CID Discussion Paper 2020-1

Rodems, Richard & Fabian T. Pfeffer

Avoiding Material Hardship: The Buffer Function of Wealth

September 2020
www.inequalitydynamics.org

Avoiding Material Hardship:

The Buffer Function of Wealth

Richard Rodems*

Fabian T. Pfeffer

Abstract

We assess how a variety of disruptive life-course events impact the well-being of U.S. households and trace the importance of household wealth in helping families experiencing 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. Regression and decomposition 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 also demonstrate that divorce, disability, and income instability entail the risk of falling into 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 well-being of households. Policy options for addressing this highly stratified private insurance scheme includes disposing of the need for it by funding a more robust public insurance, for instance through wealth taxation.

*Please direct correspondence to Richard Rodems, University of Michigan, 426 Thompson Street, Institute for Social Research, Ann Arbor, Michigan 48104, rodems@umich.edu. A replication file for the reported analyses will be made available upon publication.

Introduction

A broad social science literature has assessed how different demographic or adverse economic events put families' economic well-being at risk. Much of this literature has focused on how such events push families into income poverty (McKernan and Ratcliffe 2005; Brady et al. 2017). 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 impacted by disruptive events (Heflin 2016; Rodems 2018). 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 research has demonstrated the effectiveness of public safety nets in buffering the harmful effects of disruptive events (DiPrete 2002; Gangl 2006; Brady et al. 2017), we show that family wealth 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 permitted the investigation of poverty spells (Pfeffer et al., 2020), revealing that poverty is not a fixed state but one that households move in and out of over the life-course (Duncan 1984; Ruggles and Williams 1987; Bane and Ellwood 1986). Building on this insight, scholars have shown that entries into a spell of income poverty often follow disruptive life-course events. For example, McKernan and Ratcliffe (2005) consider changes to household composition, employment status, disability or health status, educational attainment, and economic conditions in their analysis of events that trigger poverty entry and exit in the United States. 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), though with strong regional variation (Baker 2019).

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 essentials needs for food, housing, and health. Most research on poverty instead relies on measures of income, specifying a poverty threshold either at an absolute level, as in the office U.S. Census poverty measure, or at a relative level, as common in much of the rest of the world (Brady 2003). In addition to or in lieu of these traditional income poverty measures, some scholars have turned to measures of material hardship to directly assess the level of material well-being of households. Proponents of this approach argue that measures of material hardship directly capture the issue that is at the core of our our concern about poverty, namely the ability to meet basic necessities, such as access to food, secure housing, and health. The empirical literature on material deprivation has been expanding since the late 20th century (Townsend 1979; Mayer and Jencks 1989; Ringen 1988), but institutional support for multidimensional measures of poverty has produced a more robust empirical literature on material deprivation in Europe (Nolan and Whelan 2011) and sustained efforts to refine these measures (Guio et al. 2016). As a result, scholars have made strides in understanding the links between material deprivation in Europe and working poverty (Crettaz 2015), welfare state generosity (Saltkjel and Malmberg-Heimonen 2017; Nelson 2012), and wealth (Aittomaki et al. 2010; Christoph 2010; Loktieva 2016), 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, U.S. literature on material hardship. For the U.S., research has also documented that income poverty and material hardship are distinct concepts and empirical phenomena, with substantive portions of the U.S. population reporting material hardship well above the poverty line (Heflin et al. 2009; Iceland and Bauman 2007; Rodems 2018). 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 U.S. households experience a spell of material hardship in a given year with a substantial share of them never officially categorized as poor (Rodems 2019). 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 in particularly in the U.S. context, are guided exclusively by measures of income poverty.

Second, rather than studying the dynamics of economic well-being 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 (Skinner 1988; Dynan 1993; Lusardi 1998) 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 (Shapiro 2004; Pfeffer 2011; Haellsten and Pfeffer 2017). As a measure of economic stock rather than flow, wealth may be more effective than income in being buffering the impact of disruptive events.

We study the impact of a variety of demographic events – namely, getting divorced, having children, and the onset of a new disability – and adverse economic effects – namely, an unemployment spells, income instability, and relocation. We hypothesize that all of these events challenge the economic well-being 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. By investigating the three-way interaction between disruptive events, material hardship, and household wealth, we thus seek to contribute to scholarship on both poverty dynamics and wealth to provide an empirical foundation for a debate of social policy approaches that go beyond the typical focus on income poverty.

In the next section, we describe our data, which come from several waves of the Survey

of Income and Program Participation (SIPP). These data support a multidimensional assessment of the impact of different disruptive events on different types of material hardship. We then discuss our methods – regression and decomposition analyses – before presenting our findings on the buffering function of wealth for experiencing material hardship in the wake of disruptive events. These analyses begin with an aggregate assessment of the relationship between experiencing any event and any hardship before distinguishing different types of events – divorce, fertility, disability, unemployment spells, income instability, and relocation – and different dimensions of hardship – fiscal, housing, food, or medical hardship. We conclude by arguing that our findings should help add urgency to a more encompassing targeting of social policy based on measures of material hardship and argue that among the manifold policy views on the role of private safety nets, a critical focus should be on their role in further stratifying the distribution of economic well-being.

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. We draw on the 2008 and 2014 panels, which contain the only two nationally representative U.S. samples with repeated measures of material hardship. The SIPP underwent a significant redesign between the 2008 and 2014 panel, 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 (see National Academies of Sciences, Engineering, and Medicine 2018 for a full discussion of methodological issues raised by the redesign). For this study, we have harmonized both panels by imposing the periodicity and measurement restrictions from the 2014 panel on the 2008 panel, i.e. 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 Appendix Table B.1 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 households heads and the necessary statistical power to estimate the relationship between experiencing disruptive events and material hardship across the wealth distribution, i.e. a three-way interaction involving periodic events (although, as our descriptive analyses suggest, neither disruptive events nor entering hardship are particularly low-frequency events). All of our analyses control for panel year.

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. Appendix Table B.2 highlights this fact: The median net worth of our analytic sample is $140,966 (in 2014-$ dollars) while those excluded from our sample had a net worth of merely $6,883. Furthermore, nearly a quarter of the excluded sample was in net debt, compared to just about one in ten households in the analytic sample. Again, studying spells into hardship necessarily excludes those already in hardship, but as a result our reported findings should be interpreted as very conservative estimates of material hardship levels and the extent of disruption experienced by U.S. households.

Measures

Material Hardship

Material hardship refers to a set of basic material needs measured across four domains: fiscal hardship, food hardship, medical hardship, and housing hardship. Fiscal 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 USDA food insecurity scale, assessed through a validated five question version in the 2008 Panel (Shaefer and Gutierrez 2013) 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 measures 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 different dimensions of hardship. We measure hardship at baseline and either one or two years later (time 3; for details see Appendix Table B.1).

