# Five Lessons from Last Decade's Employment Recovery

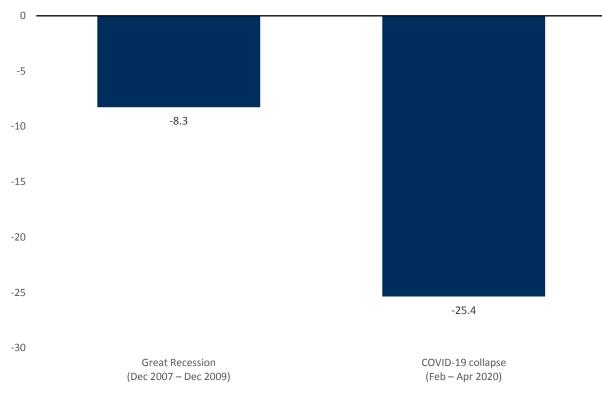
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America's job market needed almost a decade to recover from the Great Recession. But it continued to strengthen, and by early 2020, it was stronger than before the recession.

Then came the COVID-19 pandemic. From February to April 2020, employment fell by more than 25 million people, three times the overall employment decline in the Great Recession (figure 1). Employment recovered somewhat in the following months as parts of the economy began reopening. But as of mid-August, the number of people employed was still down more than 11 million from its peak. Black and Hispanic workers, women, and households with low incomes have been especially hard hit (Acs and Karpman 2020; Powell 2020a).<sup>1</sup>

Employment Fell More Than 25 Million at the Start of the COVID-19 Crisis *Change in employment, seasonally adjusted (millions)* 



Source: Bureau of Labor Statistics, Household Survey, and author's calculations.

Now, the future course of the virus, as well as the depth and persistence of the employment damage, is unclear. What is clear is that a vibrant, inclusive postpandemic recovery is essential for workers, businesses, communities, and our broader society.

As we look ahead to that rebound, this brief highlights five lessons from last decade's employment recovery:

- Prolonged downturns leave lasting scars. A persistently weak job market pushes some older workers into retirement prematurely, harms new workers as they start careers, and reduces opportunities for workers of all ages who are jobless for a prolonged period. These harms can be particularly pronounced for workers with lower incomes. The risk of long-term scarring increases the urgency of accelerating economic recovery when the pandemic wanes.
- 2. Strong labor markets improve upward mobility. Downturns fall especially hard on workers at the margins of the labor market. Upturns do the reverse, lifting those workers. A persistently strong job

market creates new opportunities for workers who might otherwise be excluded. For example, last decade's long expansion eventually narrowed long-standing employment gaps between Black and white workers and Hispanic and non-Hispanic workers.

- 3. Unemployment is an incomplete measure of labor market conditions. Official measures of unemployment do not include all workers harmed by downturns. For example, they omit workers who leave the labor force because of poor job prospects. In the current crisis, the unemployment rate also misses people who leave the labor force because of new caregiving demands. Policymakers should look at other metrics, such as employment of prime-age workers, when assessing the strength of the labor market.
- 4. Strengthening labor markets accelerate growth in worker pay. Wages, salaries, and benefits grow faster when employers have to compete for workers. Policymakers should thus track worker pay as a measure of how well labor markets are recovering. Relatively modest pay growth during last decade's recovery was a signal that falling unemployment was overstating the strength of the labor market. Faster pay growth—of the sort we saw briefly at the start of 2020—will be a sign that labor markets are truly strengthening in our next recovery.
- 5. Policymakers should update their economic views to reflect new evidence. Before the pandemic, unemployment fell further than many mainstream observers expected. Many observers misinterpreted that as evidence the economy had reached full employment. In fact, it meant employment could grow well beyond what backward-looking models assumed. Policymakers updated their views, but they did not do so fast enough to fully reflect the changing economy. In the next recovery, policymakers should place greater weight on incoming evidence and use it to update their models and theories.

I elaborate each of these lessons in the rest of this brief.

