Goldman Sachs | Economics Research

21 August 2021 | 12:17AM EDT

US Economics Analyst

Back to Work When Benefits End (Briggs/Walker)

- With the state- and individual-level July employment data now in hand, we estimate the impact of the early expiration of enhanced federal unemployment insurance (UI) benefits in 25 states on employment, participation, and wages.
- The state-level July payrolls figures do not show a statistically meaningful difference in job growth between states that ended UI benefits early and states that didn't. But the more detailed individual-level data from the household survey of the employment report show clear evidence that benefit expiration increased the rate at which unemployed workers became employed.
- We make four key findings. First, UI benefit expiration increased unemployed workers' job finding probability by 6pp (vs. an average job finding probability of 27%) in July. Second, the effect is larger for low-paid leisure and hospitality workers (+15pp). Third the effect is entirely driven by workers who lost all benefits (+9pp), while workers who just lost the $300 top-up were unaffected. Fourth, the effect increases over time and was only +5pp in states where benefits expired on June 26 but +21pp in states where benefits expired on June 12. New academic research supports our findings.
- We find no evidence of a boost to labor force participation—in fact, the estimated effect is negative, but statistically insignificant. This suggests that many workers are staying out for non-financial reasons such as concern about Covid and may be slow to return to the labor force even after UI benefits end.
- The impact of benefit expiration on wage growth remains inconclusive. We previously showed that wages for ride-hailing service drivers—where wages change dynamically in real time in response to increases in labor supply—have declined more in states that ended benefits early. Average hourly earnings growth in the leisure and hospitality sector was also softer in these states in July, although the difference is not statistically significant.
- Our findings reinforce our confidence that national UI benefit expiration on September 6 will boost job growth by another 1.5mn through year-end. But they also suggest that it might take longer for the participation rate to recover. We continue to expect the unemployment rate to reach 4.1% by the end of 2021, but now expect the participation rate to only reach 62.2%.

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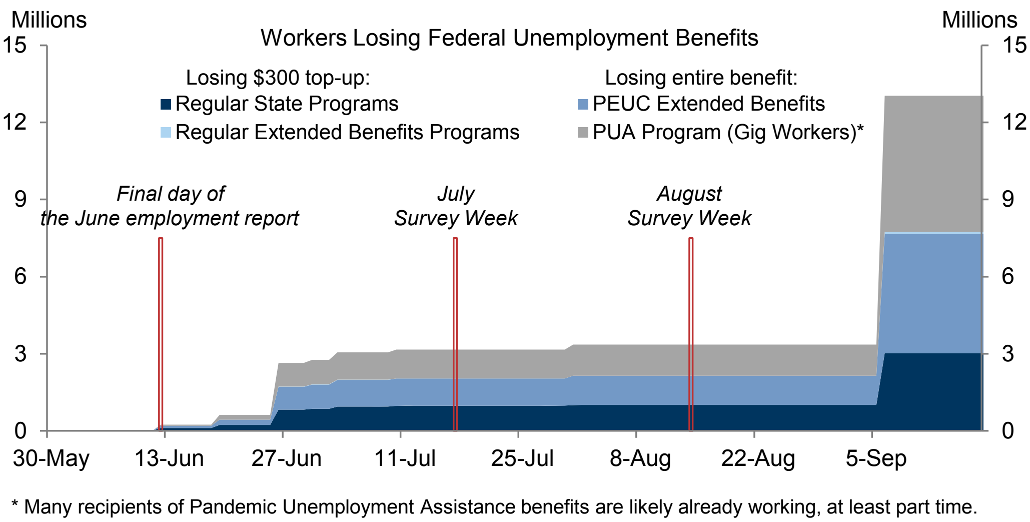
Back to Work When Benefits End

The state- and individual-level data underlying the July employment report have just been released, allowing us to estimate the impact of the early expiration of enhanced federal unemployment insurance (UI) benefits in 25 states for the first time. In this week's *Analyst*, we estimate the impact of expiration on employment, labor force participation, and wage growth and then update our labor market forecasts for the rest of 2021 to incorporate our findings.

Early Unemployment Benefit Expiration Increased the Incentive to Work

In between the survey weeks for the June and July employment reports, 25 states accounting for one-fourth of benefit recipients ended the $300 federal UI top-up payment, and all but three of these states opted out of other federal UI programs that extended the duration of benefits and eligibility to include gig workers (Exhibit 1).

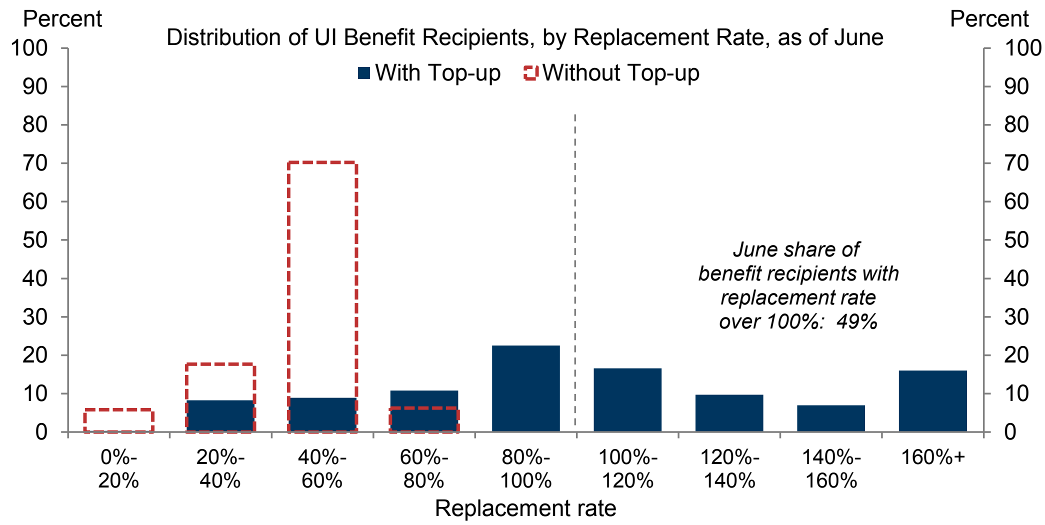
Exhibit 1: 3 Million Workers Lost Some or All Unemployment Benefits in June and July



Source: Department of Labor, Goldman Sachs Global Investment Research

Because job losses remain concentrated in low-wage industries, the federal enhanced UI benefits are large relative to normal wages for many benefit recipients. We estimate that the median UI recipient received a benefit worth roughly 90% of their prior wage and that almost half of workers earned more from benefits than from their prior job (Exhibit 2). Without the $300 top-up, the median wage replacement rate would drop to roughly 50%.

