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#### Do Non-inflationary Economic Expansions Promote Shared Prosperity? Evidence from the U.S. Labor Market

Remarks by

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at

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Thank you, Professor O'Connell, for that kind introduction and for the opportunity to talk to this group.<sup>1</sup> I am delighted to be back at Swarthmore College. This special community brings back fond memories of fantastic students, great colleagues, and pedagogical excellence.

Yesterday, I discussed my outlook for the current U.S. economy. I highlighted how the economy is growing and appears to be roughly in balance, with low unemployment and declining inflation. Today, I will review some of the historical evidence pertaining to periods when the Federal Reserve has achieved both components of its dual mandate, maximum employment and stable prices, on a sustained basis—that is, periods of long non-inflationary economic expansions. My title question is whether economic evidence indicates that such expansions also result in greater shared prosperity.

My focus will be on the labor market. A reason for this focus is that for many individuals, their employment attachment is a key determinant of their household's overall well-being. My approach will be to compare the current labor market with the labor market at the end of 2019—that is, at the end of the most recent long, noninflationary expansion. Such a comparison provides a lens through which to view the prospects for broadly shared prosperity fostered by the current U.S. labor market.

The remainder of my talk is organized as follows. First, I describe the labor market at the end of 2019. After that, I discuss the state of the labor market in the immediate aftermath of the COVID-19 pandemic. Then, I describe the current labor market situation. Next, I discuss possible reasons why strong labor markets facilitate

<sup>&</sup>lt;sup>1</sup> The views expressed here are my own and are not necessarily those of my colleagues on the Federal Reserve Board or the Federal Open Market Committee.

broad-based prosperity. Before concluding, I consider whether the benefits of long expansions are persistent.

#### The Labor Market on the Eve of the COVID-19 Pandemic

Let's begin the exploration of my title question with a careful look at the situation during the historically strong labor market on the eve of the COVID-19 pandemic. Following the 2007-09 Global Financial Crisis, the U.S. economy expanded for 128 consecutive months, making it the longest economic expansion in U.S. history. During this period, as shown in figure 1, the aggregate unemployment rate fell steadily from a peak of 10 percent in October 2009 to 3.5 percent in September 2019, the lowest recorded in nearly 50 years. Job opportunities were plentiful in this strong labor market, with the ratio of vacancies to job seekers hovering around 1.2 throughout 2019, implying that businesses were seeking to fill more open positions than there were workers actively searching for employment. Moreover, while some long economic expansions have led to an unwelcome rise in prices, inflation remained low and stable. Indeed, the Federal Reserve was grappling with inflation somewhat below, rather than above, its longer-run 2 percent target.

In addition, and perhaps related to the length of the expansion, the pre-pandemic labor market was remarkable in terms of the broad-based gains seen across demographic groups, which contributed to a historic narrowing of employment disparities. For instance, as shown in figure 2, the unemployment rate among African Americans, the solid red line, has usually been about twice as high as that for white individuals, the solid blue line, and is more sensitive to the state of the business cycle. The unemployment rate among Hispanics, the dotted green line, falls between these two groups. In late 2019,

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however, both African American and Hispanic unemployment rates had fallen to the lowest levels on record up to that point, significantly narrowing the persistent unemployment gaps between these groups. Before this, the greatest improvement in the unemployment rate among African Americans was at the end of the 1991–2001 economic expansion, which itself was the second longest expansion in U.S. history. But in 2019, the unemployment rate for African Americans was about 2 percentage points lower than it was in early 2001.

The influence of the long expansion on employment gaps also was evident for other groups of workers. Like minorities, individuals with less education, and especially those who have not completed high school, also experience higher cyclical volatility in their employment.<sup>2</sup> In 2019, as shown in figure 3, the unemployment rate gaps between workers with less than a high school education, the solid red line, and those who have attained at least a bachelor's degree, the solid purple line, also were near multidecade lows. Further, the strong labor market created new opportunities for teens and younger workers, groups whose employment prospects, and even long-term career trajectories, are especially sensitive to the cyclical state of the economy.<sup>3</sup>

Beyond narrowing gaps between workers actively searching for a job, the strong pre-pandemic labor market also helped draw many new participants into the labor force. Among prime-age workers, those aged 25 to 54, the labor force participation rate began rising again around 2015, as shown in figure 4, reversing a declining trend. This was true among both men, the solid black line, whose participation had been steadily declining since the 1950s, and women, the dashed red line, whose participation had previously

<sup>&</sup>lt;sup>2</sup> See Jefferson (2005, 2008).