## Prolonged Downturns Leave Lasting Scars

The employment damage from the current crisis will depend on how long it lasts and how many job losses become permanent. Persistent job loss reduces skills, weakens career connections, and increases the risk potential employers will screen out candidates. Weak job markets also make it difficult for young adults and people returning to work to get on career tracks. These scarring effects have been well documented in past downturns. Davis and Van Wachter (2011), for example, find that permanent layoffs leave lasting harms, especially when they occur during economic downturns. Laid-off workers see their subsequent incomes fall. In response, some drop out of the labor force permanently.

Guvenen and colleagues (2017) find that scarring effects are particularly pronounced for workers with relatively low earnings. Using data from 1978 to 2010 (thus capturing the first few years of the Great Recession and its aftermath), they find that workers who left employment for a prolonged period (whether because of a job loss or other reasons) experienced substantial future earnings losses. These losses were especially pronounced for workers with low previous earnings and for the top 5 percent of earners. Heathcote, Perri, and Violante (2020) similarly find that workers with the lowest earnings fare the worst in the wake of recessions. They suggest that this scarring effect from recessions may explain a significant amount of growing inequality in the bottom half of the income distribution.

Rothstein (2020) finds that the employment prospects of new college graduates suffered as they joined the job market in the wake of the Great Recession. New workers who entered the labor force during periods of high unemployment had materially lower employment rates later in their careers than did workers who entered at times of low unemployment.

Yagan (2019) finds similar scarring among established workers. After the Great Recession, local labor markets that experienced especially high unemployment saw long-term declines in employment. Because of lower labor force participation, these declines continued even after the unemployment rate returned to prerecession levels. Persistent declines in employment were particularly acute for older workers (for whom joblessness could lead to an unexpectedly early retirement) and for workers with low earnings (who tend to be less attached to the job market).

Long-term scarring amplifies the initial damage from economic downturns. The potential to reduce such scarring similarly increases the potential benefits of countercyclical policies. Policies that help workers stay connected to their employers during the fight against the pandemic will have longer-term benefits, as will monetary and fiscal policies that support a rapid and prolonged recovery once the pandemic recedes.

## Strong Labor Markets Improve Upward Mobility

An old adage holds that a rising tide lifts all boats. But that isn't quite right: a rising tide lifts boats in or near the water. But it does nothing for boats stranded up the beach. To lift them, you need an especially high tide.

The same is true for labor markets. An especially strong labor market does not just lift up workers who have a job or are looking for one. It also creates opportunities—both new jobs and better jobs—for people who are often out of the labor market at other times.

Arthur Okun (1973) first documented these benefits (i.e., those of a high-pressure economy). His basic conclusion has been reinforced by subsequent research along several dimensions. Aaronson and colleagues (2019), for example, look at downturns through the Great Recession and find that workers with less education (and often lower wages) are especially sensitive to economic cycles. During downturns, they suffer more than workers with more education, and during booms they do better. The same is true among Black and Hispanic workers, whose job prospects have long been held back by structural racism and discrimination. Aaronson and colleagues also find "suggestive evidence" that especially strong labor markets deliver a disproportionately large benefit to these workers.

Wilson (2015) and Ajilore (2020) explore the experience of Black workers in particular. Wilson documents how tight labor markets boost the employment of Black workers especially. Ajilore documents that before the pandemic, the recent employment expansion had narrowed Black-white gaps in labor force participation and the employment-to-population ratio.

Taken together, these results and the literatures they build on suggest that strong labor markets can help close long-standing labor market disparities. Former Federal Reserve Chair Janet Yellen (2020) summarized these insights:

A high-pressure economy improves upward mobility. We're seeing that in the current expansion. Those who are least advantaged in the labor market—those with less education and minorities—are experiencing the largest gains in wages and declines in unemployment.

Her successor, Jay Powell, recently echoed that view:

What we learned during the last long expansion is that a tight job market is probably the best single thing that the Fed can do to support all low- to moderate-income communities.<sup>2</sup>

The emphasis in this recovery should be to return to a tight labor market faster than after the Great Recession. As Chairman Powell (2020b) noted in a subsequent press conference, it took until "the eighth and ninth and tenth years of that expansion to get those benefits." To achieve truly inclusive economic growth, both monetary and fiscal policy should aim for a more rapid recovery (and hopefully a more prolonged recovery) once the novel coronavirus is under control.

