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Employment Effects of Ending of Expanded Federal Unemployment Benefits

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Summary

Beginning in May a number of states announced that they would be ending participation in the federal enhanced and expanded unemployment insurance (UI) benefit programs instituted during the COVID-19 pandemic. In total, 26 states decided to end participation before the scheduled expiration in September. In this brief, I focus on the first 12 of these: the four states who ended benefits on June 12, and the additional eight states ending on June 19.

Previous work has shown that ending the federal benefit enhancements reduced the number of unemployment insurance claimants. However, because of limited data availability after the terminations, there has been little work thus far analyzing employment impacts. I use private data from Homebase, which provides daily employment records for a sample of mostly small businesses with hourly workers, largely concentrated in accommodation and food services. This sample was hit hard by the COVID-19 pandemic recession, and due to its lower average wages, would likely be most affected by disincentive effects of the enhanced UI benefits.

I find a notable, but modest, employment impact of the enhanced unemployment benefit termination. Shortly after the states announced they would be ending the federal UI enhancements in mid-May, employment in the terminating states began increasing relative to the rest of the United States. Two weeks after the announcements, employment among these lower wage hourly workers increased by about 1.5% on average in the terminating states relative to the rest of the US. After this two week adjustment period, the employment gap was relatively stable over the rest of the sample, apart from closures for the Independence Day holiday. While employment has continued to recover in this sector across the US, the termination of the enhanced federal unemployment benefits seems to have provided a modest employment boost.

Data Source

I use data from Homebase, a company that provides scheduling software to tens of thousands of small businesses across the US. As described by [Bartik et al. \(2020\)](#), “This scheduling software generates granular data on exact hours worked every day for all hourly employees at customer firms, providing a much higher-frequency and more detailed picture of employment and hours than traditional labor market datasets. This greater detail and higher frequency come at some costs; Homebase’s customer base is disproportionately composed of small firms in food service, retail, and other sectors that employ many hourly workers.” This data is available daily, with individual and establishment-level observations on locations in operation, employment, and hours worked. In this brief I use data through July 18, 2021.

The Homebase data is particularly useful for studying employment effects of unemployment insurance during COVID-19, as employment in the sample is concentrated in the sector hardest hit by the pandemic, and among lower wage workers who would be most affected by potential incentive effects from unemployment insurance. As described by [Chetty et al. \(2020\)](#), nearly half of employment in the Homebase dataset is in accommodations and food services, which suffered the largest employment losses during the COVID recession in 2020. They also document that while this industry has the lowest average wages of any in the US, the average wage among workers in the Homebase data (at \$11.11) is even lower than the overall average for the industry (of \$13.65).

Thus Homebase provides a useful resource for analyzing the impact of enhanced unemployment insurance benefits. Using the Homebase micro-data, [Altonji et al. \(2020\)](#) and [Guo et al. \(2021\)](#) both found little evidence for negative employment effects of the enhanced unemployment benefits under the CARES Act during the spring and summer of 2020. However, labor market conditions were very different by the spring and summer of 2021, with record levels of job openings and much lower unemployment rates. So even though federal enhanced benefits were lower in 2021 (\$300 per week, compared to \$600 under the CARES Act), the employment impact of the benefits may be stronger. However note that the concentration of Homebase employment among low wage food service workers means that the impacts I find are likely not representative of the broader labor market. For example, [Dube \(2021\)](#) finds little impact on employment-population ratios in states that ended federal benefits in June.

Employment Effects from Ending Federal Benefits

I focus on aggregated data at the state level. I consider three groups of states: the first four states (Alaska, Iowa, Mississippi, and Missouri) that ended the enhanced federal unemployment benefits on June 12, the next eight (Alabama, Idaho, Indiana, Nebraska, New Hampshire, North Dakota, West Virginia, and Wyoming) that ended benefits on June 19, and the rest of the US. While there were additional states ending benefits in the following weeks, there were only a few weeks after benefit termination for these later states. However my results are likely an understatement of the full impact, since several states in the control group of the “rest of the US” also ended benefits during the sample period.

