementary Appendix Table A1](#)). Our choice of a categorical measure is based on the expectation that the buffering role of wealth may be non-linear as, for instance, a certain level of wealth may be required to provide an effective safety net. [Supplementary Appendix Table A4](#) also reports a closer investigation of the lower end of the wealth distribution, distinguishing different wealth levels within the lowest positive net worth category (\$1–\$50,000). Unlike for hardship and disruptive events, we do not seek to disentangle the independent role of different components of wealth by separately studying distinct asset types, namely, housing wealth, financial wealth, real wealth and debts (see [Supplementary Appendix Table A7](#) for a further explanation and additional results).

Controls

Our regression models include additional control variables, namely total household income (logged), the race of the household head (White, Black, Asian, Hispanic or other), the education of the household head (less than high school, high school, some college, BA degree or more than a BA degree), age of the household head, marital status of the household head (married spouse present, married spouse absent, separated, divorced, widowed and never married), total number of people in the household and total number of children in the household. All of these variables are measured at baseline (time 1). A dummy variable indicates if the observation is drawn from the 2008 or the 2014 panel of the SIPP. In the empirical analyses reported below, we also return to total household income as well as working hours (both defined at the household level) as we consider additional insurance strategies.

Methods

We use logistic regression models, such as

$$\log\left(\frac{p(Y=1)}{1-p(Y=1)}\right) = \beta_0 + \beta_1 E + \beta_2 W + \beta_3 E \cdot W + \beta_{i...j} C \quad (1)$$

to estimate the probability of entering material hardship, $p(Y=1)$, as a function of experiencing a disruptive event, E , households' net worth, W , the interaction between the two, $E \cdot W$ and a vector of control variables listed earlier, C . From this model, we report predicted probabilities (margins) of entering material hardship for different levels of household wealth. To directly compare the material hardship risk of those experiencing disruptive events to those not experiencing them (and to be able to assess whether their hardship rates are statistically significantly different from each other) we also report estimates of discrete change. Models are estimated in Stata 15 using the *margins* command (Long and Freese, 2014). To fully quantify the role of household wealth in buffering the effects of disruptive events on entering material hardship, we also provide supplementary analyses that draw on a formal decomposition approach in [Supplementary Appendix A5](#).

Findings

Hardship in the wake of disruptive events. As described before, our focus on households experiencing a new episode of material hardship restricts our sample to those starting out without material hardship. Still, even among this positively selected sample of households starting in more advantaged economic conditions, more than one in eight (13%) fall into material hardship across the span of 12 months (see [Supplementary Appendix Table A1](#)), partly a reflection of the tremendous economic turmoil of the Great Recession during the period assessed in the 2008 panel. Similarly, close to half of all households (46%) experience at least one of the disruptive events that we study here. In the top panel of [Figure 1\(a\)](#) (also see [Supplementary Appendix Table A2](#)), we display the observed rates of entering a spell of

hardship for those experiencing a disruptive event (dotted grey line) and those not experiencing a disruptive event (solid black line). The bottom panel plots the differences in material hardship rates between those two groups (those experiencing an event minus those not experiencing an event). We observe that experiencing an event is associated with the probability of entering an episode of material hardship as the dotted line consistently lies above the solid line in the top panel (resulting in differences > 0 in the bottom panel). Overall, as reported in [Supplementary Appendix Tables A2](#), 17% of households who experience a disruptive event enter a spell of hardship compared to 9% of those who do not experience any of the events included here. That is, experiencing a disruptive event is associated with nearly a doubling of the likelihood of falling into material hardship. However, as [Figure 1\(a\)](#) also reveals, this association differs substantially across the distribution of wealth. Generally, households with less wealth have higher rates of material hardship, but experiencing a disruptive event is also associated with a larger increase in material hardship. For instance, among those with positive net worth below \$50,000, experiencing a disruptive event is associated with an increase in the rate of material hardship from 14% to 25% (top panel), an increase of 11 percentage points (bottom panel). In contrast, among those with net worth between \$200,000 and \$500,000, a disruptive event is associated with an increase in hardship from 6 to 9%, a 3 percentage point increase. The highest rates of hardship (38%) and the largest increase associated with a disruptive event (by 16 percentage points) is observed for those with zero net worth, although – since this group makes up only a small share of our analytic population (2%) – the confidence interval for this change is relatively large. The group in negative net worth, as hypothesized, cannot be described as the most disadvantaged part of the wealth distribution, likely since for some of them access to credit reflects a form of economic integration. Their overall rate of material hardship is closer to those with some net worth (\$1–\$50,000) than to those with zero net worth and the increase in material hardship in the wake of a disruptive event (11 percentage points) is also more similar to the former than the latter. Finally, the

wealthiest group, those with net worth of \$500,000 or more, are similar to those with less but still substantial wealth of \$200,000–\$500,000 in terms of their hardship rate and its change associated with experiencing an event. Overall then, [Figure 1\(a\)](#) provides initial descriptive evidence in favour of the hypothesized buffer function of wealth: not only are hardship rates lower among the wealthy, they also rise less when experiencing a disruptive event. Another illustration of the inequalities in hardship risks is to describe the overall distribution of our analytic population across hardship experiences, disruptive events and wealth categories (see also [Supplementary Appendix Table A4](#)): experiences of disruptive events are common (47% of the population experience them), even among the wealthy (1 in five households hold net worth of at least \$200,000 but experience a disruptive event). A very small share of the population (3.3%) is wealthy (at least \$200,000) and yet enters a spell of hardship, though their probability of experiencing hardship barely depends on whether they experience one of the

events assessed here or not (1.9 and 1.4%, respectively). In contrast, close to one in 10 households experience a new spell of hardship in the absence of substantial wealth: 6.1% of all households experience a disruptive event, do not have sufficient wealth, and enter a spell of hardship, and another 3.5% enter hardship in the absence of a disruptive event.

Of course, households at different levels of the wealth distribution also differ from each other on other observable characteristics, for example, their household income, which should also be associated with their ability to deal with disruptive events – a point we will further pursue empirically below. [Figure 1\(b\)](#) therefore displays estimates from multivariate logistic regression models that control for a number of these observable differences (income, education, race, age of household head, marital status of head, number of people in household, number of children in household and panel year). As one would expect, the variation of the association between events and hardship just described is somewhat reduced once we adjust for these differences, but the

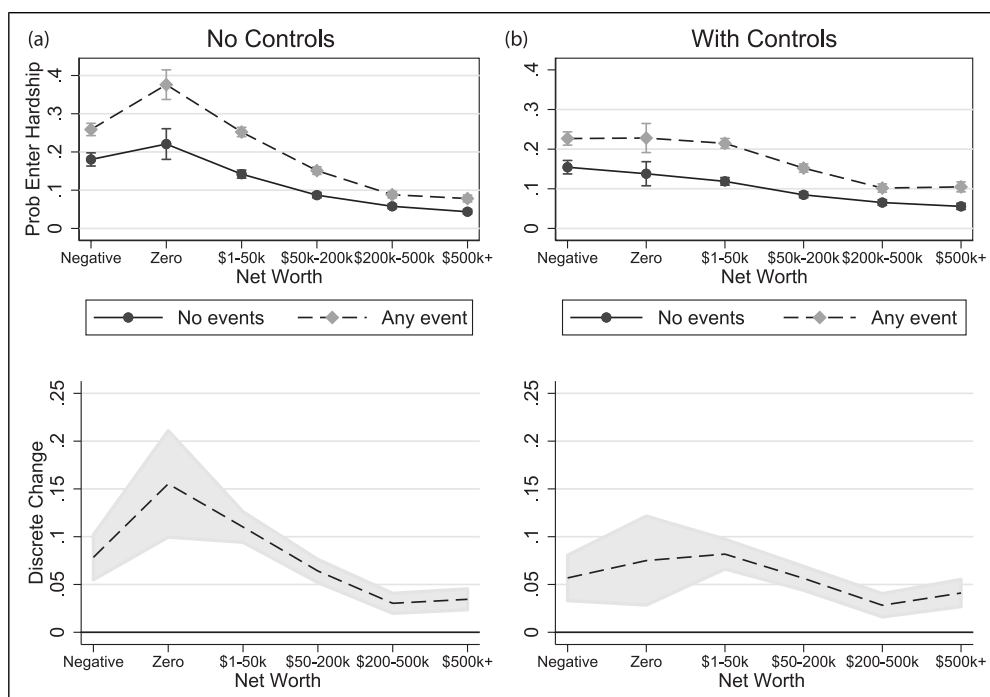


Figure 1. Hardship and wealth. Note: Bars (top panel) and areas (bottom panel) display 95% confidence interval.

