

# Household Financial Fragility during COVID-19: Rising Inequality and Unemployment Insurance Benefit Reductions

December 2020

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## Abstract:

We draw on new high frequency survey data collected from repeated cross-sections of Americans over the period June 2020 through October 2020. These data capture rich measures of household financial fragility and employment status. We find no evidence of an economic recovery in household finances as of October of 2020. In fact, by some measures, we find evidence of a building “second wave” of negative shocks to household finances and of growing inequality in financial fragility by household income, educational attainment, and gender from August to September/October of 2020. Finally, using difference-in-difference models, we estimate that the expiration of the CARES Act’s Pandemic Unemployment Compensation benefits, which augmented unemployment insurance by \$600 a week, significantly increased the financial fragility of unemployed workers in America.

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October 24, 2020 (First Draft)  
December 21, 2020 (Updated)

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# Household Financial Fragility during COVID-19: Rising Inequality and Unemployment Insurance Benefit Reductions

## **Abstract**

We draw on new high frequency survey data collected from repeated cross-sections of Americans between June and November 2020. These data capture rich measures of household financial fragility and employment status. We find evidence of a building “second wave” of negative shocks to household finances and of growing inequality in financial fragility by household income, educational attainment, and gender from August to November of 2020. Finally, using difference-in-difference models, we estimate that the expiration of the CARES Act’s Pandemic Unemployment Compensation benefits, which augmented unemployment insurance by \$600 a week, significantly increased the financial fragility of unemployed workers in America.

Each day brings new data on the spread of COVID-19, with graphs charting new waves of infections, which groups are most affected, and the short- and long-term impact of the disease. But COVID-19 is not only a public health crisis, it is an economic challenge as well.

Research to date on the economic impact of COVID-19 in the United States has focused on the macro-economic impact or on changes in employment. A smaller body of research has examined the incidence of material hardship and difficulty paying bills during the pandemic and the protective role that the CARES Act played in buffering household finances. With the expiration of the CARES Act, the United States faces an unequal recovery in which the most vulnerable in America become ever more financially fragile. Yet, little research has examined trends in financial fragility over the course of the pandemic and almost no research has examined the consequences of the CARES Act's expiration for household finances.

In this paper, we show, using new high frequency survey data, the evolution of American household fragility over the course of the past few months. These data were collected from repeated cross-sections of the United States population between June 2020 and November 2020. We examine changes over time in four measures of financial fragility - spending in excess of income, difficulty paying bills, having little or no short-term savings, and being stressed by financial situation in the last month. We then examine inequality in these measures of fragility by socio-demographic characteristics. Finally, we estimate a set of models that look at the same four economic outcomes as a function of employment status over time. We use a difference-in-difference approach, where we would expect no divergence in trend between employed and unemployed in the June - August period (while the Pandemic Unemployment Compensation (PUC) provision for \$600 expanded unemployment insurance was in effect),

but perhaps widening gaps between the unemployed and others in the August - November period (after the PUC expired).

We document three stylized facts. First, while unemployment rates have partially abated in a V-like pattern, households have not seen meaningful economic recovery and, in fact, there appears to be a troubling “second wave” in household fragility among Americans, in part due to economic policy. Second, some socio-demographic groups of Americans remain far more exposed to financial fragility than others. We describe large differences in the financial fragility of Americans by race/ethnicity, gender, age, educational attainment, and household income. These gaps existed prior to the COVID-19 crisis. But, inequality in financial fragility along the lines of household income, educational attainment, and gender markedly increased between August and November of 2020. Third, public policy can effectively buttress this financial fragility. The converse of course is that when policy steps back, fragility can be exacerbated. While the incidence of unemployment has reduced since the peak in April of 2020, for unemployed workers, fragility has increased since the expiration of the PUC (the \$600 UI benefit). We estimate a set of difference-in-difference models and find that the expiration of the PUC has led to a 50-100% increase in financial fragility among the unemployed, contributing to the small literature on the effects of UI expiration/exhaustion on household finances and consumer behavior.

## 1 Background

### 1.1 Financial Fragility and COVID-19

A number of recent papers have examined the impact of COVID-19 on economic activity, including unemployment rates, business failure and macroeconomic indicators (e.g. Chetty et al., 2020; Gourinchas et al., 2020; Bartik

et al., 2020). Other papers and news stories have documented the effects on individuals and households, which include reduced levels of consumption, increased levels of savings for the affluent, negative consequences for mental health (e.g. Andersen et al., 2020; Athreya et al., 2020; Dossche and Zlatanos, 2020; Holingue et al., 2020; Moen et al., 2020; Xiong et al., 2020).

Building upon our earlier work (Lusardi, Schneider and Tufano, 2011), which examined and coined the term “financial fragility” examining how households navigated through a crisis of major proportion (the financial crisis of 2007-2008), we examine household economic well-being through metrics of how “close to the edge” these families are or perceive themselves to be in the current crisis. Financial fragility can be measured in a variety of ways, including the ability to come up with resources in time of need or access to liquid assets that can replace several months of lost income, or measures of realized financial difficulties (Lusardi, Schneider and Tufano, 2011; Demertzis et al., 2020; Desai and Forsberg, 2020).

While research has closely tracked unemployment and macro-economic indicators, the evolution of financial fragility over the pandemic has been less well documented. An analysis of financial fragility using a measure of the inability to come up with \$2,000 within 30 days (as proposed in Lusardi et al., 2011) and a variety of data sets shows that, since the financial crisis of 2007-2008, where financial fragility in the US reached peaks of 50%, financial fragility has been declining steadily over time. Lusardi et. al. (2020) show that as of January 2020, just before the start of the pandemic and its economic consequences, as many as 27% of US households were still financially fragile. One-in-three households reported difficulties with making ends meet and a similar percentage reported that because of their ongoing debt payments they were unable to adequately address other financial priorities. Even dur-

ing a time of economic expansion and high employment, many US families remained in financial distress. Observing the degree of financial fragility and the response of household financial fragility to changes in the policy environment, is important for guiding policy and programs.

There is little research that examines financial fragility over the course of the pandemic. Research early in the pandemic, in March and April of 2020, found that one third of adults reported cutting back spending on food and 40% had reduced major household purchases (Karpman et al., 2020). But, data from the USC Center for Economic and Social Research’s Understanding Coronavirus in America tracking survey appears to show fairly constant financial fragility levels (in terms of being able to come up with \$2,000 in the next month if needed) over the period June through November (Kapteyn et al., 2020) as does some work examining trends in food insecurity in the Household Pulse Survey (Rowe, 2020).

## **1.2 Socio-Demographic Inequality in Financial Fragility**

These aggregate statistics conceal large differences across demographic groups. Prior to the COVID-19 pandemic, there were wide gaps in financial fragility by race/ethnicity. In January 2020, 50% of African-Americans and 31% of women were considered financially fragile, versus just 21% of whites and 23% of men (Lusardi et. al., 2020). In the midst of the pandemic, these inequalities were strongly persistent, with African American and Hispanic households more likely to experience food insecurity and have trouble paying bills (Clemens et al., 2020).