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[1]. 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 dip of income of 25% below their mean income during the time window, which we call income instability, and whether the household moved or relocated.

An additional note on our measure of income instability may be in order. First, the measure is intended to capture sudden fluctuations of income that may be difficult for households to absorb. Second, several of the other disruptive events analyzed here may also trigger such income instability, making sudden income losses one channel through which some of the disruptive effect of these events 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 instability (though controls for baseline income remain). Stability analysis that do control for the mediating role of income instability are reported in Appendix D and show that the events for which we find an elevated risk of entering material hardship do so even once their association with income instability is controlled for.

Household Wealth

Like most prior research (Killewald et al. 2017), 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,

[1]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 a event history calendar.

they are also conceptually distinct as access to credit itself forms an foundation of inequality processes (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 (e.g. revolving credit card balances) others may hold debt against an asset that may appreciate over time (e.g. business debt). In Appendix C, 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, categories of positive net worth are \$1-\$50,000, >\$50,000-\$200,000, >\$200,000-\$500,000, and >\$500,000 and above (in \$-2014), dividing the sample in bins of approximately 20-24% of the population (see Appendix Table A.1). Our choice of a categorical measure is based on the expectation that the buffering role of wealth may be non-linear, for instance, if a certain level of wealth is required to provide an effective safety net. Appendix C also reports a closer look at the lower end of the wealth distribution, distinguishing different wealth levels within the lower wealth category (\$1-\$50k).

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 (e.g. housing wealth, financial wealth, real wealth, and debts). 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). In sum, the interdependence of asset components and the ability of households to reallocate assets – even those beyond the well-diversified top of the distribution – suggest that a much more dynamic analytic approach would be required to study the role of distinct wealth components. Analyzing separate wealth components in our current setup will at best serve as an initial foundation for such enterprise (see Appendix E for results).

Controls

Our regressions 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, never married), total number of people in the household, and total number of children in the household. All of these variable 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.

Methods

We use logistic regression models, such as

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

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, $\mathbf{C}$. 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.

To quantify the role of household wealth in buffering the effects of disruptive events on entering material hardship, we draw on formal decomposition analyses. 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,

$$\overline{Y_W} - \overline{Y_N} = \underbrace{\left\{\overline{F(\mathbf{X}_W\beta_W)} - \overline{F(\mathbf{X}_N\beta_W)}\right\}}_{\text{E}} + \underbrace{\left\{\overline{F(\mathbf{X}_N\beta_W)} - \overline{F(\mathbf{X}_N\beta_N)}\right\}}_{C} \tag{2}$$

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 the differences in 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).

All analyses are weighted. Models are estimated in Stata 15 using the *margins* (Long and Freese 2014) and *mvdcmp* commands (Powers et al. 2011).

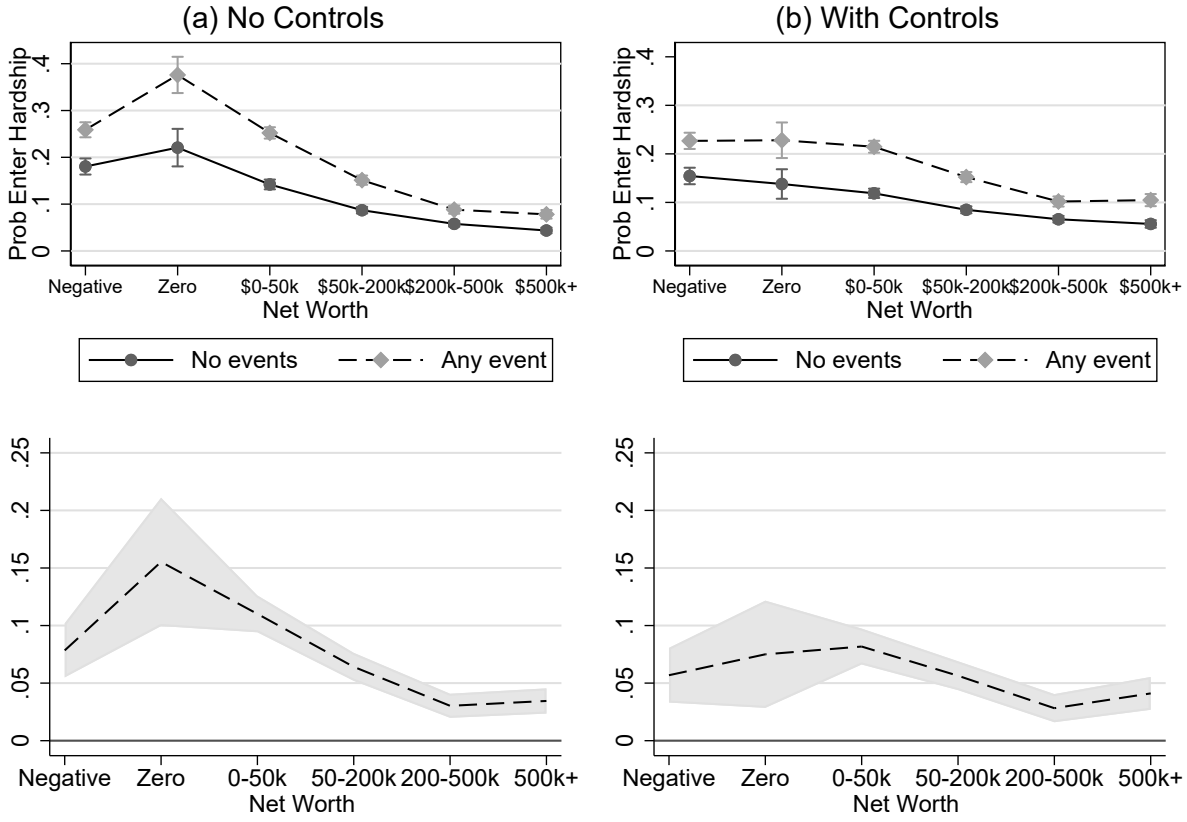
Findings

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 percent) fall into material hardship across the span of 12 months (see Table A.1), 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 percent) experience at least one of the disruptive events that we study here.

In the top panel of Figure 1a (see also Appendix Table A.2), 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 clearly 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 Appendix Table A.2, 17 percent of households who experience a disruptive event enter a spell of hardship compared to 9 percent of those who

Figure 1: Hardship and Wealth



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

do not experience any of the events included here. That is, experiencing a disruptive event is associated with nearly a doubling in the likelihood of falling into material hardship. However, as Figure 1a 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 percent to 25 percent (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 percent, a 3 percentage point increase. The highest rates of hardship (38 percent) 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 percent) – 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 (0-$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 1a provides initial descriptive evidence in favor 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.