<sup>&</sup>lt;sup>3</sup> See Oreopoulos, Von Wachter, and Heisz (2012).

peaked in early 2000. Labor force participation among women was rising especially briskly in the months just before the pandemic, essentially reversing its entire decline over the previous 20 years. While this partially reflects broader demographic trends such as increasing educational attainment, participation was rising for both women with and without a college degree after 2015, suggesting that the strong labor market played a part in this reversal.

Turning now from employment and participation to earnings, nominal wages were growing solidly before the pandemic. As with gains in employment, the strong labor market was especially beneficial for some groups. Most noticeably, as shown in figure 5, wage growth for the bottom quartile of earners, the solid red line, started to pick up about five years into the expansion, in late 2014, and by 2019 was significantly stronger than for workers in higher earnings quartiles, the solid purple line.<sup>4</sup> These differences in wage growth are important, as they imply convergence in levels and, therefore, declining wage inequality as the bottom of the distribution catches up to higher earners. Similarly, wages were growing faster for non-white workers relative to white workers in 2019, though differences by educational attainment were less pronounced at the time.

Looking back now, the U.S. economy in 2019 was in a good place. The labor market was tight but not overheating, bringing widespread gains to workers. Further, had it not been for the sudden and dramatic interruption of the COVID-19 pandemic, this

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<sup>&</sup>lt;sup>4</sup> Nominal wages in the figure are measured by the Atlanta Fed's Wage Growth Tracker. Series show 12month moving averages of the median percent change in the nominal hourly wage of individuals observed 12 months apart. Workers are assigned to wage quartiles based on the average of their wage reports in both the Current Population Survey and outgoing rotation group interviews; workers in the lowest 25 percent of the average wage distribution are assigned to the 1st quartile, and those in the top 25 percent are assigned to the 4th quartile.

strong labor market was expected to persist. In December 2019, the median Federal Open Market Committee (FOMC) participant expected the aggregate unemployment rate to remain below 4 percent through the end of 2022 while inflation was expected to move back up to the Committee's 2 percent objective.<sup>5</sup> Had this long, non-inflationary expansion continued as the Committee forecast, gaps in employment and earnings across groups may have continued to narrow as well.

#### The Labor Market Following the COVID-19 Pandemic

The expansion, however, was cut short by the COVID-19 pandemic. In April 2020, the unemployment rate, as shown in figure 6, briefly surged to 14.8 percent, its highest rate since the Great Depression while the share of Americans seeking jobs (not shown) plummeted. Moreover, those same groups that had benefited from the strong prepandemic labor market—African American and Hispanic workers, women, and individuals without a college degree—generally fared worse at the onset of the pandemic. Although some of these groups typically experience greater losses in economic downturns, factors unique to the pandemic, including greater exposure to the industries most affected by lockdowns, also contributed to disparities in job losses. For instance, unlike a typical recession, the pandemic disproportionately affected service industries, which employ a larger share of women than industries like construction and manufacturing, which are generally more cyclically sensitive.

<sup>&</sup>lt;sup>5</sup> The December 2019 median forecast of FOMC participants is taken from the Summary of Economic Projections (SEP), which is available on the Board's website at

https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm. FOMC participants submit projections of future economic activity and their individual views of the appropriate path of monetary policy conditional thereupon four times a year. These projections are published as the SEP. The SEP is neither a consensus forecast nor is it a commitment to a policy path. Rather, it shows the median, central tendency, and range of the participants' projections estimated using the 19 individual projections.

Just as the pandemic itself led to unprecedented losses in the labor market, the subsequent recovery was unprecedented in many ways. As the health risk abated and the economy reopened, labor demand surged as businesses attempted to re-hire workers, but many workers remained on the sidelines. By late 2021, the labor force participation rate was still well below its pre-pandemic level. Vacancies rose to record levels, while, at the same time, quits, as shown in figure 7, surged as workers sought out new job opportunities, leading some to refer to the post-pandemic recovery as the "Great Resignation." Consequently, as shown in figure 8, the gap between available jobs, the solid black line, and available workers, the dashed red line, which had been just over 1 million positions in late 2019, widened to over 6 million, the equivalent of two job openings for every unemployed worker. This was an exceptionally tight labor market, far exceeding any in recent history, including the labor market before the pandemic.