## Unemployment Is an Incomplete Measure of Labor Market Conditions

Although the unemployment rate is a widely cited metric, it is an imperfect indicator of labor market conditions. To be counted as unemployed, a worker must be looking for a job and available for work. If a potential worker gives up looking for a job or is not available to work, he or she does not count as unemployed and is instead considered outside the labor force.

In the aftermath of the Great Recession, many potential workers left the labor force, and some potential new entrants decided not to enter the labor force in the first place. The headline unemployment rate thus understated how much damage the recession had done.

To capture that damage, we need to look beyond unemployment. One way is to track the labor force participation rate, or the share of people who are employed or looking for work. Changes in the labor force participation rate reveal whether people are entering or exiting the labor market.

Another approach is to focus on employment, measured relative to the population, rather than unemployment, which is measured relative to the labor force. The employment-to-population ratio does not depend on whether people consider themselves unemployed or outside the labor force. It simply tracks the share of people who have a job.

During the previous recovery, unemployment recovered sooner than either labor force participation or the employment-to-population ratio. The unemployment rate for workers age 16 and older, for example, returned to prerecession levels in mid-2016, prompting premature discussion of full employment (figure 2). That recovery was exceptionally slow by historical standards, taking seven years from the official end of the recession. But the share of adults in the labor force was nowhere near prerecession levels, and it would rebound little before the pandemic (figure 3). As a result, the fraction of adults with jobs never regained prerecession levels (figure 4).

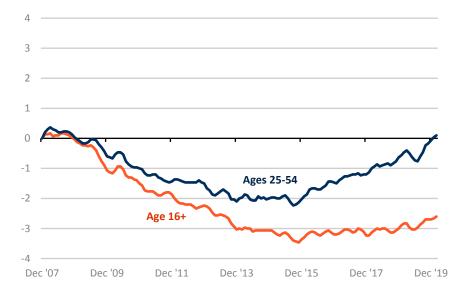
Prime-Age Unemployment Reached Prerecession Levels in Mid-2017 Change in the unemployment rate since December 2007 (percent)



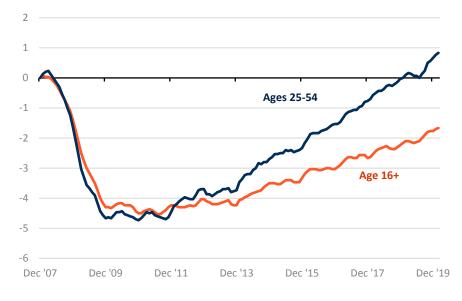
Note: Three-month moving averages, seasonally adjusted.

#### FIGURE 3

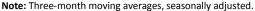
Prime-Age Labor Force Participation Reached Prerecession Levels in Early 2020 Change in the labor force participation rate since December 2007



Note: Three-month moving averages, seasonally adjusted.



Prime-Age Employment Reached Prerecession Levels in Early 2019 Change in the employment-to-population ratio since December 2007



The decline in labor force participation and the employment-to-population ratio reflects at least two major factors: the lingering harms of the Great Recession and an aging workforce.<sup>3</sup>

One way to account for an aging workforce (and thus see more clearly the effects of the Great Recession) is to look at labor market metrics for workers ages 25 to 54. These workers, often described as "prime age," are the most attached to employment because they are less likely to consider retirement than are older workers. Prime-age workers are also less likely to be engaged in education than are younger workers.

The unemployment rate for prime-age workers returned to prerecession levels in mid-2017, about a year later than for adults as a whole (figure 2). But their labor force participation did not reach prerecession levels until early 2020, just before the pandemic (figure 3). The combination of declining unemployment and rising participation brought the prime-age employment-to-population ratio to prerecession levels in early 2019 (figure 4).

Analysts focused on unemployment began wondering whether the economy was near full employment by 2015. But that was premature. Looking at employment (not just unemployment) and correcting for demographic trends, the economy was not near full employment until at least early 2019, and given its ongoing strength, perhaps not even by early 2020. Unemployment is an incomplete measure in today's crisis as well: it has spiked to horrendous levels, but it still understates the full damage to the economy.

