Economic Well-Being of Families During the COVID-19 Pandemic: Findings from the Experimental Household Pulse Survey

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*This paper is released to inform interested parties of research and to encourage discussion. The views expressed are those of the author and not necessarily those of the U.S. Census Bureau.

Economic Well-Being of Families During the COVID-19 Pandemic: Findings from the Experimental Household Pulse Survey

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The COVID-19 pandemic has caused widespread economic hardship for families in the United States. In April 2020 the U.S. Census Bureau, together with other government agency partners, introduced the experimental Household Pulse Survey (HPS), an ongoing survey collection focusing on the effects of the pandemic and the attendant business and school closures on families' well-being. The HPS fielded weekly, and later, bi-weekly, internet surveys over three iterations through March 2021 to collect information about the state of households during the pandemic.

This paper presents snapshots from the HPS at three different moments during the pandemic, beginning three months after the World Health Organization declared the novel coronavirus a global pandemic. These snapshots, each three to four months apart, show change in the way households used Economic Impact Payments, commonly known as stimulus checks, were used over this period. They also show how stimulus checks and other income sources were used to support household spending over this period.

Data

The HPS was collected over three phases. Phase 1 of the HPS was collected weekly from April to July of 2020. After a break to develop and test new items, Phase 2 of the Household Pulse Survey entered the field in mid-August and collected data bi-weekly through the end of October 2020. Phase 3 of the HPS began immediately after Phase 2 ended and continued bi-weekly data collection into Spring 2021.

A frame of households was developed by linking email addresses and phone numbers from the Census Bureau Contact Frame to the Master Address File (MAF). The MAF is a continuously updated, national listing of housing units that is maintained by the Census Bureau. Large enough samples of households were drawn from the MAF to allow for estimates to be produced at the state level, and at the level of the largest 15 Metropolitan Statistical Areas. Members of sampled households were contacted by email and text, or both, if email addresses and phone numbers were available. Although efforts were made to contact all adults in each sampled housing unit, only one adult could fill out the survey for the housing unit. After data collection, data were weighted to national demographic and population totals.

This paper provides analysis from three different periods during the pandemic, noted below in yellow. In Week 7 of the HPS, a one-week data collection was conducted, and 73,000 households responded out of 1.2 million that were sampled and invited to the survey.[2] In Week 17 of the HPS, a two-week data collection sampled 1.0 million households, and yielded 89,000 responses. In January and February of this year, 1.0 million households were sampled in three two-week data collections, corresponding to Weeks 22-24 of the HPS. These yielded between 68,000 and 81,000 responses each. In order to provide a granular analysis of the period in January and February when stimulus checks were being issued, we combine the data from Weeks 22-24 in our analysis.

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[1] Conference paper prepared for the Population Association of America Annual Meetings (PAA), May 2021. Any views expressed are those of the author and not necessarily those of the U.S. Census Bureau.
[2] For more information on confidentiality protection, sampling error, nonsampling error, and definitions, see Source and Accuracy Statements available for each Week of HPS data collection at <https://www.census.gov/programs-surveys/household-pulse-survey/technical-documentation.html>.

Table 1: Household Pulse Survey - Data Collection Periods, Sample Sizes, and Response Rates