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Since coverage of Homebase across states differs, I weight states when combining them into aggregate groups. In particular, since most of the Homebase employment is in the leisure and hospitality sector, I weight the states to normalize the Homebase employment total on the Thursday of the April 2021 Current Employment Statistics reference week to be equal to the CES Leisure & hospitality total employment. In practice, this weighting makes very little difference in the results. For comparison across states and groups, in what follows I also index the data series to be equal to 100 on May 6, 2021, which was the Thursday preceding the earliest announcements of benefit termination. Of this total group of 12 states, 11 of them announced the termination of benefits between May 10 and May 18, with Nebraska announcing on May 24. Further, many of the states terminating benefits on June 19 made their announcements around the same time as those ending a week earlier.

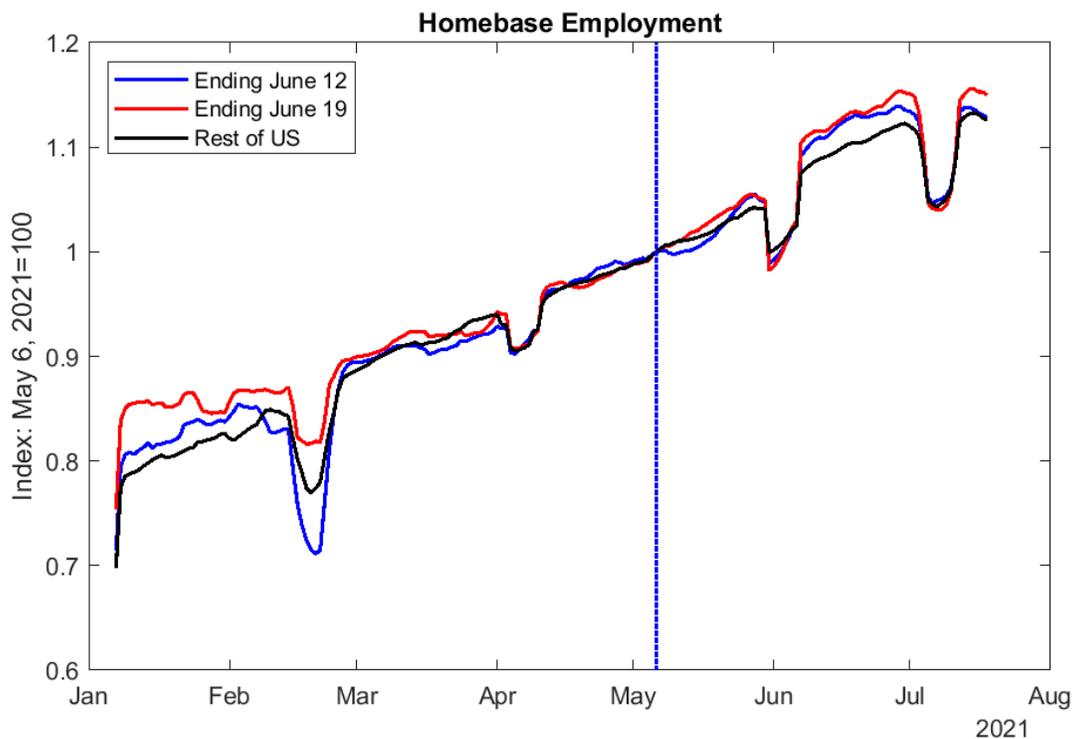


Figure 1: Employment in the states ending enhanced federal unemployment benefits on June 12 (blue) and June 19 (red), along with the rest of the United States (black). Weekly average data, indexed so May 6, 2021 = 100. The vertical line is May 6, the Thursday before the first terminations were announced.

Figure 1 shows the weighted total employment during 2021 in the four states ending enhanced federal benefits on June 12 and the eight states ending on June 19, along with the rest of the United States. Since the Homebase daily data has very strong day-of-week effects, I use seven-day averages, and index as discussed above. The vertical line in the figure shows the index date of May 6, prior to the first announcements. The final data point is for July 18. The notable dips in all of the series occur at holidays when many of these small businesses were closed.

