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Labor, Race, and COVID-19

The pandemic altered long-standing racial differences in how workers experience the labor market.

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The COVID-19 pandemic triggered the most pronounced upheaval in the U.S. economy since the Great Recession (2007-2009). The U.S. labor market's sustained recovery from the previous recession was abruptly ended by the virus and the associated lockdowns. From February to April 2020, the unemployment rate increased by 11.2 percentage points and the fraction of working-age people who were employed fell by 9.9 percentage points.

Coincidentally, many policymakers and institutions, including the Federal Reserve System, have been analyzing the continuing impact of racial inequality. In this article, I describe how the labor market was and continues to be affected by the pandemic. I compare outcomes for Black and Latino workers with those for the entire labor market, and I place these differing outcomes

within their broader historical context by contrasting them with outcomes after previous economic downturns.

This comparison is revealing. The onset of the pandemic increased unemployment for Black workers slightly less and lowered their labor force participation far more than for the total labor market—in sharp contrast to previous recessions, which typically saw unemployment increase far more and participation fall less for Black workers. The recovery from the initial COVID shock has been markedly slower for Black workers than for the labor market as a whole.

For Latino workers, both the unemployment and participation rates were adversely affected more than for the labor market as a whole. Latinos' unemployment response was roughly in line with how it reacted during prior recessions, while their participation responded significantly more than expected given the shift in the overall labor force. As a result, total employment for Latino workers fluctuated far more than in previous economic downturns. The pace of the recovery for Latino workers has roughly matched the recovery of the labor market as a whole.

Measures of Labor Market Outcomes

Every month, the Bureau of Labor Statistics (BLS) uses the Current Population Survey to survey roughly 60,000 U.S. households about their involvement in the labor market. The BLS has collected and published this data for the total labor market since 1948, for Black workers since 1972,¹ for Latino workers since 1973, and for Asian workers since 2003. In this article, I focus on three key measures included in this data.

First, I examine the unemployment rate, which the BLS defines as the number of people who are unemployed relative to the labor force. A person is considered unemployed if they do not have a job and have actively looked for work in the prior four weeks. The labor force is defined as all people 16 years and older who are classified as either employed or unemployed. A change in the unemployment rate is typically driven by a change in the demand for workers or a change in how many people are actively looking for work. The pandemic significantly affected both of these channels.

Next, I examine the labor force participation rate, which measures the fraction of people in the labor force. Specifically, it's the labor force (as defined above) relative to the civilian noninstitutional population. The civilian noninstitutional population comprises people 16 years and older who are not active-duty members of the U.S. Armed Forces or confined to living in institutions or facilities such as prisons, jails, residential care facilities, or skilled nursing homes.

A short-term change in the labor force participation rate can reflect a change in people's desire or ability to work. The pandemic had a sizable effect on the labor force participation rate by increasing the risks associated with working and by changing at-home child care needs. A short-term change in the labor force participation rate can also result from a reaction to changes in the demand for labor. For example, during the onset of the pandemic, many kinds of employment became unavailable, and some workers in those fields, knowing that jobs were unavailable, may have become too discouraged to actively search for work.

(Demographic shifts, such as a change in the age distribution of the population, can change the labor force participation rate for the long term.)

Finally, I examine the employment-to-population ratio, which measures the fraction of people who are employed. Specifically, it's all people who are employed relative to the civilian noninstitutional population (as both are defined above).

Since both the employment-to-population ratio and the labor force participation rate are based on the civilian noninstitutional population, their differences within racial groups are unlikely to be explained by a difference in a racial group's rate of incarceration or propensity to serve in the military. The unemployment rate may misrepresent the true change in the availability of employment if changes in the economy deter people from actively looking for work. A key advantage of looking at short-term changes in the employment-to-population ratio is that it is unaffected by the decision to look for employment.

Historical Experiences

Before examining the effect of the pandemic on the labor market, let's look at how different races experienced the labor market in the 40 years prior to the pandemic, from January 1980 to February 2020. Two facts stand out (Figure 1).

First, there are long-standing differences in the average level of these labor market outcomes across racial groups. For example, over the 40 years prior to the pandemic, the unemployment rate among Black workers was 1.89 times higher than the national average for all workers. Over the same period, Latino workers averaged an unemployment rate 1.38 times higher than the national average.

Second, important trends characterize most of these outcomes. For example, for all workers, the average unemployment rate, the labor force participation rate, and the employment-to-population ratio all trended slightly downward over the 40 years prior to the pandemic.

There are also significant differences between racial groups in the trends they have experienced over the previous 40 years. For example, the unemployment rate for both Black and Latino workers fell more than for the labor market as a whole. This contributed to an increase in the employment-to-population ratio for those groups, in contrast to the fall for the entire labor market over the same period.

To estimate the effect of the pandemic on these groups, I account for the different levels across racial groups of each labor market outcome prior to the pandemic. I also highlight where this may understate the effect of the pandemic if the differential prior trends were to have continued for the next two years.