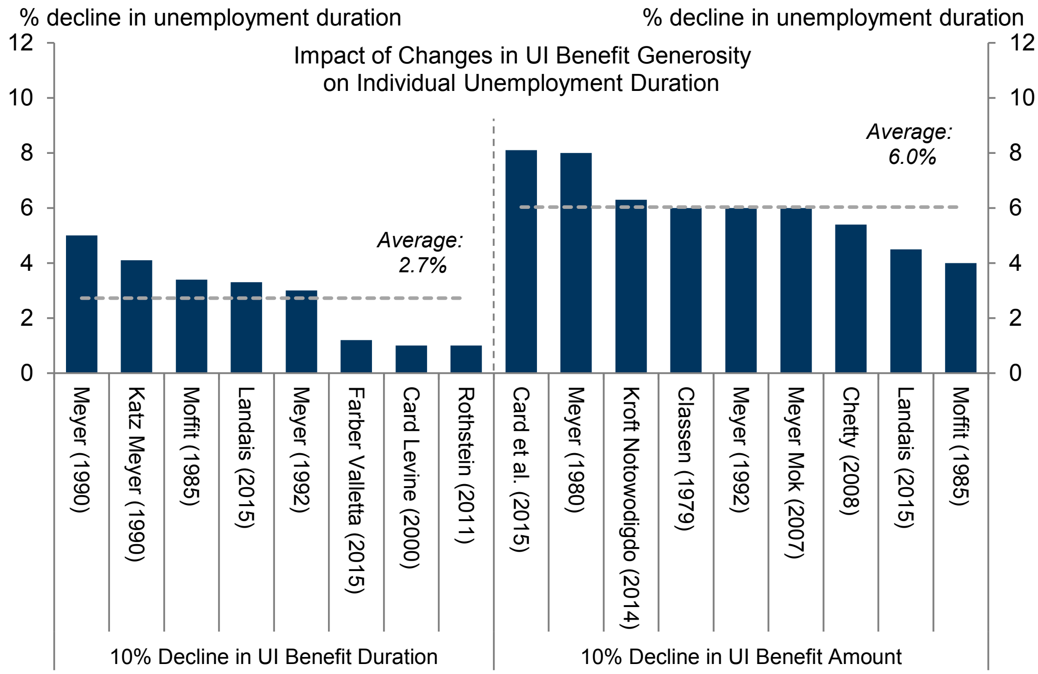
Exhibit 2: Half of Unemployment Benefit Recipients as of June Made More from Benefits Than from Their Former Wages, but None Will Without the $300 Top-Up



Source: Department of Labor, Goldman Sachs Global Investment Research

Both this significant decline in replacement rates and the difficulty of making ends meet with a more modest benefit are likely to lead many UI recipients or former recipients to search more actively for work and be more willing to accept a job offer. Our review of pre-pandemic academic studies suggests that at least some workers seek employment when UI benefits become less generous (Exhibit 3). On average, these studies find that a 10% decline in the duration of UI benefits shortens unemployment spells by 2.7%, and that a 10% decline in the benefit replacement rate shortens unemployment spells by 6%. This implies that the full loss of UI benefits that previously replaced 90% of normal wages would reduce the duration of unemployment by 54%. In principle the effect under current conditions might either be larger because labor demand is so strong, or smaller because some workers fear exposure to Covid at work.

Exhibit 3: Academic Studies Suggest Generous Unemployment Insurance Benefits Are Usually a Meaningful Drag on Employment



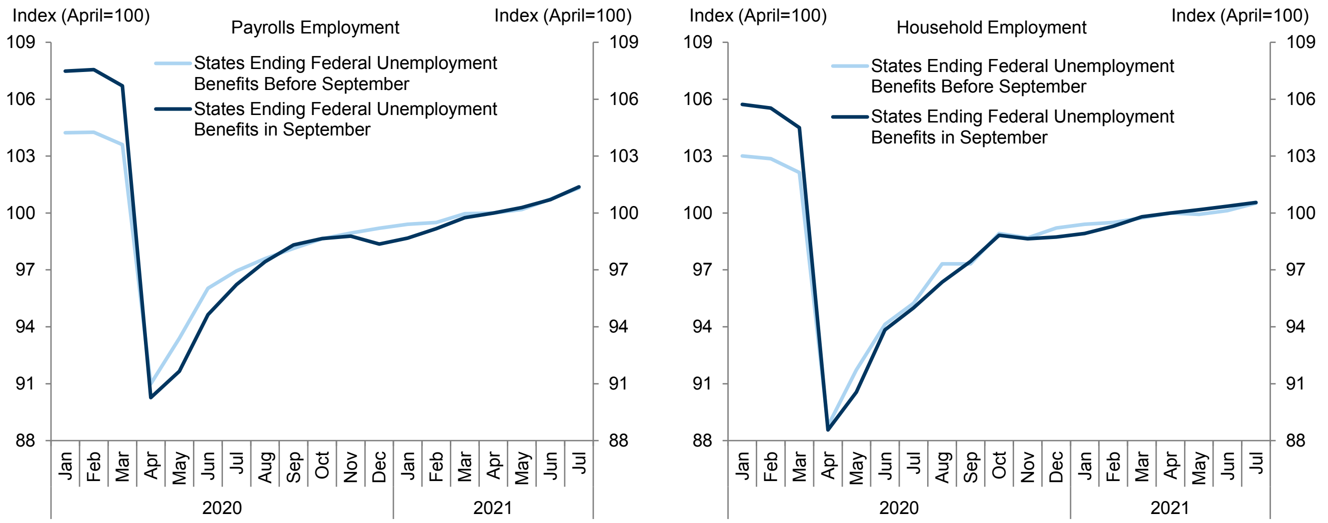
Source: Goldman Sachs Global Investment Research