	Week	Data Collection Period Start Date	Finish Date	Sample Size	Number of Respondents	Weighted Response Rate
Phase 1 begins	Week 1	4/23/2020	5/5/2020	1,867,126	74,413	3.8%
	Week 2	5/7/2020	5/12/2020	1,046,941	41,996	1.3%
	Week 3	5/14/2020	5/19/2020	1,286,674	132,961	2.3%
	Week 4	5/21/2020	5/26/2020	1,159,411	101,215	3.1%
	Week 5	5/28/2020	6/2/2020	1,070,820	105,066	3.5%
	Week 6	6/4/2020	6/9/2020	979,236	83,302	3.1%
	Week 7	6/11/2020	6/16/2020	1,172,900	73,472	2.3%
	Week 8	6/18/2020	6/23/2020	1,309,591	108,062	2.9%
	Week 9	6/25/2020	6/30/2020	1,061,047	98,663	3.3%
	Week 10	7/2/2020	7/7/2020	1,016,127	90,767	3.2%
	Week 11	7/9/2020	7/14/2020	1,095,187	91,605	3.1%
	Week 12	7/16/2020	7/21/2020	1,122,702	86,792	2.9%
Phase 2 begins	Week* 13	8/19/2020	8/31/2020	1,032,959	109,051	10.3%
	Week* 14	9/2/2020	9/14/2020	1,033,494	110,019	10.3%
	Week* 15	9/16/2020	9/28/2020	1,034,047	99,302	9.2%
	Week* 16	9/30/2020	10/12/2020	1,034,605	95,604	8.8%
	Week* 17	10/14/2020	10/26/2020	1,035,186	88,716	8.1%
Phase 3 begins	Week* 18	10/28/2020	11/9/2020	1,035,752	58,729	5.3%
	Week* 19	11/11/2020	11/23/2020	1,036,354	71,939	6.6%
	Week* 20	11/25/2020	12/7/2020	1,036,968	72,484	6.7%
	Week* 21	12/9/2020	12/21/2020	1,037,606	69,944	6.5%
	Week* 22	1/6/2021	1/18/2021	1,037,972	68,348	6.4%
	Week* 23	1/20/2021	2/1/2021	1,038,530	80,567	7.5%
	Week* 24	2/3/2021	2/15/2021	1,038,804	77,122	7.3%

Source: Source and Accuracy Statements available for each Week of HPS data collection at :
www.census.gov/programs-surveys/household-pulse-survey/technical-documentation.html

* For Phase 2 and Phase 3 the Household Pulse Survey continues to call these collection periods "weeks" for continuity with Phase 1.

Snapshot 1: June 2020

In late March, 2020, Congress passed the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which provided several sources of income to help American households withstand the economic and health disruption caused by the Coronavirus pandemic. As part of the CARES Act, Economic Impact Payments, also known as stimulus checks, of $1,200 per adult and $500 per child were sent by the IRS to individuals with incomes of up to $99,000, or up to $198,000 for joint filers. These payments were based on tax filings for tax year 2018, because many people had not filed their tax returns for the tax year 2019 at the onset of the pandemic.

By the time Household Pulse Week 7 data were collected between June 11 and June 16, 2020, the IRS had issued 159 million stimulus checks. Starting with Week 7, the Household Pulse added two questions about use of this stimulus, reproduced here:

Q15 If you, or anyone in your household, already received, or plan to receive a "stimulus payment," that is the coronavirus related Economic Impact Payment from the Federal Government, did or will you use it: *Select only one answer.*

- Mostly to pay for expenses (food, clothing, shelter, etc.) (1)
- Mostly to pay off debt (car loans, student loans, credit cards) (2)
- Mostly to add to savings (3)
- Not applicable, I did not and do not expect to receive the stimulus payment (4)

Q19 What did, or will, you and your household spend the "stimulus payment" on? *Select all that apply.*

- Food (groceries, eating out, take out) (1)
- Clothing (clothing, accessories, shoes) (2)
- Household supplies and personal care products (3)
- Household items (TV, electronics, furniture, appliances) (4)
- Recreational goods (sports and fitness equipment, bicycles, toys, games) (5)
- Rent (6)
- Mortgage (scheduled or monthly) (7)
- Utilities and telecommunications (natural gas, electricity, cable, internet, cellphone) (8)
- Vehicle payments (scheduled or monthly) (9)
- Paying down credit card, student loans, or other debts (10)
- Charitable donations or giving to family members (11)
- Savings or investments (12)
- Other, specify (13) ____

The Week 7 data showed that about 85.5% of respondents to the HPS said they had received or expected someone in the household to receive an Economic Impact Payment or stimulus check. The majority of adults in households that received a stimulus check from the federal government either used it or planned to use most of it on household expenses. Meanwhile, 15.7% used their stimulus check to pay off debt and 14.1% planned to mostly save it.