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The figure shows that early in 2021 employment was higher in the two groups of states ending benefits early than in the rest of the US, as these states generally reopened earlier and had fewer public health restrictions in effect. Notably, all of these 12 states and all but one (Louisiana) of the 26 states terminating benefits have Republican governors. Thus the decision to end benefits had an unavoidable political component, and these states were far from a random selection, which complicates inference of policy effects. Nonetheless, by March employment in the rest of the US had caught up to these groups, and employment in all three groups largely tracked each other from that point until mid-May. After the states announced they were ending the federal enhanced benefits, a gap started to open between the two groups and the rest of the US, which became more apparent through June and July. Further, although there were slight differences in the magnitude of changes between the June 12 and June 19 groups, the timing of the changes appears very similar. Further, note that the relative employment gains started shortly after announcement, with little additional change upon the date of the actual termination. Thus, in what follows, I combine these groups and compare the performance of the total of these first 12 terminating states to the rest of the US.

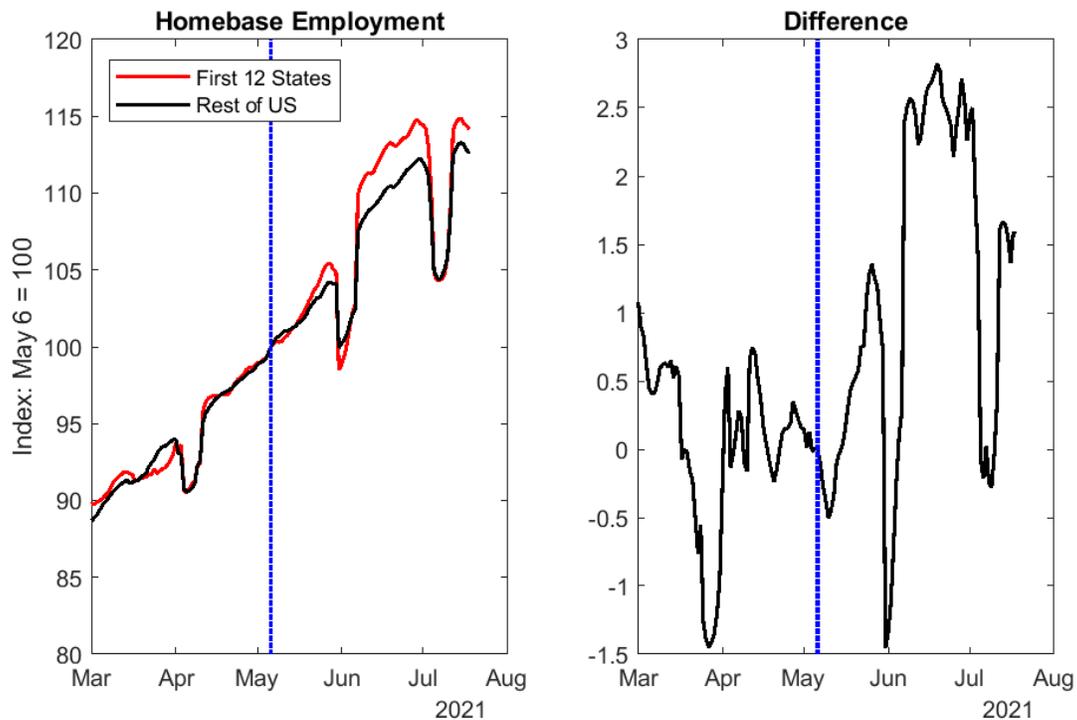


Figure 2: Employment in the first 12 states ending enhanced federal unemployment benefits (red), along with the rest of the United States (black) and the difference between them (right panel). Weekly average data, indexed so May 6, 2021 = 100. The vertical line is May 6, the Thursday before the first terminations were announced.

