



They Worked: The effects of \$1,400 stimulus checks on families and the economy

Claudia Sahm is the author of this research policy brief. The Jain Family Institute and the University of Michigan funded the survey module. Sahm thanks Matthew Shapiro and Joel Slemrod for their contributions to the survey design and prior collaborations; Alexander Jacobs, Stephen Nuñez, Sidhya Balakrishnan, and Halah Ahmad provided excellent comments. All opinions expressed here are the author's.

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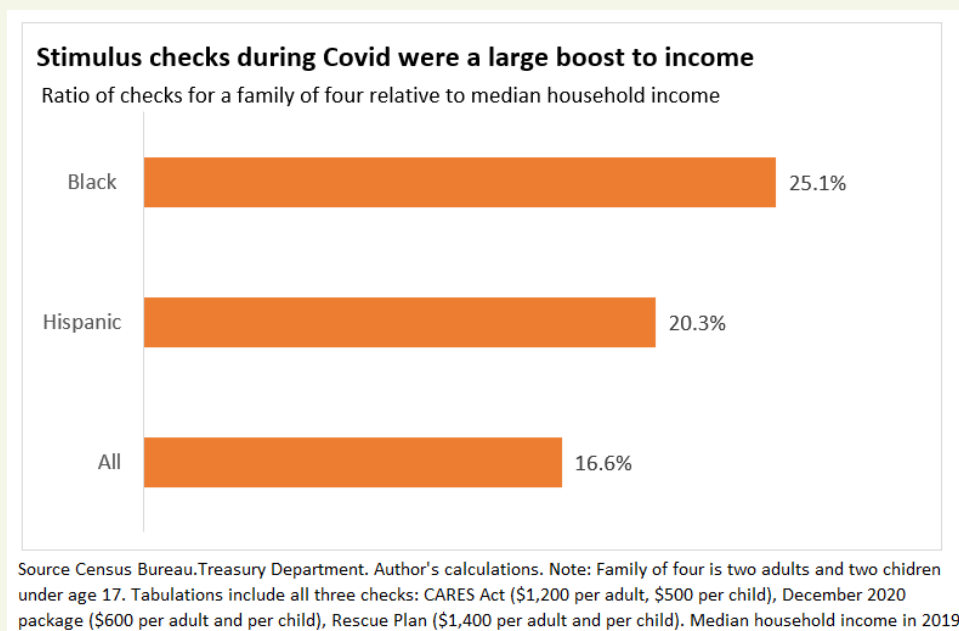
Executive Summary

Over the course of the COVID-19 economic crisis, Congress has enacted about \$5 trillion—one quarter of annual GDP—in fiscal relief. At the heart of this bold policy response was “economic impact payments”, often referred to as “stimulus checks”, to most families. My research brief argues—contrary to several prominent critics—that the stimulus checks, including the most recent \$1,400 payments under the [American Rescue Plan](#) (the “Rescue Plan”), provided much-needed relief to millions of families and helped bolster the economy at a critical juncture in the recovery.

My evidence-based brief draws on newly available data from the Surveys of Consumers at the University of Michigan, known as the “Michigan Survey”, to assess the effect of the final round of stimulus checks. I find that most families needed the checks and many—even those with higher incomes—spent them quickly, helping reignite the economic recovery after it stalled in the winter.

The stimulus checks represented real money for Americans—money that millions of Americans needed as they grappled with the pandemic’s economic fallout. A family of four (with two adults and two young children) received up to \$11,400 from April 2020 to March 2021, equal to 17% of median household income in 2019 for all Americans and 25% for Black and Hispanic families.

Figure 1.



By comparison, stimulus checks in 2008 for a family of four represented only 3% of median income before COVID-19, and arrived as a single check. This time, Congress acted aggressively—first with the CARES Act and then two further large relief packages, all within the first year of the crisis and each authorizing a separate stimulus check. Given the faster recovery compared to 2008-9, we should conclude that larger amounts of direct stimulus, provided to a higher percentage of Americans, are an effective, reliable way to fight recessions. See Sahm (2019) for a summary of other supporting research. Still, it is imperative that policymakers learn from the problems encountered in this year of extraordinary economic intervention in order to deploy cash assistance even more effectively during future downturns.

My brief is divided into three parts:

1. **An analysis of my new survey investigating the third round of direct cash assistance, that is: the \$1,400 stimulus check.** I find that the checks provided a sizable boost to overall spending this spring and helped millions of families in need. In short, stimulus checks worked. Nearly one quarter of families said they “mostly” used their checks to increase their spending, and many other families spent some portion of their checks. Taken together, more than half of the \$400 billion disbursed was spent within a few months of receipt. Families who did not use this assistance to increase their spending instead used it mostly to pay down debt (45%) or increase their savings (31%). While those latter two uses did not directly boost the aggregate demand, they did create a financial buffer and reduced debt burdens. In addition, another 12% of families who initially saved or paid off debt with their checks said they expected to spend the extra money at a later date.
2. **An analysis of the effects of all three rounds of stimulus on the larger economy.** The \$826 billion in total stimulus received by families through May 2021 boosted spending growth, especially in each month of receipt. My results reveal that the \$1,200 CARES Act checks added over 2 percentage points to the monthly percent change in consumer spending in April 2020. In that month, inclusive of the stimulus checks, spending plummeted nearly 13%—the largest monthly decline during the COVID-19 recession. In addition to providing substantial support, the checks came at exactly the right time to buffer the contraction and help stabilize the economy. During the recovery, the \$600 checks added 1 percentage points to aggregate spending growth in January 2021, and the \$1,400 checks added over 3 percentage points in March 2021.

3. **An inventory of key lessons from the overall stimulus effort.** Congress spent considerable time debating the size, scope, and timing of the stimulus checks, time that might have been saved had there existed legislation, before the recession, that tied checks to economic conditions. Before the pandemic, I provided ([2019](#)) one such proposal in which the rise and then recovery in the unemployment rate determines the timing and size of stimulus. Detaching this cash relief from short-term political calculus would free up time for other urgent policies and ensure money reaches families quickly and predictably.

In addition, Congress needs to improve its systems to deliver cash assistance to families. They must learn from Treasury's administrative failures, particularly in reaching families who do not file taxes and for whom the federal government does not normally have payment information.