There were differences in the likelihood to spend the stimulus observed by 2019 household income. Adults in households with 2019 incomes of $100,00 or more before taxes were more likely to use their stimulus payments to pay off debt or to add to savings, compared to households overall.[3] More than two in five of adults in those households reported that they would use the money to pay off debt or add to savings.

[3] Unless otherwise noted, all statements making comparisons in this paper have been tested and found statistically significant at the alpha=0.10 level.

In contrast, 87.6% of adults in households with 2019 pre-tax incomes of $25,000 or less planned to use their stimulus payments to meet expenses.

How Were the Checks Spent?

In households that spent their stimulus checks, respondents reported using the money for a variety of expenses, and many reported spending it on more than one thing: About 80% of these respondents reported using it on food, and 77.9% on rent, mortgage and/or utilities, including gas, electricity, cable, internet and cellphone.

More than half (58.2%) of such respondents reported spending stimulus payments on household supplies and personal care products. About a fifth (20.5%) reported spending the money on clothing.

A smaller share (8.1%) said they spent or would spend the stimulus on household goods like TVs, electronics, furniture, and appliances or on recreational goods like fitness equipment, toys and games.

These reports indicate the importance of the stimulus payments to help cover expenses such as housing and food. Around four in five households that spent their stimulus checks used them on these basics.

Snapshot 2: October 2020

Household Pulse Week 17 data was collected in mid-October of 2020, at a point when the disruptions caused by the pandemic had lasted over 6 months, and the entire country was affected. Our analysis of these data was focused on learning how households were using a combination of work income, stimulus payments, unemployment insurance, and SNAP to support household spending. We utilized a question that was introduced in Phase 2 of the Household Pulse, reproduced here:

Q20 Thinking about your experience in the **last 7 days**, which of the following did you or your household members use to meet your spending needs? *Select all that apply.*

- ☐ Regular income sources like those received before the pandemic (1)
- ☐ Credit cards or loans (2)
- ☐ Money from savings or selling assets (3)
- ☐ Borrowing from friends or family (4)
- ☐ Unemployment insurance (UI) benefit payments (5)
- ☐ Stimulus (economic impact) payment (6)
- ☐ Money saved from deferred or forgiven payments [to meet your spending needs] (7)
- ☐ Supplemental Nutrition Assistance Program (SNAP) (8)

This question, together with one that asked if anyone in the household had lost any employment income since March 13, 2020, allowed us to determine that adults in households where someone experienced a loss of employment income since March were relying more heavily on government support to meet household spending needs than households that did not lose employment income.

In mid-October, across all households, the majority (69.1%) used regular income they were receiving even before the pandemic to support spending in the previous week.[4]

In addition, 22.1% used Economic Impact Payments or stimulus checks, 12.9% used unemployment insurance (UI) and 7.3% used the Supplemental Nutrition Assistance Program, also known as SNAP. It wasn't possible in the Week 17 data to remove households that hadn't received a stimulus payment, or didn't expect to receive one, since that question was no longer included. However, by October, it is reasonable to assume that the bulk of the payments the IRS began issuing in April had been received by households.

How Did Households Meet Their Spending Needs?

As shown in the figure below, adults in upper-income households – those reporting 2019 annual income of $100,000 or above before taxes – were more likely than those in lower-income households – those reporting 2019 annual income of less than $50,000 before taxes – to report using regular income to cover spending in the past week (86.3% compared with 55.6%).

About three-quarters of middle-income households, defined as having a 2019 household income that was less than $100,000 before taxes, but was greater than or equal to $50,000, said they used regular income to cover household expenses.

Over 10% of adults in upper-income households, and around 30% in households with income below $50,000, reported using stimulus payments to cover spending in the past week. Unemployment insurance was important in covering expenses for households across the income distribution. About 1 in 10 upper-income households used unemployment benefits in the last week to pay their bills. For lower-income households, it was about 1 in 6.