Of course, households at different levels of the wealth distribution also differ from each other on other observable characteristics, e.g. their household income, which should also be associated with their ability to deal with disruptive events. Figure 1b 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 housheold, 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 overall pattern persists: The "impact"[2] of a disruptive event diminishes as we move up the wealth distribution: All else equal, the probability to enter material hardship is increase 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

[2]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.

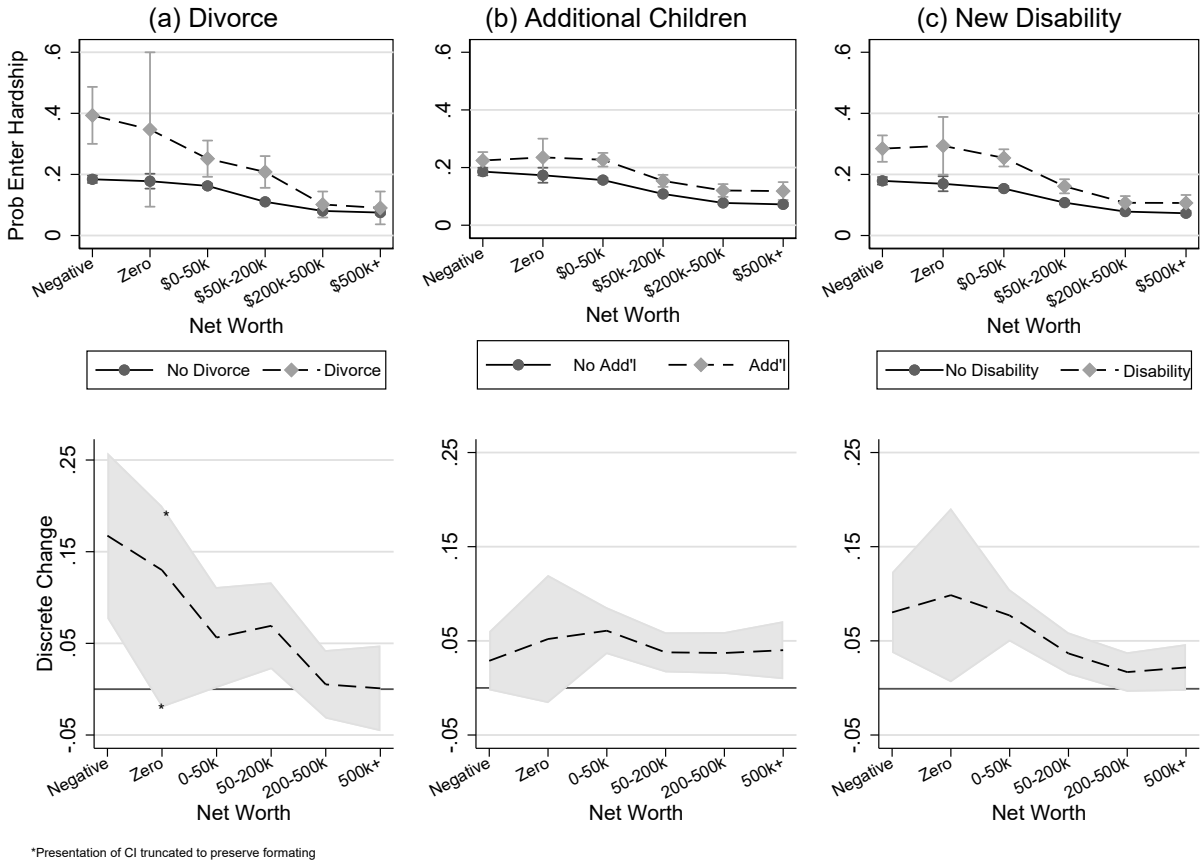
than $200,000 may be sufficient insurance. Overall, this evidence suggests is in line with our hypothesized safety net function of household wealth as it appears that substantial wealth effectively buffers the impact of disruptive life-course events.

Appendix C.2 additionally reports findings from a more fine-grained categorization of households at the bottom of the wealth distribution. They i) reveal a lack of effective insurance throughout our lowest positive wealth group ($1-$50k) and ii) while the group of households in net debt may be heterogeneous, it is dominated by those holding debt without any assets and 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 (i.e., 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 discrete 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 equal, divorce is associated with nearly a 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 dollars, 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

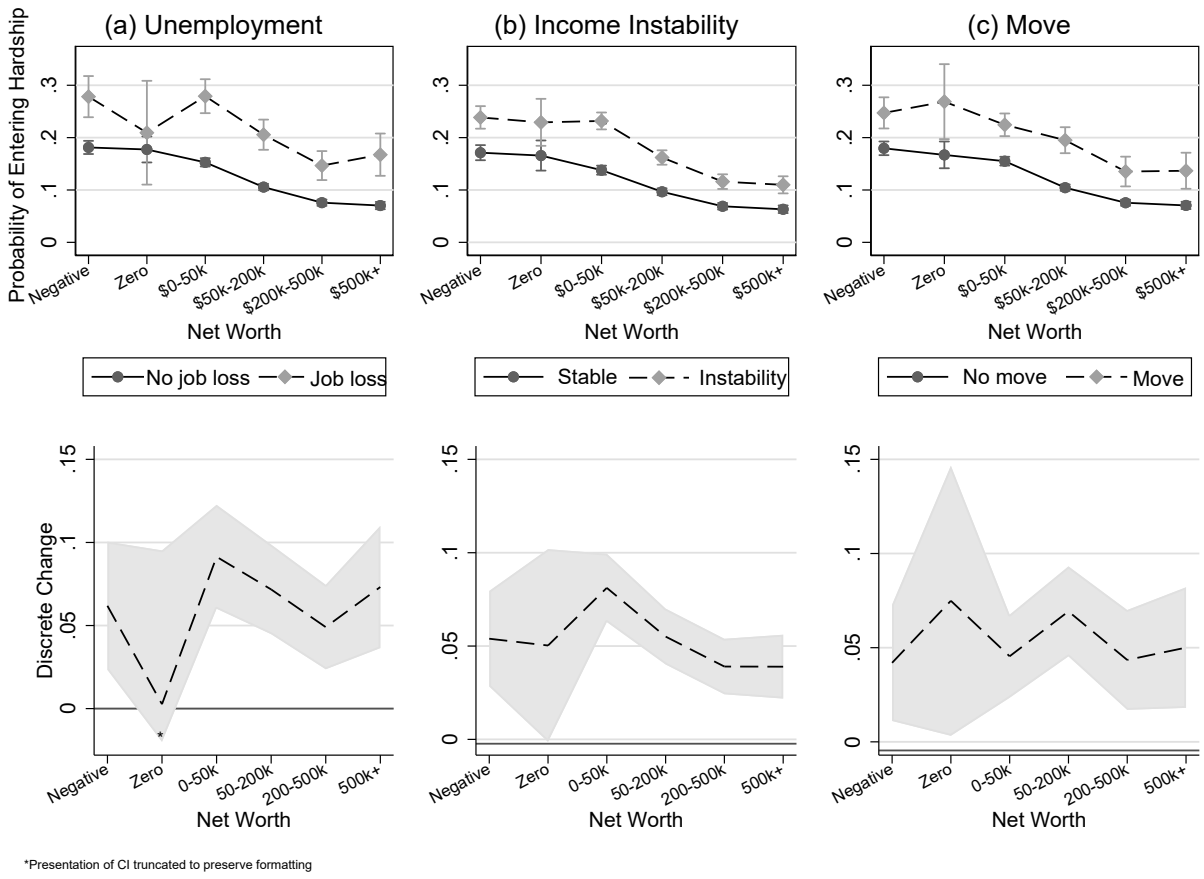
Figure 2: Hardship and Demographic Events