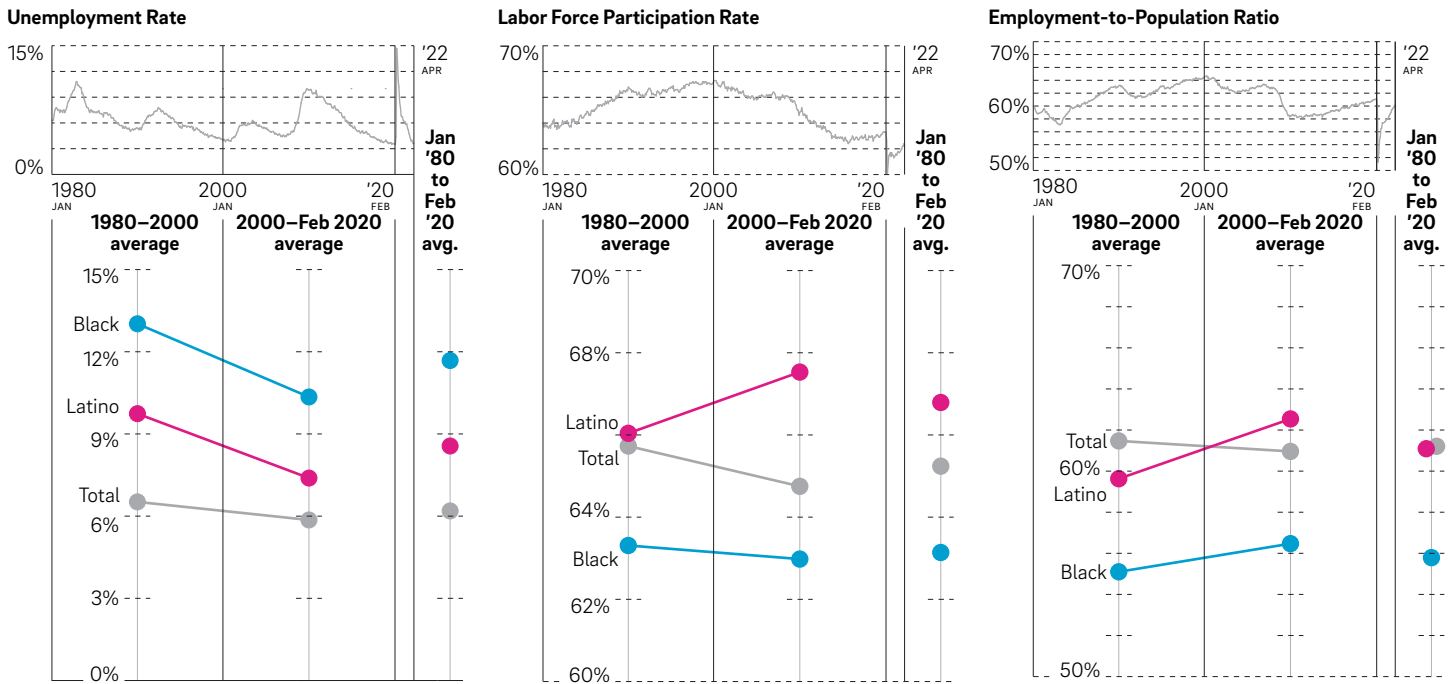
On average, the labor market outcomes of white and Asian workers are similar to the national averages. Where differences exist, they usually reveal better outcomes. (For example, Asian workers experienced an unemployment rate 1.23 percentage points lower than the national average in the first 20 years of the century.) For this reason, I summarize the experience of these workers through their inclusion in the combined total labor market.²

I compare outcomes for Black and Latino workers to outcomes for the total labor market, even though this combined category

FIGURE 1

Long-Standing Differences Characterize Labor Market Outcomes for Different Racial Groups

Historical averages of three labor market outcomes, percentages, January 1980 to February 2020



Source: Bureau of Labor Statistics (BLS).

Note: The top panel of each figure depicts the outcome for the total population on a monthly basis; the bottom panel depicts the change between 1980 and 2020 for Black, Latino, and all workers; the right panel depicts the prepandemic average for the entire period from 1980 to 2020 for Black, Latino, and all workers.

includes workers from both groups. This allows us to directly compare outcomes with the most commonly discussed headline labor force statistics. As such, this article highlights how Black and Latino workers have experienced outcomes that vary from the figures most salient to people who read about macroeconomic outcomes.

The Labor Market During the Pandemic

Shortly after the pandemic began, the unemployment rate for the total labor market peaked at 14.7 percent (Figure 2a). At the same time, the rate reached 16.6 percent for Black workers and 18.8 percent for Latino workers. All three groups of workers experienced a steady recovery in the unemployment rate over the following 22 months. By April 2022, the total unemployment rate had fallen to 3.6 percent, nearly the same as its prepandemic average level.

The labor force participation rate fell significantly at the onset of the pandemic as concerns about the virus and the associated lockdown discouraged people from looking for work (Figure 2b). Many people were slow to return to the labor force, so participation only gradually and partially recovered in the 24 months after the pandemic's onset.

The combined increase in unemployment and reduction in labor force participation produced a pronounced drop in the employment-to-population ratio for all groups in April 2020

(Figure 2c). The employment-to-population ratio recovered steadily after the onset of the pandemic but remained below its prepandemic average level for the total labor market as well as for Black and Latino workers.³

As I argue above, in order to contrast the pandemic experiences of Black and Latino workers to that of the total labor market, we must account for prepandemic differences in the level of outcomes for these groups. To do this, I measure outcomes relative to the average level of labor market outcomes over the 14 months prior to the pandemic. I break the comparison of the effects of the pandemic into two parts. First, I compare the different experiences of the initial, adverse effect of the onset of the pandemic. Second, I calculate differences in the speed of the recovery for each group. I also compare outcomes for Black and Latino workers during the pandemic with their experience during economic fluctuations over the previous 40 years to see whether COVID-19 had a larger or smaller effect on these racial groups than did those previous fluctuations.