Lower-income households were more likely to use SNAP benefits than other households. Fifteen percent of adults in those households used them to help with regular expenses in the previous week.

Making Ends Meet After Loss of Employment Income

About 45% of all households included someone who had experienced a loss in employment income (i.e., lost a job or had hours or pay reduced) since March 13, 2020.

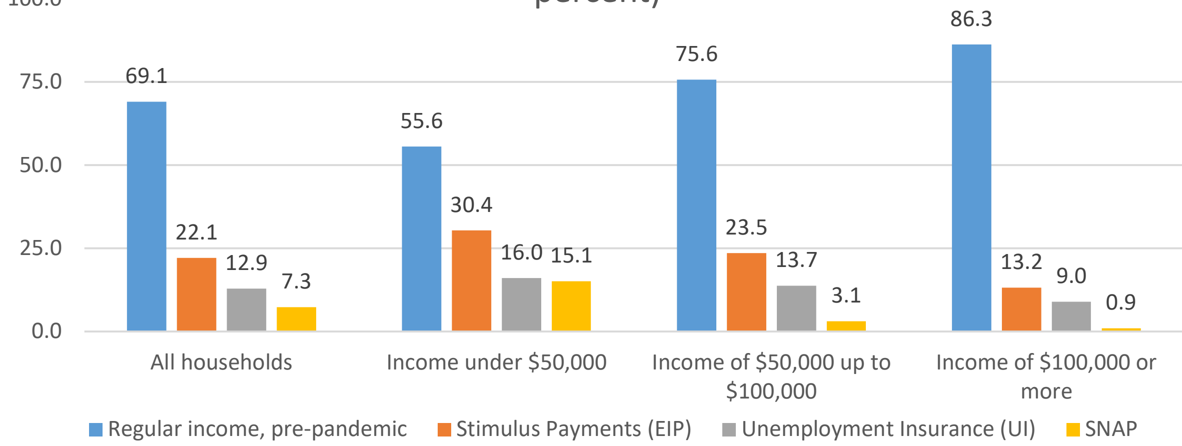
Just over half of adults in households that suffered income loss during the pandemic relied on regular income to help pay household expenses in the previous week.

Economic stimulus payments were an important source of money to help cover weekly expenses, according to 28.3% of households that lost income and 17.3% of households that did not.

Over a quarter of households that lost income relied on unemployment insurance to help cover regular expenses and about one in 10 of households that lost income relied on SNAP.

[4] Respondents could select multiple sources of income that they used to meet household spending needs over the last seven days.

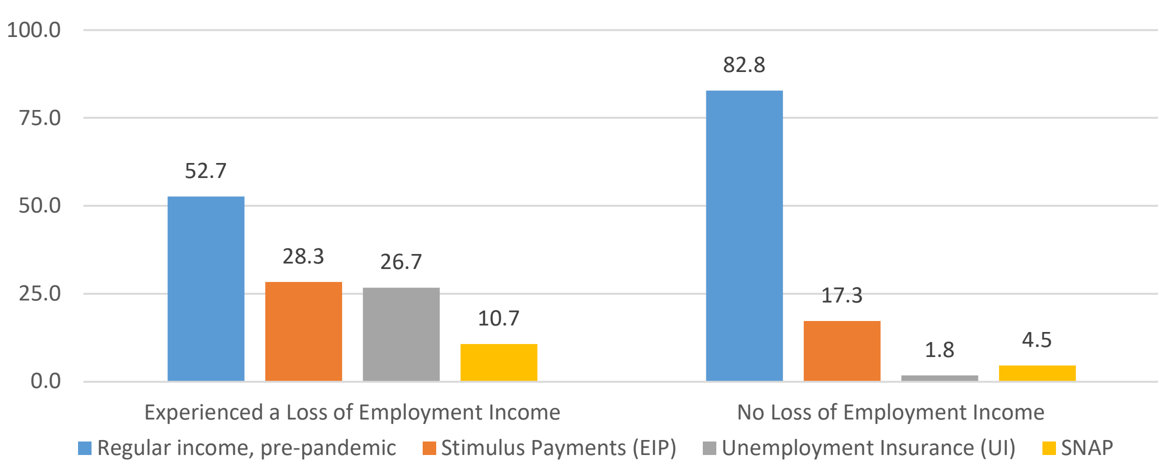
Figure 1: In October 2020 Some Lower- and Upper-Income Households Used Stimulus Checks, UI to Cover Spending (in percent)