The unemployment rate was just 3.5 percent in mid-February. In mid-April, it was 14.7 percent, the highest since the Great Depression.<sup>4</sup> In just two months, the COVID-19 pandemic pushed more than 17 million people into unemployment (table 1). Over the same two months, more than 8 million Americans left the labor force entirely (i.e., they neither had a job nor were actively looking for one). As a result, overall employment fell by more than 25 million.

#### TABLE 1

The Pandemic Shutdown Slammed Workers

	Millions of people
Increase in unemployment	17.3
Decrease in the labor force	8.1
Total decline in employment	25.4

Source: Author's calculations of US Bureau of Labor Statistics data; Donald Marron, "The Worst Jobs Day Ever," Urban Wire, May 8, 2020.

This pattern persisted as parts of the economy began reopening. By mid-August, overall employment was still down by 11.5 million, reflecting 7.8 million more people unemployed and 3.7 million fewer people in the labor force.

When monitoring the recovery from this crisis, policymakers should look at these broader measures—not just unemployment—to evaluate the strength of the recovery and the potential benefit of additional policy actions.<sup>5</sup>

## Strengthening Labor Markets Accelerate Growth in Worker Pay

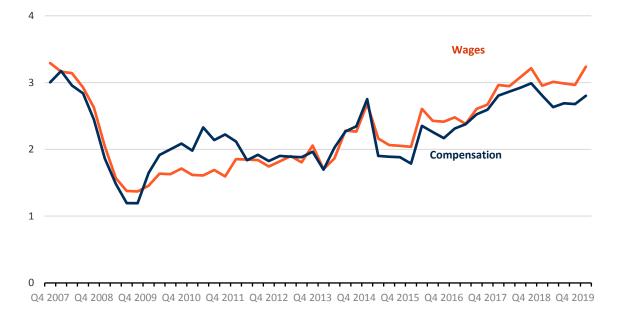
Strong labor markets do more than boost employment. They also inspire faster growth in worker pay. Wages, salaries, and benefits grow faster when employers have to compete more to land new employees and retain existing ones.

One of the great disappointments of last decade's recovery is how long it took for worker pay to start growing at or near prerecession levels. Whether measured by cash wages or total compensation, year-overyear growth in worker pay did not reach prerecession levels of 3 percent or more until late 2018 at the earliest (figure 5). Growth slackened a bit in 2019 and then picked up in the first quarter of 2020. After a decade of recovery, worker pay seemed poised for robust growth, but then the pandemic hit and wage growth fell sharply (data not shown).<sup>6</sup>

Workers saw relatively modest growth in their pay from 2015 through 2017. This provides further evidence that low unemployment at that time did not indicate an economy close to full employment. Instead, it reinforces the lesson from our analysis of prime-age employment that the labor market still had room to grow. Policymakers should pay close attention to worker pay, not just employment or unemployment, as they judge the strength of the next recovery.

#### FIGURE 5

Growth in Wages and Compensation Rebounded Slowly after the Great Recession Employment cost index for wages and for compensation, change from a year ago (%), quarter 4 2007 to quarter 1 2020



Source: Bureau of Labor Statistics and author's calculations.

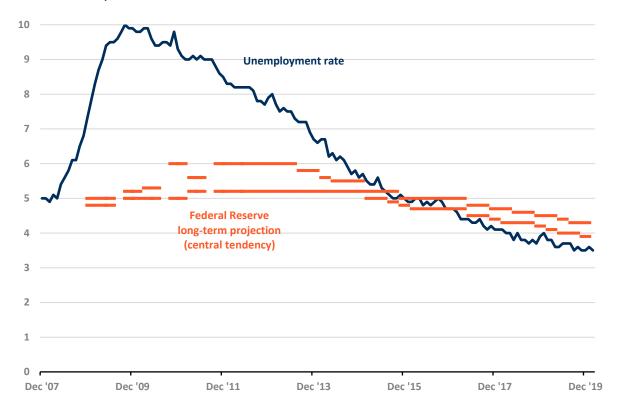
## Policymakers Should Update Their Economic Views to Reflect New Evidence

Last decade's employment recovery challenged some conventional views of how the economy works. Low unemployment did not spark higher inflation as many standard models predicted. Headline unemployment fell below levels previously thought to be consistent with full employment.