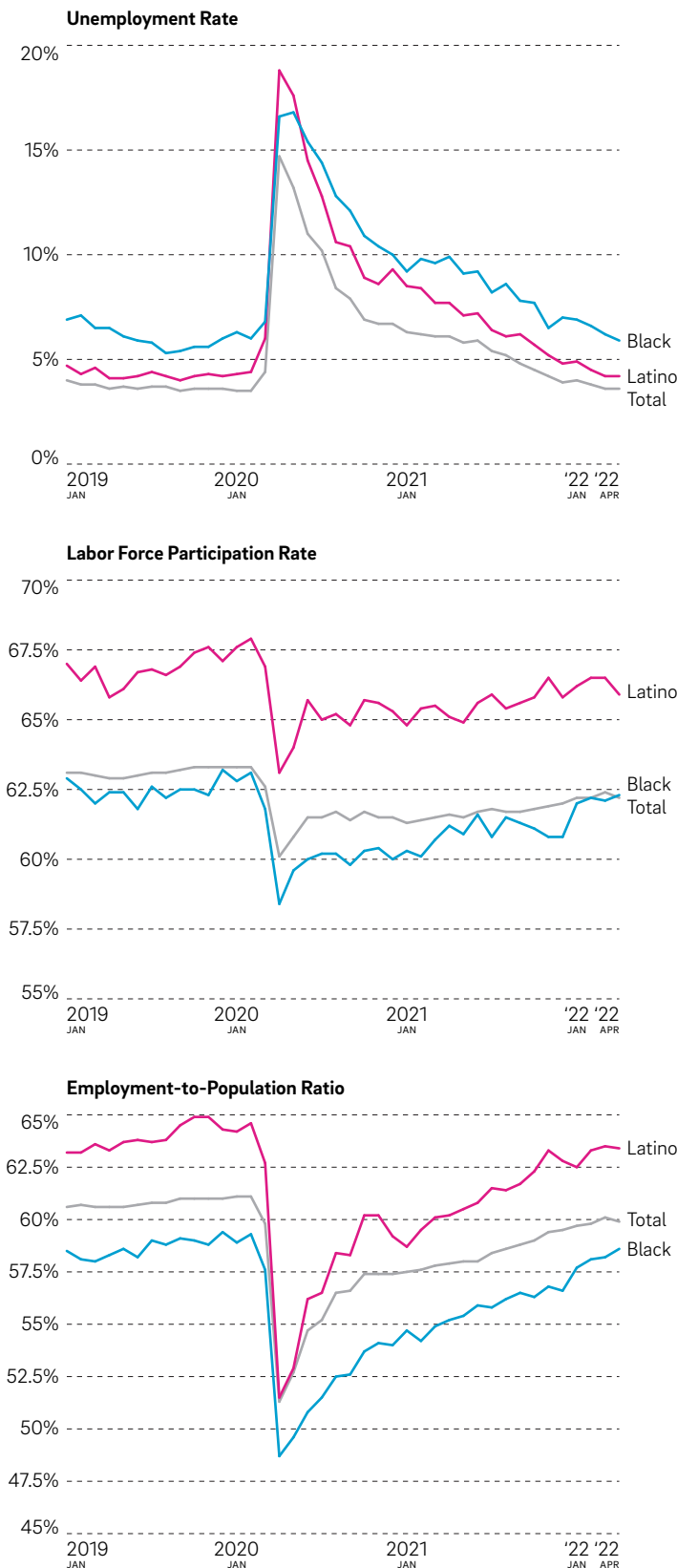
The Immediate Effect of the Pandemic

The COVID-19 pandemic and the associated lockdowns had a large and immediate effect on the U.S. labor market. To estimate the magnitude of this effect, I compare these outcomes in April 2020 to their average level in the 14 months prior to the onset of the pandemic (Figure 3).

FIGURE 2

Race-Based Labor Market Differences Continued Through the Pandemic

Three labor market outcomes, percentages, 2019–2022

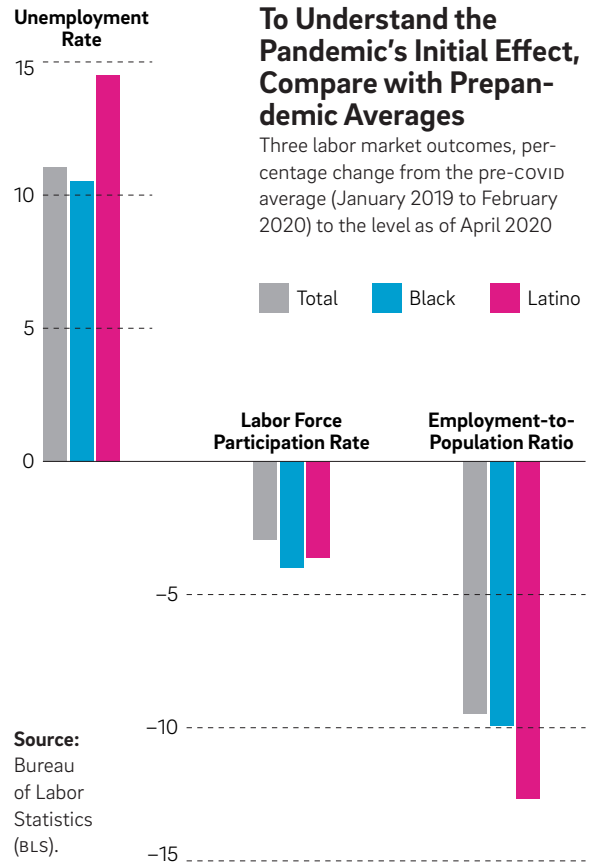


Source: Bureau of Labor Statistics (BLS).

FIGURE 3

To Understand the Pandemic's Initial Effect, Compare with Prepandemic Averages

Three labor market outcomes, percentage change from the pre-COVID average (January 2019 to February 2020) to the level as of April 2020



Source: Bureau of Labor Statistics (BLS).

For the total labor market, the unemployment rate averaged 3.65 percent over the period prior to the pandemic and reached a peak of 14.7 percent in April 2020, an increase of 11.05 percentage points.