Source: U.S. Census Bureau, Household Pulse Survey Public Use File, Week 17, October 14-26, 2020.

Note: Answer choices were not exclusive so percentages sum to more than 100%. The Household Pulse Survey asked household members if they had used regular income, pre-pandemic; stimulus payments; UI; and SNAP to meet their spending needs within the last 7 days. Households are grouped by their 2019 household income before taxes.

Figure 2: In October 2020 Stimulus Payments, Unemployment Insurance, and SNAP Supported Spending of Households that had Experienced a Loss of Employment Income Since March (in percent)



Source: U.S. Census Bureau, Household Pulse Survey Public Use File, Week 17, October 14-26, 2020.

Note: Answer choices were not exclusive so percentages sum to more than 100%. The Household Pulse Survey asked household members if they had used regular income, pre-pandemic; stimulus payments; UI; and SNAP to meet their spending needs within the last 7 days.

Snapshot 3: January and February 2021

In late December 2020, Congress passed an Omnibus bill that promised $900 billion dollars of spending on COVID relief. As part of that legislation, $600 stimulus checks were issued by the IRS to adults and to children, an increase from the $500 per child in the CARES Act. In the December stimulus bill, the income cut off for the full benefit was $75,000 in tax year 2019, which was slightly lower than the income threshold in the previous stimulus bill. This economic impact payment was colloquially referred to as “the second stimulus payment.”

To be able to track how families were using this payment to support themselves, in Week 22, the Household Pulse introduced a question asking about receipt of the stimulus payment “in the last 7 days,” reproduced here:

Q15 In the **last 7 days**, if you or anyone in your household received a “stimulus payment,” that is a coronavirus related Economic Impact Payment from the Federal Government, did you:
Select only one answer.

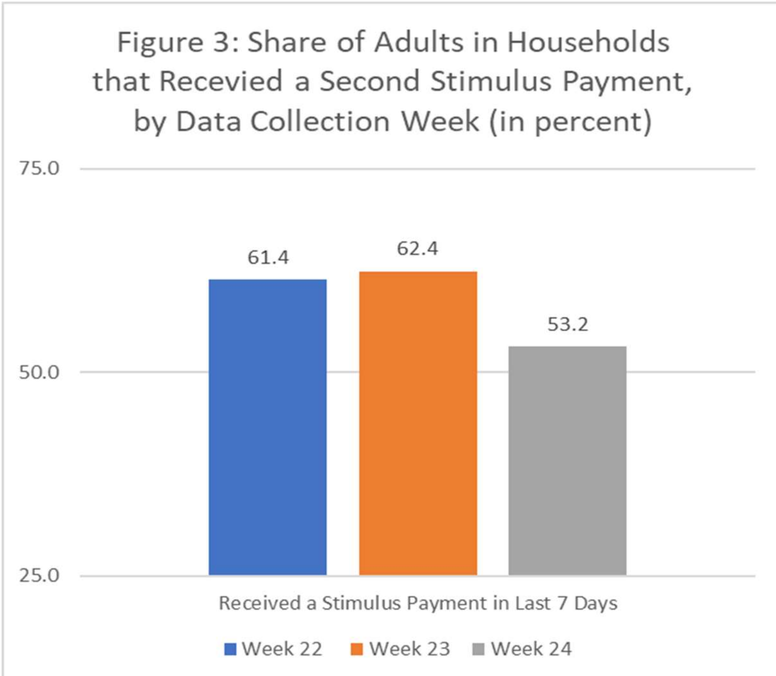
- ○ Mostly spend it (1)
- ○ Mostly save it (2)
- ○ Mostly use it to pay off debt (3)
- ○ Not applicable, I did not receive the stimulus payment (4)