overall pattern persists: the ‘impact’³ of a disruptive event diminishes as we move up the wealth distribution. All else being equal, the probability to enter material hardship increases by 8 percentage points following a spell of material hardship among those with low wealth (between zero and \$50,000) but less than half of that among those with high wealth (\$200,000 and more). Again, the discrete change flattens out below 5% for the two wealthiest groups, suggesting that net worth greater than \$200,000 may be sufficient insurance. Overall, this evidence is in line with our hypothesized safety net function of household wealth as it appears that substantial wealth effectively buffers the impact of disruptive life-course events. In [Supplementary Appendix A5](#) we additionally quantify the degree to which this buffer function helps explain the overall difference in the levels of hardship experienced across the wealth distribution. We confirm that the higher rates of material hardship of less wealthy households can be partly accounted for not only by the fact that these households are more likely to incur disruptive life-course events but also, and to at least the same degree, that these events put them at greater risk for a spell of hardship. Furthermore, the Appendix reports findings from a more fine-grained categorization of households at the bottom of the wealth distribution. They reveal (i) a lack of effective insurance throughout our lowest positive wealth group (\$1–\$50,000) and ii) while the group of households in net debt may be heterogeneous, it is dominated by those holding debt without any assets and, (iii) that this group fares accordingly poorly in terms of the impact of disruptive events. In the next two sections, we move beyond the aggregate assessment of all types of hardships and disruptive events to identify whether the observed patterns are more pronounced or driven by particular events and particular aspects of hardship.

Types of disruptive events

We now report results from additional multivariate logistic regression models that relate hardship experiences to particular kinds of disruptive events (that is, changing E in equation (1) from ‘any event’ to one of six different types of events). We begin with

an assessment of three demographic events in [Figure 2](#). Across all three types of events – divorce, adding children to the household and a new disability – the general pattern discussed above holds: lower net worth households have higher rates of hardship with and without the event and, importantly, larger changes in response to these events than higher net worth households. This pattern is most notable for the case of divorce. For negative net worth households, all else being equal, divorce is associated with a nearly 16 percentage point increase in the risk of entering hardship. This impact of divorce decreases as household wealth increases, to the point that for those households in the top two groups, those above \$200,000, the probability of entering hardship is not statistically significantly different from zero between the divorced and non-divorced, implying that the private safety net of wealth may fully buffer the risk of entering material hardship in the case of divorce – at least for the household head (as the panel data we use here do not allow following the former spouse). A similar pattern exists for a new disability in the household, which is associated with an 8 percentage point increase in the risk of entering a hardship spell for lower net worth households, but the difference in risk for the two groups becomes statistically indistinguishable from zero for the top two net worth groups. The impact of having children varies less across the wealth distribution: it peaks among those with low positive net worth, but remains fairly flat among the rest of the distribution at around three to four additional percentage points (all else being equal). This more widely shared hardship risk arising from having children may stem from the particularly high costs of early childhood care and the absence of consistent parental leave policies in the US context. Prior work has found that households with children have much higher rates of material hardship than other households ([Rodems and Luke Shaefer, 2020](#)) and this analysis suggests that the addition of children itself may set these households onto a less materially secure track.

Next, we assess three types of economic events – unemployment spells, income loss (a loss of at least a quarter of a household’s average income) and moving – in [Figure 3](#). While the negative association between wealth and hardship persists – all else being

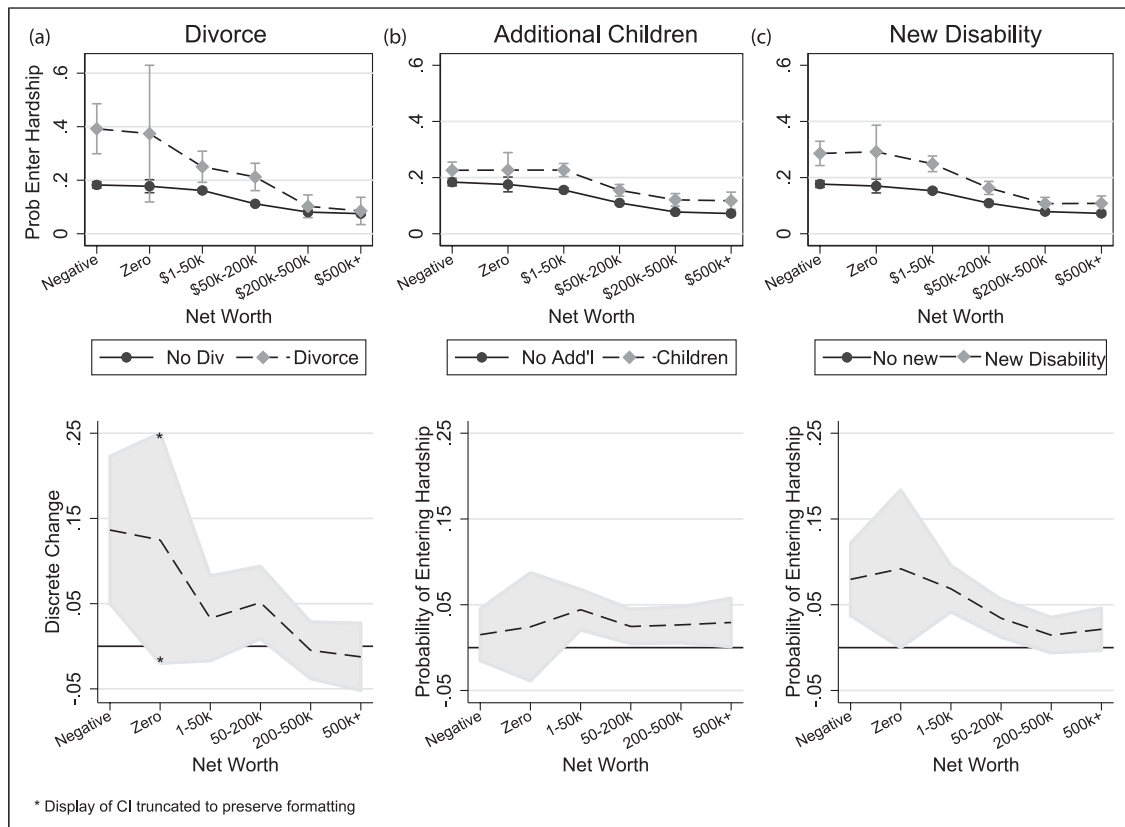


Figure 2. Hardship and demographic events.

equal, those with more wealth tend to have lower levels of hardship – we observe the particular pattern of wealth insurance against the impact of disruptive events only for income loss: the negative impact of sudden income losses on entering material hardship is greatest at 8 percentage points among those with positive net worth up to \$50,000 and decreases to less than half of that among those with net worth of \$200,000 and more (again, those in negative net worth are not uniquely disadvantaged and the estimate for the low number of households with zero net worth is imprecise). In contrast, the pattern for unemployment spells and moves is inconsistent, but around a 5 percentage point increase across the wealth distribution. This may likely arise from the fact that relocation decisions may often involve more strategic considerations, such as alternative labour

market opportunities (moving to better jobs) or reduction of expenses (downsizing and neighbourhood change), counterbalancing those instances where moves are more exogenous, unplanned. As stated earlier, our data do not allow us to cleanly distinguish between these types of desired moves, and forced moves. Finally, unemployment spells, all else being equal, do show a positive, statistically significant relationship with the probability of entering material hardship, but this relationship also does not follow a clear pattern across the wealth distribution. The large impact of unemployment spells among the wealthiest households (\$500,000 and above) of about 7 percentage points is surprising, although prior research has also established that experiences of material hardship can be traced far up into the distribution of what may typically be considered

well-off households (Rodems, 2019). Our findings on unemployment suggest that labour market disruptions have more widely shared impacts on material well-being than all other disruptive events studied here.