the panel data we use here does not allow following the former spouse). A similar pattern exists for new disabilities in the household, which is associated with a 8 percentage point increase in the risk of entering a spell of hardship for lower net worth households but the difference in risk for the two groups becomes statistically indistinguishable 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 3 to 4 additional percentage points (all else equal). This more widely shared hardship risk arising from having children may stem from the particularly high costs of early childhood care and absence of consistent parental leave policies in the U.S. context. Prior work has found that households with children have much higher rates of material hardship than other households (Rodems and Shaefer 2020) and this analysis

suggests that the addition of children itself may set these households onto a less materially secure track.

Figure 3: Hardship and Economic Events



Next, we assess three types of economic events – unemployment spells, income instability (a loss of 25% below average income), and moving – in Figure 3. While the negative association between wealth and hardship persists – all else 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 instability: The negative impact of sudden income losses on entering material hardship is greatest at 8 percentage points among those with positive net worth up $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

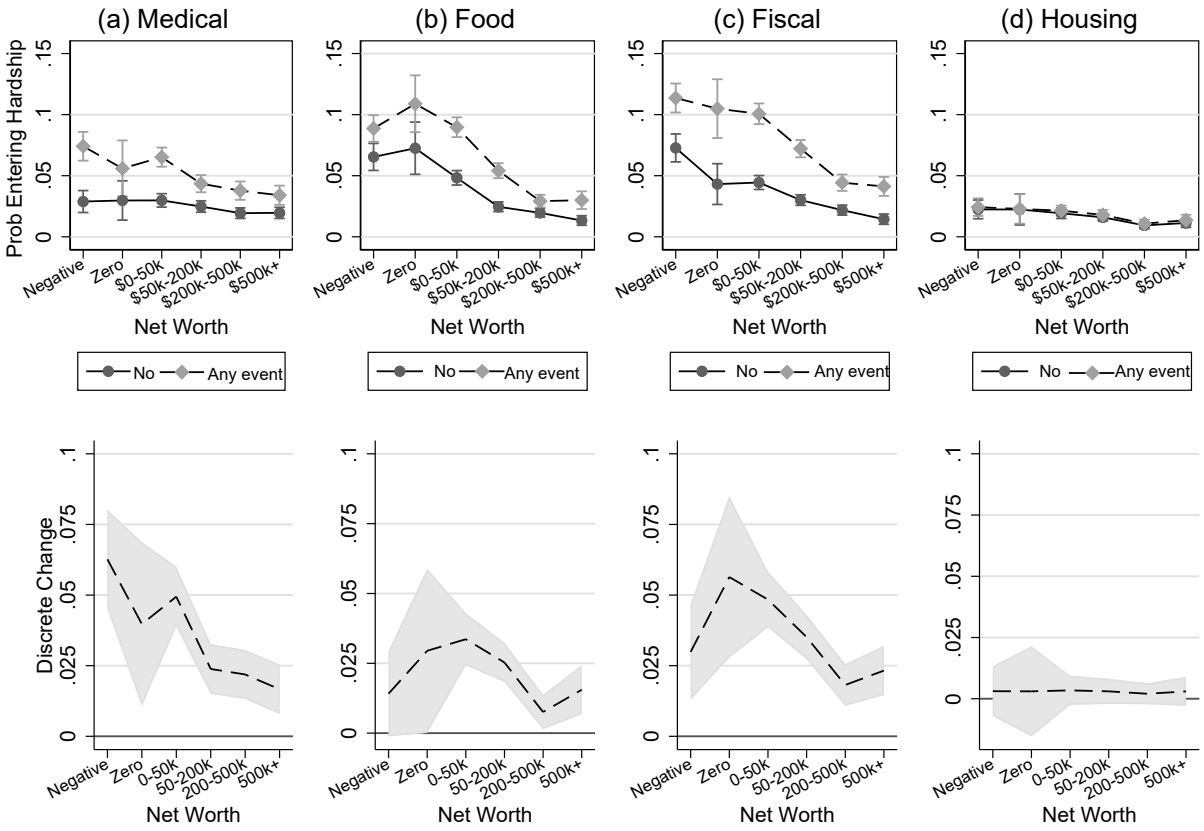
imprecise). In contrast, the pattern for unemployment spells and moves is inconsistent, but around a 5 percentage point increase across the wealth distribution. This may likely arise from the fact that relocation decision may often involve more strategic considerations, such alternative labor market opportunities (moving to better jobs) or reduction of expenses (downsizing, neighborhood change), counterbalancing those instances where moves are more exogenous, unplanned. Finally, unemployment spells, all else 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 labor market disruptions have more widely shared impacts on material well-being than all other disruptive events studied here.

Dimensions of material hardship

Figure 4 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 C). The main pattern of wealth buffering of adverse events holds for fiscal 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

Figure 4: Types of Hardship



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 the 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.

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. chosing not to pay rent (fiscal hardship) rather than cutting down on food (avoiding food hardship).

Decomposition

The analyses so far have revealed a pattern consistent with the hypothesized buffer function of wealth for a number of types of events and hardship. In this final part of our empirical analysis, we seek to quantify the degree to which this buffer function helps explain the overall difference in the levels of hardship experienced across the wealth distribution. We should note 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 captures 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 important to push them into hardship (as already demonstrated in our prior analyses). In 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 2) and the second process is captured by what is typically called "differences in coefficients" or "unexplained component" (the C term in equation 2). The buffer function of wealth leads to a difference in coefficients as it reduces the influence of disruptive events.