The strong post-pandemic aggregate economy reversed the disparities between groups that initially widened in 2020. The aggregate unemployment rate fell to 3.4 percent in April 2023, its lowest since 1969. That same month, the unemployment rate for African Americans fell to 4.8 percent, the lowest level on record and 1/2 percentage point below the previous record set in 2019, as shown in figure 9 by the red solid line, which is the difference between the unemployment rate for African Americans and its own average in the year 2019.

Although labor force participation was initially slower to recover, the labor force participation rate among prime-age women climbed to its highest level ever in 2023, well above even pre-pandemic levels, as shown in figure 10 by the red dashed line, which is

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the difference between the labor force participation rate for women and its own average in the year 2019.

The tight labor market also led to a surge in nominal wage growth, especially for workers lower in the earnings distribution. In fact, as shown in figure 11, wage growth for low-wage workers, the solid red line, was strong enough, with a peak wage growth close to 7.5 percent in 2022, to drive a meaningful compression in the aggregate wage distribution (not shown). Economic research suggests that the pandemic recovery reversed around one-third of the increase in the aggregate ratio of the 90th percentile to the 10th percentile wage inequality since the 1980s.<sup>6</sup> These gains at the bottom of the income distribution also were reflected in the experience of different demographic groups, as shown in figure 12, with stronger wage growth for nonwhite workers, the dashed red line, relative to white workers, the solid black line, and, unlike even the prepandemic expansion, for workers with a high school education or less relative to those with a bachelor's degree or more.

Unlike the noninflationary pre-pandemic expansion, however, these nominal wage gains coincided with rising prices, reducing many workers' actual purchasing power. Real wage growth deflated by the personal consumption expenditures price index, which adjusts for the effect of inflation on workers' purchasing power, was negative for many workers in 2022, despite strong aggregate employment growth. Further, the costs of inflation also vary across groups, and there is evidence that rising prices may hurt lower-income populations more.<sup>7</sup> This underscores the connection between the two components of the Federal Reserve's dual mandate to promote both

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<sup>&</sup>lt;sup>6</sup> See Autor, Dube, and McGrew et al. (2023).

<sup>&</sup>lt;sup>7</sup> See Orchard (2022).

maximum employment and stable prices, since the benefits of strong labor markets are eroded when accompanied by an unwelcome rise in inflation.

#### **The Current Labor Market Situation**

Let me turn now to the labor market situation more recently. As the economy has recovered from the pandemic, the labor market has come into better balance. By mid-2024, the gap between available jobs and available workers—I'll show that figure again here—had essentially returned to where it was in 2019, reflecting both a decline in vacancies and improvements in labor supply. Various indicators pointed to a labor market that was still tight, but no longer overheating.

Currently, the labor market remains solid, on balance, and inflation continues a bumpy descent toward the FOMC's 2 percent objective. Layoff activity and initial claims for unemployment insurance, shown in figure 13, remain low by historical standards even as job openings have moved down to more normal levels. The unemployment rate appears to have leveled off close to what the median FOMC participant currently sees as its long-run sustainable level of 4.2 percent.<sup>8</sup> While employment gaps between certain demographic groups have widened a touch since 2022, they remain historically narrow. Further, a welcome development as inflation has moderated is that real wage growth has picked up even as nominal wage growth has slowed. Though wages are now growing similarly across demographic groups, the narrowing of the wage gap across demographic groups realized in 2021 and 2022 persists.

<sup>&</sup>lt;sup>8</sup> See the December 2024 median forecast of FOMC participants in the SEP, which is available on the Board's website at https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

#### How Do Strong Labor Markets Facilitate Broad-Based Prosperity?

Looking back at long, noninflationary episodes like the pre-pandemic expansion raises the question of why strong labor markets have been especially beneficial for certain demographic groups. Although the literature has not reached a definite conclusion to this question, researchers have pointed to several economic mechanisms that may help explain these patterns.