Other sources of insurance

Our analyses so far have focused on wealth as an independent source of private insurance against risk. Of course, households may self-insure in a variety of other ways. Here, we acknowledge some of these alternative insurance strategies and provide initial descriptive evidence on them where the SIPP data allow us to. In essence, households who experience a shortfall of money to meet their essential needs – whether in response to a disruptive event or not – will

seek to secure additional income. Besides converting wealth into an income stream (or leveraging it to gain access to credit), households may seek to increase their total income – in particular in the US welfare-to-work context that ties public transfer income to work requirements – by increasing working hours or, likely with more difficulty, adding or changing jobs for the household head and/or partner (see also Ehlert, 2012). Below, we describe whether these strategies are being successfully employed to prevent a spell of hardship. Another form of private insurance that we cannot assess empirically due to data limitations (described below) but that may be no less important or effective are monetary transfers from extended family networks (or even friends). Family transfers, of course, will also exert a stratifying influence as prior research has shown that support

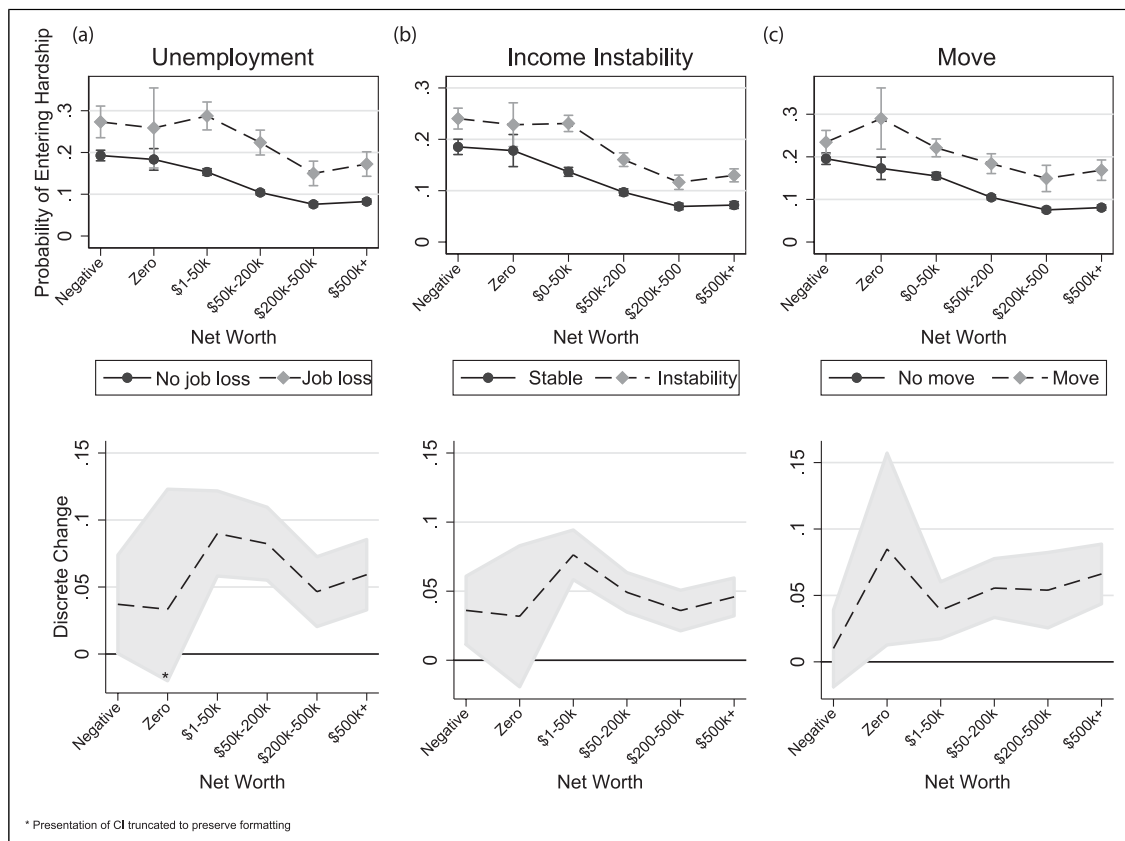


Figure 3. Hardship and economic events.

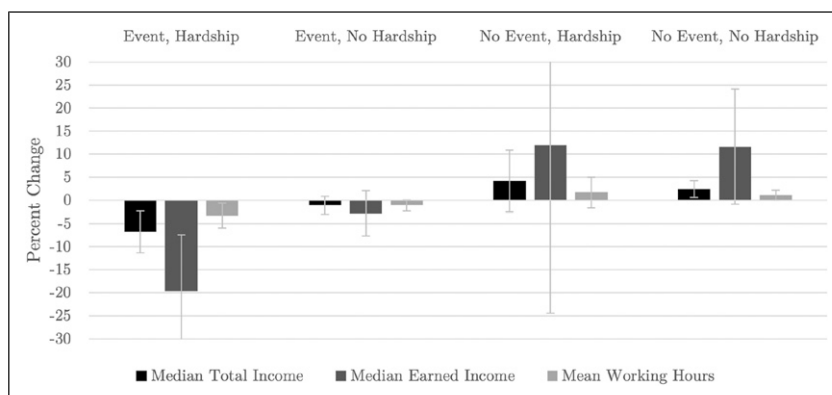


Figure 4. Types of hardship.

received through extended family networks is highly unequal (Prix and Pfeffer, 2017; Park et al., 2019). Unfortunately, the redesign of the SIPP makes it difficult to create comparable measures of private transfers across panels.⁴ Here, we report some initial descriptive evidence on the hypothesized role of income and working hours in buffering disruptive events and preventing a spell of hardship. We divide our sample members into four groups by whether they experience a disruptive event and whether they enter a spell of hardship. We measure the relative change in total household income (at the median) and total household working hours (at the mean). Since household income may also contain streams from other sources (including asset income, family transfers and public transfers), we also separately report changes in total earned income (at the median). Figure 4 (see also Supplementary Appendix Table A9) reveals several consistent patterns: first, those experiencing a disruptive event (left half of Figure 4) also tend to reduce their total income, earned income and working hours while those not experiencing a disruptive event (right half of Figure 4) tend to increase their income, earned income and working hours. This pattern is the reverse of what one would expect if income and working hours were used as buffers against disruptive events. Instead, disruptive events appear to make it harder for households to increase their labour supply and earned income. Second, adjustments in income and working hours do not reduce the risk of entering a

spell of hardship: among those not experiencing a disruptive event, changes in income and working hours are the same independent of whether or not they enter a spell of hardship. Among those experiencing a disruptive event, the avoidance of hardship is associated with little (and, in fact, statistically insignificant) change in income and working hours. The largest change observed is the loss of earned income among those experiencing an event and falling into hardship (−19.6%), again suggesting that some disruptive events also disrupt the ability to draw on the labour market as an insurance system. In our view, this suggests that adjustments in income and working hours do not serve as an effective safety net for households and adds further weight to our conclusion that wealth plays a unique role as a private insurance system.

Conclusion

In this contribution, we have assessed the dynamics of hardship among US households, tracing how a variety of disruptive events put families at an elevated risk of entering a spell of material hardship. We studied how this hardship risk in the wake of disruptive events varies across the wealth distribution as we hypothesized wealth to provide an important private safety net. In line with this hypothesis, we found that wealthy households are indeed less likely to enter material hardship in response to a disruptive event. By also studying different types of disruptive

events, we demonstrated that the buffering function of wealth is particularly pronounced in the wake of divorce, a new disability and income loss, as wealthy households are effectively shielded from the negative impacts of these events. The buffer function of wealth also applies to different dimensions of hardship – financial, medical and food hardship. We emphasize that the evidence presented here is descriptive and household wealth may proxy for a range of other differences between households. We do, however, believe that wealth plays a unique role in providing private insurance unlike, for instance, increased labour market effort as a response to disruptive events. We provide some initial evidence that adjustments in income and working hours cannot buffer adverse events but that, in contrast, adverse events make it more difficult for households to gain further income. Our work expands on research that has assessed consumption smoothing following income shocks (Blundell et al., 2008) and, in particular, how the ability of households to smooth consumption varies by their wealth (Gruber, 2001). Unlike this research, we focus on a particularly salient threshold of consumption, namely households' ability to fund their most basic necessities. We find that the level of wealth required to successfully self-insure against even such drastic constraint of consumption is remarkably high: in our models, households below a net worth of \$200,000 incur a substantial risk of material hardship in the wake of a disruptive event. Our analyses therefore also imply that existing public safety nets are insufficient in fully buffering the effects of a number of disruptive events as rates of material hardship rise in their wake for many households. The private safety net afforded by substantial wealth, in contrast, is quite effective in preventing hardship following events such as a divorce, a disability or income loss. This distinguishes a private from a public safety net: it is unequally distributed and least accessible to those who need it most. This aspect appears most central to us as we consider potential new policy responses below that arise from an increased focus on the role of wealth.