Table 1: Decomposition

% due to difference in		Model: Logistic	Model: Probit
Any event, any hardship			
Characteristics	(E)	4.2	4.0
Coefficients	(C)	4.0	8.2
Types of events			
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
Types of hardship			
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

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 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 1 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 1 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 1 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 logistic 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 instability. On the other hand, and in line with the conclusions established earlier – 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 fiscal hardship (for the latter, this is restricted to the probit model).

Conclusion

In this contribution, we have assessed the dynamics of hardship among U.S. households, tracing how a variety of demographic and disruptive economic 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 because we hypothesized that wealth provides a important private safety net. In line with that hypothesis, we found that wealthy households are indeed less likely to enter material hardship as a 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 instability 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. Finally, decomposition analyses 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. We emphasize that the evidence presented

is descriptive and household wealth may proxy for a range of other differences between households.

Therefore, households in the U.S. appear to rely on two safety nets to meet their material needs during times of challenge. On the one side, as subject to most studies of anti-poverty policies in the U.S., a public safety net composed of social assistance and social insurance programs such as Temporary Assistance to Needy Families (TANF, a workfare program with strong state level variation in its implimentaiton), the Supplemental Nutritional Assistance Program (SNAP, a means-tested, quasi-cash food assistance program), Unemployment Insurance (UI), and Social Security (SSI, old age insurance, and SSDI, disability insurance). However, on the one side, as we show in this contribution, households als rely on a private safety net provided by household net worth. Wealth provides significant insurance for some households to meet their material needs in difficult times. Our analyses 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 wealth, in contrast, appears quite effective in preventing hardship following events such as a divorce, a disability, or income instability – however, only for those with significant wealth. 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 that arise from an increased focus on the role of wealth. The widespread and sustained effects of the ongoing public health crisis, perhaps the most disruptive event experienced by most households, of course, add further urgency to our attention to the insufficiency of public insurance schemes and the highly disparate access to private insurance schemes in the U.S. context.

First, some social policy analysts may interpret our findings as a call for increased targeting of social safety programs towards household *wealth* in addition to *income.* Because social safety net programs 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 expanded to broadly include asset tests, albeit with far more generous asset limits than are currently applied. Asset tests are also found in some European welfare states, but often involve a gradual tapering of benefits as net worth rises or cut-offs at substatially higher levels, often approaching the levels needed to "self insure" documented in this contribution (Marchal et al. 2020). While a great deal could be learned from the European experience with tapered but generous asset tests, we would emphasize potential unintended consequences of applying such approach to the U.S. context, particularly given the racialized dynamics of the U.S. welfare state (Rodems and Shaefer 2016). We do not consider increased asset-testing as a promising policy option as continued means-testing will likely lead to further contraction of public insurance schemes in favor of new private schemes. Reserving a "golden parachute" to those who can afford it is bound to further stratify economic well-being 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 programs when it comes to their ability to reduce families' risk of experiencing material hardship: We show that very substantial wealth levels in the six digit range are required to fully buffer common risks such as divorce, disability, or a substantial income instability. Existing asset-building programs, for good reason, are aimed at building wealth in the three digit range (e.g. $500; see Sherraden 1991; 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 these levels are stakeholder grants or unconditional block grants (Allstot and Ackerman 2000; Ackerman et al. 2006).

Third, governments can and do insure households against a variety of disruptive events, e.g. against unemployment through UI or against disability through the SSI and SSDI programs, 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 programs – for instance to

the provision of a universal child allowance (Shaefer et al. 2018) or parental leave policies (Gornick and Meyers 2003) to prevent families with children fall into material hardship – would move the United States towards the level of social protection found in other affluent nations (see also Kenworthy 2014). Calls for increase 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 (Wolff 1995, 2017; Saez and Zucman 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 Sates, where it can be traced as far back as the post-revolutionary era (Paine 1797). 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). In the current context of extreme wealth concentration, raising revenue through wealth and inheritance taxation and reinvesting it in expanded public insurance schemes should be pursued to eradicate the need for private insurance that is currently met only for wealthy households.

References

Aalbers, Manuel B. 2016. *The Financialization of Housing: A Political Economy Approach*. Routledge.

Ackerman, Bruce A., Anne Alstott, Philippe van Parijs, and Erik Olin Wright. 2006. *Redesigning distribution: basic income and stakeholder grants as alternative cornerstones for a more egalitarian capitalism*. Verso.

Aittomaki, Akseli, Pekka Martikainen, Mikko Laaksonen, Eero Lahelma, and Ossi Rahkonen. 2010. "The associations of household wealth and income with self-rated health. A study on economic advantage in middle-aged Finnish men and women." *Social Science & Medicine* 71:1018–1026.

Allstot, Anne and Bruce A. Ackerman. 2000. *The Stakeholder Society*. New Haven: Yale University Press.

Baker, Regina S. 2019. "Why is the American South Poorer?" *Social Forces* p. 149.

Bane, Mary Jo and David T. Ellwood. 1986. "Slipping into and out of Poverty: The Dynamics of Spells." *The Journal of Human Resources* 21:1.

Bartfeld, Judith, Craig Gundersen, Timothy Smeeding, and James P. Ziliak. 2015. *SNAP Matters: How Food Stamps Affect Health and Well-Being*. Stanford University Press.

Brady, D. 2003. "Rethinking the Sociological Measurement of Poverty." *Social Forces* 81:715–751.

Brady, David, Ryan M. Finnigan, and Sabine HÃŒbgen. 2017. "Rethinking the Risks of Poverty: A Framework for Analyzing Prevalences and Penalties." *American Journal of Sociology* 123:740–786.

Bridges, Thomas P and Frank P Stafford. 2020. "Pre-Retirement Pension Saving: Responses to Liquidity Change and Consumption Needs." *Working Paper* .

Christoph, Bernhard. 2010. "The Relation Between Life Satisfaction and the Material Situation: A Re-Evaluation Using Alternative Measures." *Social Indicators Research* 98:475–499.

Crettaz, Eric. 2015. "Poverty and material deprivation among European workers in times of crisis. Working poverty in the EU 08-12." *International Journal of Social Welfare* 24:312–323.

DiPrete, Thomas A. 2002. "Life Course Risks, Mobility Regimes, and Mobility Consequences. A Comparison of Sweden, Germany, and the United States." *American Journal of Sociology* 108:267–309.

Duncan, Greg J. 1984. *Years of poverty, years of plenty: the changing economic fortunes of American workers and families*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan.

Dwyer, Rachel E. 2018. "Credit, Debt, and Inequality." *Annual Review of Sociology* 44:237–261.