The initial increase in unemployment for Black workers was slightly smaller than this, at 10.52 percentage points.⁴

Latino workers experienced an increase in unemployment of 14.5 percentage points, greater than the increase experienced by the labor market as a whole—possibly because Latino workers may be skewed to service industries more affected by the pandemic.⁵

After the onset of the pandemic, the total labor market's labor force participation rate fell by 2.94 percentage points.

Black workers experienced a larger decline, of 4.01 percentage points. This may partly account for the lower response of the Black unemployment rate: The pandemic may have initially and disproportionately discouraged more unemployed Black workers from participating in the labor market.

The labor force participation rate of Latino workers showed a similar pattern, falling 3.62 percentage points, which indicates that the unemployment numbers may understate the true effect on employment for these workers.

The combined effect of the changes in the unemployment and participation rates caused by the onset of the pandemic produced a 9.47-percentage-point reduction in the overall employment-to-population ratio.

For Black workers, the slightly lower-than-average response of the unemployment rate mostly offset the larger-than-average exit from the labor force to produce a reduction in the employment-to-population ratio of 9.93 percentage points, an increase only slightly larger than the increase for the total labor market.

Conversely for Latino workers, the employment-to-population ratio fell by 12.66 percentage points at the onset of the pandemic, more than the average response in the total labor market. This was a product of a higher-than-average adverse effect on both unemployment and participation for these workers.

The Labor Market's Recovery From the Pandemic

After April 2020, the critical labor market outcomes gradually improved. For example, as of April 2022, the unemployment rate for the total labor market was 3.6 percent, nearly the same as its prepandemic average of 3.65 percent.

However, the recovery has proceeded at different speeds for different racial groups. To measure the speed of the recovery while accounting for differences in how the initial pandemic affected different racial groups, I calculate the fraction of the initial shock that persisted in each month after April 2020. This requires comparing the outcome in each month with some counterfactual for what might have occurred absent the pandemic. Again, I use the average outcome in the 14 months prior to the pandemic.

Here's an example of how I measure the recovery relative to the prepandemic average. In April 2021, 12 months after the

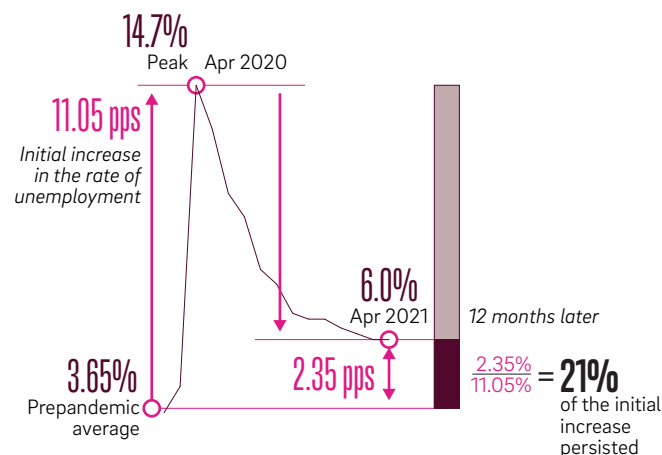
FIGURE 4

One Year into the Outbreak, More than One-Fifth of Unemployment Persisted

Total unemployment rate during the first year of the pandemic, percent (%), in burgundy; change in the unemployment rate, percentage points (pps), in pink; proportion of initial increase that remains as of April 2021, percent, in burgundy

Calculating Unemployment's Recovery

at 12 months, relative to its prepandemic average



Source: Bureau of Labor Statistics (BLS).

onset of the pandemic, the unemployment rate for the total labor market had fallen to 6.0 percent, which is 2.35 percentage points higher than the prepandemic average of 3.65 percent. Dividing 2.35 percent by the initial increase in total unemployment of 11.05 percentage points shows that 21 percent of the initial increase persisted one year after the onset of the pandemic (Figure 4). Put differently, by April 2021 the unemployment rate for the total labor market had reversed 79 percent of the initial adverse effect. I repeat this exercise for the total labor market and each racial group for each of the 22 months subsequent to the start of the pandemic (Figure 5a).

The speed of the recovery for the total labor market was pronounced: After six months, only 29 percent of the initial increase in the unemployment rate remained. After 18 months (that is, as of October 2020), only 9 percent of the initial increase remained.

Latino workers experienced a recovery that was approximately equal to the recovery of the labor market as a whole. One year after the onset, 23 percent of the initial increase in the unemployment rate for Latino workers remained—only 2 percentage points more than for the total labor market.

The speed of the recovery for Black workers was markedly slower. After six months, 46 percent of the initial unemployment rate increase remained for Black workers, compared with 29 percent for the total labor market. A year into the pandemic, 34 percent of the initial increase in the unemployment rate for Black workers persisted (compared with 21 percent for the total labor market). This differing speed of the recovery was still evident 18 months after the onset of the pandemic: Sixteen percent of the initial increase remained for Black workers, compared with 9 percent for the total labor market.

There's an important caveat. When we measure the speed of each group's return to prepandemic average levels, we risk ignoring the differential trends between groups I discussed earlier. If we measure the speed of the recovery relative to the level that would be predicted by extrapolating forward from the prepandemic trend, we find that Black unemployment recovered even more slowly relative to the total labor market.⁶ By this calculation, 44 percent of the initial shock to Black unemployment remained after 12 months, compared with 34 percent as calculated by measuring the prepandemic average level. Further, relative to this trend, the Black unemployment rate had still not caught up with the rest of the labor market almost two years after the onset of the pandemic. Comparing the recovery of the total labor market with the trend only slightly alters the estimated speed of the recovery. This suggests that, among other effects, the pandemic may have delayed the long-term recovery of the labor market for Black workers.

