Economic Impact of Federal Stimulus

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The Independent Fiscal Office (IFO) publishes this research brief to examine the impact of certain federal stimulus programs enacted in response to the COVID-19 pandemic on Pennsylvania residents and the economy. The analysis estimates the economic impact due to the transfer of funds directly to individuals by income group. For this purpose, groups are based on the tax returns or reported income levels of stimulus fund recipients across four income groups: (1) below $25,000; (2) $25,000 to $49,999; (3) $50,000 to $99,999 and (4) $100,000 or more. The analysis also includes an itemization of the federal monies disbursed directly to state residents since the onset of the COVID-19 pandemic and provides a brief discussion of the following provisions:

- Economic Impact Payments (EIPs), commonly referred to as stimulus checks.
- Expanded unemployment compensation (UC) programs.
- Expansion of the Child Tax Credit for tax year (TY) 2021.
- Emergency allotments to the Supplemental Nutrition Assistance Program (SNAP).

The analysis concludes with a limited discussion regarding whether the infusion of significant federal monies into the state economy, when combined with temporary labor market conditions attributable to the pandemic, is conducive to raising the state minimum wage from its current level of $7.25 per hour.[1]

Stimulus Overview

Since March 2020, at least four pieces of federal legislation, and one executive action, have provided direct economic support to individuals during the COVID-19 pandemic. In general, the funding came in four tranches:

1) **Spring 2020 Legislation** To counter economic distress caused by the initial COVID-19 wave and resulting mitigation efforts, Congress enacted three pieces of legislation. These actions included the $2.2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act which included the first round of EIPs ($1,200 per adult), the establishment of the Paycheck Protection Program (PPP), funding for vaccines and testing, support to hospitals, enhanced UC payments (extra $600 per week, compensation for self-employed and gig economy workers) and direct and general support to state and local governments.

2) **Lost Wage Assistance (LWA) Program** In August 2020, the administration used executive authority to repurpose funds earmarked for emergency management to provide weekly $300 payments for certain unemployed individuals. Payments were made for qualifying weeks during August and the first week of September.

3) **Consolidated Appropriations Act (CAA), 2020** In December 2020, Congress approved $900 billion of additional stimulus. The CAA included a smaller round of EIPs ($600 per adult), the extension of UC programs (reduced extra weekly benefit from $600 to $300) and an increase to

[1] This research brief does not consider provisions that provide support to state and local governments, hospitals, colleges, small businesses and non-profits. For those provisions, the IFO estimates the following impacts: $32.2 billion to small businesses through the Paycheck Protection Program (PPP); $18.4 billion of general aid to state and local governments; $2.6 billion to transit agencies; and $2.6 billion to higher education.

emergency SNAP allotments. Additional funds for PPP, state and local transportation projects and vaccine delivery were also included.

4) **American Rescue Plan (ARP) Act** In March 2021, Congress approved $1.9 trillion of funds that extended UC and SNAP benefits into Fall 2021, and provided significant amounts of additional state and local government support. It also included a third round of larger, but more targeted, EIPs and modifications to several tax provisions, notably the Child Tax Credit for TY 2021.

For CY 2020, the IFO estimates that $38.4 billion of direct federal stimulus flowed to individuals as a result of the four programs covered by this research brief. For CY 2021, the IFO estimates that $39.6 billion will be disbursed. That estimate assumes that no new federal stimulus will be enacted after the ARP of 2021.

Federal Stimulus Payments to Individuals

	CY 2020	CY 2021	Total
Federal Pandemic Unemployment Comp (FPUC)	$16.19	$7.63	$23.82
Pandemic Unemployment Assistance (PUA)	7.05	2.98	10.02
LWA and UC Extensions	3.10	2.75	5.85
SNAP Benefits	0.92	1.36	2.28
Economic Impact Payments	11.14	21.38	32.52
Expanded Child Tax Credit Awards	--	3.47	3.47
Total	**38.40**	**39.57**	**77.97**

Note: Dollar figures in billions. Does not include values for state-funded Unemployment Compensation benefits ($5.2 billion in CY 2020; $1.3 billion in CY 2021).

The text that follows provides background on the major provisions and the estimated amounts received across four income groups. The second part of the research brief then estimates the impact of those payments on the state economy.