In 1973, the economist Arthur Okun argued that "high-pressure" labor markets such as those in 2019 and during the pandemic recovery—allowed workers to move up the job ladder, creating new opportunities for individuals on the margins of the labor market.<sup>9,10</sup> Further, he argued that when job openings are difficult to fill, employers relax hiring standards, creating new opportunities for individuals who otherwise might struggle to find employment. Consistent with this argument, economic research shows that as the labor market strengthened from 2010 to 2014, employers reduced education and experience requirements in online job postings.<sup>11</sup> Economic research also highlights the role of more productive job-worker matches as tight labor markets facilitate a reallocation of labor to better and more productive jobs.<sup>12</sup> On the participation side, the labor force participation rate tends to respond to business cycles with a significantly longer lag than the unemployment rate, for instance, due to the stickiness of decisions related to caregiving or educational responsibilities. This suggests that long expansions are especially important for drawing non-participants back into the labor market.<sup>13</sup>

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<sup>&</sup>lt;sup>9</sup> See Okun (1973).

<sup>&</sup>lt;sup>10</sup> While there is no official definition of a "high-pressure" labor market, the term usually refers to a period when the unemployment rate is below its natural rate—that is, below its long-run sustainable level.

<sup>&</sup>lt;sup>11</sup> See Modestino and others (2016).

<sup>&</sup>lt;sup>12</sup> See Akerlof, Rose, and Yellen (1988).

<sup>&</sup>lt;sup>13</sup> See Cajner, Coglianese, and Montes (2021).

Of course, each business cycle is different, making it difficult to draw general conclusions from past episodes. The pandemic recovery, for example, led to a rise in retirements, far more than what would have been expected given population aging.<sup>14</sup> On the downside, this contributed to the significant shortage of workers as the economy was reopening. On the upside, it may have created more opportunities for younger workers to move up the job ladder than is typical during a normal expansion, making Okun's argument especially relevant. The COVID-19 pandemic also was a remarkable reallocation shock, and elevated quits and job switching may have improved the quality of matches between businesses and workers more than usual, potentially contributing to strong productivity growth and wage gains.

Perhaps paradoxically, excessively tight labor markets may not be beneficial to lower-wage workers in the long run. Some economists argue that hiring difficulties may lead firms to adopt technologies that substitute, rather than complement, workers, ultimately reducing labor demand.<sup>15</sup> Similarly, an overheating labor market may lead some workers to prioritize short-term gains over longer-term career stability. Empirical evidence, for example, suggests that during economic expansions some young people choose to take an unstable job that is likely to disappear in the next recession, rather than invest in training opportunities.<sup>16</sup>

<sup>&</sup>lt;sup>14</sup> See Montes, Smith, and Dajon (2022).

<sup>&</sup>lt;sup>15</sup> See Krueger (2002).

<sup>&</sup>lt;sup>16</sup> Specifically, empirical evidence indicates that educational enrollment rates go down during expansions. For four-year college enrollment rates, see Dellas and Sakellaris (2003); for community college enrollment rates, see Betts and McFarland (1995); for high school enrollment rates, see Dellas and Koubi (2003).

#### Are the Benefits of Long Expansions Lasting?

Another key question for policymakers is whether the benefits of long expansions can be sustained, given that the same groups who benefit disproportionately from strong labor markets also fare worse in recessions. Again, the literature, while not conclusive, offers some reasons for cautious optimism. There is some empirical evidence that suggests that the benefits of tight labor markets are somewhat persistent, at least for African Americans and women.<sup>17</sup> The fact that labor market disparities that worsened during the pandemic returned to their pre-pandemic levels so quickly following the pandemic may be another reason to be hopeful.

#### Conclusion

Let me conclude by offering an answer to my title question. The weight of the historical evidence I discussed today suggests that broadly shared economic prosperity is more likely when the economy grows over time with low unemployment and stable prices. While the early part of the current expansion was inflationary, the intent of monetary policy actions over the past few years has been to return us to a prolonged period where prices are stable and the labor market remains solid. The historical experience of the U.S. labor market suggests that long, noninflationary expansions are associated with narrower gaps in employment and earnings, with minority groups and less-educated workers benefiting disproportionately from sustained periods of strong economic growth. Such benefits can help make up for the disproportionate losses experienced by the same groups during economic downturns and, in some cases, may even lead to lasting gains.