Recovery of the Labor Force Participation Rate

When I measure the speed of the recovery for the labor force participation rate relative to its prepandemic average level, I find that initially the labor force participation rate recovered quickly (Figure 5b). After two months, only 59 percent of the initial drop in participation remained for the total labor market. However, the labor force participation rate then recovered at a much slower rate, so that, 18 months after the onset, 49 percent

of the initial drop in the labor force participation rate remained. As of April 2022—24 months after the onset of the pandemic—32 percent of the initial decrease in the total labor force participation rate remained, relative to the prepandemic average level. One possible explanation for this slow recovery is the increased household wealth and savings from pandemic transfer programs.⁷ In addition, the pandemic appears to have accelerated retirements and could have induced a persistent change in households' need for child care.

The labor force participation rate of Black and Latino workers has recovered more than it has for the labor market as a whole—although the month-to-month rates for these groups have also fluctuated considerably. After 18 months, 38 and 29 percent of the initial decrease in participation remained for Black and Latino workers, respectively—both well below the 49 percent for the labor market in total. The faster recovery of Black and Latino workers may be related to the particularly large initial effect on participation for both groups. This further suggests that Black and Latino workers were disproportionately represented in the types of work initially most affected by the pandemic and therefore would recover more quickly as the initial restrictions were lifted.

Recovery of the Employment-to-Population Ratio

Next, I estimate the speed of the recovery for the employment-to-population ratio relative to its prepandemic average (Figure 5c). As with labor force participation, there was a rapid partial recovery from the initial effects of the pandemic. After six months, only 36 percent of the initial decrease in the employment-to-population ratio for the total labor market remained. The recovery was slower thereafter. After 18 months, 20 percent of the initial shock remained. The speed of the recovery in the employment-to-population ratio for Latino workers has closely mirrored that of the total labor market. However, Black workers experienced a noticeably slower recovery in their employment-to-population ratio. After four months, 64 percent of the initial drop in their ratio remained, compared with 45 percent for the total labor market. Only after a year did the recovery in their employment-to-population ratio catch up with the recovery of the total labor market's ratio.

Comparison with Previous Fluctuations

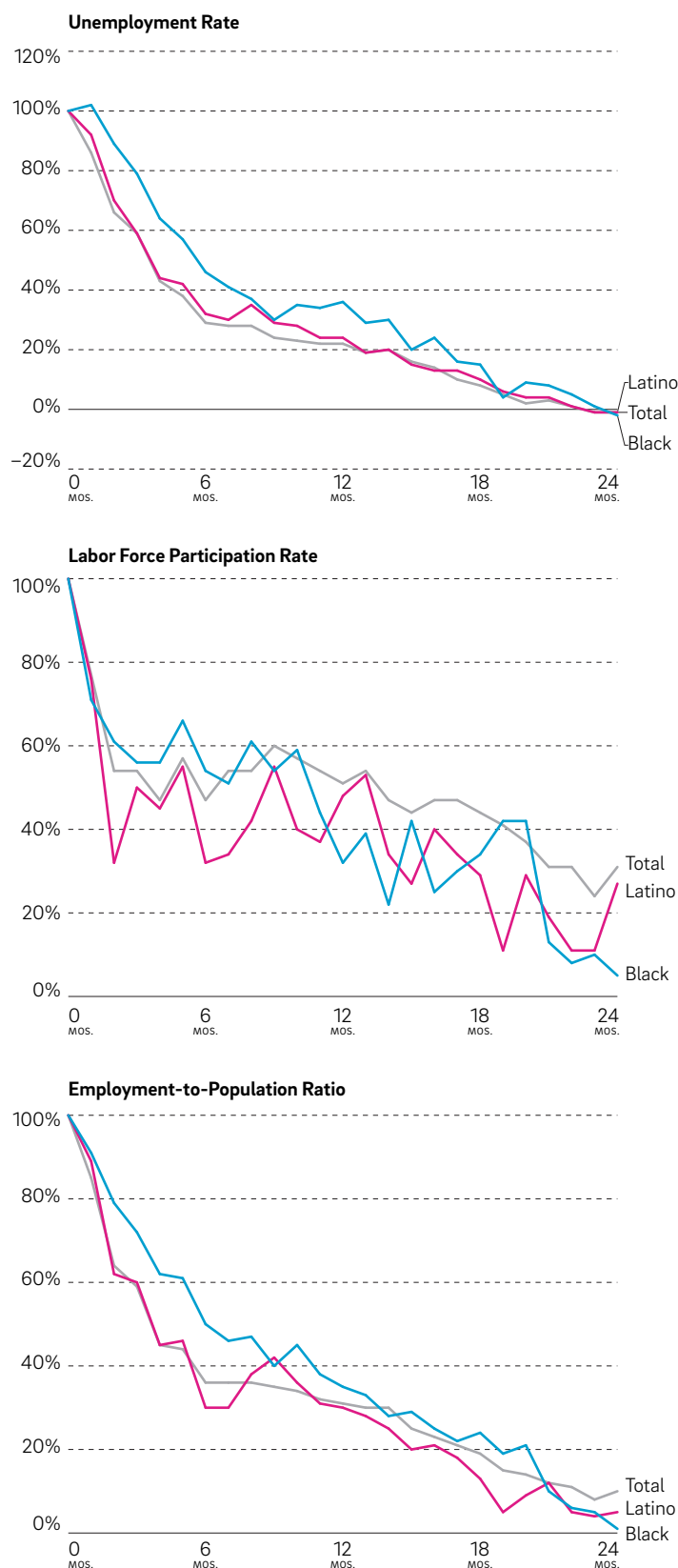
So far, I have compared the labor market experiences of Black and Latino workers with the experience of the total labor market during the pandemic. Now I examine how the experience during the pandemic compares with previous economic fluctuations. Was there something unusual about how the pandemic affected the labor market that skewed its effect toward (or away from) workers in these groups? Or were their experiences consistent with the patterns observed during prior recessions?