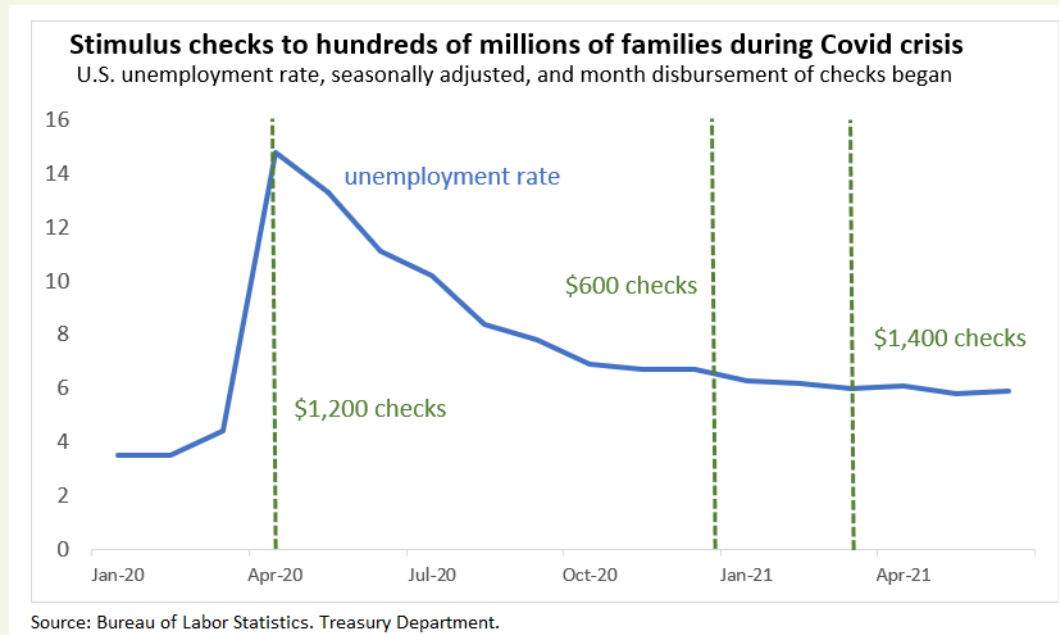
Finally, policymakers must recognize, and embrace, the fact that people across the political spectrum, according to multiple opinion polls, strongly favored the \$1,400 checks. Only one fifth of families said in the survey that they would have preferred that the total cash assistance had been spread out in twelve equal payments, instead of the large, irregular checks that Congress enacted. My prior research (Sahm, Shapiro, and Slemrod, [2012](#)) from the Great Recession also shows that large one-time payments were more effective at boosting spending than smaller, recurring payments.

My brief's arguments follow a short summary of the details of the stimulus.

Details of the Policy

The \$1,400 stimulus checks in the Rescue Plan were the third direct payments that all but the highest-income households received during the COVID-19 crisis. The CARES Act checks reached households in the spring of 2020 when the economy was in free-fall and millions of workers were losing their jobs each week. Then, around the turn of the year, with economic recovery stalled and COVID-19 cases surging again, families received a second check. The final check in spring 2021 came as the economy began to rebound again—thanks in part to the growing availability of vaccines. While each payment arrived during a distinct moment of the crisis, each round provided unambiguous relief and helped boost overall spending.

Figure 2.



The size of and eligibility for the stimulus checks during the COVID-19 crisis were dramatically larger than during the 2001 and 2008 recessions.¹ The Joint Committee on Taxation estimated that the three rounds of checks would total nearly \$1 trillion (2020a, 2020b, 2021), eight times the size of the 2008 stimulus payments (\$115 billion) and three times that era's broad-based aid to families, which in addition to 2008 checks included the 2009-10 Making Work Pay Tax Credit (\$116 billion) and the 2011-12 payroll tax cut (\$112 billion).

Most families received their stimulus checks notably faster than during the Great Recession. The first electronic payments of the CARES Act checks were disbursed 14

¹ Under the CARES Act, adults (except those with income over \$75,000 or without a Social Security Number) received the full \$1,200 and their children, if under age 17, received \$500. Any adult children (such as high school seniors or college students) or other adult dependents (such as disabled adults or elderly parents) claimed on the tax filing of the adult recipients received nothing. Though the \$600 stimulus checks had the same eligibility requirements as the CARES Act checks, every eligible recipient, adult or young child, received \$600. The stimulus checks in the American Rescue Plan were \$1,400 for each person, adult or child, and for the first time they extended eligibility to adult children and other adult dependents. In 2001 and 2008, the amounts were much smaller and the eligibility was narrower. Specifically, the stimulus checks in 2001 were \$300 per adult tax filer only, with no money for dependent children or non-tax filers. The 2008 checks were \$600 per adult tax filer or recipient of Social Security or Railroad Retirement benefits, and with \$300 per child.

business days after the program was enacted. The second two rounds were even faster: two business days and four business days, respectively.

How Families Used Their Stimulus Checks

Though a secondary consideration among some economists and political commentators, the main criterion by which any stimulus package should be judged in a recession or recovery is simple: did it support families? To answer this question, the Survey Research Center at the University of Michigan, with funding from the Jain Family Institute and the University of Michigan, fielded a new module (see Appendix A) in its regular Surveys of Consumers that asked recipients directly how the third round of stimulus affected their financial situation.

The Michigan Survey, as it is known, is a nationally representative survey that began in the 1950s and includes about 500 telephone respondents each month. The survey is widely used to track consumer sentiment and used as a leading economic indicator. This most recent module, fielded in May and June 2021, is comparable to prior surveys about the \$1,200 CARES checks as well as those from 2001 and 2008.

With regards to the \$1,400 checks, families were asked:

“Because of legislation enacted this March, most families will receive a stimulus payment of fourteen hundred dollars for individuals, twenty-eight hundred dollars for couples, and fourteen hundred dollars for each child and adult dependent. We want to understand how the stimulus payment will change decisions you would have made without the additional money.

Thinking about your (family’s) financial situation this year, will the payment lead you mostly to increase spending, mostly to increase saving, or mostly to pay off debt?”

The largest group of respondents (45%) reported mostly paying off debt, including credit cards, rent, and mortgage payments. Moreover, the families most likely to pay down debt were those hardest hit by COVID-19’s economic fallout: those who lost income or who,

lacking a meaningful financial buffer, typically cut their spending to cover unexpected expenses. For these families, the extra money provided much-needed financial security.