Provision 1: Economic Impact Payments

Three sets of EIPs were disbursed by the federal government. Each round of payments varied in amount and qualifying adjusted gross income (AGI) thresholds. The table below details the general provisions of the three rounds.

Economic Impact Payment Eligibility Details

	Value		Single Filers		Joint Filers	
Stimulus Act	Adult	Dependent	Maximum	Cap	Maximum	Cap
CARES	$1,200	$500	$75,000	$99,000	$150,000	$198,000
CAA	600	600	75,000	87,000	150,000	174,000
ARP	1,400	1,400	75,000	80,000	150,000	160,000

Note: Cap assumes no dependents are included. For CARES and CAA EIPs, dependents would increase cap value. There are separate thresholds for Head-of-Household filers which fall between the two categories listed in this table.

In the table above, the "Maximum" column refers to the maximum income an individual can receive before they no longer qualify for the full EIP. The "Cap" column reflects the value at which an individual no longer qualifies for the EIP. For the CARES and CAA EIPs, the dollar caps were extended for filers with dependents. For the ARP, qualifying dependents included children age 17 or older and adult dependents, whereas the first two rounds excluded those individuals.

The table below uses data published by the IRS and Social Security Administration to inform a projection of EIP payments by round and income group. This includes an estimate of the additional funds to be disbursed to certain individuals under the CARES Act for TY 2020: (1) children born during the calendar year, (2) individuals previously listed as adult dependents (e.g., college students) and (3) other technical factors that would have resulted in under- or non-payment of EIPs in CY 2020.

Economic Impact Payments by Income Level

				Total	
Income Level	CARES	CAA	ARP	Amount	Share
Below $25k	$3.60	$1.94	$4.86	**$10.41**	**32.0%**
$25k to $50k	2.75	1.57	3.90	**8.21**	**25.2**
$50k to $100k	3.07	1.73	4.29	**9.09**	**27.9**
$100k+	1.72	0.91	2.18	**4.81**	**14.8**
Total	**11.14**	**6.15**	**15.23**	**32.52**	**100.0**

Note: Dollar figures in billions. Income groups based on AGI modified for non-taxable Social Security income.

Based on these data sources, the IFO estimates that 32% ($10.4 billion) of all EIPs flowed to residents (and any dependents) with AGI under $25,000. For filers reporting less than $100,000 in TY 2019, the share increases to 85% ($27.7 billion) of the total value.

Provision 2: Expanded Unemployment Compensation Programs

The federal government enacted expanded UC programs to provide relief to those who lost employment due to the pandemic or could not work due to health or other concerns. The programs extended the number of weeks that individuals could receive unemployment benefits, allowed non-traditional workers (gig workers, self-employed and other) to qualify for benefits and increased weekly benefits. All expanded programs are scheduled to expire the first week of September 2021. Major programs include the following:

- **Pandemic Unemployment Assistance (PUA)** Allows individuals who are self-employed to qualify for weekly unemployment assistance. Also allows individuals with insufficient work history to qualify for regular state UC support.
- **Pandemic Emergency Unemployment Compensation (PEUC)** Allows individuals who have exhausted 26 weeks of unemployment benefits to continue to receive the same level of benefits for an extended period (initially an additional 13 weeks, currently an additional 53 weeks).
- **Extended Benefits (EB) Program** Provides income support up to 50% of prior benefit levels for individuals who have exhausted both regular and PEUC benefits.
- **Federal Pandemic Unemployment Compensation (FPUC)** Known as the weekly bonus, this program allows workers who claimed unemployment benefits for any day during a one-week period

to receive a pre-determined amount. Individuals enrolled under regular UC, PUA, PEUC and EB programs all qualify. Initial payments in 2020 (April to July) were $600/week. In qualifying weeks since, payments have been $300/week in Pennsylvania (including LWA payments for qualifying weeks in August and September 2020).

The table below uses data from the Pennsylvania Department of Labor and Industry (DLI) to distribute payments from the expanded programs to state residents based on income level. The estimates do not include payments from the regular state UC program, only federal programs enacted specifically to support workers during the COVID-19 pandemic. Claimant income levels are based on reported incomes prior to the period of unemployment and do not directly compare to income levels used for other provisions.