One vivid example comes from the economic projections by members of the Federal Reserve Open Market Committee, the group that determines monetary policy. Since 2009, the Federal Reserve has released summaries of the members' projections of what unemployment will be in the long term. These projections are meant to look beyond the current state of the labor market and are widely viewed as projections of the "natural rate" of unemployment.

In the past, conventional estimates of the natural rate often centered around 5 percent, and that is apparent in the Federal Reserve projections. In the middle of the Great Recession, for example, the central tendency of member projections was unemployment of 4.8 to 5.0 percent (figure 6). Those projections rose as high as 5.2 to 6.0 percent as the severity of the downturn—and the risk of long-term scarring—became apparent.

Unemployment Has Fallen Far below What Federal Reserve Officials Once Expected Unemployment rate and central tendency of Federal Reserve long-term projections (%), December 2007 to February 2020



Source: Bureau of Labor Statistics and Federal Reserve.

By 2015, unemployment had reached levels consistent with members' then-estimates of long-term potential. In December 2015, the Federal Reserve raised interest rates for the first time since the start of the recession. It followed with additional rate increases in late 2016 through late 2018.

In retrospect, the timing and magnitude of the rate increases was premature. Low unemployment did not indicate a full economic recovery. Instead, labor slack remained among workers who were outside the labor force but could be brought back in by a strong labor market. The Federal Reserve reversed course in 2019, cutting rates three times as it became clear low unemployment was not sparking higher inflation. Federal Reserve projections of the natural rate of unemployment reached as low as 3.9 to 4.3 percent before the pandemic hit.

This episode reminds us that our economy evolves over time. We need models and theories to help interpret economic developments. But we should be humble about the precision and accuracy of the

inferences we draw from those developments. The world changes, and we need to update our analysis accordingly.

One approach is to reconsider what measures we focus on. As discussed, measures of the employmentto-population ratio may provide a better measure of labor market strength than does the headline unemployment rate. Ozimek (2018) and a Twitter thread by Ernie Tedeschi,<sup>7</sup> for example, illustrate that employment-to-population measures (either for prime-age workers or calculated using more-detailed controls for changing demographics) have recently been a better measure than unemployment in capturing the relationship among wages, inflation, and labor market conditions.

Another approach is to update expectations about conventional measures. Federal Reserve officials have adopted that approach, lowering their projections of long-term unemployment sharply during the prepandemic expansion.

A third approach is to strike a new balance between, on the one hand, models and theories, and incoming evidence on the other. San Francisco Federal Reserve President Mary Daly has recommended greater reliance on the latter:

We need to learn what full employment in the United States is experientially as opposed to guessing and then stopping short of fully realizing it.<sup>8</sup>

Atlanta Federal Reserve President Raphael Bostic has offered a similar view:

We may want to alter our policy reaction function to lean towards letting things run hot a little longer. Because we know that allows people who have been less connected to the economy to have more of a chance to get those connections. And then we hope that we can sustain that.<sup>9</sup>

This is good advice for policymakers generally. The economy evolves over time. Policymakers need theories and models to guide their response. But they need to be humble in the face of incoming evidence and flexible in updating their policy reactions.<sup>10</sup> The months before the pandemic demonstrated the potential for headline unemployment below 4 percent. That gives us an initial target to aim for in the postpandemic recovery. But policymakers must keep an eye on the data—perhaps we can go even further.

## Conclusion

Despite several months of tentative recovery, America is still experiencing catastrophic job losses. As of mid-August, employment is still down more than 11 million from its February peak. Black and Hispanic workers, women, and households with low incomes have been especially hard hit.

Today's COVID-19 crisis differs in many ways from the 2007-09 financial crisis and Great Recession. Analysts and policymakers should be sensitive to those differences. But many lessons from last decade's employment recovery still carry over. A tight labor market, for example, is a powerful tool for promoting inclusive growth and limiting scarring from economic downturns. Policymakers should do what they can to return to one as soon as feasible.