Table 1.

Most commonly families use stimulus checks to pay off debt			
Percent of families, by group			
	All Families	Lost Income Due to Crisis	Thin Financial Buffer
Mostly spend	24	20	18
Mostly save	31	22	22
Most pay off debt	45	59	59

Source: Surveys of Consumers, May and June 2021. Author's calculations. Note: 73% of the 1,214 respondents had received or expect to receive a stimulus check. Thin financial buffer is when a family would have to cut other spending to meet an unexpected expense.

The ability to pay off debt is especially important in a recession. So it is encouraging that, after thousands of dollars in stimulus, the fraction of overall income that families used to make regular payments on their debt [did not increase](#), according to the Federal Reserve. Amidst a severe recession, one might have expected families to borrow more to make ends meet, in turn—even with the decline in interest rates—increasing their monthly debt payments. That was the case in the Great Recession when the payments that all families, in total, made on their mortgages, credit cards, and other consumer loans rose by 1.4%. By contrast, such payments have so far fallen by 1% since the onset of COVID-19. Expanded and more generous stimulus almost certainly contributed to this lessening in financial stress.

In the survey, the next largest group (31%) were the families who said they mostly used their checks to increase their savings. Prior to COVID-19, even with the national unemployment rate under 4%, less than one third of working families could cover six months of expenses (Bhutta, Blair, Dettling, and Moore, [2020](#)). Families of color had even more precarious finances before the pandemic: only 14% of Black families and 10% of Hispanic families could do the same. These researchers estimated that the stimulus checks and enhanced jobless benefits in the CARES Act largely closed those gaps in 2020 and would allow nearly all families to cover six months of expenses. As a result, households were able—in the face of an economy in freefall—to buffer much of their lost income, whether from reduced hours or job loss. Millions now had sufficient income to do the “wise” thing and contribute to a rainy day, or “precautionary savings” accounts, something most had been unable to do in the past.

Remarkably, soon after families began to receive the CARES Act payments, a greater number reported being prepared for emergency expenses than had before COVID-19. In July 2020, [73% of people said](#) that they would handle an unexpected expense with cash, savings, or a credit card paid off at the next bill. Per a [Federal Reserve Survey](#), that is up from 63% in fall 2019 and a mere 50% early in the recovery from the Great Recession. (That percentage returned to its pre-crisis level by fall 2020.) Cash assistance during the first phase of the COVID-19 crisis—both from the CARES Act and the extra \$600 per week many received in jobless benefits—did as much, if not more, than years of economic expansion to prepare some families for unexpected expenses.

Finally, nearly one quarter of families mostly used their stimulus checks to increase their spending relative to what it would have been without the extra money. After including the families who spent some of their checks, I estimate that more than half of the \$400 billion in \$1,400 checks was spent (See Appendix B for the calculation). Since many households normally cut back on spending during recessions—either due to income loss or the fear of income loss—stimulus checks helped soften the blow to aggregate demand.

The survey also found that those who spent their checks did so rapidly. Nearly one quarter of respondents increased their spending within a few weeks of receipt and another half within three months. Such a rapid response to additional income suggests that families spent on items they needed but previously couldn't afford. That implies a boost to economic well-being as well as to spending. Families with thin financial buffers spent even more quickly.

Table 2.

	Families who spent the \$1,400 stimulus checks did so quickly		
	Percent of families, by group		
	All Families	Lost Income Due to Crisis	Thin Financial Buffer
Within a few weeks of receipt	20	20	34
Within 1 to 3 months	49	54	37
More than 3 months	29	27	28
Before receipt	1	0	0

Source: Surveys of Consumers, May and June 2021. Author's calculations. Note: Tabulations include the 209 respondents who mostly used their checks to increase spending. Thin financial buffer is when a family would have to cut other spending to meet an unexpected expense.

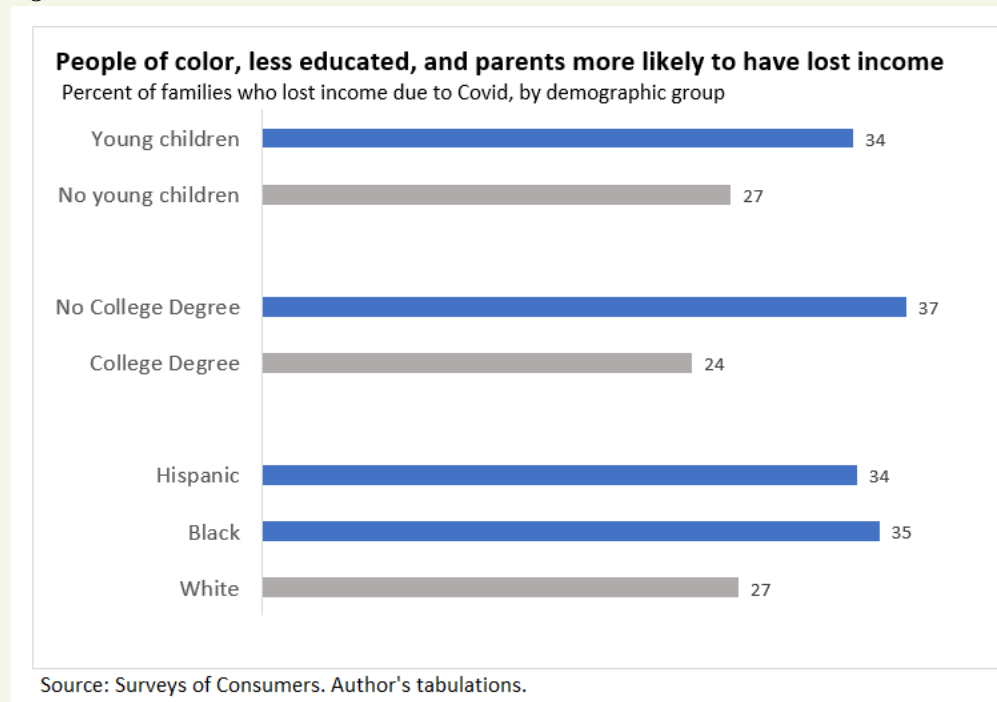
Among other notable findings:

- Though the fraction of families who mostly spent their stimulus payments remained consistent across the CARES Act and Rescue Plan payments—and,

indeed, stimulus payments in 2008—the composition of such spending changed significantly. Far fewer recipients spent on vacation and leisure activities in the crisis than in the Great Recession, owing to social distancing and other precautions due to COVID-19 (Sahm, Shapiro, and Slemrod, [2020](#)).