The Employment Effects of UI Benefit Expiration

Our analysis of the state-level data in the June employment report suggested that early UI benefit expiration did not provide a boost to employment, most likely because no states had actually ended enhanced benefits before the survey week.

We again find little difference in July in net employment outcomes in the establishment and household surveys across states that did and did not end benefits early (Exhibit 4). We also find no cross-state differences in employment in low-wage industries like leisure and hospitality that should be more sensitive to changes in unemployment benefit generosity. While this is surprising, highly aggregated data might mask underlying effects, perhaps because the two groups of states may have other differences that confound the comparison.

Exhibit 4: State-Level Data Do Not Show Any Impact of Early UI Benefit Expiration on Aggregate Employment



Source: Department of Labor, Goldman Sachs Global Investment Research

We therefore turn to the more detailed individual-level data from the household survey of the employment report. Here we find strong evidence that benefit expiration has increased the rate at which unemployed workers start jobs.

Our analysis relies on a set of person-level panel regressions. In all regressions we control for state- and time-fixed effects, as well as age, sex, marital status, education, household income, and—when applicable—the industry and occupation of a respondent's current or prior job. Our estimate of the impact of UI benefit expiration on employment is the coefficient on the interaction between month-fixed effects and an indicator of whether the respondent lives in a state that ended federal UI benefits prior to the July survey's reference period. Intuitively, this coefficient captures the average difference in the probability of becoming employed each month between individuals that did and did not lose benefits, controlling for other factors. The hypothesis we are testing is that early expiration boosted the probability of finding a job in July.

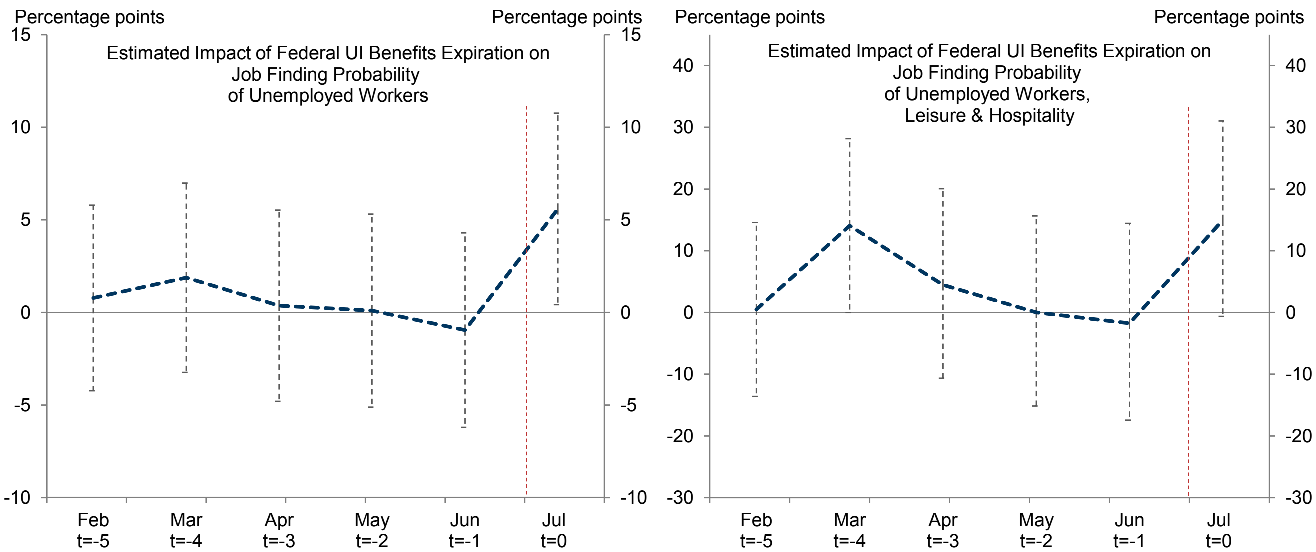
Our analysis provides four key findings.

First, unemployed workers' job finding probability in states that ended benefits increased by 6pp in July (vs. an average job finding probability of 27%; left chart, Exhibit 5). We find no statistically significant effect on employment in prior months, suggesting that benefit expirations are responsible for the July increase and that workers only responded when benefit expiration was implemented, not when it was announced.

Our estimated effect is economically and statistically significant. It implies that if benefits had expired nationwide, July job growth would have been 400k higher at over 1.3mn. In fact, this might be a conservative estimate of the monthly job boost from benefit expiration because most states didn't end benefits until later in the month, although our 95% confidence interval can't rule out incremental job gains from nationwide expiration of benefits as small as 25k or as large as 650k.

Second, the effect on employment is more than twice as large for low-paid leisure and hospitality workers (+15pp), who were initially much more likely to earn more from UI benefits than they would from working, but were also quite likely to find a job once they started looking due to very high labor demand (right chart, Exhibit 5).