Before we turn to a discussion of policy implications, we point out some related analytic questions that we do not address and leave to future research: first, our longitudinal analysis is restricted to a

relatively short span of 3 years. We study a comparatively advantaged sample of those not experiencing material hardship at baseline and assess whether a period of disruption pushes them into a new hardship spell. As individuals move through their lifecourse, they are at risk of experiencing multiple disruptive events and having experienced disruptive events may put them at increased risk of experiencing such events again. We expect the cumulation of disruptive events to erode wealth-based safety nets over time (see also Goda and Liu Streeter, 2021), exposing more households to risks of material hardship. Second, we are not directly engaging with the debate over how to define asset poverty. In general, there have been two approaches developed for defining wealth poverty (see also Kuypers and Marx, this issue): those that conceptualize wealth as an annuity to create a unified measure of income-wealth poverty (Brandolini et al., 2010; Weisbrod and Hansen, 1968) and those that define income poverty and wealth poverty separately (Azpitarte, 2012; Headey, 2008; Kuypers and Marx, 2018). Many of these approaches take conventional income poverty lines as a reasonable measure of the resources that ought to be consumed by a household in order to not be considered poor. In line with our empirical findings, these approaches also assume that assets can be transformed into income streams to meet material necessities. We are agnostic in this article as to what constitutes a wealth poverty measure but future research may use our findings to calibrate a meaningful wealth poverty level by households' ability to meet material needs. Third, we are only concerned with material hardship, not a fuller assessment of household wellbeing, which could include other social and health dimensions. In that sense, we focus on what could be thought of as the first component in the traditional Maslowian hierarchy of needs. Future research may seek to establish the buffer function of wealth for other dimensions of wellbeing, such as mental health, happiness, health or social integration.

We have provided evidence for the insufficiency of public insurance schemes and the highly disparate access to private insurance schemes in the US context. The ongoing and widespread effects of the ongoing public health crisis – one of the most

disruptive events in generations – adds further urgency to discussing concrete social policy options as they relate to our findings (especially as the public health crisis may also open avenues for bolder policy options). First, some social policy analysts may interpret our findings as a call for the increased targeting of social safety programmes by household wealth in addition to income. Because social safety net programmes in liberal welfare states are primarily means-tested rather than universal, the existence of private safety nets in the form of household wealth suggests that means-testing could conceivably be shifted to wealth or asset tests, albeit with far more generous asset limits than are currently applied. Existing asset tests in US social safety net programmes vary widely by specific programme and by state. Where present, they are far below the amounts necessary to self-insure as identified here. For example, a majority of states set asset limits for the primary US workfare programme at or below \$3000. Asset tests are also found in some European welfare states, but often involve a gradual tapering of benefits as net worth rises or cuts off at substantially higher levels, often approaching the levels needed to ‘self-insure’ documented in this contribution (Marchal et al., 2020). While a great deal could be learnt from the European experience with tapered but generous asset tests, we would emphasize potential unintended consequences of applying such an approach to the US context, particularly given the racialized dynamics of the US welfare state (Rodems and Luke Shaefer, 2016). We do not consider increased asset-testing a promising policy option as continued means-testing will likely lead to further contraction of public insurance schemes in favour of new private schemes. Reserving a ‘golden parachute’ to those who can afford it is bound to further stratify economic wellbeing and security.

A second possible policy response may be to focus on efforts to build wealth at the bottom of the distribution. While asset-building strategies for the poor have received a great deal of scholarly attention and policy interest, our results should also caution against an overly optimistic view of these programmes when it comes to their ability to reduce families’ risk of experiencing material hardship: we show that only very substantial wealth levels in the

six-digit range buffer common risks such as divorce, disability or sudden income loss. Existing asset-building programmes, for good reason, are aimed at building wealth in the three-digit range (for example, \$500) (see Schreiner and Sherraden, 2007), that is, far below the levels necessary to buffer many of the adverse events assessed here. Policy proposals that come much closer to the effective insurance levels are stakeholder grants or unconditional block grants (Allstot and Ackerman, 2000).

Third, governments can and do insure households against a variety of disruptive events, for example, against unemployment through unemployment insurance (UI) programmes or against disability through federal social security programmes (Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI)), but they do so with varying and, in the case of the United States, limited success (Brady et al., 2017). Extending both the level and scope of such programmes – for instance to the provision of a universal child allowance or parental leave policies to prevent families with children from falling into material hardship – would move the United States towards the level of social protection found in other affluent nations. Calls for increased generosity of public welfare provisions are typically met with ostensible concerns about limited public resources. Public revenue, however, could quite effectively be increased through wealth taxation schemes (Saez and Gabriel, 2019) without pushing households below the levels of wealth that are effective in insuring against disruptive events. Taxation of extreme wealth and its transfers and the reinvestment of this revenue into public insurance schemes is not a new or foreign idea even in the United States, where it can be traced as far back as the post-revolutionary era. Instead of pursuing the ambitious aim of building sufficient private insurance among all households, we believe that a better target will be to reverse the shift of insurance schemes from the public to the private sphere (Hacker, 2007). Such an approach would ultimately be in line with the approach of targeting of disadvantaged households within a universalist framework as identified by Jacques and Noël (2021). In the current context of extreme wealth concentration, raising revenue through wealth and inheritance taxation and

reinvesting it in expanded public insurance schemes could be pursued to eradicate the need for private insurance that is currently met only for wealthy households.

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Supplemental material

Supplemental material for this article is available online.

Notes

1. These weights reflect the initial sampling probability, non-response and post-stratification (using national estimates of age, sex and race from the Current Population Survey for calibration).
2. The measure of disability differs slightly in the 2014 panel from the other measures as it was not recorded within a wave via the event history calendar. To retain this event, we mark individuals as entering a new disability if they did not report one in the wave immediately preceding the event observation window. All other events in the 2014 panel are measured within one wave based on the data collected via an event history calendar.
3. We acknowledge that our empirical evidence does not conclusively establish the causal effect of experiencing an event on entering hardship, but maintain the term impact for linguistic convenience.
4. The 2014 panel provides a single 'miscellaneous income' survey item that jointly captures multiple sources of income, including income from family, friends, charities, boarders, estates, incidental or casual earnings, lottery winnings, service in military reserve forces and other miscellaneous sources.

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Online Appendix

Richard Rodems & Fabian T. Pfeffer

Avoiding Material Hardship: The Buffer Function of Wealth

A APPENDIX

A.1 Descriptives

Table A.1: Descriptives

Variable		Share / Median
Hardship Entry	Any hardship	12.9
	Medical hardship	3.3
	Food hardship	5.1
	Fiscal hardship	6.1
	Housing hardship	1.6
Event Experienced	Any event	46.0
	Divorce	2.0
	Added children	10.9
	New Disability	8.9
	Job loss	7.8
	Income Loss	28.4
	Move	11.6
	2+ events	2.6
HH Net Worth	Median	\$140,966
	(SE)	(1,401)
	Negative	11.1
	Zero	2.0
	\$0-50k	20.4
	\$50k-200k	24.3
	\$200k-500k	22.2
	\$500k+	20.0
HH Income	Median	\$69,206
	(SE)	(326)
Head's Education	Less than HS	10.1
	HS	24.3
	Some college	30.2
	BA	21.6
	>BA	13.9
Head's Race	White	72.0
	Black	9.7
	Hispanic	8.6
	Asian	5.9
	Other	3.8
Data Source	SIPP-2008	0.74
	SIPP-2014	0.26
Number of Observations		71,685

Table A.2: Hardships Rates by Event and Wealth

	Overall	By Net Worth					
		Negative	Zero	\$0-50k	\$50k-200k	\$200k-500k	\$500k+
<i>Experienced Event?</i>							
Yes	0.17 (0.00)	0.26 (0.01)	0.38 (0.02)	0.25 (0.01)	0.15 (0.01)	0.09 (0.00)	0.12 (0.00)
No	0.09 (0.00)	0.18 (0.01)	0.22 (0.02)	0.14 (0.01)	0.09 (0.00)	0.06 (0.00)	0.05 (0.00)