- Families used their stimulus checks in a variety of ways, not all of them predictable. This should be seen as further evidence in support of near-universal cash assistance as the preferred form of relief, allowing, as it does, families to decide how to use the extra income. Given its lack of timely data on household finances, any attempt by the government to pre-define “need” would likely have reduced the effectiveness of the stimulus checks, in terms of relief to families and the boost to the economy.
- The COVID-19 economic crisis hit some demographic groups harder than others, with Black and Hispanic families (Spriggs [2021](#)), Asian Americans (Kim and Lim, [2020](#)), those without a college degree (Gould and Kandra, [2021](#)), and parents (Heggeness, et al. [2021](#)) faring the worst. Each group experienced higher-than-average unemployment rates. Parents, and mothers in particular, were the most likely to leave the labor force altogether. Even after a year of cash assistance, the survey responses indicate that these groups still likely fared worse than before the crisis began.

Figure 3.



- These hardest hit groups were even more likely to pay off debt with their stimulus checks than other families. Two thirds of Black families said they would mostly use their checks to pay off debt, 20 percentage points more than white families. That may well pay dividends far beyond the recovery. By paying down debt now, these families will face lower interest costs in future and experience greater financial security. Black and Hispanic families would likely benefit the most, since prior to the crisis, the median ratio of their debts to their income was [1.5 times](#) that of white families.

Table 3.

Groups with higher income loss were more likely to pay off debt than others
 Percent of families, by demographic group

	All Families	Black	Hispanic	No College Degree	Parents
Mostly spend	24	13	13	19	21
Mostly save	31	22	27	25	27
Most pay off debt	45	65	60	55	52

Source: Surveys of Consumers, May and June 2021. Author's calculations.

My brief is the first study of the effects of the Rescue Plan’s \$1,400 stimulus checks, and its topline results on family finances are largely consistent with my findings from prior Michigan Surveys about the prior stimulus checks, including the CARES, 2008, and 2001 checks (Shapiro and Slemrod, [2003a](#), [2003b](#), [2009](#); Sahm, Shapiro, and Slemrod, [2009](#), [2012](#), [2016](#)). Moreover, the marginal propensity to spend out of the \$1,400 checks of 0.6 (or \$0.64 per dollar) in my study is in line with findings from other researchers who used different methods to estimate the spending out of prior stimulus checks. See my earlier brief for the Jain Family Institute ([2021](#)) for summaries of others’ prior research.

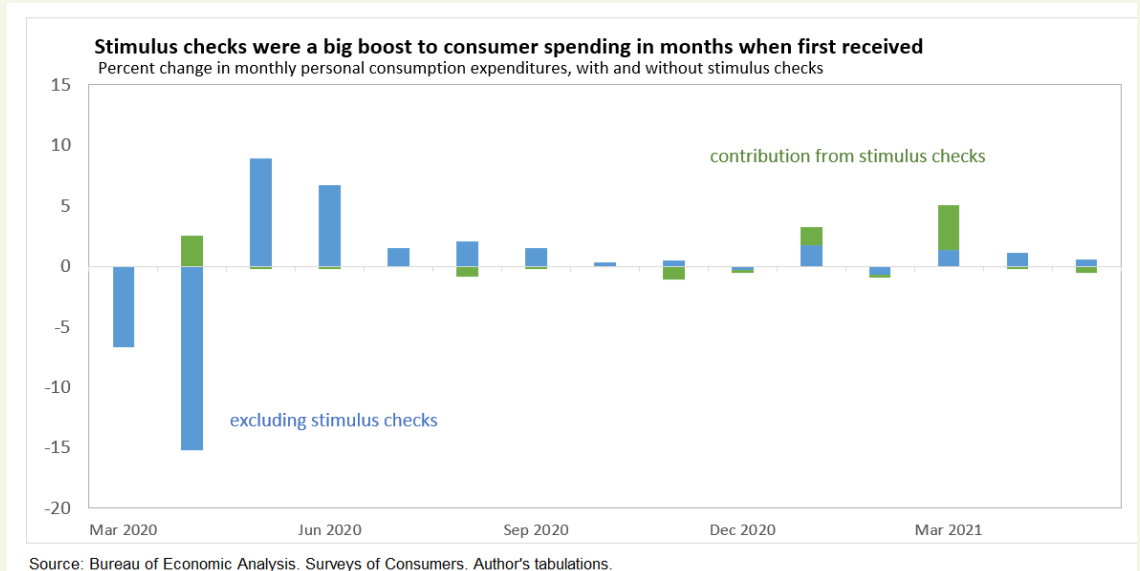
Effect of Stimulus Checks on the Economy

The COVID-19 recession was by far the most severe in the United States since the Great Depression. Within a month of the stay-at-home orders taking effect, the official estimates from the Bureau of Labor Statistics of the unemployment rate jumped to nearly [15%](#). After taking into account the millions who dropped out of the labor force as well as probable undercounting due to the pandemic, the rate likely exceeded [20%](#). Low-wage workers in the service industry and people of color endured [even higher](#) unemployment.

In early March 2020, it was clear that Congress needed to act decisively. The CARES Act, passed only two weeks into the lockdown, was the largest fiscal relief package in U.S. history, twice the size of the 2009 American Recovery and Reinvestment Act. The \$1,200 stimulus checks delivered \$216 billion to families in April, and families spent about half this amount in short order. I estimate that the stimulus checks, on their own, boosted the change in personal consumption expenditures by 2 percentage points in April 2020. (See

Appendix B for the tabulations.) The cash assistance helped soften the blow of a massive overall decline in spending.

Figure 4.



The effect of the stimulus checks on the growth in consumer spending was largest in the month of receipt, even though families do not do all of their attendant spending in that month. In fact, checks boost the level of spending for several months. But the contributions to *growth* are the largest in the month of receipt since the direct boost to spending is temporary; once the checks have been spent, the level of spending will decrease, subtracting from growth.² The CARES Act stimulus checks served their purpose well by creating a burst of spending to counteract the freefall in demand caused by the recession.