Financial fragility is also stratified by education and income levels. Those with lower educational attainment and lower incomes were more likely to be financially fragile, but notably, fragility is not uncommon even among the

higher-earning and more highly educated (Hasler et al., 2018; Lusardi, 2019; Lusardi, Schneider, and Tufano, 2011). For example, prior to COVID-19, around 30% of middle-income households reported that they would struggle to cope with a \$2,000 expense within a month’s timeframe (Hasler and Lusardi, 2019). During COVID-19, one clear emergent finding is that for low-income households, the pandemic appears to have increased material hardship, both in terms of food insecurity (Bitler et al., 2020; Schanzenbach and Pitts, 2020; Waxman, 2020; Ziliak, 2020) and housing insecurity (Engelhardt and Erickson, 2020; Greene and McCargo, 2020; Grinstein-Weiss et al., 2020). Less educated households continue to struggle to pay bills more than those with greater educational attainment (Clemens et al., 2020). But, for higher-income households, the pandemic does not appear to have been a drag on household economic security, with higher-income households increasing savings (Cox et al., 2020).

Women are disproportionately represented among occupations that require personal contact and where employment losses have been largest during COVID-19. As a consequence, women have been more likely to lose their jobs than men (Alon et al. 2020). Additionally, increased childcare demands due to continuing closures of schools and daycare centers have fallen disproportionately on mothers (Prados, 2020). These gender-unequal COVID-19 shocks are likely to compound existing gender inequalities in financial fragility. Even during times of economic growth, women had higher levels of financial fragility (Hasler and Lusardi, 2019) and, as such, their ability to deal with a larger financial shock, such as extended unemployment during the COVID-19 crisis, is likely to be even lower.

Young adults (individuals age 18-37 in 2018) were also already a group at risk for financial fragility (Bolognesi et al., 2020). Young workers were

saddled by debt, were late in making debt payment obligations, and their money management behavior indicated signs of financial distress. Indeed, even before the CARES Act allowed people to withdraw from retirement accounts, many young adults were already tapping in their retirement accounts.

### **1.3 Unemployment and Financial Fragility**

The unemployment rate and number of unemployed has dramatically changed since February 2020. The shutdown of the economy that sought to slow the spread of the virus began in March 2020, after which the unemployment rate jumped from a historical low of 3.5% in February, to a high of 14.7% in April 2020. Thereafter, as some states started to reopen, unemployment fell to 13.3% in May and to 10.2% in July, but millions of Americans remained jobless into the autumn as unemployment rates remained at nearly 7%, approximately twice the pre-pandemic level.

Given the critical role of employment - and the loss of jobs as a result of public-health imposed lockdowns, governments around the world have created schemes to either keep workers employed while on furlough (such as in the United Kingdom) or by paying employers to continue to keep people employed (such as the US Paycheck Protection Plan). In the US, the federal government passed the CARES Act on March 27, 2020, sending economic impact payments of up to \$1,200 per adult (with smaller or zero payments for high earners) and \$500 per minor child to American citizens and permanent residents (CRS, 2020). The CARES Act also allowed penalty-free withdrawals from retirement plans, established the Paycheck Protection Program for small businesses, expanded safety net programs, allowed affected federally-backed mortgage holders to go into a forbearance period on their loans, and suspended evictions of renters living in federally funded housing (CRS, 2020).

In addition, given the massive negative shocks to employment, the CARES Act temporarily extended the duration of unemployment insurance by 13 weeks (Pandemic Emergency Unemployment Compensation or PEUC provision), allowed typically ineligible individuals to apply for unemployment benefits, and increased unemployment insurance (UI) payments by \$600 per week (the Pandemic Unemployment Compensation or PUC provision). However, the PUC expired on July 31st, 2020 and the Federal Government did not take action to enact extensions or additional support until late December of 2020.

Research from prior recessions finds consistent evidence that UI provides a crucial financial support for households and that benefits expiration has sharp and immediate consequences. Following the exhaustion of UI in the 2001 and 2007-2009 recessions, those who remained jobless saw a 13 percent decline in family income and a 13 percentage point increase in poverty (Rothstein and Valletta, 2017). These results align with recent research using de-identified bank account data that finds that consumer spending declines precipitously, by 12%, with the exhaustion of UI benefits (Ganong and Noel, 2019).

The expiration of the PUC in the midst of the ongoing COVID19 pandemic provides a further opportunity to estimate the effects of UI reductions on household financial fragility. The case is particularly valuable because the benefit was unusually generous and the labor market remained extraordinarily weak at the time of expiration. To date, little research has examined the consequences of the PUC expiration for household financial fragility, in part because data have lagged quickly moving events. Drawing on data collected through July of 2020 in the Survey of Households and Economic Decision making, Canilang, et al. (2020) concluded that governmental financial relief efforts put in place as response to the economic consequences of the pandemic appear to have eased families' immediate financial distress and inability to

cover expenses. Analysis of data collected during the spring of 2020 found that among unemployed workers who did not receive timely UI payments, rates of material hardship were significantly higher than among unemployed workers who did receive UI (Schneider, Harknett, and Gailliot, 2020; Karpman and Acs, 2020) and simulations suggest that poverty declined as a result of the PUC (Parolin et al., 2020). To date, the only evidence of the expiration of PUC comes from Farrell et al. (2020) using de-identified bank account data from JP Morgan Chase customers. This work suggests that following the expiration of the \$600 UI benefit supplement, spending by the unemployed declined by 14% and checking-account balances began to decline after rising in the spring and early summer.

## 2 Methods

### 2.1 Data

We draw on a new source of high-frequency survey data collected from repeated cross-sections of the United States population. The survey was fielded on six occasions between June of 2020 and November of 2020: (W1) June 19 - June 26, (W2) July 15 - July 19, (W3) August 4 - August 9, (W4) September 10 - September 14, (W5) October 9 - October 13, and (W6) November 10 - November 16. The survey was fielded by Dynata, a global data and insights firm and we advised on the construction of the survey instrument. A total of 23,001 respondents were recruited to the survey across the six waves - 3,000 at W1 and approximately 4,000 at each later wave. After list-wise deletion of respondents missing data on key covariates, we have an analysis sample of 22,253.

We weight each wave of the survey data to match the distribution of various

characteristics of the United States adult population, as measured by the 2014-2018 American Community Survey 5-year sample (downloaded via IPUMS; Ruggles et al. 2020). Specifically, we weight to match population means of sex, race/ethnicity (operationalized as the percent of adults reporting their race as white only, Black only, Asian only, Latinx or Hispanic, and two or more races), age (operationalized as percent of adults aged 18-24, 25-34, 35-44, 55-64, and over 65), education (operationalized as percent with a HS degree or less, some college, a Bachelor’s degree, and some graduate education), and region (operationalized as percent in each of the nine Census divisions).

We estimate these weights using the `calibrate` command in Stata (D’Souza 2011) to implement the linear calibration method of Deville and Sarndal (1992). Because calibrating weights to population totals can result in some observations having negative observation weights, we assign the smallest positive weight from the calibration procedure to all observations whose initial calibration weight is negative. The weighted population means in each survey wave closely match the population means from the American Community Survey (within one percentage point for all wave-variables).

## 2.2 Measures

*Financial Fragility.* We focus on the four measures of household financial fragility. First, we measure the degree to which respondents report that their spending exceeds income. Respondents were asked, “what describes your spending and income?,” and presented with a five point response option scale where the 1 was labeled as “spending substantially exceeds income” and the 5 was labeled as “income substantially exceeds spending.” We dichotomize this measure to compare respondents reporting a “1” or a “2” against those reporting 3-5.