Table A.3: Hardships and Events by Wealth

	Overall	By Net Worth					
		Negative	Zero	\$0-50k	\$50k-200k	\$200k-500k	\$500k+
<i>Entered Hardship</i>							
Any hardship	0.13 (0.00)	0.23 (0.01)	0.31 (0.01)	0.20 (0.00)	0.11 (0.00)	0.07 (0.00)	0.06 (0.00)
Medical hardship	0.03 (0.00)	0.05 (0.00)	0.05 (0.01)	0.05 (0.00)	0.03 (0.00)	0.02 (0.00)	0.02 (0.00)
Food hardship	0.05 (0.00)	0.09 (0.00)	0.18 (0.01)	0.09 (0.00)	0.04 (0.00)	0.02 (0.00)	0.01 (0.00)
Fiscal hardship	0.06 (0.00)	0.13 (0.00)	0.16 (0.01)	0.09 (0.00)	0.05 (0.00)	0.03 (0.00)	0.02 (0.00)
Housing hardship	0.02 (0.00)	0.02 (0.00)	0.04 (0.01)	0.02 (0.00)	0.02 (0.00)	0.01 (0.00)	0.01 (0.00)
<i>Experienced Event</i>							
Any event	0.45 (0.00)	0.58 (0.01)	0.58 (0.02)	0.52 (0.01)	0.42 (0.00)	0.41 (0.00)	0.38 (0.01)
Divorce	0.02 (0.00)	0.03 (0.00)	0.02 (0.01)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Added children	0.10 (0.00)	0.16 (0.00)	0.16 (0.01)	0.13 (0.00)	0.10 (0.00)	0.08 (0.00)	0.06 (0.00)
New Disability	0.09 (0.00)	0.08 (0.00)	0.10 (0.01)	0.10 (0.00)	0.09 (0.00)	0.09 (0.00)	0.08 (0.00)
Unemployment	0.08 (0.00)	0.11 (0.00)	0.08 (0.01)	0.10 (0.00)	0.07 (0.00)	0.07 (0.00)	0.05 (0.00)
Income Loss	0.27 (0.00)	0.36 (0.01)	0.38 (0.02)	0.32 (0.00)	0.25 (0.00)	0.24 (0.00)	0.24 (0.00)
Move	0.11 (0.00)	0.21 (0.01)	0.17 (0.01)	0.17 (0.00)	0.09 (0.00)	0.08 (0.00)	0.06 (0.00)

Table A.4: Distribution of households across hardship, events, and wealth levels

	Net Worth		Row Total
	<\$200k	>=\$200k	
Event, Hardship	6.1%	1.9%	8.0%
No Event, Hardship	3.5%	1.4%	4.9%
Event, No Hardship	21.1%	17.3%	38.5%
No Event, No Hardship	23.7%	24.9%	48.6%
Column Total	54.4%	45.6%	100%

A.2 Sample Information

Sample Structure

Table A.5: Sample structure for two SIPP panels

SIPP Panels	Time 1 Hardship	Time 2 Event	Time 3 Hardship
SIPP-2008			
Timing	Early 2010	Mid to Late 2010	Early 2011
Waves	6	7 & 8	9
SIPP-2014			
Timing	2013	2014	2015
Waves	1	2	3
SIPP-2014			
Timing	2014	2015	2016
Waves	2	3	4

Selectivity of Analytic Sample

Table A.6: Selectivity of Baseline Sample

	Analytic Sample (No Hardship at Baseline)	Excluded Sample (Hardship at Baseline)
Number of Observations	71,685	19,341
Share of total	78.8	21.3
HH Net Worth		
Median	\$140,966	\$6,883
HH Net Worth Categories		
Negative	10.9	24.2
Zero	2.0	7.8
\$0-50k	20.5	35.9
\$50k-200k	25.5	19.5
\$200k-500k	22.6	8.3
\$500k+	18.5	4.5

A.3 Full Regression Results

Table A.7: Logistic Regressions

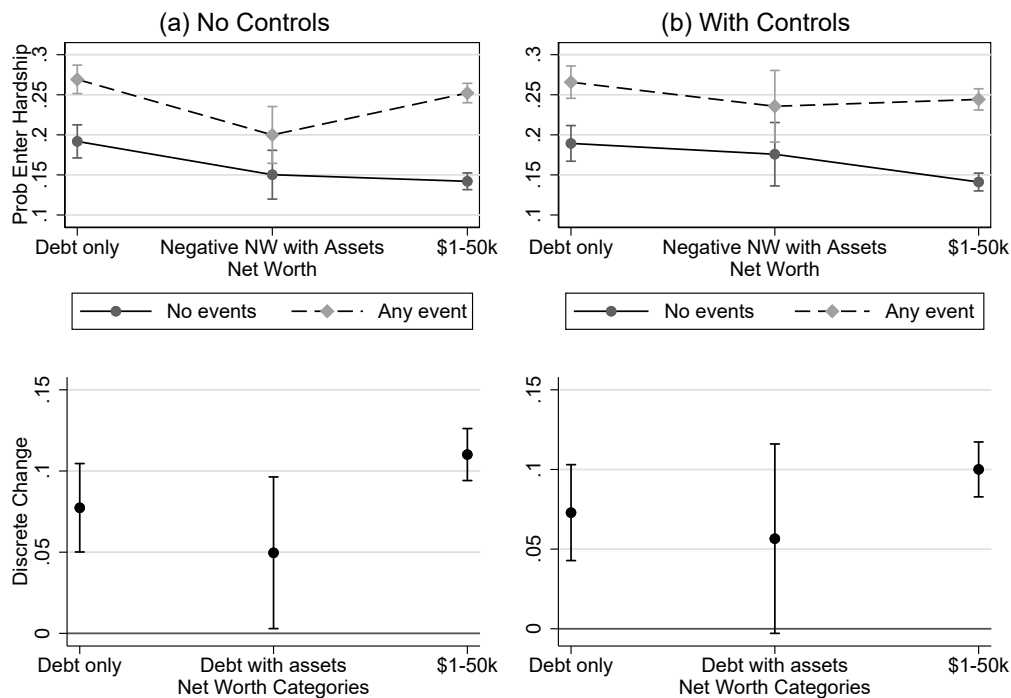
		(1) Logistic Coefficient (SE)	(2) Logistic Coefficient (SE)
Net Worth	Negative Net Worth	<i>ref</i>	<i>ref</i>
	Zero Net Worth	0.218 (0.125)	-0.197 (0.148)
	\$0-50k	-0.388 *** (0.074)	-0.436 *** (0.084)
	\$50k-200	-1.012 *** (0.074)	-0.893 *** (0.083)
	\$200k-500	-1.430 *** (0.081)	-1.155 *** (0.091)
	\$500k+	-1.551 *** (0.085)	-1.221 *** (0.096)
Event	Any event	0.350 *** (0.072)	0.240 ** (0.083)
Interactions	Zero Net Worth, Any Event	0.285 (0.157)	0.234 (0.190)
	\$0-50k, Any Event	0.306 *** (0.091)	0.311 ** (0.104)
	\$50k-200, Any Event	0.331 *** (0.093)	0.386 *** (0.105)
	\$200k-500, Any Event	0.130 (0.106)	0.160 (0.118)
	\$500k+, Any Event	0.473 *** (0.103)	0.426 *** (0.116)
Race	White		<i>ref</i>
	Black		0.594 *** (0.047)
	Asian		0.343 *** (0.063)
	Hispanic		0.267 *** (0.052)
	Other		0.256 ** (0.089)
Education	Less than HS		<i>ref</i>
	HS		-0.152 ** (0.048)
	Some college		-0.236 *** (0.048)
	BA		-0.684 *** (0.060)
	BA+		-0.728 *** (0.074)
Income	Household income (log)		-0.129 *** (0.012)
Age	Age		-0.007 *** (0.001)
HH Structure	Number of children in household		-0.078 *** (0.021)
	Number of people in household		0.194 *** (0.015)
Marital Status	Married, spouse present		<i>ref</i>
	Married, Spouse absent		0.395 ** (0.128)
	Widowed		0.115 (0.066)
	Divorced		0.499 *** (0.049)
	Separated		0.626 *** (0.100)
	Never Married		0.116
SIPP Panel	2008		<i>ref</i>
	2014		0.595 *** (0.036)
Constant		-1.373 *** (0.059)	-0.413 * (0.170)