Absent stimulus, many of the individuals who lost income last year would have had no choice but to cut back on spending in spring 2020. In fact, around the receipt of stimulus checks fewer families reported difficulties covering their usual expenses (Center on Budget and Policy Priorities, [2021](#)). Spending support meant smaller declines in aggregate demand, revenues for business owners, and employment than would otherwise have been the case. Arriving as they did in April 2020, at the moment of swiftest economic

² Subsequently, stimulus acts as a drag on growth, since growth depends on the change in the level of spending and such rate of change declines after the first month. Over several months the contributions to growth will add to zero, because the stimulus checks, as one-time payments, do not on their own permanently raise the level of consumer spending. (Note that does not include any feedback effects captured in the fiscal spending multiplier.)

contraction, these payments injected money into the economy at the moment of greatest need.

The second, smaller round of \$600 stimulus checks enacted at the end of 2020 had a smaller, albeit notable effect on consumer demand: boosting spending growth by 1 percentage point in January 2021. Spending growth that month was positive even without stimulus, but that moment followed three months of weak consumer spending; at that point, the economy still had almost [10 million fewer jobs](#) than before the onset of COVID-19. The third round of \$1,400 checks reached families in March and boosted spending growth by 3 percentage points.

Some economists like [Larry Summers](#) and [Olivier Blanchard](#), alleging pent-up demand, argued before the passage of the Rescue Plan that a third round of checks was not necessary. In a brief earlier this year ([2021](#)), I argued these fears were overblown and that, moreover, the risks over the longer term of Congress “doing too much” were minimal. In retrospect, one could argue Congress has done *too little*. Even with the nearly \$2 trillion Rescue Plan, 2.5 million in new jobs created in its wake, and a successful ongoing vaccination drive, the U.S. economy had [6.8 million](#) fewer jobs in June 2021 than in February 2020. The recovery is far from complete and it is far from even. Black and Hispanic workers, mothers, and those without a college degree remain even further behind.

True, [inflation rose](#), from historically low levels during the recession, more quickly than expected and some employers did indeed face [labor shortages](#) as consumer demand surged. Tradeoffs always exist in policy, and policymakers must focus on measures likely to boost prosperity over the coming years, not just over the next few months. As discussed in the next section, tying the timing, size, and frequency of stimulus checks to economic conditions at the time, such as the level of unemployment prior to the recession, could have better aligned supply and demand. However, temporary bottlenecks—from staggered re-opening, limited access to childcare, and disruptions in the global supply chain—should not justify shortchanging relief for American families. Any negative ramifications from temporarily higher inflation pales in comparison to the positive effects of the additional relief: in the three months after passage of the Rescue Plan, payroll employment rose over [½ million per month](#), on average—the fastest pace since summer 2020.

Another common [argument](#) in early 2021 held that any further stimulus checks should be targeted more tightly towards lower-income families. [Raj Chetty](#) and co-authors, having made preliminary estimates that families with incomes greater than \$78,000 spent nearly nothing out of their \$600 checks, argued that omitting them from a third round of stimulus would reduce costs without sacrificing any boost to the economy. As I have

maintained elsewhere, their findings were at odds with years of research showing that income was not a reliable predictor of spending (Sahm, [2021](#)). Moreover, many families still needed financial assistance. Though in the end the Rescue Plan retained the income thresholds from the prior rounds of stimulus (\$75,000 for adults; \$100,000 per couple), the policy debate over targeting sparked heated discussion.

My analysis of the Michigan Survey offers a first opportunity to assess this debate. I find that the \$1,400 checks did, in fact, boost the spending of many higher-income families. About 27% of couples with income between \$100,000 and \$150,00 mostly spent the \$1,400 checks, similar (29%) to those with income from \$50,000 to \$100,000. The lowest income couples were in fact the *least* likely to raise their spending (13%), and instead were most likely to pay off debt (66%).

Table 4.

Higher-income families <i>more</i> likely to spend their stimulus checks			
Percent of families, by household income			
	Income of Couple		
	Under \$50,000	\$50,000 to \$100,000	\$100,000 to \$150,000
Mostly spend	13	29	27
Mostly save	21	28	38
Most pay off debt	66	43	34

Source: Surveys of Consumers, May and June 2021. Author's calculations.

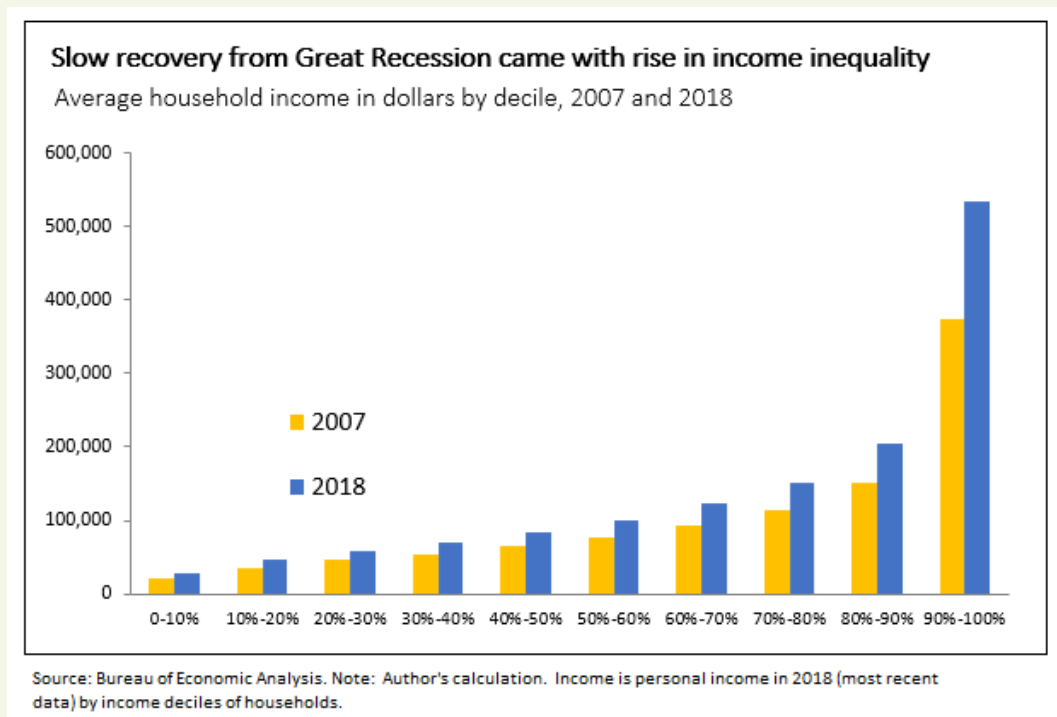
While the direct boost to growth from the stimulus checks is temporary, one-time cash assistance often creates a positive feedback loop that further amplifies spending. Extra spending raises aggregate demand, allowing business owners to re-hire more workers; the income of those workers, in turn, encourages more spending. (This feedback loop is often referred to as the “fiscal multiplier.”) The magnitude of those indirect, dynamic effects on GDP from the \$1,400 stimulus checks is beyond the scope of this study; however, prior research from Auerbach and Gorodnichenko, [2012](#) finds that they are four times as large in a recession as in an expansion.