A version of the question asking how the stimulus was spent also returned to the questionnaire, with slightly different wording:

Q19 What did you and your household mostly spend the most recent “stimulus payment” on?
Select all that apply

For the purposes of this analysis, an important difference in the new version of the stimulus payment receipt question is its restriction to “In the last 7 days...”. The question introduced in Week 7 and discussed in Snapshot 1 above asks if anyone in the household received the stimulus or expected to receive it. The Phase 3 question narrows the question and makes it possible for an adult responding to the survey in late January to say that they didn’t receive a stimulus payment in the last 7 days, even if they did receive one in early January as a result of the legislation passed in December. For this reason, we’d expect the rate of receipt of these payments to be lower for the new question than for the similar question in Week 7 of the Household Pulse. Moreover, the data collected in the early part of January would have taken place before some payments had been issued. However, the combined data collected over January 6-January 18 (Week 22), January 20-February 1 (Week 23), and February 3-February 15 (Week 24), results in a larger group of respondents that received the second stimulus payment and reported on it in the Household Pulse.

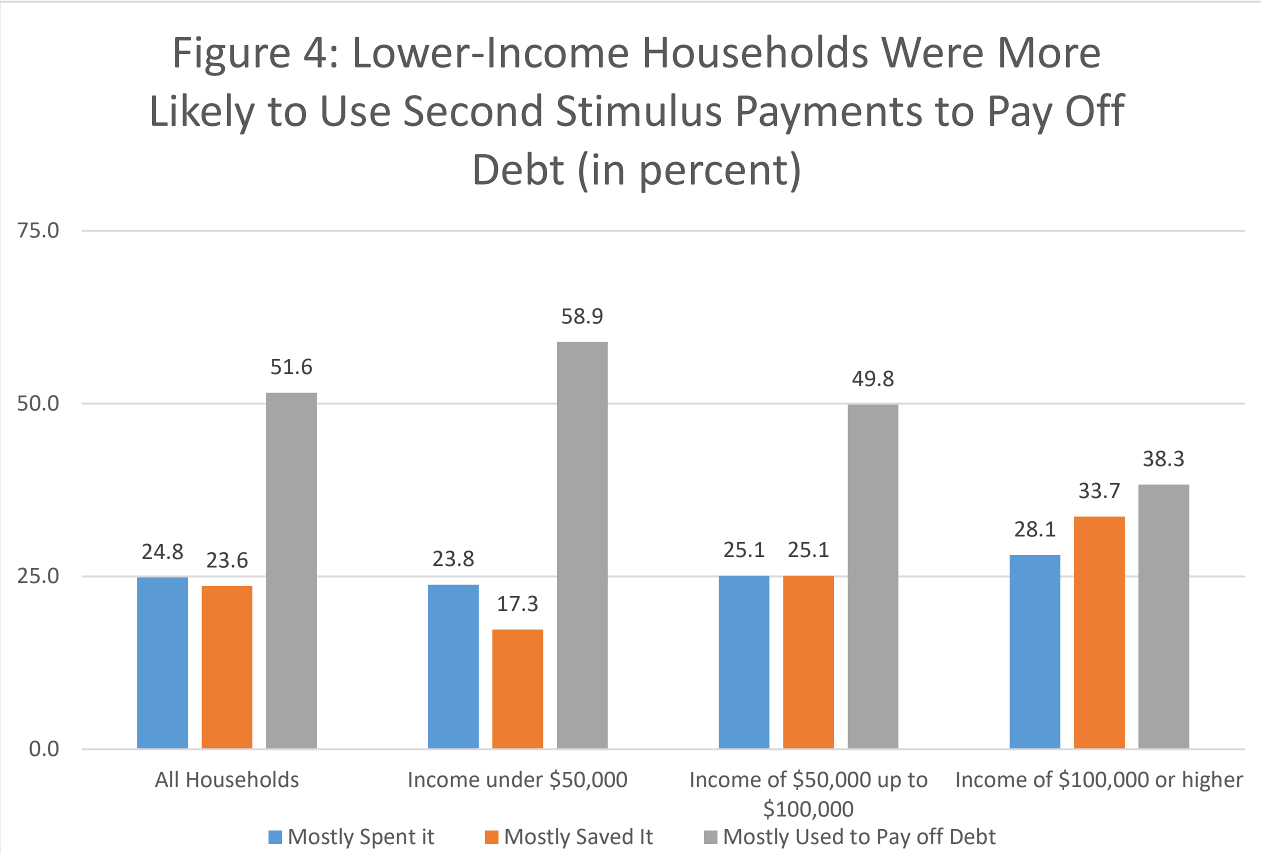
The January data show that about three in five adults in households reported receiving a second stimulus payment in the last seven days. Also, by the time of the Week 24 data collection in February, the share of adults in households that received a stimulus payment in the last seven days had declined to just over half of respondents:



Source: U.S. Census Bureau, Household Pulse Survey Public Use Files, Weeks 22-24, January and February 2021.

The combined data collected in the six weeks of January and half February show that the majority of adults in households that reported receiving the second stimulus payment in the last 7 days used the stimulus to pay off debt.

This differed from the results of the slightly different question asked in Week 7, discussed in Snapshot 1, where 15.7% of adults in households that had received, or thought they would receive, the first stimulus of $1,200 either did or planned to mostly use that stimulus to pay off debt. If we look across the income distribution, adults in households with 2019 pre-tax household income below $50,000 were most likely to use the second stimulus payment to pay off debt. Middle-income households were less likely than lower-income households, but more likely than upper-income households, to use the stimulus to pay off debt. On the other hand, the likelihood of saving the stimulus was positively associated with 2019 pre-tax household income. The likelihood of mostly spending the stimulus payment differed by five percentage points or fewer across the three income groups, and hovered between 20% and 30% of households in each income cohort.

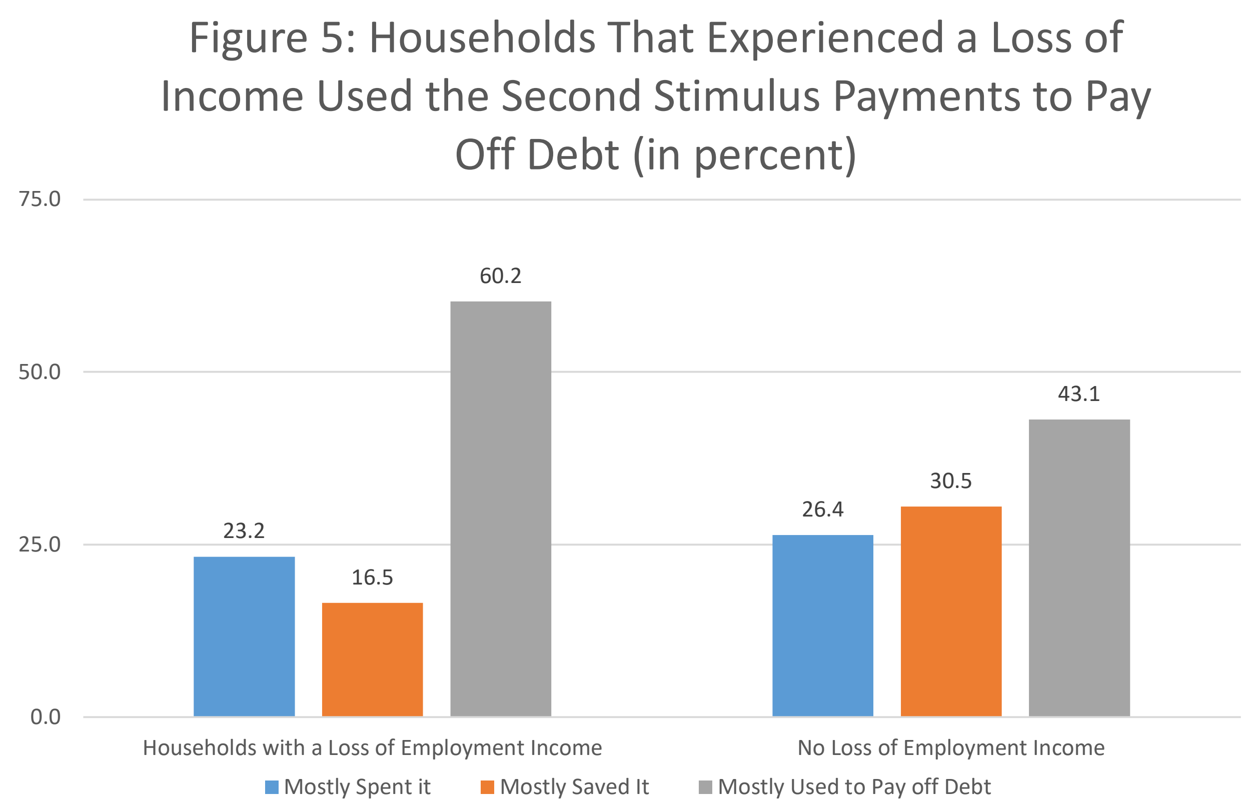


Source: U.S. Census Bureau, Household Pulse Survey Public Use Files, Weeks 22-24, January and February, 2021.

The question highlighted in Snapshot 2 asking whether adults lived in households that experienced any loss of employment income was also asked through Phase 3 of the HPS. The question always refers to March 2020 and therefore it would be expected that more households would respond that they experienced some loss of income based on the increasing time period. It is also reasonable to expect that some households that experienced a loss of employment income found ways to replace that income through different household members working, or finding new work, or some other means. Additionally, the question does not require the employment income loss to be caused by the pandemic. Despite these issues, it is possible to get a sense of how households that experienced a loss of employment income since March 2020 and received a stimulus payment in January or February utilized that payment. By Weeks 22-24 of the HPS, just fewer than half of all households (47.4%) had experienced a loss of employment income, which was slightly higher than the 45.0% of households that had experienced a loss of income in Week 17.