Exhibit 5: Unemployment Benefit Expiration Increased the Job Finding Rate of Unemployed Workers, Especially Leisure and Hospitality Workers

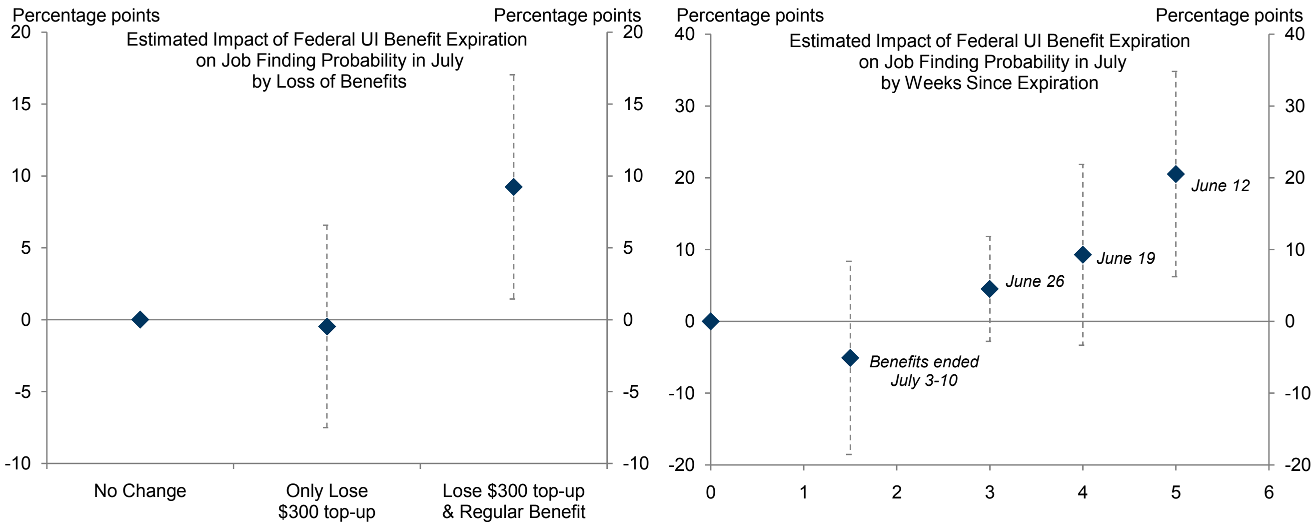


Source: Department of Labor, Goldman Sachs Global Investment Research

Third, the effect is driven by workers who lost all benefits (+9pp), while the effect on workers who lost just the $300 top-up—either because they lived in a state that continued federal programs that expanded eligibility (PUA) or extended benefit duration (PEUC), or because they remained eligible for regular state claims—was close to zero and statistically insignificant (left chart, Exhibit 6).

Fourth, the effect increases over time. The increase in job finding probability was only +5pp in states where benefits expired on June 26, but +21pp in states where benefits expired on June 12, suggesting that transitions to employment do not happen immediately and take some time after benefits expire (right chart, Exhibit 6).

Exhibit 6: The Impact of Benefit Expiration on Job Finding Rates Is Larger for Workers Who Lost Their Entire Benefit and Grows Over Time



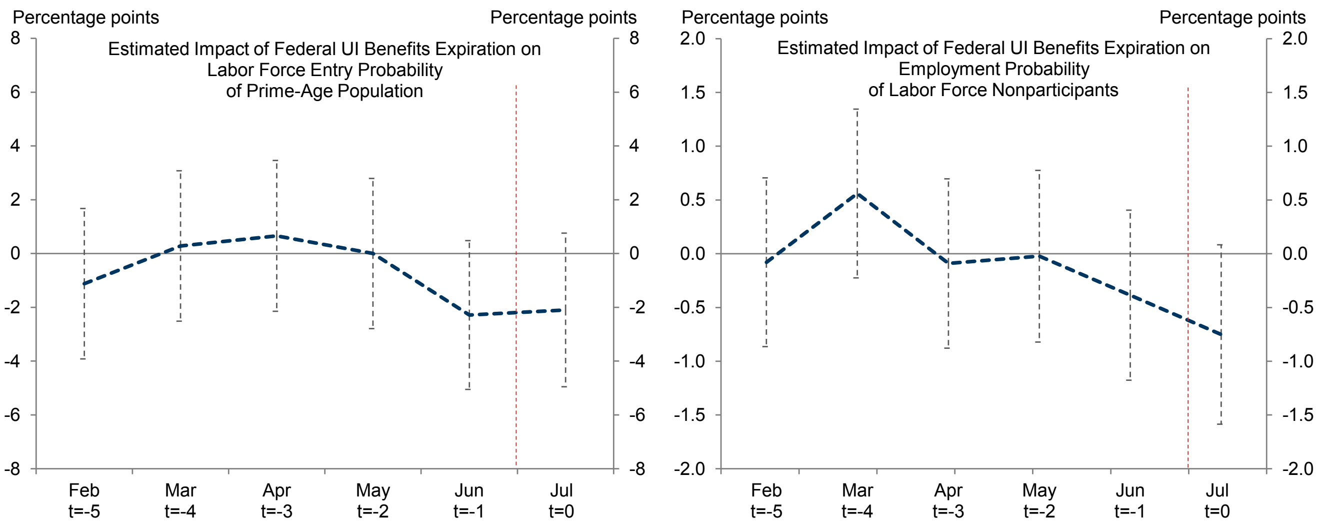
Source: Goldman Sachs Global Investment Research

Our findings are broadly consistent with a new academic study released this morning that uses bank account-level data to measure the impact of benefit expiration. Similar to our results, the authors find positive employment effects primarily driven by workers who lost all benefits, but note that incomes and spending decline on net for benefit losers because benefits offered a high replacement rate and not everyone finds a job immediately.[1] Indeed, the pullback in UI benefits and other income support is one reason why we forecast a negative fiscal impulse in 2021H2 and 2022.