Dynan, Karen E. 1993. "How Prudent are Consumers?" *Journal of Political Economy* 101:1104–1113.

Fligstein, Neil and Adam Goldstein. 2015. "The emergence of a finance culture in American households, 1989-2007." *Socio-Economic Review* 13:575–601.

Gangl, Markus. 2006. "Scar Effects of Unemployment: An Assessment of Institutional Complementarities." *American Sociological Review* 71:986–1013.

Gornick, Janet C. and Marcia K. Meyers. 2003. *Families That Work: Policies for Reconciling Parenthood and Employment*. Russell Sage Foundation.

Guio, Anne-Catherine, Eric Marlier, David Gordon, Eldin Fahmy, Shailen Nandy, and Marco Pomati. 2016. "Improving the measurement of material deprivation at the European Union level." *Journal of European Social Policy* 26:219–333.

Hacker, Jacob S. 2007. *The Great Risk Shift. The New Economic Insecurity and the Decline of the American Dream*. Oxford: Oxford University Press.

Haellsten, Martin and Fabian T. Pfeffer. 2017. "Grand advantage: Family wealth and grandchildren's educational attainment in Sweden." *American Sociological Review* 82:328–360.

Heflin, Colleen. 2016. "Family Instability and Material Hardship: Results from the 2008 Survey of Income and Program Participation." *Journal of Family and Economic Issues* 37:359–372.

Heflin, Colleen, John Sandberg, and Patrick Rafail. 2009. "The Structure of material Hardhsip in U.S. Households: An Examination of the Coherence behind Common Measures of Well-Being." *Social Problems* 56:746–764.

Heflin, Colleen H. and J. S. Butler. 2013. "Why Do Women Enter and Exit From Material Hardship?" *Journal of Family Issues* 34:631–660.

Heflin, Colleen M. 2017. "The Role of Social Positioning in Observed Patterns of Material Hardship: New Evidence from the 2008 Survey of Income and Program Participation." *Social Problems* 64:513–531.

Hurst, Erik and Frank P. Stafford. 2004. "Home Is Where the Equity Is: Mortgage Refinancing and Household Consumption." *Journal of Money, Credit, and Banking* 36:985–1014.

Iceland, John and Kurt J. Bauman. 2007. "Income poverty and material hardship: How strong is the association?" *The Journal of Socio-Economics* 36:376–396.

Kenworthy, Lane. 2014. *Social Democratic America*. OUP USA.

Killewald, Alexandra, Fabian T. Pfeffer, and Jared N. Schachner. 2017. "Wealth Inequality and Accumulation." *Annual Review of Sociology* 42:379–404.

Loktieva, Iryna. 2016. "Approaches to Empirical Analysis of Social Exclusion: International Comparison." *Economics & Sociology* 9:148–157.

Long, Scott J. and Jeremy Freese. 2014. *Regression Models for Categorical Dependent Variables Using Stata*. College Station, TX: Stata Press.

Lusardi, Annamaria. 1998. "On the Importance of the Precautionary Saving Motive." *The American Economic Review* 88:449–453.

Marchal, Sarah, Sarah Kuypers, Ive Marx, and Gerlinde Verbist. 2020. "Singling out the truly needy: the role of asset testing in European minimum income schemes." Working Paper 20.03, Herman Deleeck Centre for Social Policy, University of Antwerp.

Mayer, Susan and Christopher Jencks. 1989. "Poverty and the Distribution of Material Hardship." *The Journal of Human Resources* 24.

McKernan, Singe-Mary and Caroline Ratcliffe. 2005. "Events that Trigger Poverty Entries and Exits." *Social Science Quarterly* 86.

National Academies of Sciences, Engineering, and Medicine. 2018. *The 2014 Redesign of the Survey of Income and Program Participation: An Assessment*. Washington, D.C.: National Academies Press.

Nelson, Kenneth. 2012. "Counteracting material deprivation: The role of social assistance in Europe." *Journal of European Social Policy* 22:148–163.

Nolan, Brian and Christopher T. Whelan. 2011. *Poverty and deprivation in Europe*. Oxford ; New York: Oxford University Press.

Paine, Thomas. 1797. "Agrarian Justice."

Pfeffer, Fabian T. 2011. "Status Attainment and Wealth in the United States and Germany." In *Persistence, Privilege, and Parenting*, edited by Timothy M Smeeding, Robert Erikson, and Markus Jaentti, pp. 109–137. New York: Russell Sage Foundation.

Pfeffer, Fabian T., Paula Fomby, and Noura Insolera. 2020. "The Longitudinal Revolution: Sociological Research at the 50-Year Milestone of the Panel Study of Income Dynamics." *Annual Review of Sociology* .

Powers, Daniel A., Hirotoshi Yoshioka, and Myeong-Su Yun. 2011. "Mvdcmp: Multivariate Decomposition for Nonlinear Response Models." *The Stata Journal: Promoting communications on statistics and Stata* 11:556–576.

Ringen, Stein. 1988. "Direct and Indirect Measures of Poverty." *Journal of Social Policy* 17:351.

Rodems, Richard. 2018. *Hidden Hardship: Three Essays on Material Well-Being in the United States*. Unpublished dissertation, University of Michigan, Ann Arbor, MI.

Rodems, Richard. 2019. "Hidden Hardship in the United States: Material Well-Being Above the Poverty Line." Technical report, The Inequality Lab.

Rodems, Richard and H. Luke Shaefer. 2016. "Left Out: Policy Diffusion and the Exclusion of Black Workers from Unemployment Insurance." *Social Science History* 40:385–404.

Rodems, Richard and H. Luke Shaefer. 2020. "Many of the kids are not alright: Material hardship among children in the United States." *Children and Youth Services Review* 112:104767.

Ruggles, Patricia and Roberton Williams. 1987. "Transitions In and Out of Poverty: New Data from the Survey of Income and Progrma Participation." Technical Report 38, Census Bureau.

Saez, Emmanuel and Gabriel Zucman. 2019. *The Triumph of Injustice: How the Rich Dodge Taxes and How to Make Them Pay*. W. W. Norton & Company.

Saltkjel, Therese and Ira Malmberg-Heimonen. 2017. "Welfare Generosity in Europe: A Multi-level Study of Material Deprivation and Income Poverty among Disadvantaged Groups." *Social Policy & Administration* 51:1287–1310.

Schreiner, Mark and Michael Sherraden. 2007. *Can the Poor Save? Saving and Asset Building in Individual Development Accounts*. New Brunswick: Transaction Publishers.

Shaefer, H. Luke and Italo A. Gutierrez. 2013. "The Supplemental Nutrition Assistance Program and Material Hardships among Low-Income Households with Children." *Social Service Review* 87:753–779.