Expanded Unemployment Benefits by Income Level

					Total	
Income Level	CARES	LWA	CAA	ARP	Amount	Share
Below $25k	$14.93	$1.25	$2.97	$4.35	**$23.50**	**59.2%**
$25k to $50k	5.91	0.43	1.51	2.19	**10.03**	**25.3**
$50k to $100k	3.32	0.21	0.90	1.27	**5.70**	**14.4**
$100k+	0.33	0.01	0.05	0.07	**0.47**	**1.2**
Total	**24.49**	**1.89**	**5.44**	**7.87**	**39.69**	**100.0**

Note: Dollar figures in billions. Data from PA Department of Labor & Industry and calculations by the IFO. Estimates were determined by processing and payment dates, and due to delays in processing, may include payments from the previous stimulus act.

Based on these data, the IFO estimates that more than 85% of total payments flowed to residents who earned less than $50,000 annually. This outcome is heavily influenced by the PUA program, in which nearly 80% of claimants were in the lowest income bracket based on self-reported income.[2] These distributions illustrate the impact that the pandemic had on individuals across income groups, with part-time and lower-wage workers disproportionately impacted.

Provision 3: Child Tax Credit (CTC) Expansion

As part of the ARP Act passed in March 2021, Congress made substantial changes to the Child Tax Credit for TY 2021. Changes include the elimination of the minimum income threshold to qualify for the credit, uncapping the refundable portion of the tax credit, expanding the ages of children that qualify and adding an additional $600 to the credit for children under age six. (See table.)

Child Tax Credit Provision Comparisons

Provision	CY 2020	CY 2021
Value	$2,000	$3,000/$3,600
Minimum Income	$2,500	n.a.
Refundable Portion	$1,400	$3,000/$3,600
Advanceable Portion	0%	50%
Maximum Child Age	16	17

These changes apply to qualifying filers who have incomes capped by filing status ($75,000 for individuals; $150,000 for joint filers; $112,500 for heads of households), and phase out at a rate of $50 for every $1,000 of income in excess of the cap. The provisions

[2] Self-reported income by PUA claimants may not reflect total income for individuals employed at multiple jobs, or who held multiple gig economy or self-employment positions. For example, roughly 60% of all PUA claimants reported annual income of less than $10,000. PUA claimant income may comprise only a portion of total household income.

of the original tax credit apply to filers at higher income levels; therefore, single filers that report up to $200,000 and joint filers that report up to $400,000 qualify for the same tax credit as TY 2020.

Filers in the lowest income brackets benefit most from these changes due to the uncapping of the refundable portion of the tax credit and the elimination of the minimum income requirement. Filers earning less than $25,000 in AGI gain $1.2 billion, while filers under $50,000 receive an additional $835 million. Overall, nearly 84% of the additional funds ($2.9 billion) flow to filers earning less than $100,000 annually.

Expanded CTC by Income Level

	Total	
Income Level	Amount	Share
Below $25k	$1.21	34.8%
$25k to $50k	0.83	24.1
$50k to $100k	0.86	24.7
$100k+	0.57	16.5
Total	**3.47**	**100.0**

Note: Dollar figures in billions. Income groups based on AGI.

A portion of the tax credit may also be advanced for those that qualify. In the second half of CY 2021, up to 50% of the tax credit will be advanced to eligible filers in six monthly installments ($250/month for children age six and older, and $300/month for children under age six). The IFO estimates that approximately $3.3 billion will be advanced from July to December 2021.

Provision 4: SNAP Emergency Allotments

The Families First Coronavirus Response Act (Spring 2020) expanded SNAP to increase the emergency allotments made to households. States are now able to provide the maximum total allotment to every household that qualifies for SNAP as long as both the federal and state government have an ongoing emergency/disaster declaration. The CAA increased the maximum household benefit by 15% through June 2021, and the ARP extends the higher benefits through September 2021.

Using the approved monthly waivers listed on the USDA's website, the IFO projects that approximately $2.3 billion in additional SNAP emergency funds will flow to Pennsylvania families. Based on SNAP income guidelines, the IFO estimates that all funds will flow to households with AGI under $50,000.