While early UI benefit expiration increased the job finding probability of unemployed workers, it did not cause workers who had left the labor force to return. We find a slightly negative but statistically insignificant effect on labor force entry probability among prime-age workers (left chart, Exhibit 7) that is partially explained by lower transitions into employment (right chart, Exhibit 7). As expected, we find no effect on the employment probability of previously employed workers.

[1] Kyle Coombs, Arindrajit Dube, Calvin Jahnke, Raymond Kluender, Suresh Naidu, and Michael Stepner, "Early Withdrawal of Pandemic Unemployment Insurance: Effects on Earnings, Employment and Consumption," 2021.

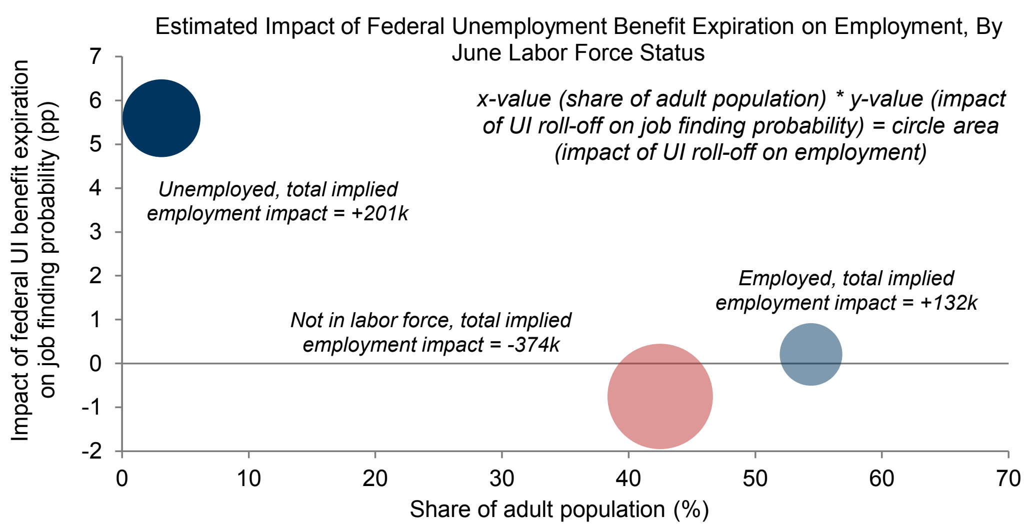
Exhibit 7: Early Unemployment Benefit Expiration Did Not Increase Labor Force Participation



Source: Department of Labor, Goldman Sachs Global Investment Research

The negative effect on labor force nonparticipants helps reconcile our findings from the state- and individual-level data. The change total employment shown in Exhibit 4 reflects the sum of the employment contributions from unemployed workers, employed workers, and workers that were not in the labor force. Although only the effect on unemployed workers' employment probability is large and statistically significant, the population of unemployed workers in states that ended benefits is small (3.1% of their adult population) relative to employed workers (54.4%) and those not in the labor force (42.5%). As a result, the small decline in the job-finding rate of nonparticipants offsets the boost from unemployed workers, leaving the net effect on employment close to zero (Exhibit 8).

Exhibit 8: The Small, Statistically Insignificant Decline in the Job-Finding Rate of Nonparticipants Offset the Large Boost from Unemployed Workers Because Nonparticipants Are a Larger Share of the Population



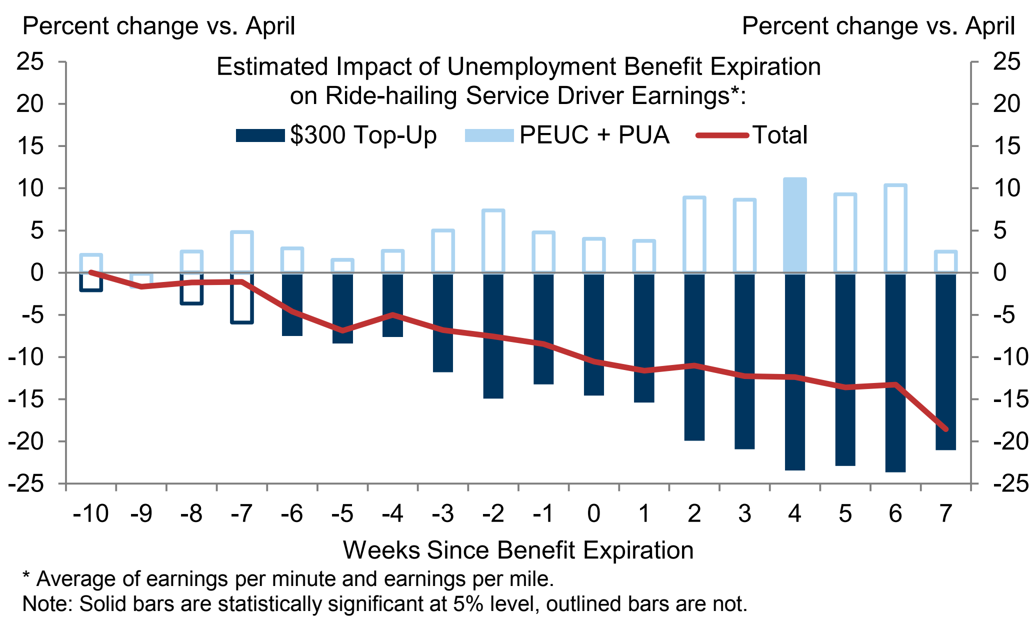
Source: Department of Labor, Goldman Sachs Global Investment Research

There is no intuitive reason why benefit expiration would encourage workers to stay out of the labor force, and we therefore expect the negative impact on labor force entry to unwind in the coming months. However, our findings also suggest that many workers that have left the labor force since the start of the pandemic did so for non-financial reasons such as concern about Covid, and may be slow to return to the labor force even after UI benefits end.