First, I plot the monthly unemployment rate for Black workers relative to the total unemployment rate for all workers from January 1980 to the present. The line of best fit captures the average relationship between month-to-month movements of these two unemployment rates over the 40 years prior to the pandemic. Over this period, the slope of this line was 1.83, which means

FIGURE 5

Comparing Outcomes with Prepandemic Levels

Three labor market outcomes in the 24 months after the onset of the pandemic, percent of initial increase relative to the level during the 14 months prior



Source: Bureau of Labor Statistics (BLS).

that when the economy experienced a fluctuation that raised the total unemployment rate 1 percentage point, then, on average, the unemployment rate for Black workers increased by 1.83 percentage points (Figure 6a). This relationship had been relatively stable over the previous 40 years, although the relationship weakened slightly after the turn of the century.

I make the same comparison for the labor force participation rate and the employment-to-population ratio for Black workers and for Latino workers.

Comparing Unemployment Rates with Previous Fluctuations

The pandemic had a smaller effect on the unemployment rate for Black workers than had previous episodes with high levels of total unemployment. This is consistent with what we saw earlier: The unemployment rate for Black workers increased less than for the total labor force at the onset of the pandemic, far below the 1.83-times-larger effect that characterizes the previous 40 years (Figure 6a). In contrast, as the economy recovered from the pandemic, Black unemployment declined less than it had during previous fluctuations. As a result, two years after the pandemic, Black unemployment had converged with its previous historical relationship to total unemployment. As such, Black workers experienced a fluctuation in unemployment with a magnitude roughly in line with the total labor market and far below the amplified cyclical outcomes Black workers experienced in comparable previous fluctuations.

Over the same 40 years, there was a relatively stable relationship between the unemployment rate for Latino workers and the unemployment rate for the total labor market (Figure 6b). When total unemployment increased 1 percentage point, Latino unemployment increased on average 1.4 percentage points. The magnitude of the fluctuations during the pandemic, both at the onset and during the recovery, was in line with this historical experience, which suggests that the pandemic's effect on the Latino unemployment rate was in fact not any more pronounced than the effect of previous recessions.

Comparing Labor Force Participation Rates with Previous Fluctuations

Next, I examine how labor force participation during the pandemic compares to previous economic fluctuations for Black and Latino workers. In the 40 years prior to the pandemic, the labor force participation rate for Black workers moved on average 0.84 percentage point for every 1-percentage-point movement in the total labor market (Figure 6c). The pandemic onset's effect on labor force participation stands in stark contrast to this historical pattern. Based on the historical relationship, the 2.94-percentage-point reduction in participation for the total labor force would have predicted a 2.47-percentage-point decline for Black workers, far lower than the observed 4.01-percentage-point decline. The recovery of labor force participation has also shown a far higher cyclical sensitivity than observed over the previous 40 years. During the pandemic recovery, every 1-percentage-point increase in participation for the total labor force was accompanied by an average 1.57-percentage-point increase for Black workers. These

facts indicate that the initial stage of the pandemic had an unusually large effect on Black labor force participation compared with prior economic fluctuations, and that the unwinding of these effects has, by the same logic, affected these workers more than in the past.

Over the 40 years prior to the pandemic, a 1-percentage-point movement in the labor force participation rate for the total labor market produced on average a 0.65-percentage-point movement in participation for Latino workers (Figure 6d) (although the slope appears to have been steeper during some episodes, such as the first 10 years of the 21st century). As was true for Black workers, the movement at the onset of the pandemic for Latino workers was far larger than this historical average would have predicted. Based on the historical relationship, the 2.94-percentage-point reduction in participation for the total labor force that occurred at the onset of the pandemic would have predicted a 1.90-percentage-point decline for Latino workers, far lower than the observed 3.62-percentage-point decline.

The recovery of the labor force participation rate for Latino workers has also shown a higher sensitivity to the recovery of the general labor force participation rate than during the previous four decades. During the pandemic, the labor force participation rate for Latino workers increased on average 1.55 percentage points for every 1-percentage-point increase for the total labor force—more than double the historical sensitivity. As a result, the labor force participation rate for Latino workers has returned to a level roughly in line with what would be expected when considering data from the past 20 years for a comparable level of aggregate labor force participation.

Comparing Employment-to-Population Ratios with Previous Fluctuations

Historically, the employment-to-population ratio has been more volatile for Black workers than for the labor force in general. Over the 40 years prior to the pandemic, a 1-percentage-point change in the employment-to-population ratio for the total working-age population was associated with a 1.27-percentage-point change in the ratio for Black workers (Figure 6e). The onset of the pandemic produced a 9.47-percentage-point reduction in the employment-to-population ratio for the labor force as a whole. Black workers experienced a slightly larger reduction, of 9.93 percentage points, although this is significantly lower than the 12.02-percentage-point reduction that would have been expected based on the relationship from the prior 40 years.

During the pandemic recovery, the Black employment-to-population ratio had on average increased 1.16 percentage points with every 1-percentage-point increase for the total labor market, only slightly below the long-term association of 1.27 percentage points. However, the recovery in Black employment, while consistent with its average historical pace, is in fact weaker than would have been predicted given the experiences in the 2010s. After the Great Recession, Black workers' employment-to-population ratio climbed at a much faster pace relative to the aggregate rate than had been observed in the prior three decades. The recovery from the pandemic has seen Black workers' employment-to-population ratio instead revert to its pre-2010 pattern.