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Figure 2 shows the combined data for the first 12 states ending benefits early along with the rest of the US for the period from March 1-July 18, 2021. This is the sample period I focus on in the rest of the brief. The left panel shows the combined employment data, while the right panel shows the employment gap between the 12 states and the rest of the US. Apart from the notable dips around holidays, we see that until mid-May the two series closely tracked each other. Then, starting shortly after the announcement of the end of benefits, employment increased in the terminating states relative to the rest of the US. While employment continued to grow in the rest of the US, it accelerated in mid-May in the terminating states and then the gap roughly stabilized, apart from the Independence Day holiday, over the rest of the sample.

This evidence suggests a notable, but modest, employment impact of the termination of the enhanced federal UI benefits. In particular, from May 6 onward, employment in terminating states grew by 14.14%, while employment increased by 12.56% in the rest of the US, a difference of 1.58 percentage points. Thus the employment gap is notable, but small in comparison to the overall job gains during this period. The next section provides formal statistical analysis which reinforces these conclusions.

Regression Analysis

To more formally quantify the employment effects of the termination of federal benefits, I now consider a simple regression analysis. I consider the impacts on the two aggregate groups shown above as follows. I use the group index $i = \{end, not\}$ for the total groups of the 12 states ending & other 38 states, as well as the time index $t = \text{date counter, March 1, 2021 – July 18, 2021}$. I use the following variables:

- Emp_{it} = Homebase total employment, 7-day average, weighted total in each group, indexed so May 6, 2021 = 100. May 6 is the Thursday preceding announcements.
- $Holiday_t = 1$ if the 7-day average period includes a holiday: Easter (April 4), Memorial Day (May 31), Independence Day (July 4 or the July 5 observed date)
- $AnnounceL_t = 1$ if May 27 or later, the Thursday 2 weeks after first announcements (3 weeks after the index date)

The regression equation I consider is the following:

$$\log(emp_{it}) = \beta_0 + \beta_1 * end_i + \beta_2 * t + \beta_3 * Holiday_t + \beta_4 * (Holiday_t \times end_i) + \beta_5 * AnnounceL_t + \beta_6 * (AnnounceL_t \times end_i) + error_{it}$$

Thus I control for group effects, a time trend, holiday effects which may differ across the groups, and level effects after the announcements (with a lag) that differ across groups. The coefficient of interest is β_6 , which gives the average post-announcement employment effect (in logs) in the terminating states relative to the rest of the US. In other words, after the announcement of the termination of benefits and an adjustment period, employment was higher by $100 * [\exp(\beta_6) - 1] \approx 100 * \beta_6$ percent on average in the states terminating benefits.

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Table 1 reports the regression results, listing the coefficients, heteroscedasticity and autocorrelation-consistent (HAC) standard errors, t-statistics and p-values. The results are quite consistent with the informal analysis above, finding that employment was 1.5% higher in the states ending benefits early. Even given the volatility in the data and the relatively short sample, and using robust standard errors, the estimated effect is significant at the conventional 5% level.

Coefficient	Estimate	SE (HAC)	t-statistic	p-value
β_0	4.4899	0.0023	1932.70	<0.0000
β_1	0.0022	0.0021	1.06	0.2893
β_2	0.0017	0.0001	35.90	<0.0000
β_3	-0.0525	0.0055	-9.58	<0.0000
β_4	-0.0140	0.0106	-1.32	0.1887
β_5	0.0155	0.0047	3.32	0.0010
β_6	0.0149	0.0069	2.17	0.0307

Table 1: Regression results for impacts on log employment across groups of states.

Conclusion

While it is difficult to draw strong conclusions from this relatively limited data, I find that the announcement of the termination of enhanced federal unemployment benefits was accompanied by a notable, but modest, gain in employment. In particular, for a sample of hourly workers largely in small businesses in the food service and accommodation industry, I find that the first 12 states ending benefits saw roughly a 1.5% increase in employment in the weeks following the announcement of the termination of the enhanced federal UI benefits. This suggests that the enhanced federal benefits, which often provided more in unemployment benefits than in pre-unemployment earnings, provided a modest employment disincentive for lower wage unemployed workers.