The Effect of Benefit Expiration on Wage Growth

We also see some early signs that UI benefit expiration is leading to softer wage growth, although the evidence remains inconclusive. Using data from Gridwise Analytics, we previously showed that wages for ride-hailing service drivers—where wages change dynamically in real time in response to changes in labor supply—have declined more in states that ended benefits early (Exhibit 9).

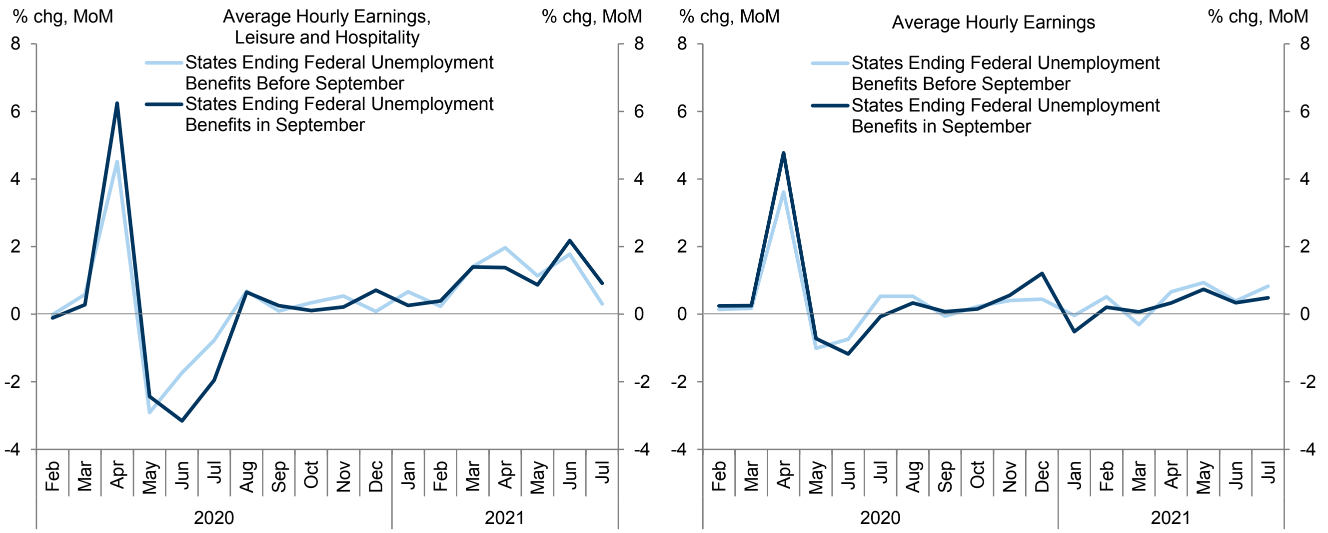
Exhibit 9: We Find a Large and Statistically Significant Decline in Ride-Share Driver Earnings in States Where Benefits Ended Early



Source: Gridwise Analytics, Goldman Sachs Global Investment Research

Returning to the state-level establishment survey data, we also find that average hourly earnings (AHE) growth in the leisure and hospitality sector was softer in July for states that ended benefits early than for states that did not, although the difference is not statistically significant (left chart, Exhibit 10). However, AHE growth was slightly firmer in other industries (right chart, Exhibit 10), suggesting that it may take some time for UI benefit expiration and increased labor supply to have a clearly visible impact on wage growth, outside of sectors such as ride-hailing services with real-time wage setting.

Exhibit 10: Average Hourly Earnings for Leisure and Hospitality Workers Were Slightly Softer in States That Ended Benefits Early Than in States That Did Not

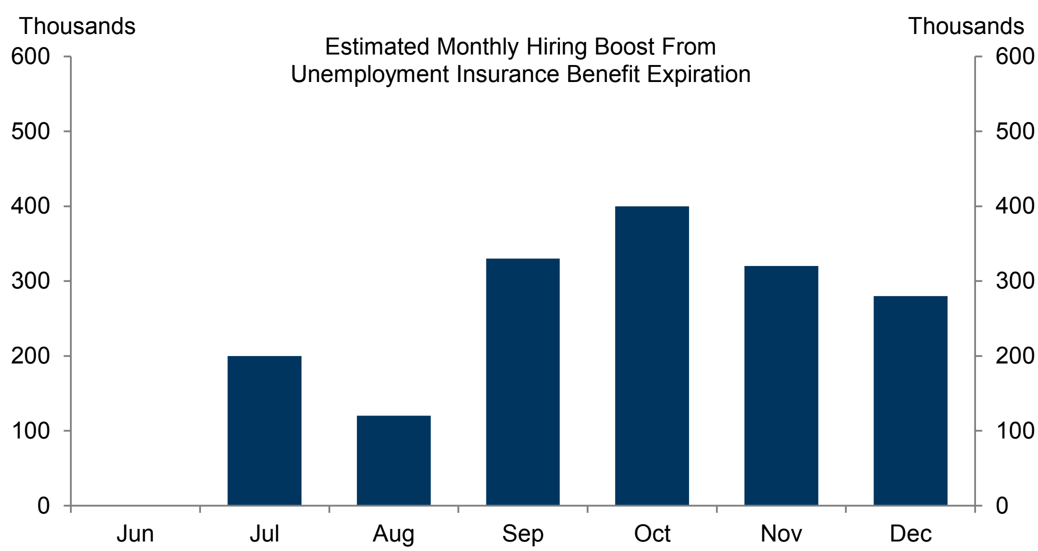


Source: Department of Labor, Goldman Sachs Global Investment Research

Updating Our Employment Forecast

The July data increase our confidence that benefit expiration will lead many unemployed individuals to search more actively for work and be more willing to accept job offers this fall. In a labor market where job opportunities are plentiful, this should boost hiring meaningfully. Exhibit 11 shows that we expect UI benefit expiration to contribute 1.5mn to payroll gains between now and end-2021. In light of our findings that the effect of benefit expiration grows over time and because the September survey period is just one week after benefits expire in all states, we now expect the peak payrolls contribution from UI expiration will arrive in October, but still anticipate a sizeable hiring boost in September.