Shaefer, Luke, Sophie Collyer, Greg Duncan, Kathryn Edin, Irwin Garfinkel, David Harris, Timothy Smeeding, Jane Waldfogel, Christopher Wimer, and Hirokazu Yoshikawa. 2018. "A Universal Child Allowance: A Plan to Reduce Poverty and Income Instability among Children in the United States." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 4:22.

Shapiro, Thomas M. 2004. *The Hidden Cost of Being African American. How Wealth Perpetuates Inequality*. Oxford: Oxford University Press.

Sherraden, Michael. 1991. *Assets and the Poor. A New American Welfare Policy*. Armonk, NY: M.E. Sharpe.

Skinner, Jonathan. 1988. "Risky income, life cycle consumption, and precautionary savings." *Journal of Monetary Economics* 22:237–255.

Townsend, Peter. 1979. *Poverty in the United Kingdom: a survey of household resources and standards of living*. Berkeley: University of California Press.

Treanor, Morag C. 2014. "Deprived or not deprived? Comparing the measured extent of material deprivation using the UK government's and the Poverty and Social Exclusion surveys' method of calculating material deprivation." *Quality & Quantity* 48:1337–1346.

Wolff, Edward N. 1995. *Top Heavy. A study of the increasing inequality of wealth in America*. New York: Twentieth Century Fund Press.

Wolff, Edward N. 2017. *A Century of Wealth in America*. Cambridge: Belknap Press.

A 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
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

Table A.2: Hardships Rates by Event and Wealth

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

Table A.3: Hardships and Events by Wealth

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

B Sample Information

B.1 Sample Structure

Table B.1: 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

B.2 Selectivity of Analytic Sample

Table B.2: Selectivity of Baseline Sample

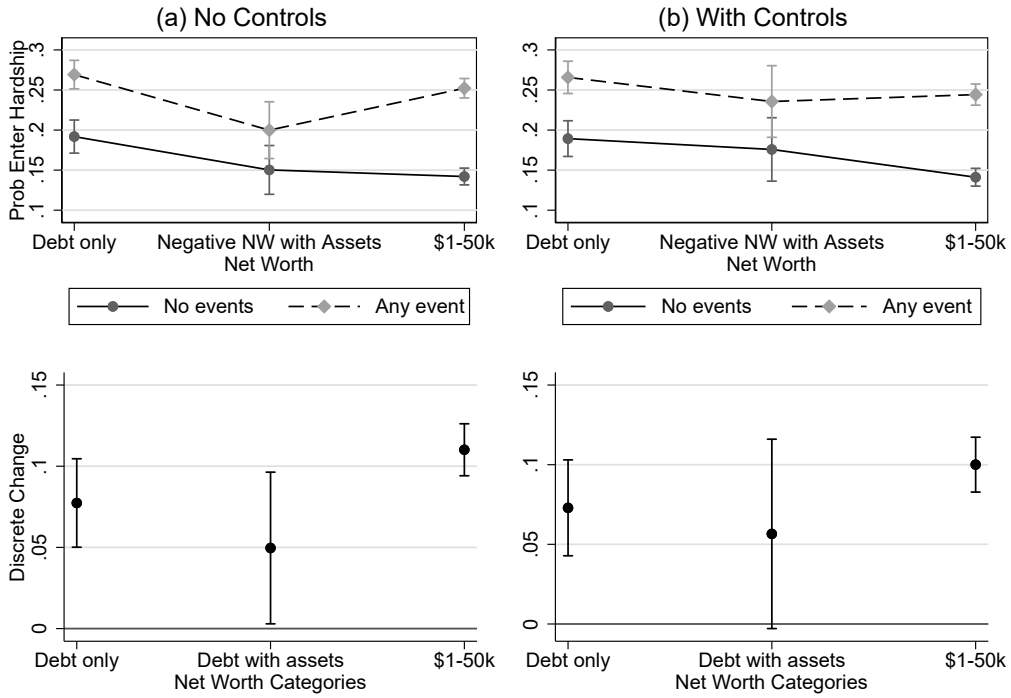
	Analytic Sample (No Hardship at Baseline)	Excluded Sample (Hardship at Baseline)
Number of Observations	71,685	19,341
Share of total	78.8	21.3
HH Net Worth		
Median	$140,966	$6,883
HH Net Worth Categories		
Negative	10.9	24.2
Zero	2.0	7.8
$0-50k	20.5	35.9
$50k-200k	25.5	19.5
$200k-500k	22.6	8.3
$500k+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

C Associations at the Low End of Net Worth

C.1 Negative and Zero Net Worth

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

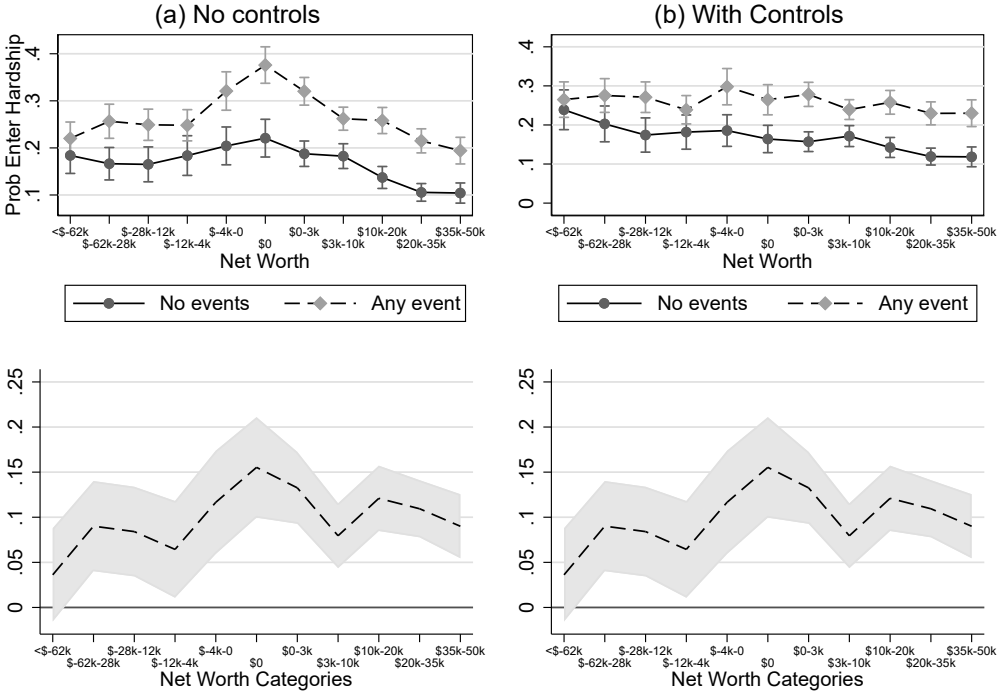
Figure C.1: Debt and Negative Net Worth



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 housheold 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 postive 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 presnet 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 C.2: Low Net Worth



C.2 Low Net Worth

Figure C.2 reports the main analysis (all hardship, all events) by smaller categories of net worth for the negative net worth cateogry 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 lifecourse.