Economic Impact of Federal Provisions

The analysis estimates that the federal response to the COVID-19 pandemic provides $78.0 billion in direct federal aid to Pennsylvania residents between April 2020 and April 2022. The aid provides income replacement for households affected by job loss and business closures, but a significant portion represents new income (1) for unaffected households or (2) that more than offsets reduced income due to job loss or business closures. To the extent that federal monies do not "backfill" amounts that were lost, it is new or discretionary income that might not be spent. This outcome is corroborated by research (discussed below) that finds a relatively low consumption rate for some stimulus funds. For example, a recent article by the Federal Reserve Bank of New York found that survey recipients reported they planned to spend between 29% (first EIP) to 25% (third EIP) of stimulus checks and use the residual to pay down debt or increase savings.[3]

Because such a large share of funds is not consumed immediately, but instead might facilitate higher consumption in the near future, the economic impact analysis considers the impact of the direct stimulus

[3] See Oliver Armantier, et al., "An Update on How Households Are Using Stimulus Checks," Liberty Street Economics (April 2021), https://libertystreeteconomics.newyorkfed.org/2021/04/an-update-on-how-households-are-using-stimulus-checks.html.

monies during the period of April 2020 to April 2022. The analysis assumes that residents revert to a "typical" debt level they can manage, but there is also a moderate and permanent paydown of existing debt. Because the analysis uses a two-year time frame, it uses a higher consumption rate for stimulus funds compared to results from recent academic studies.

Methodology

At a high-level, recipients have two options when using federal stimulus funds: they can spend the funds, or they can save the funds (includes paying down debt to reduce a negative asset). The share of new income that is spent on goods and services is known as the marginal propensity to consume (MPC). This new spending reverberates through the state economy and generates multiplier effects. Amounts used for savings/paying down debt can place households on a more stable financial footing, but do not have an immediate impact on the level of jobs or output of an economy.

Researchers have found that the MPC for federal stimulus funds depends on various factors including the type of benefit (e.g., stimulus checks vs. unemployment compensation) and household income. A systematic review of the literature conducted by Carroll et al. (2017) finds aggregate MPCs generally range from 20% to 60%. However, the studies included had a spending horizon of one year or less.[4] Researchers analyzing the current federal stimulus estimate aggregate MPCs from 30% to 50% for EIPs distributed during the COVID-19 pandemic.

Expanded UC benefits provide recipients with an additional $300 to $600 in benefits per week. Ganong et al. (2021) note that the persistence of the weekly benefit increases the share of the supplemental ($300 to $600) payments that are spent. The researchers find that expanded UC benefits distributed during the pandemic had a one-month MPC of 29% to 43% and a six-month MPC of 62% to 69%.[5]

There is also a growing body of research that finds the MPC varies based on socioeconomic characteristics. The variance in the MPC across income groups is most relevant for the analysis undertaken for this research brief. A working paper from the Federal Reserve Bank of Chicago (2021) uses transaction-level bank account data and finds an aggregate MPC of 46% for the EIPs distributed in April 2020. However, the MPC ranges from 24% for recipients who save much of their monthly income, to 60% for recipients who live paycheck to paycheck.[6] This variance is also evident in the savings rates calculated using the U.S. Bureau of Labor Statistics Consumer Expenditure Survey for the Northeast region: the savings rate is 0% for annual incomes up to $50,000; 13.5% for incomes between $50,000 and $100,000; 28% for incomes between $100,000 and $150,000; and 46% for incomes above $200,000.[7]

As noted, this analysis uses a two-year horizon to quantify the impacts of stimulus funds on the state economy. The period April 2020 to April 2022 is used to account for consumption that may be deferred due to ongoing COVID-19 related restrictions on commerce and temporary supply constraints. As additional travel, recreation and entertainment options become available in the latter part of 2021 and early 2022, it is likely that consumers will spend a larger portion of their stimulus funds. Based on existing research and consumer spending patterns from the Consumer Expenditure Survey, the assumed average MPCs for the

[4] See Christopher Carroll, et al., "The Distribution of Wealth and the Marginal Propensity to Consume," (June 2017), http://www.econ2.jhu.edu/people/ccarroll/papers/cstwMPC/.
[5] See Peter Ganong, et al., "Spending and Job Search Impacts of Expanded Unemployment Benefits: Evidence from Administrative Micro Data," (February 2021), https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/institute/pdf/Spending-and-Job-Search-Impacts-from-Expanded-Unemployment-Benefits.pdf.
[6] See Ezra Karger and Aastha Rajan, "Heterogeneity in the Marginal Propensity to Consume: Evidence from COVID-19 Stimulus Payments," (February 2021), https://www.chicagofed.org/publications/working-papers/2020/2020-15.
[7] These computations count employee pension contributions and Social Security taxes as savings.