As for receipt of the second stimulus in the last 7 days, slightly more households that experienced a loss of employment income received a payment than those that had not. But for both groups, about three in five households received the second stimulus payment.

Adults in households that had experienced a loss of employment income were more likely to use that stimulus payment mostly to pay off debt than adults in households that had no loss of income and also received a stimulus payment. However, more than 2 in 5 adults in households that received a stimulus payment mostly used it to pay off debt, regardless of whether their household had experienced a loss of income or not during the pandemic.



Source: U.S. Census Bureau, Household Pulse Survey Public Use Files, Weeks 22-24, January and February, 2021.

Conclusion

These three snapshots of the economic state of households during the COVID-19 pandemic characterize the difficult time experienced by many Americans. The stimulus payments issued in April 2020 after the CARES Act were mostly spent, and a smaller share of them were mostly saved or used to pay down debt. The most common plans for the payments that were spent were for food, housing payments and utilities. In October 2020, 45.0% of households had lost employment income during the pandemic, and 28.3% of these were using stimulus payments to cover their spending in the last week. In January and February of 2021, recipients of the second stimulus payment were more likely to use the payment to pay off debt than to spend it. Lower-income households were more likely to use the stimulus to pay off debt than upper-income households and were less likely to save the stimulus than those households. Households that had lost employment income since March 2020 and received the second stimulus payment were more likely to use it to pay off debt and less likely to save it than households that had not lost income. However, across the income distribution, households were more likely to use the second stimulus to pay off debt than they had been to use the first stimulus for debt repayment.

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