Second, we measure the degree to which respondents report being unable to pay their bills on time. Respondents were asked, “what describes your ability to pay your bills?,” and presented with a five point response option scale where the 1 was labeled as “unable to pay on time” and the 5 was labeled as “always pay on time.” We dichotomize this measure to compare respondents reporting a “1” or a “2” against those reporting 3-5.

Third, we measure the degree to which respondents report having insufficient savings to cover short-term needs. Respondents were asked, “what best describes your level of savings to cover short-term needs?,” and presented with a five point response option scale where the 1 was labeled as “little to no savings” and the 5 was labeled as “able to cover 6 months or more of living expenses.” We dichotomize this measure to compare respondents reporting a “1” or a “2” against those reporting 3-5.

Fourth, respondents are asked “What best describes the impact of your financial situation?” with response options ranging from 1 (“causes me great stress”) to 5 (“does not cause me any stress.” This is a dichotomous variable coded “1” if respondents select “1” or “2” and “0” otherwise.

*Employment Status.* We use a multi-category measure of current employment status that contrasts respondents employed full-time, employed part-time, self-employed, and retired against those who are unemployed.

*Socio-Demographic Characteristics.* We measure a set of socio-demographic characteristics that both serve as stratifying variables and as controls. We construct a five-category measure of race/ethnicity: white, non-Hispanic; Black, non-Hispanic; Asian, non-Hispanic; Hispanic; and non-Hispanic individuals of more than two races. We code educational attainment as high schol or techni-

cal school, some college, a four-year degree, or graduate education. We create a dichotomous measure of gender. We construct a four-category measure of household income, contrasting respondents in households making less than \$60,000 per year, those making from \$60,000 up to \$100,000, those making from \$100,000 up to \$150,000 and those making \$150,000 or more per year. Finally, we measure age continuously as a control and as a six-category variable when stratifying (18-24, 25-34, 35-44, 45-54, 55-64, and 65 or above).

### 2.3 Models

First, we first regress each of these outcomes on indicators for survey wave, controlling for race/ethnicity, gender, age, and education. All of the models are weighted to the American Community Survey on age, gender, race/ethnicity, education, and region. We estimate OLS models for each outcome. The results are unchanged if we omit the demographic controls.

Second, we describe socio-demographic inequality in financial fragility in September/October, following the expiration of the PUA, against inequality in early August. To do so, we estimate a set of OLS models of financial fragility on the interaction of each socio-demographic characteristics with an indicator for the survey being completed in September/October/November versus August. For the models of household income inequalities, we control for race/ethnicity, gender, age, and educational attainment. For the models of racial/ethnic inequality, we control only for gender and age so as not to artificially suppress racial/ethnic inequalities that stem from structural differences in educational attainment and household income. For the models of gender inequality, we control for race/ethnicity age, and educational attainment. For the models of educational inequality, we control for gender, race/ethnicity, and age. Finally, for the models of life-course inequality, we control for educational attainment,

gender, and race/ethnicity. All of the models are weighted.

Third, we directly investigate the effects of the PUC expiration on financial fragility. We do so using a set of difference-in-difference models in which we examine differences between employed and unemployed respondents before and after the expiration of the PUC in late July 2020. Specifically, we regress each of our measures of financial fragility on employment status, controlling for race/ethnicity, gender, age, education and a set of state fixed-effects. All of the models are weighted to the American Community Survey on age, gender, race/ethnicity, education, and region. The results are not sensitive to the inclusion of the state fixed-effects.

We test two flexible functional forms for time. First, we enter an indicator for survey wave. Second, we segment the six waves into three periods (June/July, August, September/October/November). This effectively separates the early period, the period through the end of the PUC, the \$600 UI program in late July, and the three months (September, October, November) following the end of the program.

We then estimate eight total models, interacting the employment status indicator with each functional form for time and do so for each of the four outcomes. If the expiration of the PUC increased financial fragility, we would expect little divergence in trends between unemployed and employed respondents across the months of June, July, and August when the PUC was in effect, but would expect significant divergence between August and November between these groups after the PUC expired.

### 3 Results

We present results in three parts. First, we present regression-adjusted plots of change over the period June 2020 through November 2020 using our four measures of financial fragility. Second, we examine whether inequality in financial fragility increased between August of 2020 and November of 2020 in terms of income, educational attainment, race/ethnicity, gender, or age. Finally, we estimate the effect of the PUC expiration with a set of difference-in-difference models that compare unemployed and employed respondents before and after the PUC expired.

#### 3.1 Changes in Household Financial Fragility

Figure 1 plots trends in our four measures of household economic fragility across waves, from June through November of 2020. There is no evidence of any economic recovery at the household level for any of the four measures. The share of households who report that their spending exceeds incomes has increased modestly - it was 15%, but reached 17% by November. The share of households who report being unable to pay their bills rose over this time, from 7.3% in June to a high of 10.4% in November. Short-term savings at the household level significantly declined over the period, with the share of household who reported lacking such savings rising from 23% in June to 29% in November. Finally, the share of households who report that their financial situation caused them stress rose from 22% in June to 27% in November. However, as we show below, these overall trends masks substantial heterogeneity between households.

### 3.2 Rising Inequality in Household Financial Fragility

The averages above hide the fact that financial fragility is starkly stratified by socio-economic status. In August of 2020, households making less than \$60,000 per year were significantly more likely to report that their spending exceeded income, that they were unable to pay their bills on time, that they lacked short-term savings, and their financial situation caused them stress . Perhaps deep income inequality in fragility is not surprising, but, it is notable that over the course of a few months we see significant widening in these gaps related to income. Panel A of Table 1 summarizes the interactions between household income group and period. We see significant widening in income-related gaps in financial fragility between August and September/October/November in terms of spending exceeding income, being unable to pay bills on time, lacking savings for short-term needs, and financial situation causing stress.

We plot these predicted values in Figure 2a, showing the widening income inequality in financial fragility. This gap is especially striking for lacking savings for short-term needs. We find an 18 percentage point gap between households making less than \$60,000 and those making more than \$150,000 in August, but a 26 percentage point gap by September/October/November, driven both by a decline in the share of the highest income households lacking savings and a sharp increase in the share of lower income households lacking savings.

We find similar inequality and significant widening of gaps in financial fragility by education. In August of 2020, approximately 15% of those with less than a four-year degree reported that their spending exceeded income, about 5 percentage points more than those with at least graduate education. Similarly, we find educational gaps in being unable to pay bills and in having little or no savings for short-term needs as of August 2020. For spending exceeding

income, lacking short-term savings, and financial situation causing stress, these gaps widened significantly by September/October/November, as seen in the significant interaction coefficients in Panel B of Table 1. For example, the gap in lacking savings for short-term needs grew from approximately 17 percentage points between those with a high school degree and those with a graduate degree to 23 points by September/October/November as the fragility of the least educated spiked and that of the most educated remained steady.

In Panel C of Table 1, we also report evidence of widening gender inequality across these months. While women and men fared comparably in August in terms of spending exceeding income and having difficulty paying bills, significant gaps had appeared by September/October/November of 2020 between men and women. Such gaps were already present in August when it came to having short-term savings and financial situation causing stress, but as seen in Figure 2c, these gaps widened significantly by September/October/November.