federal stimulus across the four income groups are as follows: 77% (incomes up to $24,999); 77% ($25,000 to $49,999); 64% ($50,000 to $99,999); and 42% (more than $100,000). These MPCs are a weighted average across the four federal programs and reflect a much lower MPC for EIPs than expanded UC benefits. All SNAP benefits are assumed to be consumed. Residual amounts are assumed to be saved or used to pay down existing debt and do not have an economic impact during the two-year period examined.

Economic Impacts by Income Level

Economic Impact of Federal Stimulus by Income Group

	$0-25K	$25-50K	$50-100K	$100K+	Total
Economic Impact Payments	$10.41	$8.21	$9.09	$4.81	$32.52
Expanded UC Benefits[1]	15.67	13.95	9.61	0.47	39.69
SNAP	1.49	0.80	0.00	0.00	2.28
Child Tax Credits	1.21	0.83	0.86	0.57	3.47
Total Stimulus	28.77	23.79	19.56	5.85	77.97
Flows Out-of-State[2]	-1.44	-1.19	-0.98	-0.29	-3.90
Remains in State	27.33	22.60	18.58	5.56	74.07
Share Spent (MPC)	77%	77%	64%	42%	71%
Amount Spent	$20.90	$17.37	$11.91	$2.33	$52.51

	Average Impact Each Year (April 2020 to April 2022)				
	$0-25K	$25-50K	$50-100K	$100K+	Total
Jobs	78,339	67,768	46,048	9,226	201,381
Earnings	$4.93	$4.33	$2.96	$0.59	$12.80
Output	$14.05	$12.02	$8.23	$1.61	$35.91
Individuals (000s)	3,420	2,787	3,230	3,227	12,665
Per Capita Stimulus	$3,996	$4,054	$2,876	$862	$2,924

Note: Dollar figures in billions. Per Capita Stimulus in whole dollars. Average Impact Each Year reflects annual impact over a two-year period (April 2020-April 2022). Jobs, Earnings and Output calculations use the IMPLAN input-output module. Number of individuals by income group are categorized by AGI based on the most recently available individual income tax data from the IRS Statistics of Income Division (2018).

1 Expanded UC Benefits distributed based on claimant income. One-third of the benefits received in this category were migrated to higher income groups to adjust for cases where UC claimant income comprises only a portion of total household income.

2 Flows Out-of-State adjusts for net stimulus flows across states as well as fraudulent payments to non-residents. These amounts are not reflected in average stimulus per person or economic impact calculations.

The table above details the total stimulus received by income group across the four provisions: EIPs, expanded UC, SNAP and child tax credits. The estimates include all remaining stimulus that will be paid during CY 2021. The analysis assumes that 5% of the total $78.0 billion paid in federal stimulus flows out of state. This adjustment represents net amounts that were spent out-of-state (e.g., due to travel) by residents and fraudulent UC payments (notably the PUA program) that were received by non-residents.

Net of this amount, the analysis estimates that $74.1 billion of federal stimulus could have implications for the state economy.[8]

The middle portion of the table provides estimates of how stimulus funds were used across income groups. The analysis assumes that 71%, in aggregate, is used for consumption between April 2020 and April 2022. That new spending generates increased demand for directly affected firms and firms in the supply chain and higher earnings for workers and owners engaged in both types of firms.

The bottom of the table displays the economic impacts by income group. Increased in-state consumption of $52.5 billion from April 2020 to April 2022 supports an annual average of 201,400 jobs, $12.8 billion of labor income and $36.0 billion of output or spending that would have otherwise been eliminated or not created in the absence of federal stimulus. Approximately 40% of the jobs and earnings gains are due to spending by households with incomes less than $25,000.[9]

The table also uses tax return data from the IRS Statistics of Income Division to estimate the average stimulus received per individual across the two years (includes filers, dependents and certain non-filers that received benefits, such as elderly and disabled). Across all income groups, the average per capita stimulus received was $2,920 per annum. The amount ranged significantly across income groups, with households earning below $25,000 receiving an average of $4,000 per person per annum and households earning more than $100,000 receiving an average of $860 per person per annum. It is noted that these amounts vary by individual characteristics (e.g., employment status).