A strong recovery is important to avoid scarring, especially among [long-term unemployed workers](#). An unprecedented level of federal government spending during this crisis contributed to a much more rapid, and more equitable, recovery than after the Great Recession. For example, the Black unemployment rate in June 2021 was 3 percentage points above its pre-crisis level, whereas at the end of 2012 it was still 5 percentage points

above its level prior to the Great Recession. A faster recovery is a better recovery for workers, especially those often marginalized in the labor market.

A faster, more equitable recovery also sets the stage for inclusive economic growth in the future. We know what happens without it. After the Great Recession, income inequality in the United States rose dramatically—with the total income of the top 10% rising by [\\$2.5 trillion](#), equivalent to the increase in the bottom 80% combined. The massive federal aid during the past year kept income more stable in order to limit the damage to family finances. A strong recovery now also puts the economy on firmer footing for structural reforms, as in President Biden’s American [Jobs](#) and [Families](#) Plans.

Figure 5.



While the medium-term effect on inequality from the relief during this crisis remains to be seen, my results show that the \$1 trillion in stimulus checks clearly achieved its immediate objectives: supporting families and speeding recovery of the economy.

Lessons from Stimulus Checks During Covid

We are far enough into the recovery to identify several key lessons relevant to future recessions—and even in the implementation of non-emergency cash transfer policies. My three main takeaways for policymakers are:

- Economic conditions, not politics should drive relief programs.
- Administrative systems for cash relief must be improved.
- Stimulus checks should remain a key tool in economic crises.

Economic conditions, not politics, should drive the program specifics.

Effective and popular though they were, the stimulus checks could nevertheless have been sized and timed better. In retrospect, it is clear that political considerations took precedence over people's needs—inevitable, in policymaking, but potentially avoidable in this instance. One solution would be to tie the size and timing of checks to economic conditions. While \$11,400 may have been a suitable amount, in total, for a family of four, the largest checks should have come earlier in the crisis when the unemployment rate was higher. The fact that such families received \$5,600 in March 2021 when the official unemployment rate was 6.0% versus \$3,800 in April 2020 when it was 14.8% suggests that the size could be better tailored to economic conditions. Likewise, taking politics out of the equation could have led to better timing. The second and third checks came within three months of each other in early 2021, but families received no checks in summer 2020 when unemployment was around 8%. Members of Congress, at that time, had heated debates about whether they should “wait and see” or do more. A policy tied to economic conditions, such as the unemployment rate, would have clearly called for further stimulus to the American people in summer 2020.

The timing and size of such payments, and their attendant effects on price increases and labor shortages in 2021, owed more to political vagaries than to any rational policy making process. All the more reason, then, to pass legislation automatically triggering future stimulus in response to particular economic conditions and deciding, in advance, key details such as eligibility. Such an automatic stabilizer bill would, in turn, push the federal government to improve its administrative system for payments and provide Congress much-needed time to focus on other details during the next recession. Several such

legislative proposals exist, and President Biden has endorsed the broad concept. Now is the time, while the shortcomings of the COVID-19 stimulus loom large in the public memory, to craft such a blueprint for effective future stimulus.

Administrative systems must be improved.

Congress charged the Internal Revenue Service with administering all three rounds of stimulus checks. The speed and coverage of the delivery exceeded any of the other COVID-19 relief programs and marked a dramatic improvement from prior recessions. Yet, the federal government could undoubtedly improve its means of disbursement.

My main proposals are:

- **Create a reliable database to assess eligibility and store payment information.** The IRS lacks timely information on income and family size, so it is hard to get stimulus checks to everyone who is eligible, especially those who do not file taxes or whose income fell sharply during the crisis.³
- **Upgrade payment systems, so cash assistance gets to everyone quickly.** Even among tax filers, not everyone shares their bank account information with the IRS. Paper checks were delayed due to capacity constraints and many people threw away their government-issued debit cards, suspecting they were junk mail. Mobile payments, among other tech solutions, could improve delivery.
- **Build permanent tools to help people access and track their stimulus checks, as well as work with community groups to build awareness.** The Treasury built two websites and contacted [9 million](#) eligible non-filers to get their payment information. They also worked with local community organizations, food banks, and homeless shelters. However, these efforts were hastily organized and had limited financial resources; millions never received their money.

Better administration is a [necessity](#). If money fails to reach families then all prior legislative effort has been in vain. During COVID-19, those least likely to receive their—such as families with children in deep poverty who do not file taxes—were arguably the most likely to need them. A system that can track such families more reliably will boost the effectiveness of future stimulus programs, as well as other benefits programs such as the expanded Child Tax Credit.

³ The IRS also worked with other federal agencies like the Social Security Administration and Department of Veterans Affairs to gather information on their beneficiaries. In 2008, non-filers among these beneficiaries had to file a special tax return to receive their stimulus checks, which required costly outreach and delayed their checks. Dropping this requirement in 2020 sped up delivery.