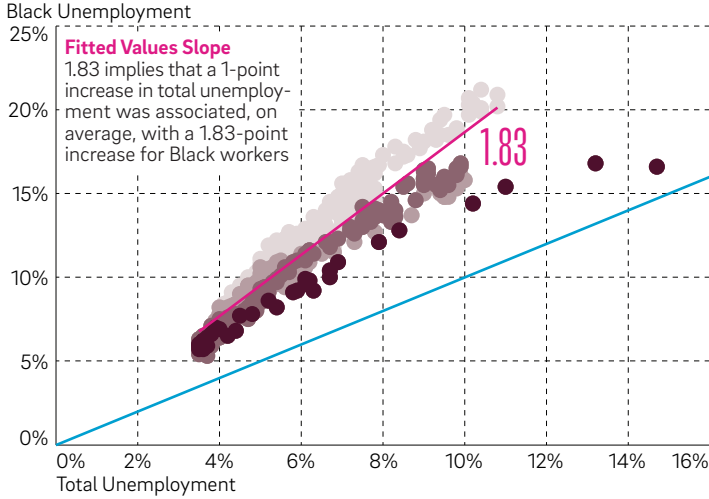
FIGURE 6

The Relative Experience of Minority Workers Changed During COVID

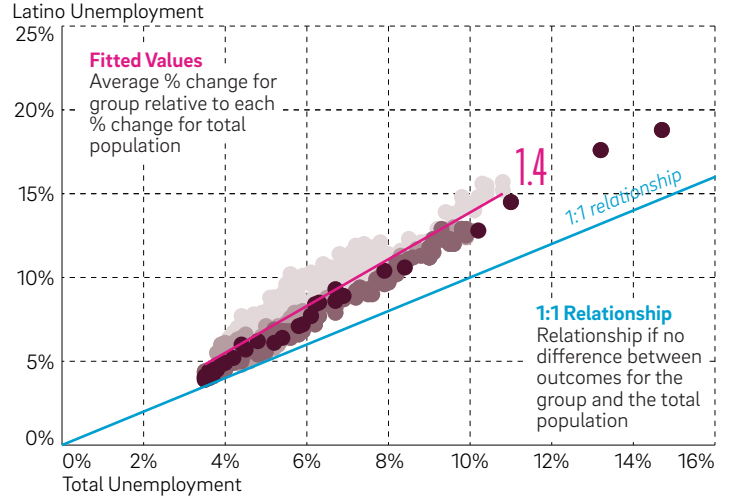
Relationship between Black and Latino labor market patterns and total labor market patterns, January 1980 to April 2022

● 1980–1999 ● 2000–2010 ● 2010–Feb 2020 ● after Feb 2020 — Fitted values

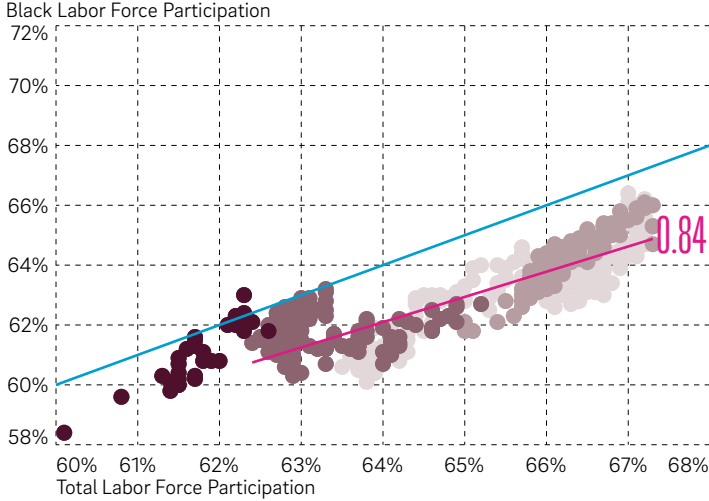
Relationship between Black and Total Unemployment



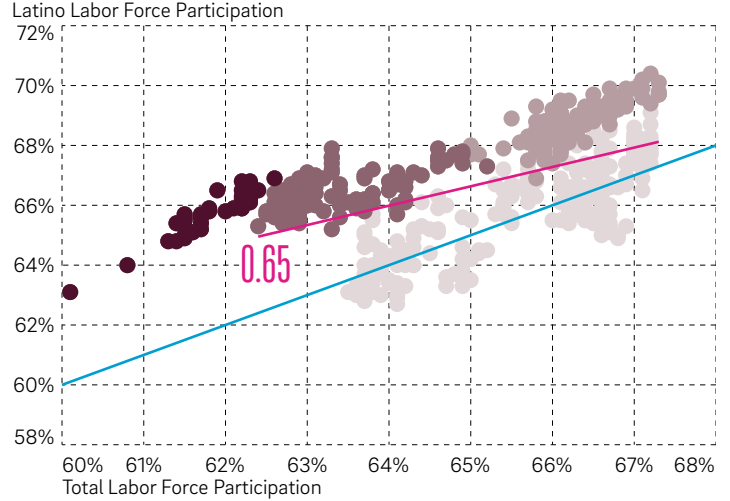
Relationship between Latino and Total Unemployment



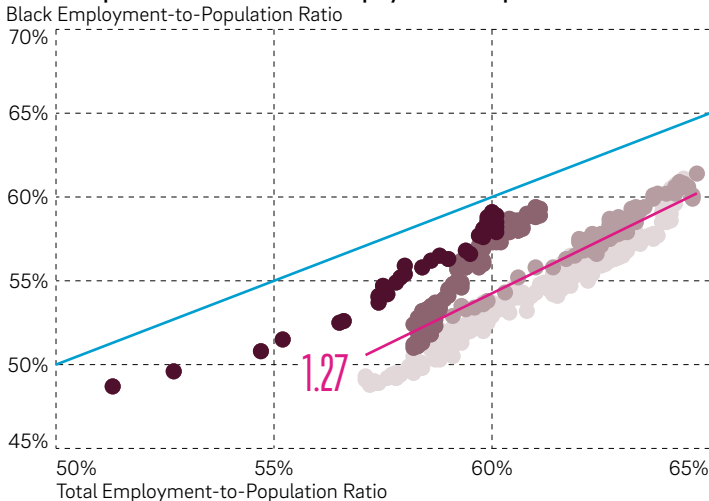
Relationship between Black and Total Labor Force Participation