A.4 Associations at the Low End of Net Worth

Negative and Zero Net Worth

Figure A.1 displays the predicted probability of entering a spell of material hardship after

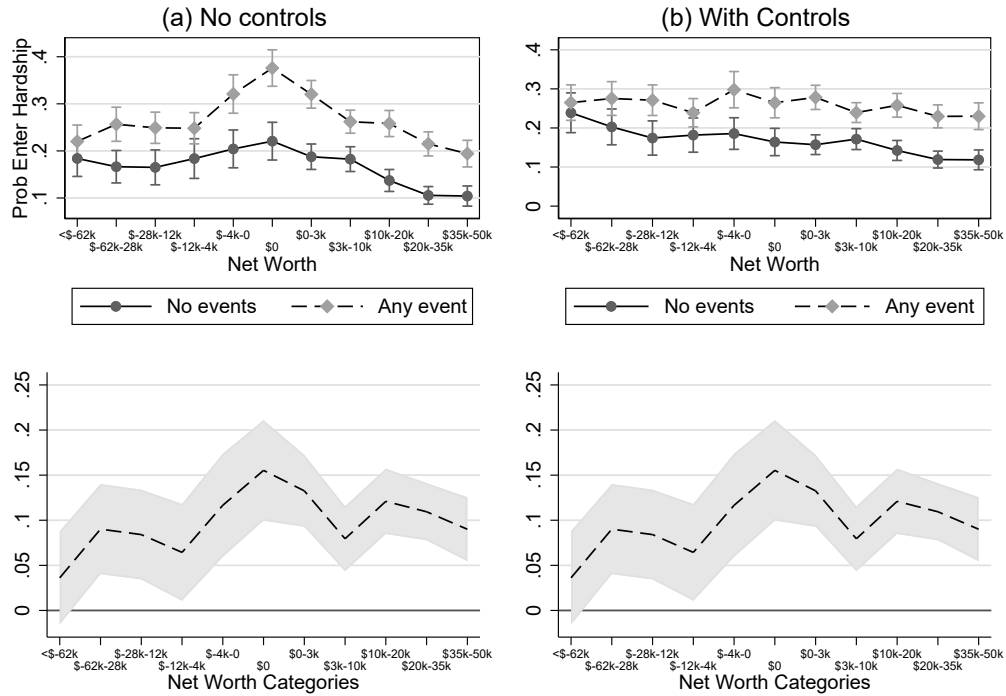
Figure A.1: Debt and Negative Net Worth



experiencing any event or no event for three categories of net worth: households with negative net worth and no assets (debt only), households with negative net worth and other assets (e.g. a household that owns an automobile but has student debt that exceeds that value of the car, or a household that holds a mortgage on the property greater than the value of the property), and then households in the first category of positive net worth (\$1-\$50,000). Because negative net worth as a broad category could potentially mask households with very different financial situations—for example, a household in deep medical debt with no assets and a small business owner with substantive non-cash assets could both be categorized here—we decided to present the main analysis with and without controls. Households with debts

only, which account for 8.5% of the sample and 79.8% of all households with negative net worth, have the highest predicted probability of entering a spell of material hardship both with and without experiencing an event. Households with debt that outweighs other assets make up only 2.1% of the sample and 20.2% of households with negative net worth. These households with a more mixed financial situation have slightly lower predicted probabilities of entering material hardship, but the differences are not statistically significant from the debt only group. The small size of this group increases the confidence intervals making a precise estimate of the discrete change between households with and without events difficult, but the point estimates suggest that that group may be a bit better off than those with debt alone.

Figure A.2: Low Net Worth



Low Net Worth

Figure A.2 reports the main analysis (all hardship, all events) by smaller categories of net worth for the negative net worth category and the \$1-50k category. This figure shows that there are no sharp trends within each category, that such large groupings do not obscure some obvious cutoff point. This is especially clear when controls are included. While there is a general downward trend in the predicted probability of entering material hardship, both the predicted probability and discrete change are not significantly different among these households with modest amounts of positive net worth. This further supports our claim that the amount of wealth needed to self insure against the unexpected adverse events of life are far more than existing asset development programs can provide, and may be out of reach for many throughout the life-course.

A.5 Decomposition Analyses

Method

Using a recent generalization of decomposition approaches for non-linear models (Powers et al. 2011), we estimate how much of the variation of hardship risk across the wealth distribution can be accounted for by differences in rates of experiencing disruptive events as opposed to differences in the impact of these events. The latter, in decomposition analyses often called “difference in effects” or “unexplained component”, captures what we have hypothesized as the potential buffer function of wealth. Formally,

$$\overline{Y}_W - \overline{Y}_N = \underbrace{\left\{ \overline{F(\mathbf{X}_W \beta_W)} - \overline{F(\mathbf{X}_N \beta_W)} \right\}}_E + \underbrace{\left\{ \overline{F(\mathbf{X}_N \beta_W)} - \overline{F(\mathbf{X}_N \beta_N)} \right\}}_C \quad (1)$$

describes the mean difference in the probability of entering a hardship spell between the wealthy, \overline{Y}_W – which, here, we define as those with \$200,000 in wealth or more (stability analyses using \$50,000 as a threshold yield similar results) – and the non-wealthy, \overline{Y}_N . This difference can be decomposed into two components, namely i) the contribution of differences in characteristics (E , “explained component”) between the two groups, such as differences in the incidence of disruptive events and ii) the contribution of differences in coefficients or effects (C , “unexplained component”), such as differences in the impact of disruptive events between these two groups. E describes the counterfactual scenario under which the wealthy are assigned the distribution of covariates observed among the non-wealthy, e.g. the same incidence of disruptive events. C , in contrast, describes the counterfactual scenario under which the non-wealthy are assigned the coefficients estimated for the wealthy, e.g. the same impact of a disruptive event. As mapping functions, F , we apply both a logistic model, which allows an exact decomposition of the differences in the observed outcomes, and a probit model, which decomposes the differences in predicted outcomes (for further details see Powers et al. 2011). Models are estimated in Stata 15 using the *mvdcmp* command

(Powers et al. 2011).

Findings

We reiterate that, of course, many factors beyond those included here may determine hardship trajectories and, in particular, the gap in the risk of falling into hardship between the wealthy and the less wealthy. Those two groups differ from each other in a multitude of ways -- even beyond those captured by our controls. The analyses reported here are thus not geared at arguing that the buffer function of wealth fully explains wealth gaps in hardship risks but are an exercise to quantify the buffer function of wealth. One way to do so is through a formal decomposition analysis that juxtaposes two ways in which disruptive events shape the hardship experiences of different wealth groups: First, wealthier households are less likely to experience a disruptive event to begin with; their limited exposure to the hardship risks entailed by disruptive events should explain part of their lower hardship rates. Second, and central to our concern about the buffering function of wealth, when wealthier households do experience them, disruptive events may be less likely to push them into hardship (as already demonstrated in our prior analyses). In Kitagawa/Oaxaca-Blinder type decomposition approaches like that applied here, the first process is captured by what is typically called “differences in characteristics” or “explained component” (the E term in equation 1) and the second process is captured by what is typically called “differences in coefficients” or “unexplained component” (the C term in equation 1). The buffer function of wealth leads to a difference in coefficients as it reduces the influence of disruptive events.