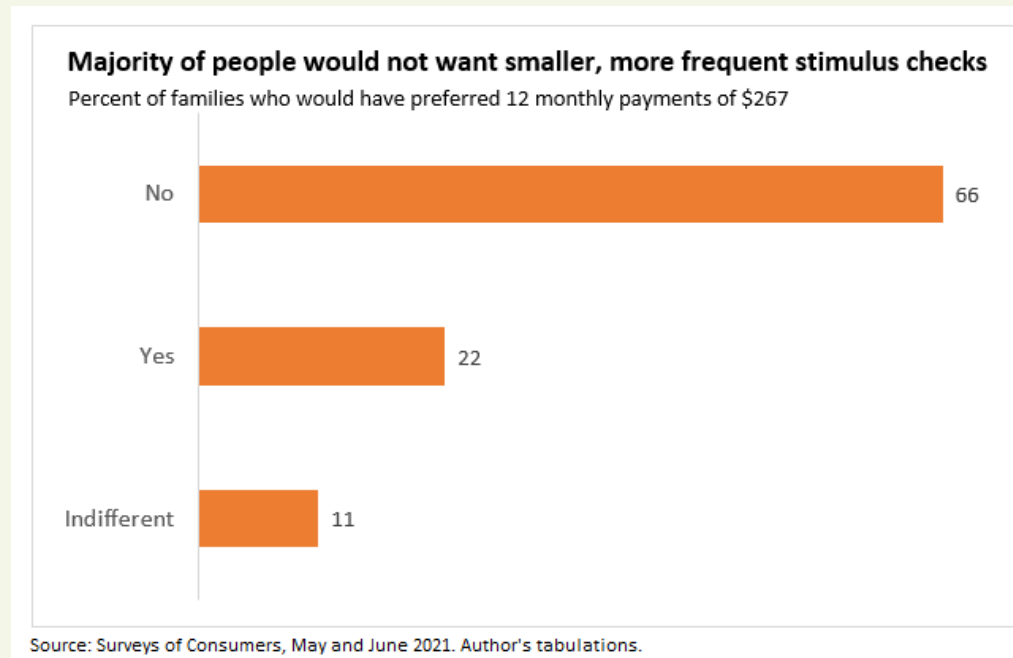
Stimulus checks should remain a key tool in economic crises.

In addition to being effective, the stimulus checks of the past year have been extremely popular. For example, a [Quinnipiac University Poll](#) found that 78% of Americans approved of a third-round stimulus check of \$1,400. That was higher than the fraction (68%) who were in favor of the Rescue Plan overall. Many argue the promise of further stimulus helped decide the 2021 run-off senatorial elections in Georgia, during which the two winning Democratic candidates endorsed another round of checks.

Contrary to some critics, stimulus checks are neither a political gimmick nor a giveaway. They are a proven, effective way to provide relief to the vast majority of Americans in an economic crisis. As a form of relief that reaches the majority of Americans, they command deep public support—unlike something like extended unemployment insurance, terminated prematurely by 26 Republican governors early in summer 2021.

Cash assistance during economic downturns has taken many forms in recent history: one-time checks in 2008; consistent, smaller payments in 2009; tax credits in 2009-10 and payroll tax cuts in 2011-12. Sahm, Shapiro, and Slemrod ([2012](#)) find that repeated payments in 2009 to 2012 boosted spending less than stimulus checks in 2008. My new survey echoes such results in revealing that Americans preferred larger, more infrequent checks. Only about one fifth of families said they would have preferred 12 monthly payments of \$267 over the three larger stimulus payments they received.

Figure 6.



When asked to explain why, respondents said things like: “At the time we received them we needed it to live and a smaller payment would not have helped” and “People want it right away so they can pay things off.” Many Americans are inclined to use larger payments for more expensive durable goods (e.g. used cars) or long-deferred repairs. These kinds of purchases often exceed the value of the checks and so provide an extra boost to aggregate spending. Moreover, the faster the allocated money reaches families, as occurs with large checks, the faster the effect on the overall economy. Whether such frequency remains preferred for other cash programs—such as the newly-expanded Child Tax Credit— remains a question for future research.

In conclusion, the stimulus checks worked—and can work even better in the future, if the lessons of the COVID-19 experiences are adequately applied. My findings from the Surveys of Consumers and other data sources show that this cash assistance offered necessary relief for millions of families. Many of the families who were hardest hit in the crisis, and who had the thinnest financial buffers before the pandemic, used the checks to pay off debt and create more financial security. Even though debt repayment was the most common use for the checks, I estimate that more than half of the stimulus checks were spent and most of that spending occurred within a few months of receipt. As a result, the stimulus checks boosted aggregate spending noticeably in the month of receipt and in subsequent months. Finally, while the delivery and design of the stimulus checks should

be improved, their effectiveness and broad popularity should be ample evidence for policymakers to use this form of cash assistance in future recessions.

Appendix A: Survey Questions

R1. Because of legislation enacted this March, most families will receive a stimulus payment of fourteen hundred dollars for individuals, twenty-eight hundred dollars for couples, and fourteen hundred dollars for each child and adult dependent.

Have you (or your family living there) received this payment?

1. Yes
5. No
8. DK
9. NA

R2. Do you expect to receive this payment?

1. Yes
5. No
8. DK
9. NA

R3. We want to understand how the stimulus payment will change decisions you would have made without the additional money. Thinking about your (family's) financial situation this year, will the payment lead you mostly to increase spending, mostly to increase saving, or mostly to pay off debt?

1. Increase Spending
2. Increase Saving
3. Pay Off Debt
4. Give to Charity
5. Give to Friends or Family
6. Already Increased Spending
8. DK
9. NA

R4a. Do you plan to keep your savings higher until the end of this year? Or do you plan to spend the payment later this year?

1. Keep Savings Higher
2. Spend Later This Year

- 8. DK
- 9. NA

R4b. Do you plan to keep your debt paid off until the end of this year? Or do you plan to spend the payment later this year?

- 1. Keep Debt Paid Off
- 2. Spend Later This Year
- 8. DK
- 9. NA

R5a. On what, specifically, will you spend this additional money?

R6a. What debt, specifically, will you pay off with this additional money?

R7. Did you (or will you) spend most of your payment within a few weeks of receiving it, within one to three months, or more than three months later?

- 1. Within a Few Weeks of Receipt
- 2. Within 1-3 Months
- 3. More Than Three Months Later
- 4. Before Receipt
- 5. After Coronavirus Crisis
- 8. DK
- 9. NA

R9. How much money in total did you (your family) receive?

R10. Because of the coronavirus crisis, has your (your family's) income declined?

- 1. Yes
- 5. No
- 8. DK
- 9. NA

RA33. If (you/your family) had an unexpected expense, such as a one-time car repair, would you pay for it mostly by taking money out of savings, mostly by cutting back on other spending, or mostly by using credit or borrowing?