Exhibit 11: We Expect UI Benefit Expiration to Boost Payrolls Gains by Another 1.5mn This Fall

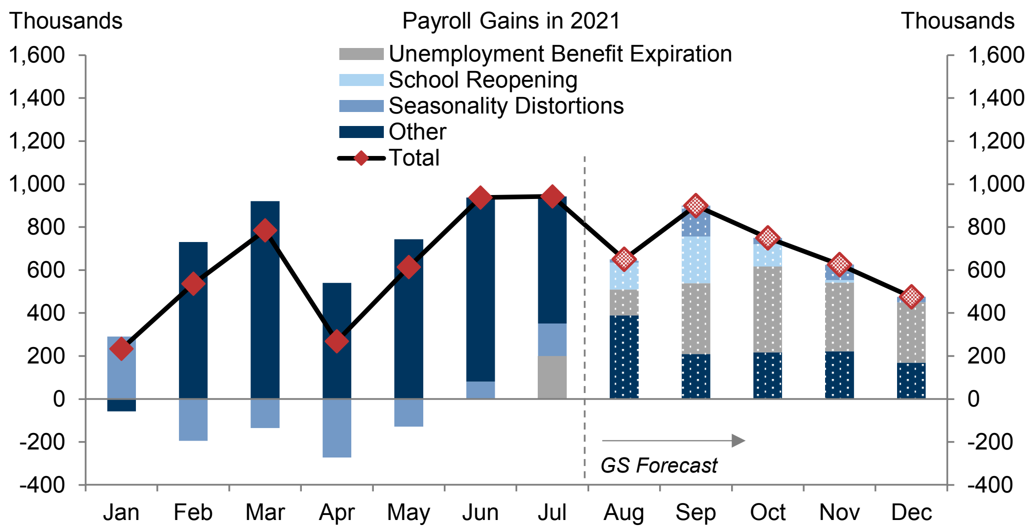


Source: Goldman Sachs Global Investment Research

Our finding that benefit expiration did not encourage labor force participation was a somewhat negative surprise, and increases the risk that some workers may be slow to return to the labor force, particularly if the Delta variant increases concerns around health risk. We have therefore nudged down our participation rate forecast to 62.2% at end-2021, although we continue to expect a recovery to 62.4% by end-2022.

Exhibit 12 decomposes our forecast for total payroll growth in the remaining months of the year. We expect job growth to peak in September thanks to large contributions from UI benefit expiration, school reopening, and seasonality distortions. Overall, we expect payroll gains of 650k in August, 900k in September, 750k in October, 625k in November, and 475k in December, and we continue to expect that the unemployment rate will fall to 4.1% at end-2021 and 3.5% at end-2022.

Exhibit 12: We Expect Payroll Gains to Jump Again in September and Remain Strong Through Year-End



Source: Goldman Sachs Global Investment Research

Joseph Briggs

Ronnie Walker

The US Economic and Financial Outlook

THE US ECONOMIC AND FINANCIAL OUTLOOK
(% change on previous period, annualized, except where noted)