Panel D and Panel E of Table 1 show a set of insignificant coefficients on the interaction of race/ethnicity x period and of age x period. While there are large and significant gaps in financial fragility by race/ethnicity and by age, these gaps generally did not widen between August of 2020 and September/October/November of 2020. The one exception in these models is some evidence that the finances of those aged 35-44 in particular deteriorated over this period. While we cannot observe family structure directly, it seems likely that these are individuals most likely to be dealing with child-related expenses.

### **3.3 Effects of the PUC Expiration on Financial Fragility**

One significant change between August of 2020 and September/October/November of 2020 was the expiration of the PUC provision that provided additional \$600 UI payments. This provision expired on July 31st, 2020, with the last

checks arriving in the week prior. We gauged household financial fragility in June, July, and then in early August (4-9), right after these final checks were received. Given our measures of household financial fragility, the August reports in the survey should reference the recall period through the last PUC benefits. We then contrast the August wave with measurements of household financial fragility in September, October, and November following the PUC expiration.

We model our four measures of household financial fragility as a function of employment status interacted with survey wave. These interactions give us a difference-in-difference estimate of the expiration of PUC benefits on fragility. These coefficients are reported in Table 2a. Figure 3a shows the predicted values for each of the four fragility outcomes over the six waves by employment status. The red line shows the adjusted trend for unemployed respondents, the grey lines show the trends for those who were working and retired. We would expect to see little change in the differences between employed and unemployed respondents over the period June - August while the PUC was in effect. But, we then expect sharp increases in these differences in fragility following expiration in September, October, and November.

In late June, 20% of unemployed respondents reported that their spending exceeded income. That share basically held steady in July, before declining by the end of August. The share then increased by mid-September and held at about 30% through October, and then rose slightly by November - a total increase of more than 50%. In contrast, just about 10% of respondents employed full-time reported that their spending exceeded income and this share held steady across the five waves. We find evidence of a significant divergence ( $p < .05$ ) in household financial fragility between employed and unemployed respondents in the weeks between early August and mid-September, between

early August and mid-October, and between early August and mid-November, the time period coinciding with the expiration of the PUC, the \$600 UI benefit. In contrast, we see no such divergence between June and August while the PUC was in effect and, in fact we find no other significant differences comparing across months or employment statuses.

We see a similar set of trends for unemployed respondents' inability to pay their bills on time. About 10% of unemployed respondents found themselves short of funds from late June through early August, almost twice the share of employed respondents. But, while employed respondents saw no increase in difficulty paying bills through early October, the share of unemployed respondents facing difficulty with bill payment sharply increased, more than doubling from 11% in August to 24% in November. Over the weeks following the expiration of the PUC, the increase in difficulty with bill payment was significantly greater ( $p < .01$ ) for unemployed workers than full time workers, where we saw no such change in the difference between June and August.

During the summer of 2020, 38% of unemployed workers reported that that they had little to no savings for short-term needs, or about twice as high as for working full-time, at about 20%. But, while that latter 20% share held fairly constant for employed workers through the fall of 2020, the share of unemployed workers lacking short-term savings increased by almost 10 percentage points, to 47% of all unemployed workers by September/October/November of 2020. Here too, this divergence in the weeks after the expiration of the PUC was significant ( $p < .05$ ), where changes in the gaps were not significant over the course of the summer of 2020.

Finally, in August of 2020, 32% of unemployed workers reported that their financial situation was causing them stress, about 15 percentage points higher than the share of employed respondents. But here too, in the weeks after

the expiration of the PUC, we saw significant divergence ( $p < .01$ ) and, by November, the share of unemployed workers whose financial situation was causing them stress had risen to 49% against just 22% of workers employed full-time - a 27 percentage point gap ( $p < .001$ ). The PUC may have served as an “automatic stabilizer” for the economy, but its expiration threatens to undercut consumer expenditures and financial resilience.

We complement these models with a simpler set of models that interact employment status and period, collapsing the five waves of data into three periods (June/July vs. August vs. September/October/November). We focus on the August vs. September/October/November comparison as it coincides with the expiration of the PUC. As reported in Table 2b and Figure 3b, these tests match those reported above. In brief, for spending exceeding income, we find no significant diff-in-diff compared full-time workers and unemployed between June/July and August. But, we find significant ( $\beta = 11\%; p < .001$ ) in the diff-in-diff of full-time workers and unemployed workers between August and Sept/Oct/Nov.

The same is true of difficulty paying bills. The diff-in-diff coefficient is small and non-significant comparing the groups across June/July to August ( $\beta = 3\%; n.s.$ ) but much larger and significant in the August to Sept/Oct/Nov comparison ( $\beta = 9\%; p < .001$ ).

The expiration of the PUC also appears to have increased lack of short-term savings among unemployed workers. While there is no significant June/July to August difference ( $\beta = 1\%; n.s.$ ) the August to Sept/Oct/Nov comparison ( $\beta = 8\%; p = .05$ ) is substantial and statistically significant.

These comparisons are most pronounced when looking at financial stress. There is no significant diff-in-diff coefficient when comparing full-time and unemployed workers between June/July and August ( $\beta = 2\%; n.s.$ ), the co-

efficient is substantively large and significant when comparing August and Sept/Oct/Nov ( $\beta = 10\%$ ;  $p < .01$ ).

## 4 Discussion

Our findings are straightforward and troubling.

First, while stock market and unemployment figures may have improved since earlier in 2020, there is no corresponding improvement in measures of the financial fragility of the average American family. We see no evidence of rounding a corner, but rather find that an increasing fraction of Americans cannot make ends meet. The implications? We fear greater physical and mental illness and reduced wellbeing. We expect to see greater pressure on already taxed family, private and public support systems. The stimulus bill passed in December of 2020 may help to mitigate some of these effects.

Second, the “average” conceals disturbing differences. Pre-Covid, lower income families, less well educated households, and women experienced considerably higher levels of financial fragility than did others. Over the last few months, these gaps have widened markedly. Apart from the sheer unfairness of this situation, these divides threaten to drive even more wedges between haves and have-nots. While some may benefit from these fractures in American society, clearly, we all stand to lose. The COVID19 crisis appears to already be widening existing inequalities.

Third, the expiration of the CARES Act Pandemic Unemployment Compensation provisions significantly increased the financial fragility of the unemployed. The lack of action over the period from August through December led to savings depletion, mounting unpaid bills, and rising financial stress. This is not about fewer gifts on Christmas morning, but rather the reality of severe financial fragility. While the PUC appears to have held inequalities constant,

following expiration, these class and gender inequalities are widening quickly.

The evidence we present is simple and clear: we are facing a growing financial fragility crisis at the household level and ever widening gaps between rich and poor, men and women, more and less educated, and unemployed and employed. Collective action, in the form of both government action and civic engagement, is needed to fight a pandemic or an economic crisis - or a climate emergency. For a brief moment, the CARES Act demonstrated the capacity of our leaders to come together to address some of these issues. In their new book, *The Upswing*, Robert Putnam and Shaylan Romney Garret report how American “came together a century ago” and argue that “we can do it again.” We share this optimism, recognizing widening gaps like the ones we document will make that work of collective action both much harder and more essential.