- 1. Out of savings
- 2. Cut other spending
- 3. Credit or borrowing
- 8. DK
- 9. NA

RA41. Since the crisis began, most adults have received three stimulus payments: twelve hundred dollars last spring, six hundred dollars this winter, and fourteen hundred dollars recently. In total, that's thirty-two hundred dollars per adult.

Would you have preferred to receive the same total amount in twelve equal monthly payments of two hundred and sixty-seven dollars?

1. Yes
5. No
6. Indifferent
8. DK
9. NA

RA41b. Why do you say so?

Appendix B: Estimation of Macroeconomic Effects

The survey responses tell us how many respondents “mostly” spent their stimulus checks. They do not tell us directly how many dollars were spent. The fraction of the stimulus checks that people spend—referred to as the “marginal propensity to consume”—is key to the analysis of macroeconomic effects. The higher the MPC and the faster the spending out of the checks occurs, the larger the immediate, direct boost to the economy. A study by Jonathan Parker and Nick Souleles ([2019](#)), using the Consumer Expenditure Survey, allows us to translate the Michigan Survey responses on how people “mostly” use their checks to an MPC. Specifically, they estimated what percent (column B, Table B-1) of the stimulus checks of the 2008 stimulus checks that families spent depending on how they said they would mostly use their extra money. Note, families who said “mostly spend” on average spent *more* than their stimulus checks, since several used their checks as a downpayment for a car or other expensive consumer durables. (This is why the MPC is greater than one.) People who said they mostly save or pay off debt with their checks, also spent some of it, though the MPCs are noticeably less than those who said “mostly spend”. Applying the MPC from Parker and Souleles with my analysis of the survey findings on how people used the \$1,400 stimulus checks (column C, Table B-1), I estimate that the aggregate MPC is 0.64, which is largely in line with other studies on prior stimulus checks.

Table B-1.

Translation of Survey Responses to Marginal Propensity to Consume			
Survey Response	Percent of Families	MPC by Survey Group (Parker and Souleles, 2019)	Aggregate MPC by Group (A*B)
	(A)	(B)	(C)
Mostly spend	24	1.22 (0.45)	0.30
Mostly save	31	0.64 (0.45)	0.20
Most pay off debt	45	0.33 (0.34)	0.15
Sum	100	-	0.64

Source: Surveys of Consumers, May and June 2021. Parker and Souleles (2019, Table 3). Author's tabulations. Note column A is from Table 1.

The speed at which people spend their checks is also important for calculating macroeconomic effects. I translate the categorical survey responses, such as “within a few weeks,” into a percentage spent by month relative to receipt of the stimulus checks. For example, I estimate that of the \$0.64 per dollar spent over the next 7 months about \$0.13 is spent during the month in which families receive their stimulus checks. The spending per month tapers off to \$0.06 in the seventh month.

Table B-2.

Timing of the Marginal Propensity to Consume		
	Percent of Families Who Spent	Marginal Propensity to Consume
Within a few weeks of receipt	20	0.13
Within 1 to 3 months	49	0.32
More than 3 months	29	0.18
Before receipt	1	0.005
Month relative to receipt		
1st	21	0.13
2nd	16	0.11
3rd	16	0.11
4th	16	0.11
5th	10	0.06
6th	10	0.06
7th	10	0.06
Sum	100	0.64

Source: Surveys of Consumers, May and June 2021. Note: Top left of table is from Table 2.

Finally, I apply my estimates of the MPC by month to aggregate statistics on income and consumer spending during the crisis from the Bureau of Economic Analysis. The stimulus checks boost the level of spending notably when the families begin to receive them. For example, in April 2020, consumer spending was \$348 billion higher (at an annual rate) than it would have been without the checks. Spending continues to be higher than without the checks for several months, but the largest increase occurs in the first month of the program. As a result, the stimulus checks have the largest contribution to aggregate spending growth in the first month. In April 2020, the stimulus checks added 2.5 percentage points to overall monthly growth. The boost to growth from the subsequent checks was 1.5 percentage point in January 2021 and 3.6 percentage point in April 2021.

Table B-3.

The Effects of the Stimulus Checks on Aggregate Consumer Spending							
	Billion Dollars, Seasonally Adjusted, Annual Rate				Monthly Percent Change		Contribution to Growth from Checks (percentage points)
	Total Spending	Total Stimulus Checks	Spending from Checks	Spending without Checks	Total Spending	Spending without Checks	
Jan 2020	14881			14881			
Feb 2020	14877			14877			
Mar 2020	13879			13879	-6.7	-6.7	0.0
Apr 2020	12112	2588	348	11764	-12.7	-15.2	2.5
May 2020	13165	606	355	12811	8.7	8.9	-0.2
Jun 2020	14015	40	342	13672	6.5	6.7	-0.3
Jul 2020	14225	33	346	13879	1.5	1.5	0.0
Aug 2020	14397	9	230	14167	1.2	2.1	-0.9
Sep 2020	14583	5	204	14379	1.3	1.5	-0.2
Oct 2020	14627	14	204	14423	0.3	0.3	0.0
Nov 2020	14533	1	44	14488	-0.6	0.5	-1.1
Dec 2020	14451	0	7	14444	-0.6	-0.3	-0.3
Jan 2021	14921	1661	228	14693	3.3	1.7	1.5
Feb 2021	14774	96	190	14584	-1.0	-0.7	-0.2
Mar 2021	15515	4044	731	14785	5.0	1.4	3.6
Apr 2021	15656	688	705	14951	0.9	1.1	-0.2
May 2021	15659	129	628	15031	0.0	0.5	-0.5

Source: Bureau of Economic Analysis. Surveys of Consumers, May and June 2021. Author's tabulations. Note: Total spending is aggregate personal consumption expenditures and total stimulus checks are the aggregate dollars that families received each month from all three rounds of stimulus checks. The estimates of spending from checks are based on the survey results.

It is important to note that my estimates of the macroeconomic effects rely on a number of assumptions and calculations from my survey analysis, as well as other research and data sources. Each of the steps in my estimates could add some measurement error and imprecision. One should not view the estimates in Table B-3 as exact. The goal, instead, is to get an approximate sense of how the size and timing of three rounds of stimulus checks affected the macroeconomy.