	2019	2020	2021	2022	2023	2024	2021				2022			
			(f)	(f)	(f)	(f)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
OUTPUT AND SPENDING														
Real GDP	**2.3**	**-3.4**	6.0	4.5	1.9	2.1	**6.3**	**6.5**	5.5	6.5	4.5	3.5	2.5	1.5
Real GDP (annual=Q4/Q4, quarterly=yoy)	**2.6**	**-2.3**	6.2	3.0	1.9	2.1	**0.5**	**12.2**	5.7	6.2	5.7	5.0	4.2	3.0
Consumer Expenditures	**2.2**	**-3.8**	7.8	3.7	1.8	2.1	**11.4**	**11.8**	0.0	6.0	4.0	3.0	2.0	1.5
Residential Fixed Investment	**-0.9**	**6.8**	11.8	3.5	2.6	2.0	**13.3**	**-9.8**	6.0	6.0	4.0	4.0	3.0	3.0
Business Fixed Investment	**4.3**	**-5.3**	8.0	6.0	4.1	3.9	**12.9**	**8.0**	6.3	6.4	6.1	5.6	5.1	4.1
Structures	**2.1**	**-12.5**	-7.6	2.6	4.9	3.4	**5.4**	**-6.9**	0.5	2.0	2.0	4.0	8.0	6.0
Equipment	**3.3**	**-8.3**	14.6	6.8	3.0	2.8	**14.1**	**13.0**	5.6	7.0	8.0	7.0	4.0	2.5
Intellectual Property Products	**7.2**	**2.8**	9.8	6.7	5.0	5.2	**15.6**	**10.7**	10.0	8.0	6.0	5.0	5.0	5.0
Federal Government	**3.8**	**5.0**	1.0	-1.2	0.0	0.0	**11.3**	**-5.0**	-4.0	-2.0	0.0	0.0	0.0	0.0
State & Local Government	**1.3**	**0.9**	1.0	3.4	0.6	0.5	**-0.1**	**0.8**	5.6	5.0	5.0	2.0	0.5	0.5
Net Exports ($bn, '12)	**-905**	**-943**	-1,258	-1,288	-1,272	-1,259	**-1226**	**-1259**	-1263	-1285	-1292	-1291	-1286	-1283
Inventory Investment ($bn, '12)	**75**	**-42**	-33	110	69	60	**-88**	**-166**	32	90	105	115	120	100
Industrial Production, Mfg.	**-2.0**	**-6.6**	6.7	5.2	1.8	2.0	**2.7**	**5.0**	6.3	7.2	5.8	4.6	3.1	1.4
HOUSING MARKET														
Housing Starts (units, thous)	**1,292**	**1,397**	1,623	1,676	--	--	**1,599**	**1,586**	1,662	1,645	1,653	1,682	1,686	1,685
New Home Sales (units, thous)	**683**	**828**	857	918	977	978	**896**	**728**	876	928	913	901	908	951
Existing Home Sales (units, thous)	**5,327**	**5,658**	5,970	5,961	6,082	6,206	**6,303**	**5,830**	5,858	5,888	5,917	5,946	5,975	6,005
Case-Shiller Home Prices (%yoy)*	**3.4**	**9.9**	9.4	7.6	6.2	--	**11.7**	**15.2**	11.7	9.4	8.1	6.1	7.8	7.6
INFLATION (% ch, yr/yr)														
Consumer Price Index (CPI)**	**2.3**	**1.3**	4.8	2.2	2.4	2.4	**1.9**	**4.8**	5.2	4.9	4.5	3.1	2.1	2.2
Core CPI **	**2.2**	**1.6**	4.3	2.5	2.5	2.5	**1.4**	**3.7**	4.1	4.2	4.5	3.1	2.4	2.5
Core PCE** †	**1.6**	**1.5**	3.75	2.00	2.15	2.20	**1.7**	**3.4**	3.5	3.8	3.5	2.5	2.0	2.0
LABOR MARKET														
Unemployment Rate (%)^	**3.6**	**6.7**	4.1	3.5	3.3	3.2	**6.0**	**5.9**	4.7	4.1	3.6	3.4	3.5	3.5
U6 Underemployment Rate (%)^	**6.8**	**11.7**	7.5	6.7	6.3	6.1	**10.7**	**9.7**	8.4	7.5	6.9	6.7	6.7	6.7
Payrolls (thous, monthly rate)	**168**	**-785**	643	218	116	100	**518**	**607**	831	617	350	217	157	150
Employment-Population Ratio (%)^	**61.0**	**57.4**	59.7	60.2	60.3	60.2	**57.8**	**58.1**	59.2	59.9	60.0	60.2	60.2	60.2
Labor Force Participation Rate (%)^	**63.3**	**61.5**	62.2	62.4	62.3	62.2	**61.5**	**61.6**	61.9	62.2	62.3	62.3	62.4	62.4
GOVERNMENT FINANCE														
Federal Budget (FY, $bn)	**-984**	**-3,132**	-3,000	-1,300	-1,100	-1,200	--	--	--	--	--	--	--	--
FINANCIAL INDICATORS														
FF Target Range (Bottom-Top, %)^	**1.5-1.75**	**0-0.25**	0-0.25	0-0.25	0.25-0.5	0.75-1	**0-0.25**	**0-0.25**	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25
10-Year Treasury Note^	**1.92**	**0.93**	1.60	1.80	2.30	2.45	**1.74**	**1.45**	1.40	1.60	1.60	1.60	1.60	1.80
Euro (€/$)^	**1.12**	**1.22**	1.21	1.25	1.30	1.30	**1.17**	**1.18**	1.18	1.21	1.23	1.24	1.25	1.25
Yen ($/¥)^	**109**	**103**	109	105	102	100	**111**	**111**	110	109	108	107	106	105

* Weighted average of metro-level HPIs for 381 metro cities where the weights are dollar values of housing stock reported in the American Community Survey. Annual numbers are Q4/Q4.
** Annual inflation numbers are December year-on-year values. Quarterly values are Q4/Q4.
† PCE = Personal consumption expenditures. ^ Denotes end of period.
Note: Published figures in bold.

Source: Goldman Sachs Global Investment Research

Economic Releases

Date		Time (ET)	Indicator	Estimate GS	Estimate Consensus	Last Report
Mon	**Aug 23**	9:45	Markit US Manufacturing PMI (August preliminary)	n.a.	62.5	63.4
		9:45	Markit US Services PMI (August preliminary)	n.a.	59.0	59.9
		10:00	**Existing Home Sales (July)**	**-2.0%**	**-0.5%**	**+1.4%**
Tue	**Aug 24**	10:00	Richmond Fed Manufacturing Index (August)	n.a.	25	27
		10:00	**New Home Sales (July)**	**+5.0%**	**+3.6%**	**-6.6%**
Wed	**Aug 25**	**8:30**	**Durable Goods Orders (July)**	**-0.5%**	**-0.2%**	**+0.9%**
			Durable Goods Orders Ex-Transport	**flat**	**+0.5%**	**+0.5%**
			Core Capital Goods Orders	**flat**	**+0.5%**	**+0.7%**
			Core Capital Goods Shipments	**+0.5%**	**+0.7%**	**+0.6%**
Thu	**Aug 26**	**8:30**	**Initial Jobless Claims**	**+340k**	**+350k**	**+348k**
		8:30	Continuing Claims	n.a.	+2,785k	+2,820k
		8:30	**Real GDP (Q2 second)**	**+7.1%**	**+6.7%**	**+6.5%**
			Personal Consumption (Q2 second)	**+12.5%**	**+12.3%**	**+11.8%**
		11:00	Kansas City Fed Survey (August)	n.a.	25	30
Fri	**Aug 27**	**8:30**	**Advance Goods Trade Balance (July)**	**-$89.5bn**	**-$90.5bn**	**-$91.2bn**
		8:30	Wholesale Inventories (July preliminary)	n.a.	+1.0%	+1.1%
		8:30	**Personal Income (July)**	**-0.4%**	**+0.1%**	**+0.1%**
			Personal Spending	**+0.2%**	**+0.4%**	**+1.0%**
			PCE Price Index	**+0.45%**	**+0.4%**	**+0.5%**
			Core PCE Price Index	**+0.37%**	**+0.3%**	**+0.4%**
		10:00	**UMich Consumer Sentiment (August final)**	**71.2**	**71.0**	**70.2**

Source: Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Jan Hatzius, Alec Phillips, David Mericle, Spencer Hill, CFA, Joseph Briggs and Ronnie Walker, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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Disclosures

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