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**Table 1: Widening Inequalities in Financial Fragility by SES. OLS Coefficients (SE), with demographic controls, weighted.**

	(1)	(2)	(3)	(4)
	Spend > Inc	No Bill Pay	Lack ST Savings	Fin. Sit. Cause Stress
<b>Panel A: By Household Income</b>				
<i>Time Period</i>				
August	(ref)	(ref)	(ref)	(ref)
Sept/Oct/Nov	-0.02 (0.02)	-0.00 (0.01)	-0.01 (0.02)	-0.01 (0.02)
<i>Household Income</i>				
< \$60K	0.05** (0.02)	0.04* (0.01)	0.18*** (0.02)	0.12*** (0.02)
\$60K-\$100K	-0.00 (0.02)	-0.00 (0.01)	0.03 (0.02)	0.02 (0.02)
\$100K-\$150K	-0.01 (0.02)	-0.01 (0.01)	0.00 (0.03)	-0.00 (0.02)
\$150K+	(ref)	(ref)	(ref)	(ref)
<i>DiD Estimates</i>				
Sept/Oct/Nov × < \$60K	0.07** (0.02)	0.04* (0.02)	0.07** (0.03)	0.09*** (0.03)
Sept/Oct/Nov × \$60K-\$100K	0.04+ (0.02)	0.00 (0.02)	0.02 (0.03)	0.03 (0.03)
Sept/Oct/Nov × \$100K-\$150K	0.01 (0.02)	0.02 (0.02)	0.02 (0.03)	0.02 (0.03)
Sept/Oct/Nov × \$150K+	(ref)	(ref)	(ref)	(ref)
<b>Panel B: By Educational Attainment</b>				
<i>Time Period</i>				
August	(ref)	(ref)	(ref)	(ref)
Sept/Oct/Nov	0.01 (0.01)	0.01 (0.01)	0.00 (0.02)	0.00 (0.01)
<i>Educational Attainment</i>				
HS, trade/tech school	0.05** (0.02)	0.04** (0.01)	0.17*** (0.02)	0.08*** (0.02)
Some College	0.04* (0.02)	0.02 (0.01)	0.14*** (0.02)	0.08*** (0.02)
Four Year College	-0.00 (0.02)	0.00 (0.01)	0.01 (0.02)	0.01 (0.02)
Graduate School	(ref)	(ref)	(ref)	(ref)
<i>DiD Estimates</i>				
Sept/Oct/Nov × HS, trade/tech school	0.04* (0.02)	0.02 (0.02)	0.06* (0.02)	0.07** (0.02)
Sept/Oct/Nov × Some College	0.03+ (0.02)	0.02 (0.01)	0.01 (0.02)	0.05* (0.02)
Sept/Oct/Nov × Four Year College	0.00 (0.02)	-0.02 (0.01)	0.02 (0.02)	0.01 (0.02)
Sept/Oct/Nov × Graduate School	(ref)	(ref)	(ref)	(ref)
<b>Panel C: By Gender</b>				
<i>Time Period</i>				
August	(ref)	(ref)	(ref)	(ref)
Sept/Oct/Nov	0.05*** (0.01)	0.04*** (0.01)	0.06*** (0.02)	0.07*** (0.01)
<i>Gender</i>				
Female	(ref)	(ref)	(ref)	(ref)
Male	-0.01 (0.01)	0.01 (0.01)	-0.06*** (0.02)	-0.05** (0.02)
<i>DiD Estimates</i>				
Sept/Oct/Nov × Female	(ref)	(ref)	(ref)	(ref)
Sept/Oct/Nov × Male	-0.04* (0.02)	-0.04** (0.01)	-0.05* (0.02)	-0.05* (0.02)
Observations	15666	15666	15666	15666

**Table 1 (Cont): Widening Inequalities in Financial Fragility by SES. OLS Coefficients (SE), with demographic controls, weighted.**

	(1)	(2)	(3)	(4)
	Spend > Inc	No Bill Pay	Lack ST Savings	Fin. Sit. Cause Stress
<b>Panel D: By Race/Ethnicity</b>				
<i>Time Period</i>				
August	(ref)	(ref)	(ref)	(ref)
Sept/Oct/Nov	0.02* (0.01)	0.03*** (0.01)	0.03** (0.01)	0.03** (0.01)
<i>Race/Ethnicity</i>				
White, nh	(ref)	(ref)	(ref)	(ref)
Black, nh	-0.02 (0.02)	0.03 (0.02)	-0.09** (0.03)	-0.09*** (0.03)
Asian, nh	-0.02 (0.03)	-0.04** (0.01)	-0.10** (0.03)	-0.08** (0.03)
Hispanic	-0.06** (0.02)	-0.02 (0.02)	-0.07* (0.03)	-0.10*** (0.03)
Two or more, nh	0.00 (0.05)	0.06 (0.05)	0.04 (0.06)	-0.03 (0.05)
<i>DiD Estimates</i>				
Sept/Oct × White, nh	(ref)	(ref)	(ref)	(ref)
Sept/Oct × Black, nh	0.05 (0.03)	-0.04 (0.02)	0.04 (0.03)	0.03 (0.03)
Sept/Oct × Asian, nh	-0.05+ (0.03)	-0.00 (0.02)	-0.06+ (0.04)	-0.03 (0.03)
Sept/Oct × Hispanic	0.06* (0.03)	-0.01 (0.02)	0.03 (0.04)	0.06+ (0.03)
Sept/Oct/Nov × Two or more, nh	0.05 (0.06)	-0.00 (0.06)	0.03 (0.07)	0.07 (0.06)
<b>Panel E: By Age Group</b>				
<i>Time Period</i>				
August	(ref)	(ref)	(ref)	(ref)
Sept/Oct/Nov	0.01 (0.02)	0.01 (0.01)	0.00 (0.02)	0.02 (0.02)
<i>Age Group</i>				
18-24	0.04 (0.03)	0.08*** (0.02)	0.01 (0.03)	0.11*** (0.03)
25-34	0.05* (0.02)	0.06*** (0.02)	0.12*** (0.03)	0.18*** (0.03)
35-44	0.05* (0.02)	0.05*** (0.01)	0.09** (0.03)	0.15*** (0.02)
45-54	0.08*** (0.02)	0.06*** (0.02)	0.13*** (0.03)	0.17*** (0.03)
55-64	0.04+ (0.02)	0.03* (0.01)	0.06* (0.03)	0.12*** (0.02)
65+	(ref)	(ref)	(ref)	(ref)
<i>DiD Estimates</i>				
Sept/Oct/Nov × 18-24	0.01 (0.03)	-0.01 (0.02)	0.02 (0.04)	0.03 (0.03)
Sept/Oct/Nov × 25-34	0.03 (0.03)	0.02 (0.02)	0.01 (0.03)	0.01 (0.03)
Sept/Oct/Nov × 35-44	0.06* (0.03)	0.05** (0.02)	0.08* (0.03)	0.08** (0.03)
Sept/Oct/Nov × 45-54	0.04 (0.03)	0.03 (0.02)	0.06+ (0.03)	0.03 (0.03)
Sept/Oct/Nov × 55-64	0.01 (0.02)	-0.00 (0.02)	0.03 (0.03)	-0.01 (0.03)
Sept/Oct/Nov × 65+	(ref)	(ref)	(ref)	(ref)
Observations	15666	15666	15666	15666