Our analysis decomposes the difference in the hardship rate between wealthy and less wealthy households, defining wealthy as household with a net worth of at least \$200,000 because the prior analyses have shown that households above that level are shielded most from the hardship risks of disruptive events. Their overall probability of entering hardship is 7.7 percent compared to 17.2 percent among those with less wealth. This 9.5 percentage point difference in hardship risks is now decomposed into the share that can be accounted

Table A.8: Decomposition

% due to difference in		Model	
		Logistic	Probit
<i>Any event, any hardship</i>			
Characteristics	(E)	4.2	4.0
Coefficients	(C)	4.0	8.2
<i>Types of events</i>			
Divorce			
Characteristics	(E)	0.1	0.1
Coefficients	(C)	1.4	1.6
Added children			
Characteristics	(E)	2.0	2.0
Coefficients	(C)	-2.6	-2.1
New Disability			
Characteristics	(E)	0.1	0.1
Coefficients	(C)	2.1	2.7
Unemployment			
Characteristics	(E)	2.1	2.1
Coefficients	(C)	-1.2	-0.4
Income Loss			
Characteristics	(E)	2.2	2.1
Coefficients	(C)	0.9	3.2
Move/relocation			
Characteristics	(E)	5.3	5.3
Coefficients	(C)	-3.3	-2.4
<i>Types of hardship</i>			
Medical hardship			
Characteristics	(E)	9.0	9.3
Coefficients	(C)	8.6	16.9
Food hardship			
Characteristics	(E)	3.4	3.1
Coefficients	(C)	-0.7	3.8
Fiscal hardship			
Characteristics	(E)	3.9	3.8
Coefficients	(C)	3.6	7.6
Housing hardship			
Characteristics	(E)	3.8	4.2
Coefficients	(C)	-8.8	-8.5

for by differences in the distribution of factors – the experience of disruptive events as well as all other controls used so far – and by differences in the coefficients of these factors. Table A.8 displays the share accounted for by the distribution and coefficients of disruptive events, respectively, as estimated via logistic and probit models. For our aggregate analysis of any type of hardship and any type of disruptive event, the first row of Table A.8 reports that about 4% of the difference in hardship risks between the wealthy and the less wealth can be accounted for by their differential exposure to disruptive events. For the contribution of differences in the coefficient, the answer differs across modeling approaches, with a differences in coefficients estimated to account for a similar share under the logistic model and

for twice that share under the probit model. Given these model-dependencies, a cautious interpretation of these findings suggests that the buffer function of wealth (difference in coefficients) plays *at least as large* a role in contributing to the risk of entering hardship as the wealth gradient in exposure to disruptive events (difference in characteristics). Put differently, equalizing the impact of disruptive events would reduce differences in entering material hardship to a small but at least the same extent as equalizing the exposure to disruptive events. So, while the overall contribution of disruptive events may be limited, understanding their contribution has to consider whether they can be buffered by a private safety net.

The remainder of Table A.8 provides parallel decomposition results for models focused on a select disruptive event or a particular dimension of material hardship. Although similar model-dependencies remain, the overall pattern follows that established in the preceding regression analyses: The disruptive events for which wealth appears to play the most pronounced buffering role are experiencing a divorce and a new disability – where differences in exposure do not account for wealth differences as they are more equally distributed across wealth categories (see also Appendix Table A.3) – as well as income loss. On the other hand, and in line with the conclusions established in the main text – wealth differences in hardship cannot be accounted for by the differential impact of adding children to the household, unemployment, and relocation. Regarding different types of hardship, the decomposition again affirms the similarity in results based on different hardship indicators – outside of the particular measure of housing hardship we have access to – as the buffer function of wealth is at least as (and, based on the probit model, potentially much more) important as the exposure to disruptive events in accounting for medical, food, and financial hardship (for the latter, this is restricted to the probit model).

A.6 Controls for Income Loss

Figure A.3: Hardship and Demographic Events, Controlled for Income Loss

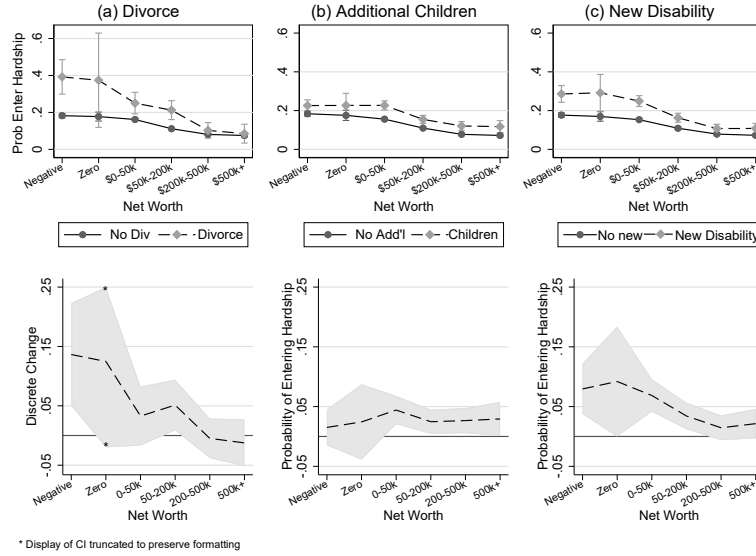
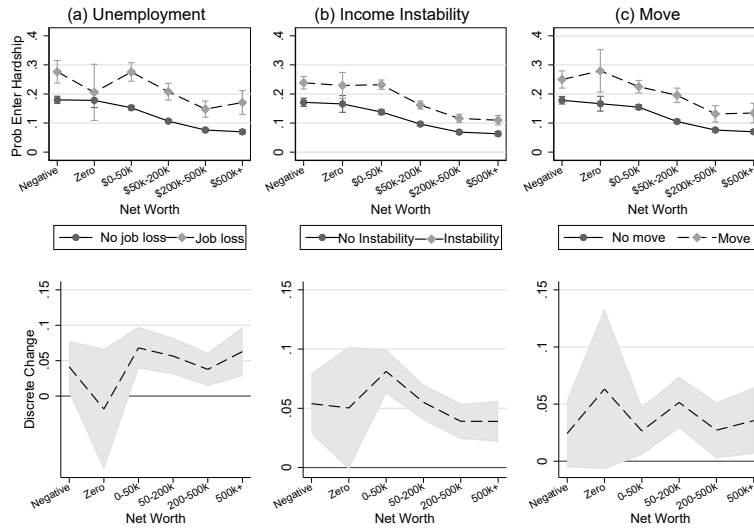


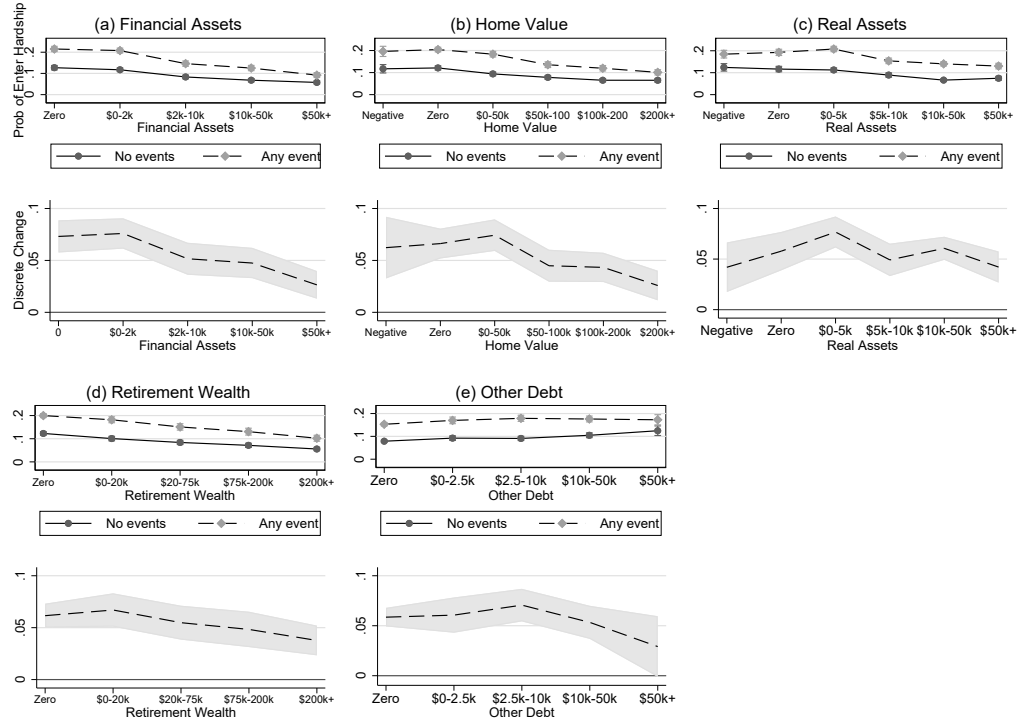
Figure A.4: Hardship and Economic Events, Controlled for Income Loss



A.7 Wealth Components

Conceptually, we believe that a net worth measure better captures the total buffering function of wealth as we expect households to draw on any of the assets they hold and, when doing so, to make these decisions by considering their total available asset portfolio. For instance, whether a household dips into their private retirement savings in response to a disruptive event will depend on whether it has other real or financial assets available (or existing debt obligations, for that matter). Analyzing a select dimension of wealth does not do justice to this interdependence. One may still be tempted to at least distinguish between liquid and illiquid wealth components as the former can, by definition, be more easily converted into an income stream. The challenge here, at least in the highly financialized U.S. context, is that even components that have historically been viewed as illiquid have become much less so over time. For instance, home-equity based credit lines have rapidly expanded and made even housing wealth more liquid (Hurst and Stafford 2004; Fligstein and Goldstein 2015; Aalbers 2016). Similarly, retirement assets have been activated widely during the Great Recession to cover families' current expenses (Bridges and Stafford 2020). In sum, the interdependence of asset components and the ability of households – even those below the well-diversified top of the distribution – to reallocate assets suggest that a much more dynamic analytic approach would be required to study the role of distinct wealth components. Although analyzing separate wealth components in our current setup will at best serve as an initial foundation for such enterprise, we provide these results here.