D Controls for Income Instability

Figure D.1: Hardship and Demographic Events, Controlled for Income Instability

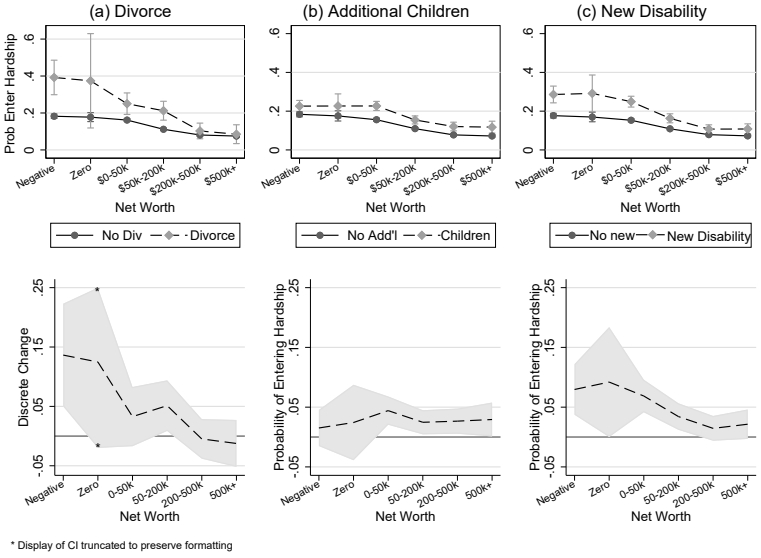
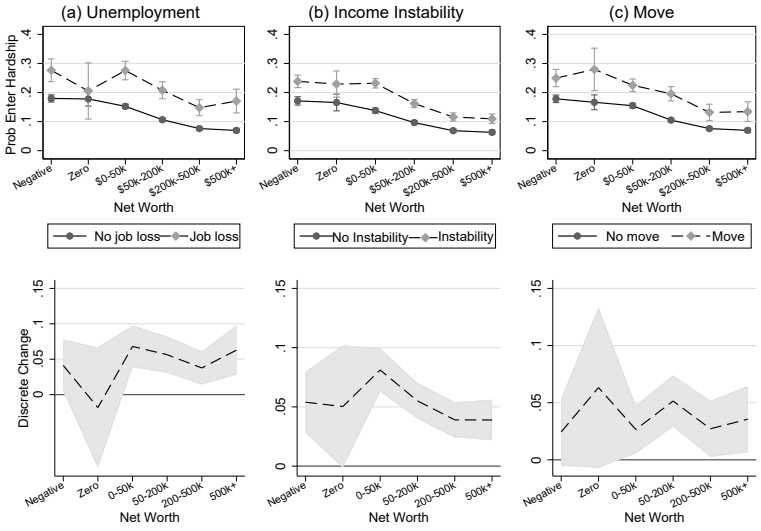
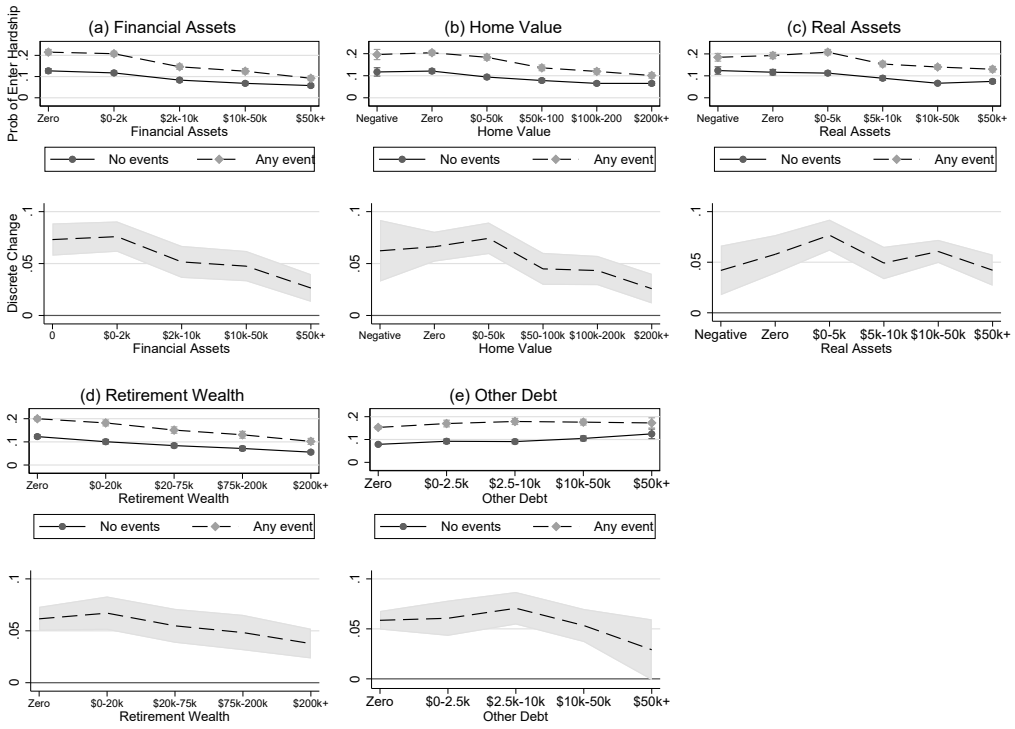


Figure D.2: Hardship and Economic Events, Controlled for Income Instability



E Wealth Components

Figure E.1: Wealth Components



CID Discussion Paper Series

The Center for Inequality Dynamics at the University of Michigan is an open and multidisciplinary research center, bringing together students and faculty from a variety of fields, including sociology, economics, public policy, social work, philosophy, education, and others. It pursues cutting-edge research and innovative teaching on one of the central societal challenges of our time: social inequality. With a focus on the dynamics of social inequality, CID's scientific mission is to develop a better understanding of changes and stability in social inequality across time, generations, and sociopolitical contexts. The center also helps expands the social scientific data infrastructure available to support research on these topics and increases the accessibility of high-quality data for inequality researchers everywhere.

The CID Discussion Paper Series serves to distribute ongoing work by affiliates of the Center for Inequality Dynamics.

Center for Inequality Dynamics
University of Michigan
www.inequalitydynamics.org