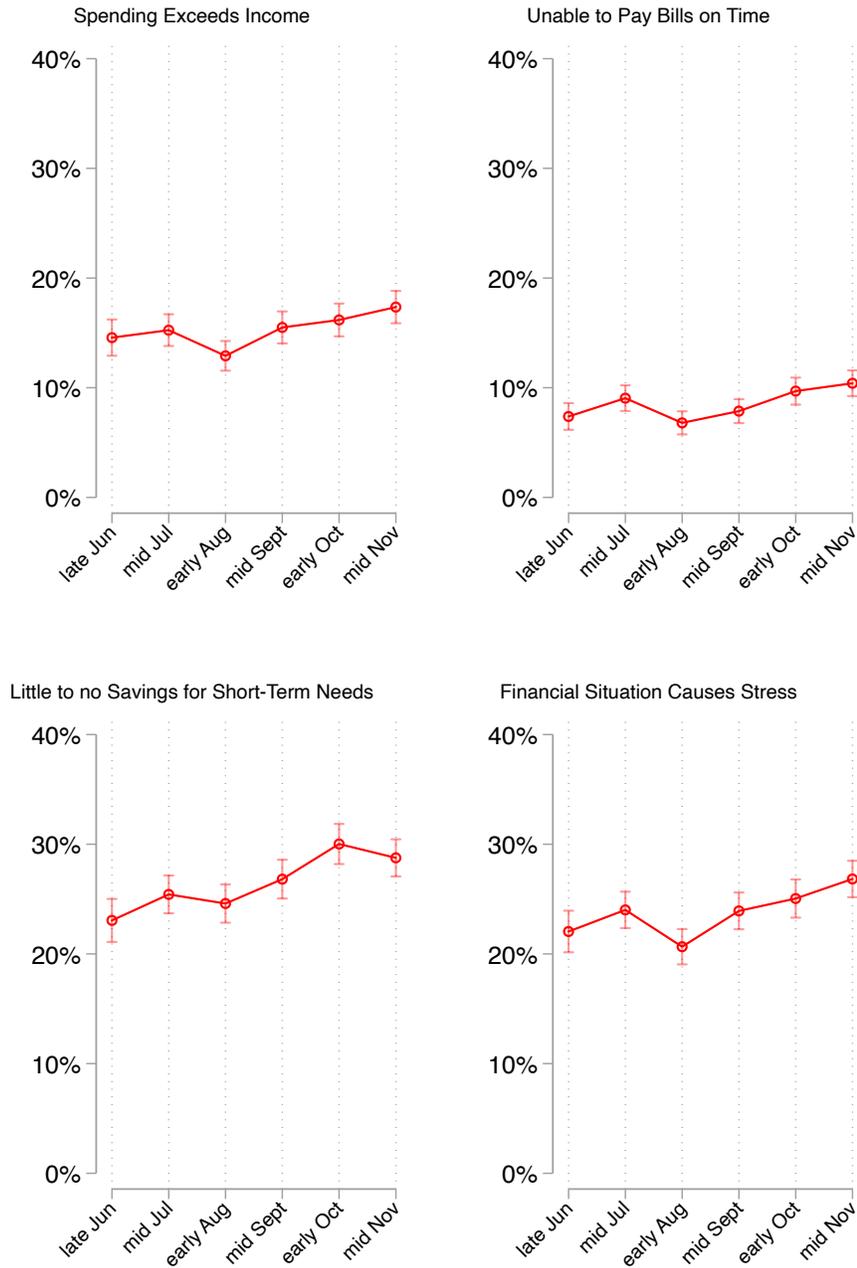
**Table 2a: Effects of PUC Expiration on Financial Fragility.  
OLS Coefficients (SE), with demographic controls, weighted.)**

	(1)	(2)	(3)	(4)
	Spend > Inc	No Bill Pay	Lack ST Savings	Fin Sit. Cause Stress
<i>Survey Wave</i>				
late Jun	(ref)	(ref)	(ref)	(ref)
mid Jul	0.01 (0.02)	0.01 (0.01)	0.01 (0.02)	0.01 (0.02)
early Aug	-0.01 (0.01)	-0.00 (0.01)	0.01 (0.02)	-0.02 (0.02)
mid Sept	-0.00 (0.02)	-0.01 (0.01)	-0.00 (0.02)	-0.01 (0.02)
early Oct	0.00 (0.02)	0.01 (0.01)	0.04+ (0.02)	0.00 (0.02)
mid Nov	0.03+ (0.02)	0.02+ (0.01)	0.02 (0.02)	0.02 (0.02)
<i>Employment Status</i>				
Full-time	(ref)	(ref)	(ref)	(ref)
Part-time	0.05 (0.03)	0.04 (0.03)	-0.08** (0.03)	-0.02 (0.03)
Retired	0.00 (0.02)	-0.01 (0.01)	-0.04 (0.02)	-0.02 (0.02)
Unemployed	0.08** (0.03)	0.05** (0.02)	0.15*** (0.03)	0.12*** (0.03)
Self-employed	0.03 (0.04)	0.03 (0.03)	0.10* (0.05)	0.07 (0.04)
<i>DiD Estimates (vs. June)</i>				
mid Jul × Part-time	-0.04 (0.04)	-0.01 (0.03)	0.08+ (0.04)	-0.03 (0.04)
mid Jul × Retired	-0.02 (0.03)	0.01 (0.02)	-0.00 (0.03)	-0.02 (0.03)
mid Jul × Unemployed	0.03 (0.03)	0.05+ (0.03)	0.04 (0.04)	0.08+ (0.04)
mid Jul × Self-employed	-0.01 (0.05)	-0.03 (0.04)	-0.07 (0.06)	-0.00 (0.06)
early Aug × Full-time	(ref)	(ref)	(ref)	(ref)
early Aug × Part-time	-0.01 (0.04)	-0.03 (0.03)	0.01 (0.04)	0.01 (0.04)
early Aug × Retired	-0.02 (0.03)	0.01 (0.02)	0.04 (0.03)	0.01 (0.03)
early Aug × Unemployed	-0.02 (0.03)	-0.00 (0.03)	0.01 (0.04)	0.03 (0.04)
early Aug × Self-employed	-0.01 (0.05)	-0.00 (0.04)	-0.09 (0.06)	-0.03 (0.06)
mid Sept × Full-time	(ref)	(ref)	(ref)	(ref)
mid Sept × Part-time	-0.04 (0.04)	-0.01 (0.03)	0.09* (0.04)	0.04 (0.04)
mid Sept × Retired	0.03 (0.03)	0.04* (0.02)	0.10** (0.03)	0.06* (0.03)
mid Sept × Unemployed	0.10* (0.04)	0.04 (0.03)	0.11* (0.05)	0.13** (0.04)
mid Sept × Self-employed	0.05 (0.05)	0.07+ (0.05)	-0.02 (0.06)	0.04 (0.06)
early Oct × Full-time	(ref)	(ref)	(ref)	(ref)
early Oct × Part-time	-0.00 (0.04)	-0.01 (0.04)	0.10* (0.04)	0.08+ (0.05)
early Oct × Retired	0.00 (0.03)	0.01 (0.02)	0.08* (0.03)	0.03 (0.03)
early Oct × Unemployed	0.08* (0.04)	0.09** (0.03)	0.07 (0.04)	0.10* (0.04)
early Oct × Self-employed	0.04 (0.05)	-0.05 (0.04)	-0.03 (0.07)	0.05 (0.06)
mid Nov × Full-time	(ref)	(ref)	(ref)	(ref)
mid Nov × Part-time	-0.05 (0.04)	-0.02 (0.04)	0.12** (0.04)	0.07 (0.04)
mid Nov × Retired	-0.02 (0.03)	0.01 (0.02)	0.06+ (0.03)	0.02 (0.03)
mid Nov × Unemployed	0.10* (0.04)	0.11** (0.03)	0.09* (0.04)	0.16*** (0.04)
mid Nov × Self-employed	-0.03 (0.05)	-0.01 (0.04)	0.04 (0.07)	0.06 (0.06)
Observations	22253	22253	22253	22253