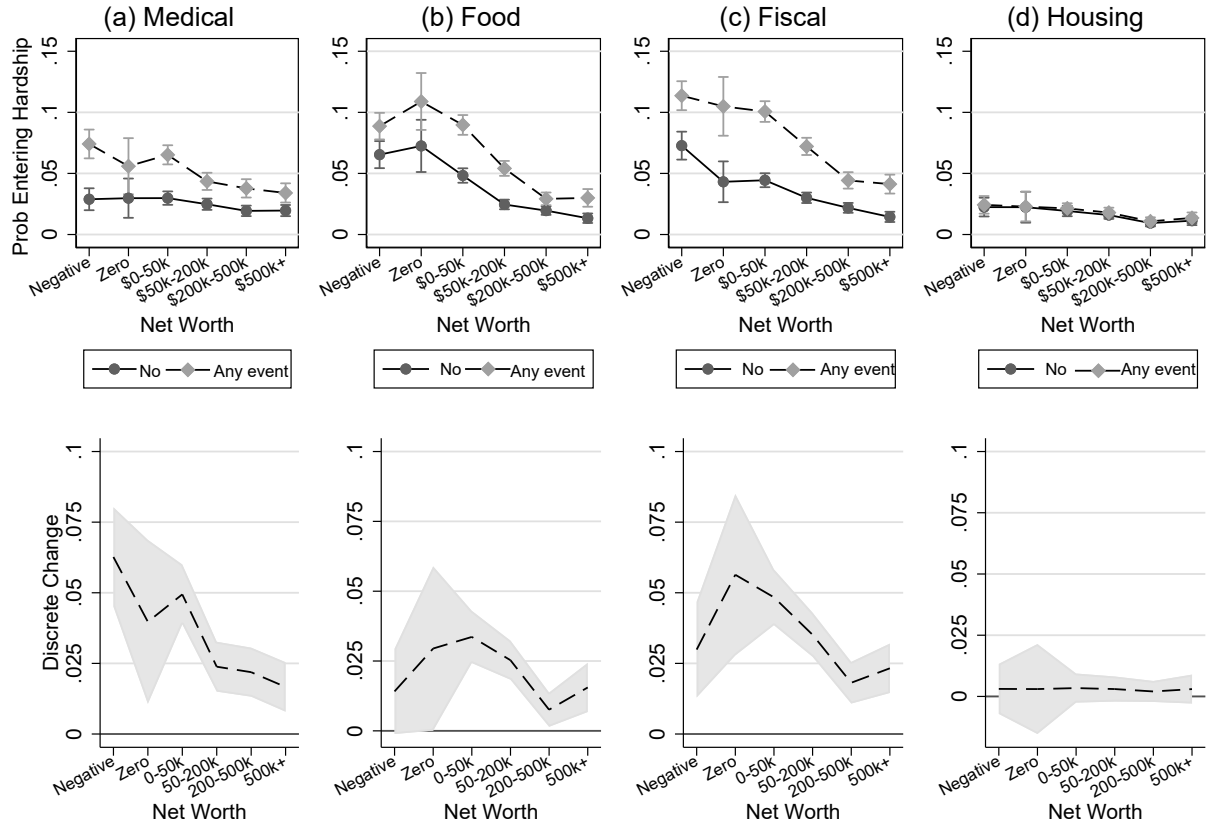
Figure A.5: Wealth Components



A.8 Dimensions of material hardship

Figure A.6 reports the probability of entering different types of material hardship in response to experiencing disruptive life-course events. Medical hardship follows the pattern of wealth buffering established earlier: Households with less wealth have larger percentage point increases in the probability of entering medical hardship (6 percent for negative net worth households) compared to a less than 2.5 percentage point increase for the three highest net worth groups. Food hardship follows a similar pattern along the distribution of positive net worth. Households with negative and zero net worth differ when considering food hardship, as these households' risk of entering food hardship does not statistically significantly differ between those experiencing an event and those who do not. This may point to the efficacy of the existing food assistance programs in meeting the food security needs of households with low resources (Bartfeld et al. 2015) but also obscure the different material conditions faced by negative net worth households (see Appendix A.4). The main pattern of wealth buffering of adverse events holds for financial hardship, albeit with a spike for households with zero net worth, which likely reflects the challenges faced by the unbanked in navigating the vagaries of a market economy without access to mainstream financial institutions and credit. Finally, housing hardship is the exception to the overall pattern established here. The risk of entering housing hardship is much lower than of entering other types of hardship, it does not appear to depend on experiencing a disruptive event, and there is no variation across the wealth distribution. We suspect that these null findings for housing hardship are due to the fact that our measure of housing hardship is limited to rather substantial aspects of housing conditions – cracks in ceiling or walls, large holes in floors, problems with pests or vermin, nonfunctional plumbing – that are likely also not immediately reactive to a lack of resources. That is, the severe deterioration of housing conditions captured in this way may take longer than a year to develop. Unfortunately, more immediate types of housing hardship, such as evictions, are not consistently captured in the SIPP data.

Figure A.6: Types of Hardship



Overall – with the explicable exception of housing hardship – our analysis of separate dimensions of material hardship reveals less variation across different indicators than our preceding analysis of different type of events did. This finding supports the use of an aggregate measure of material hardship (any hardship) for the purpose of our analysis. Such aggregate measure is also substantively meaningful as households whose material well-being is challenged may be in a situation to decide on the type of hardship they incur, e.g. choosing not to pay rent (financial hardship) rather than cutting down on food (avoiding food hardship).

A.9 Other Forms of Insurance

Table A.9: Other Forms of Insurance: Changes by Dimension

		T1	T2	Abs. Change	95% CI	% Change	95% CI
Total Income (median)	Event, Hardship	46,847	43,683	-3,164	[-5,271 ; -1,057]	-6.8	[-11.3 ; -2.3]
	Event, No Hardship	70,578	69,815	-762	[-2,109 ; 584]	-1.1	[-3.0 ; 0.8]
	No Event, Hardship	52,275	54,460	2,185	[-1,309 ; 5,679]	4.2	[-2.5 ; 10.9]
	No Event, No Hardship	74,032	75,801	1,769	[432 ; 3,107]	2.4	[0.6 ; 4.2]
Earned Income (median)	Event, Hardship	18,660	15,000	-3,660	[-5,942 ; -1,378]	-19.6	[-31.8 ; -7.4]
	Event, No Hardship	32,004	31,104	-900	[-2,481 ; 681]	-2.8	[-7.8 ; 2.1]
	No Event, Hardship	11,184	12,519	1,335	[-2,725 ; 5,395]	11.9	[-24.4 ; 48.2]
	No Event, No Hardship	18,240	20,352	2,112	[-168 ; 4,392]	11.6	[-0.9 ; 24.1]
Work Hours (mean)	Event, Hardship	50.6	48.9	-1.7	[-3.0 ; -0.3]	-3.3	[-6.0 ; -0.6]
	Event, No Hardship	56.5	55.8	-0.6	[-1.3 ; 0.0]	-1.1	[-2.3 ; 0.1]
	No Event, Hardship	50.1	50.9	0.8	[-0.8 ; 2.5]	1.7	[-1.7 ; 5.0]
	No Event, No Hardship	49.6	50.1	0.5	[-0.0 ; 1.1]	1.1	[-0.0 ; 2.2]

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