The federal stimulus also allows households to pay down debts and increase savings. This analysis assumes that, in aggregate, approximately 29% of federal stimulus is used for this purpose. Recent consumer finance indicators provide evidence of this behavior. Data from the Federal Reserve Bank of New York reveal that between 2015 and 2019, Pennsylvania per capita debt grew at average rate of 2.5% per annum. Total per capita debt growth slowed to 0.6% in 2020 suggesting that stimulus funds likely reduced household borrowing pressures. Annual debt growth slowed across all major types of debt between 2019 and 2020, except for mortgage debt. Per capita credit card debt, which grew at an average annual rate of 4.1% between 2015 and 2019, exhibited a notable trend reversal, decreasing by 14.1% in 2020. Additionally, the U.S. personal savings rate increased to 33.7% in April 2020, the highest savings rate in the index's 62-year history. Savings remained elevated throughout all of 2020, averaging 18.2% between April and December, compared to an average savings rate of 7.3% during the same period a year earlier.[10] It is noted that increased savings rates may also be a result of limited consumption opportunities due to restrictions on travel, large gatherings and consumption of in-person services resulting from the pandemic.

Implications for a Potential Minimum Wage Increase

To conclude the analysis, this research brief considers whether current temporary economic conditions facilitate raising the state minimum wage. The IFO includes this section in response to a specific request from a member of the General Assembly during the March 2021 budget hearings.

[8] In reality, the out-of-state spending is likely larger because it would include travel, internet sales and even payments to college students attending out-of-state colleges. However, stimulus monies would also flow into Pennsylvania due to the same channels via residents from other states. Hence, the adjustment in the table represents a net out-of-state spending adjustment (outflows less inflows) and a gross adjustment for fraudulent payments to non-residents.

[9] To estimate multiplier effects, the analysis used the IMPLAN input-output module that was updated for the latest state economic conditions available in the module (2020 Q3).

[10] See FRED Economic Data, "Personal Saving Rate," (accessed May 2021), https://fred.stlouisfed.org/series/PSAVERT.

The current economic situation is highly unusual and recent data provide context for the discussion:

- Data for March 2021 show a reduction of 384,000 jobs from March 2019.[11] Most of these jobs were lower-wage, part-time and located in the food service, retail trade, healthcare-social assistance and administration-waste management sectors. The latest weekly data also show 544,000 claims under the PUA program for gig workers, self-employed and other workers. It is not clear in what capacity individuals filing those claims were previously employed or the share of claims that are fraudulent.
- Many former workers currently receive significantly more funds not working (assuming employment is available) than returning to their previous employment. A worker who previously earned $12 per hour and worked 25 hours per week would receive $265 per week after employee payroll and state and local income taxes. That same worker would now receive roughly $450 per week (includes $300 weekly bonus) and that amount is not subject to payroll or state and local income taxes. For that worker, the after-tax hourly wage rate is effectively $10.60 if working versus $18.00 if not working, a difference of $7.40 per hour and $185 per week.[12]
- For a part-time worker who previously earned $10 per hour, the effective difference is $8.17 per hour and $204 per week. For a worker who earned $15 per hour, the effective difference is $6.26 per hour and $156 per week. If the part-time worker had only worked 15 or 20 hours per week, the difference becomes much greater because it does not impact the fixed $300 weekly payment.
- PUA claimants receive at least $495 per week, or $25,700 on an annual basis that is not subject to payroll or income taxes. Roughly 60% of all PUA claimants reported they had earned less than $10,000 per annum. For a PUA claimant with $5,000 in prior annual income, the annualized difference is $20,700.[13]
- For the U.S., real GDP for 2021 Q1 is less than 1% lower than the level for 2019 Q4, the quarter prior to the pandemic. However, payroll employment was lower by 8.2 million jobs (-5.2%). Hence, nearly the same amount of output was produced, despite a significant reduction in employment. Pennsylvania data are not currently available for 2021 Q1, but similar trends likely hold.