**Table 2b: Effects of PUC Expiration on Financial Fragility.  
OLS Coefficients (SE), with demographic controls, weighted.)**

	(1)	(2)	(3)	(4)
	Spend > Inc	No Bill Pay	Lack ST Savings	Fin Sit. Cause Stress
<i>Time Period</i>				
June/July	0.01 (0.01)	0.01 (0.01)	-0.00 (0.02)	0.03+ (0.01)
August	(ref)	(ref)	(ref)	(ref)
Sept/Oct/Nov	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)	0.03* (0.01)
<i>Employment Status</i>				
Full-time	(ref)	(ref)	(ref)	(ref)
Part-time	0.03 (0.03)	0.00 (0.02)	-0.07** (0.03)	-0.00 (0.03)
Retired	-0.02 (0.02)	-0.01 (0.01)	0.00 (0.02)	-0.01 (0.02)
Unemployed	0.07** (0.02)	0.05** (0.02)	0.16*** (0.03)	0.15*** (0.03)
Self-employed	0.02 (0.03)	0.03 (0.03)	0.01 (0.04)	0.04 (0.04)
<i>DiD Estimates vs. August</i>				
June/July × Part-time	-0.01 (0.03)	0.03 (0.03)	0.04 (0.03)	-0.03 (0.03)
June/July × Retired	0.01 (0.02)	-0.00 (0.01)	-0.04 (0.03)	-0.02 (0.02)
June/July × Unemployed	0.03 (0.03)	0.03 (0.02)	0.01 (0.03)	0.02 (0.03)
June/July × Self-employed	0.00 (0.04)	-0.02 (0.03)	0.05 (0.05)	0.03 (0.05)
Sept/Oct/Nov × Full-time	(ref)	(ref)	(ref)	(ref)
Sept/Oct/Nov × Part-time	-0.02 (0.03)	0.02 (0.02)	0.09** (0.03)	0.05 (0.03)
Sept/Oct/Nov × Retired	0.02 (0.02)	0.01 (0.01)	0.04 (0.03)	0.02 (0.02)
Sept/Oct/Nov × Unemployed	0.11*** (0.03)	0.09*** (0.02)	0.08* (0.03)	0.10** (0.03)
Sept/Oct/Nov × Self-employed	0.03 (0.04)	0.01 (0.03)	0.09+ (0.05)	0.08+ (0.04)
Observations	22253	22253	22253	22253

**Figure 1: HH Economic Security by Wave.**  
(Predicted values from OLS models with demographic controls, weighted.)



**Figure 2a: Household Income Inequality in Financial Fragility.**  
(Predicted values from OLS models with demographic controls, weighted.)