To monitor how well workers are doing, policymakers should consider metrics beyond headline unemployment. Measures such as prime-age employment may give a better read on the amount of slack in the economy. And wage measures such as the employment cost index can give a better read on whether labor markets are really tightening.

Last decade's employment recovery pushed unemployment far below what many believed was possible. In its latter years, the recovery also kindled stronger growth in worker pay. One of the great losses from the pandemic is that we didn't get to see just how much the economy could improve. Let's hope we get that chance in our postpandemic recovery.

## Notes

- <sup>1</sup> Steven Brown, "The COVID-19 Crisis Continues to Have Uneven Economic Impact by Race and Ethnicity," *Urban Wire*, July 1, 2020.
- <sup>2</sup> Rachel Siegel, "Powell Warns Recession 'Has Not Fallen Equally on All Americans,' Public Health Crisis Will Dictate Recovery," Washington Post, June 16, 2020.
- <sup>3</sup> Analysts have suggested that other factors lowering employment include expanded participation in disability programs, increased opioid use, rising caregiving burdens, and better leisure options. Nunn, Parsons, and Shambaugh (2019) provide an overview.
- <sup>4</sup> Official unemployment figures understate the toll from the COVID-19 pandemic because some unemployed workers were misclassified as being employed. In the wake of sudden business shutdowns, some surveyed workers reported themselves as employed but absent from work for "other reasons" when in more normal times they would likely have reported themselves as "unemployed on temporary layoff." These misclassifications mean employment was overstated, and unemployment was understated, relative to previous periods. The Bureau of Labor Statistics (2020a) estimates that about 7.5 million workers—4.8 percent of the labor force—were misclassified in April. Correcting for misclassification, April unemployment was thus about 19.5 percent. The Bureau of Labor Statistics (2020b) believes misclassifications were smaller in later months. It estimates that July's misclassification, for example, was about 1.3 million workers.
- <sup>5</sup> Policymakers should also monitor measures of the quality of employment. One dimension is the mix of part-time and fulltime work. The Bureau of Labor Statistics tracks measures such as the fraction of workers in part-time work that would prefer full-time work. Ernie Tedeschi suggests an expanded measure of the employment-to-population ratio to account for involuntary part-time work. See Ernie Tedeschi, "Unemployment Will Rise. But It Won't Tell the Whole Coronavirus Story," *Medium*, April 2, 2020.
- <sup>6</sup> The Bureau of Labor Statistics publishes another widely followed wage measure known as average hourly earnings. Perversely, average hourly earnings rose rapidly at the start of the COVID-19 recession. Job losses were especially concentrated among workers with lower earnings. When those workers lost jobs, average hourly wages rose purely as a matter of arithmetic. To avoid this problem, figure 5 uses the Employment Cost Index, which tracks average labor costs across many industries and occupations without being affected by changes in the composition of jobs.
- <sup>7</sup> Ernie Tedeschi, Twitter Post on Employee Compensation and Prime-Age Employment-to-Population Ratio, January 31, 2020.
- <sup>8</sup> Jesse Pound, "Fed's Mary Daly Says Current Interest Rates Put Economy 'In a Good Place to Weather the Storms'," CNBC, February 5, 2020.
- <sup>9</sup> Raphael Bostic, The Prescription: Fiscal Policy the COVID-19 Economy, Urban-Brookings Tax Policy Center virtual event, July 9, 2020.
- <sup>10</sup> In late August, the Federal Reserve took an important step in this direction, updating its monetary policy strategy. Among other changes, the Fed will now focus on "shortfalls of employment from its maximum level" rather than "deviations of employment from the Committee's assessments of its maximum level." In other words, the Fed will try to boost employment when labor markets are weak. But it will not try to slow employment when labor markets are strong unless there is evidence of inflation above its target. See "Guide to Changes in the Statement on Longer-Run Goals and Monetary Policy Strategy," Board of Governors of the Federal Reserve System, last updated August 27, 2020.

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