Under these conditions, some businesses have noted they have difficulty finding workers. Many have raised wages to attract workers while others have offered signing bonuses. Therefore, to some extent, the current economic conditions have effectively raised wages paid to lower-wage workers due to a temporary labor shortage combined with significant federal monies that temporarily stimulate consumer demand.

However, current conditions will not last. Widespread vaccinations are underway and it appears likely that most residents will be vaccinated by the fall when extra federal UC payments expire. At that time, workers receiving those weekly payments will have a much stronger monetary incentive to return to work. What is unclear is whether sufficient employment opportunities will be available at that time. The federal stimulus will be removed and many businesses have made significant adjustments to their operations that require less labor.[14] Consumer spending patterns have also changed dramatically, and are unlikely to revert fully to prior patterns. Many college and high school students will also rejoin the labor force during the summer

[11] Uses non-seasonally adjusted data. March 2020 was impacted by COVID-19 and is not used for this comparison.
[12] This simple example excludes any federal income tax and assumes the local income tax rate is 1.0%.
[13] This example assumes that the prior income that was lost and reported by the PUA claimant is accurate. However, because it may not affect the amount received, the claimant may have only reported the loss of a single part-time position, but may have lost multiple positions that were not reported.
[14] These changes are reflected in worker productivity gains published by the U.S. Bureau of Labor Statistics. Data for CY 2020 show a productivity surge that typically occurs during or shortly after recessions as businesses adjust operations to minimize labor (and other) costs.

(some permanently), which relieves upward pressure on wages for lower-wage workers and fills seasonal demands. Finally, most schools will fully reopen in the fall, allowing some parents to return to work.

Due to these factors, and assuming that stimulus is not extended, it is likely that there will be insufficient employment opportunities to return to pre-pandemic employment levels. Some of the potential excess labor supply could be offset by early retirements, or individuals who elect to permanently exit the labor force to care for elderly parents, provide at-home schooling or other lifestyle changes. At this time, it is not known how COVID-19 has permanently impacted labor force participation rates and the potential labor force. The pandemic's net impact on the labor supply will be a key factor that determines the tradeoffs of raising the minimum wage under conditions of temporary distress versus after federal support has been removed.

Assuming the state minimum wage increases, two hypothetical scenarios are posed: would it be better to increase the minimum wage to $12 per hour (or higher) in July 2021 or July 2022? Which enactment date would cause less short- and long-term disruption to the labor market? Much will hinge upon outcomes in late summer and fall when the extra UC benefits expire, federal stimulus is removed and former workers attempt to obtain employment. Regardless of the date, the net employment impact would largely be the same, but the transition could differ, as well as the types of workers impacted.

Raising the minimum wage in July 2021 could lock in gains achieved by certain workers and possibly attract other workers sooner who lack sufficient monetary incentives. However, given the effective hourly wage differentials noted above, it is unclear how much incentive that would supply and it would also depend on the new minimum wage rate. Overall, the enactment of a higher minimum wage in July 2021 would shift any potential negative employment impact to individuals who attempt to re-enter the labor market in the fall or enter for the first time. Current workers would likely not be impacted due to the current and temporary labor shortage in many sectors of the economy, which will be eliminated when vaccinations become widespread and federal benefits expire. Moreover, the higher demand from temporary stimulus will also be removed, which will reduce the demand for labor and slow the pace of hiring.

If a higher minimum wage was enacted in July 2022, then there is potential that a large influx of labor supply later this year could suppress wages and cause more obvious distortions when the wage rate is raised to $12 (or higher) per hour. The general outcome would be the same, but certain workers employed at the time the higher wage is implemented are more likely to bear some portion of any potential negative employment impact, as opposed to new or returning workers only. Prior to implementation, a "two-tiered" wage structure could also arise between current workers (many of whom received pay increases through the pandemic) and new or returning workers who attempt to obtain employment after extra benefits expire. If that occurred, employers would need to consider whether the wage differentials should be maintained when the minimum wage is raised.

Regardless of the scenario, it is likely that the pandemic and federal response has permanently raised wages for lower-wage workers by some amount. Given that, many employers would be less sensitive to a higher minimum wage relative to the situation prior to the pandemic. That result occurs because wages for lower-wage workers are higher than they would have been and therefore closer to any proposed higher minimum wage, and also due to the fact that many employers have already streamlined operations to reduce labor costs.

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