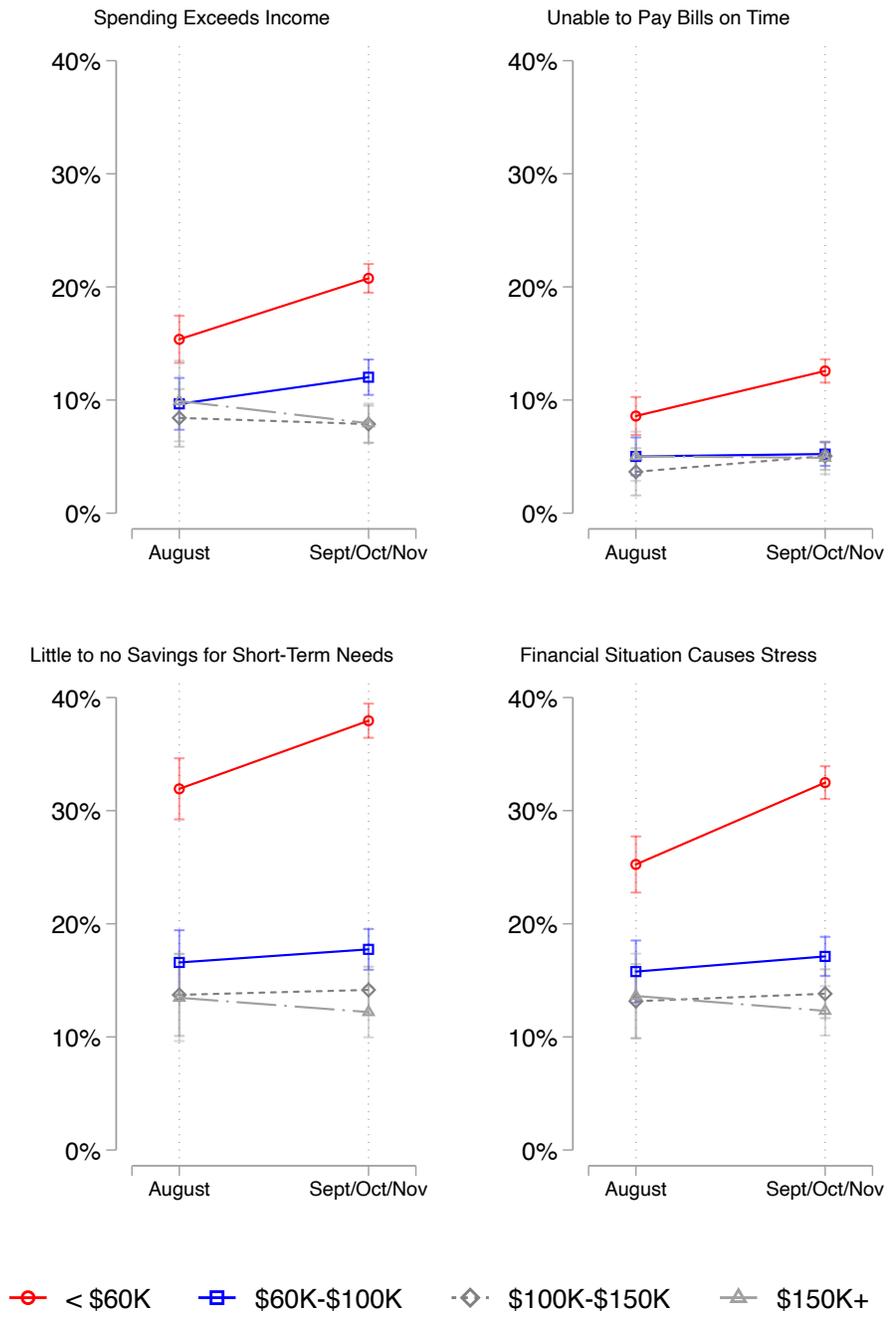
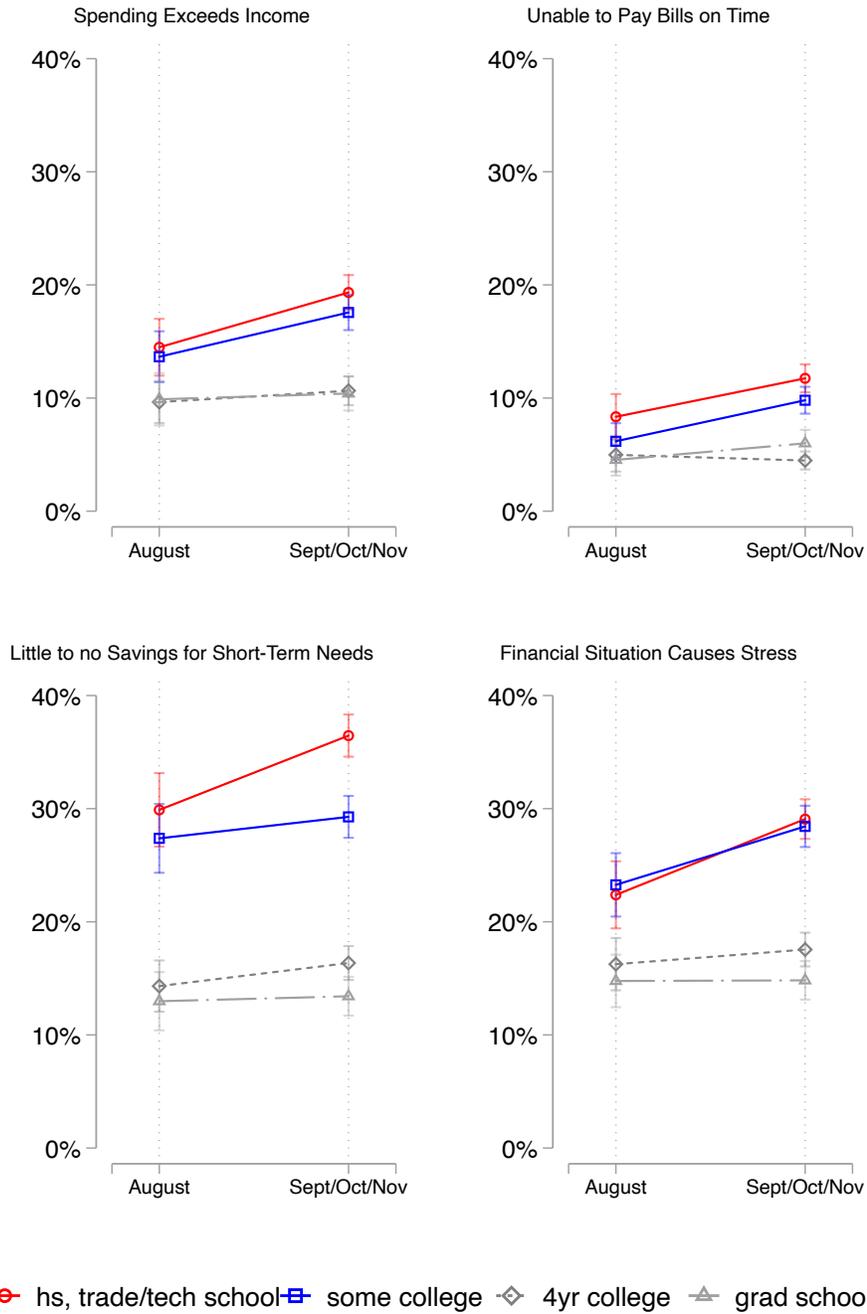


Figure 2b: Educational Inequality in Financial Fragility.  
(Predicted values from OLS models with demographic controls, weighted.)



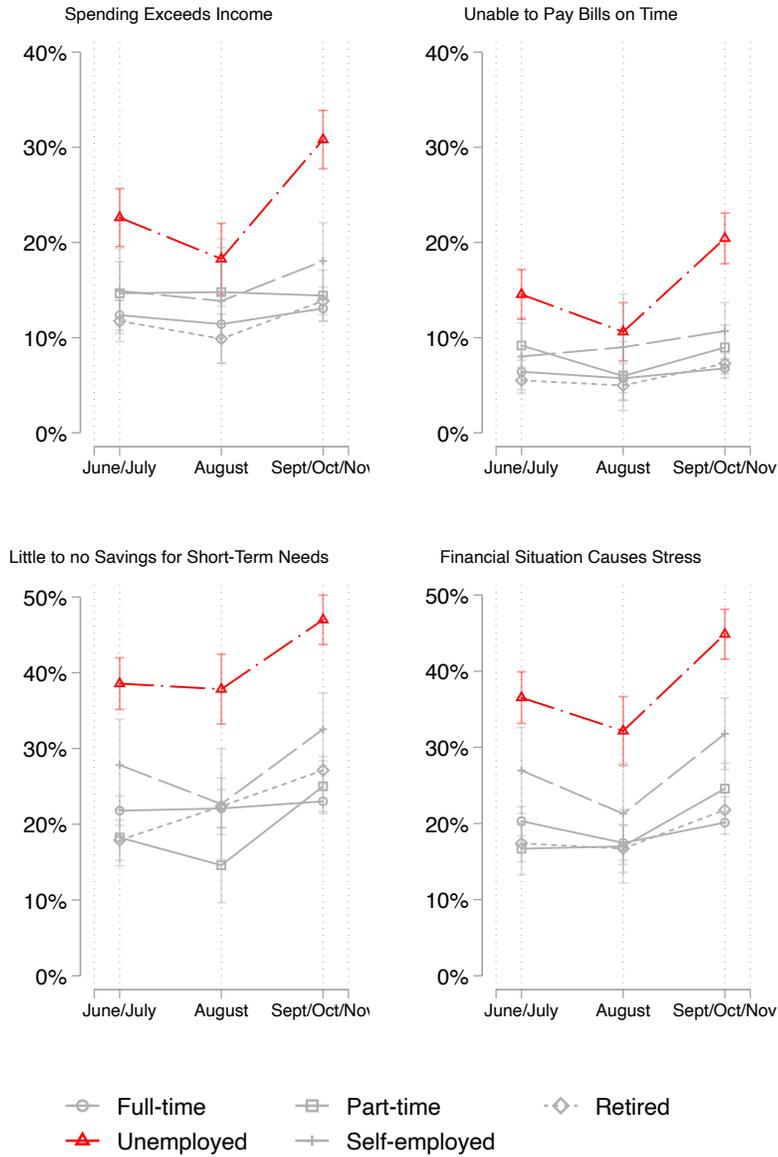
**Figure 2c: Gender Inequality in Financial Fragility.**  
(Predicted values from OLS models with demographic controls, weighted.)



**Figure 3a: Employment Status and Household Financial Fragility by Wave.**  
(Predicted values from OLS with demographic controls + State FE, weighted.)



**Figure 3b: Employment Status and Household Financial Fragility by Period.**  
(Predicted values from OLS with demographic controls + State FE, weighted.)



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