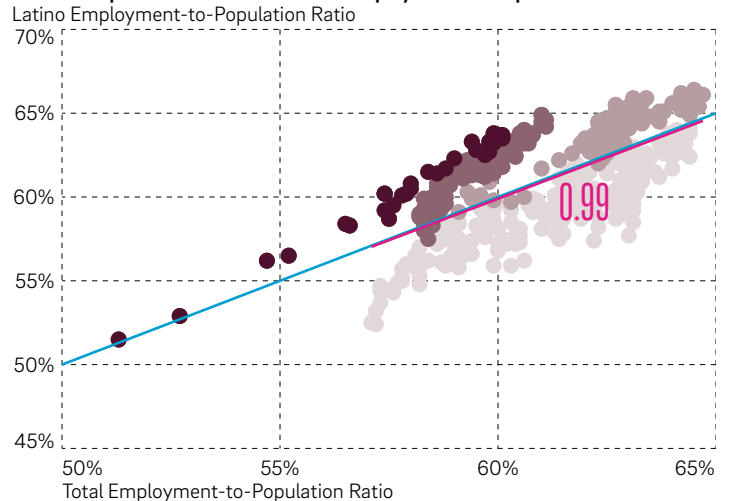
Relationship between Latino and Total Labor Force Participation



Relationship between Black and Total Employment-to-Population Ratio



Relationship between Latino and Total Employment-to-Population Ratio




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

Over the 40 years prior to the pandemic, the employment-to-population ratio for Latino workers moved on average almost one-for-one with the total labor market (Figure 6f). Based on this historical association, the 9.47-percentage-point reduction in the employment-to-population ratio for the total labor force at the onset of the pandemic would have been expected to produce a 9.37-percentage-point reduction in the ratio for Latino workers. However, Latino workers experienced a significantly larger decline of 12.66 percentage points in their employment-to-population ratio at the onset of the pandemic (1.34 times larger than the drop for the total labor market). The subsequent recovery also exhibited an elevated sensitivity, with each 1-percentage-point increase in the employment-to-population ratio for the total labor market accompanied by an average increase of 1.41 percentage points in the ratio for Latino workers.⁸

Conclusion

In this article, I have described the different experiences of Black and Latino workers during the COVID-19 pandemic.

Notably, the unemployment rate and the employment-to-population ratio for Black workers recovered more slowly than for the total labor market. It could be that this outcome reflects the fact that the ongoing expansion is young; Black employment gains do not generally pick up until later in the cycle. This idea is consistent with the evidence presented by Tel Aviv University economist Nittai Bergman, Northwestern Kellogg School of Finance professor David Matsa, and Chicago Booth professor Michael Weber in their 2020 working paper: They show that employment for Black workers is more responsive to expansionary monetary policy in tighter labor markets. Put differently, these workers, compared with most other workers, may benefit from an economic expansion only later in an economic recovery when total unemployment is low.

If this is true, it may have important implications for how the duration of expansionary policy can affect Black workers relative to the rest of the labor market. Further research is required to evaluate why the speed of the recovery for their employment differs from the rest of the labor market, and to evaluate what role, if any, a different length of expansionary monetary policy could play in lowering Black unemployment. 

Notes

1 Monthly unemployment data for “nonwhite” workers is available prior to 1972. Freeman et al. (1973) estimate that 90 percent of these workers in the 1940s–1960s were Black.

2 Since data are available over a shorter period for Asian workers and are previously included in the national average, this ensures consistent treatment of these groups. However, many people in these groups face considerable disparities in the labor market due to other factors (for example, educational access, gender, and income differences).

3 For more on gender outcomes by education, see Eyigungor (2022).

4 The unemployment rate for Black workers peaked in May 2020 at 16.8 percent, but for timing consistency I use the April rate of 16.6 percent throughout. This does not meaningfully alter the following analysis.

5 See Krogstad et al. (2020).

6 I estimate the prepandemic trend using ordinary least squares on a constant and a linear time trend with data from January 2017 to February 2020.

7 See Schwartzman (2021).

8 One possible explanation for this heightened effect is that Latino workers may have been more commonly employed in the industries most affected by the pandemic (for example, customer-facing service industries).

References

- Bergman, Nittai, David Matsa, and Michael Weber. “Heterogeneous Labor Market Effects of Monetary Policy,” Chicago Booth Research Paper 21-02 (2020), <https://dx.doi.org/10.2139/ssrn.3757645>.
- Eyigungor, Burcu. “The Labor Market Recovery Following COVID,” Federal Reserve Bank of Philadelphia *Economic Insights* (Third/Fourth Quarter 2022), pp. 7–13, <https://www.philadelphiafed.org/the-economy/macroeconomics/the-labor-market-recovery-following-covid>.
- Freeman, Richard B., R. A. Gordon, Duran Bell, and Robert E. Hall. “Changes in the Labor Market for Black Americans, 1948–72,” *Brookings Papers on Economic Activity*, 1 (1973), pp. 67–131, <https://doi.org/10.2307/2534085>.
- Krogstad, Jens Manuel, Ana Gonzalez-Barrera, and Luis Noe-Bustamante. “U.S. Latinos Among Hardest Hit by Pay Cuts, Job Losses Due to Coronavirus,” Pew Research Center (April 3, 2020).
- Schwartzman, Felipe. “COVID Transfers Dampening Employment Growth, but Not Necessarily a Bad Thing,” Federal Reserve Bank of Richmond Economic Brief 21-39 (2021).