<sup>&</sup>lt;sup>17</sup> See Aaronson and others (2019).

Finally, let me return to where I started, the Federal Reserve's dual mandate: maximum employment and stable prices. The historical evidence that I have reviewed tonight suggests that shared prosperity is a byproduct of sustained accomplishment of our mission.

Thank you.

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Philip N. Jefferson Vice Chair, Federal Reserve Board

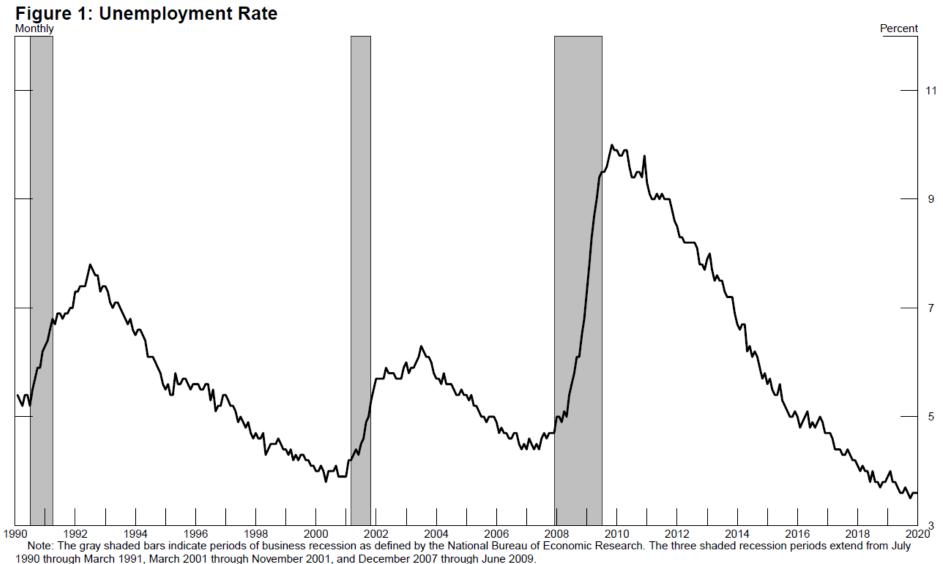
Swarthmore College, February 5, 2025

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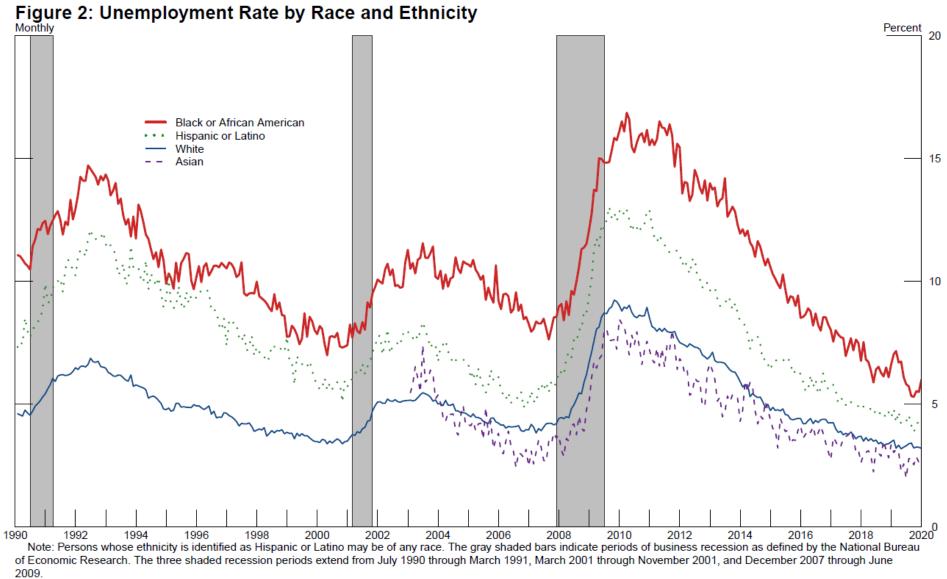


# Roadmap of Talk

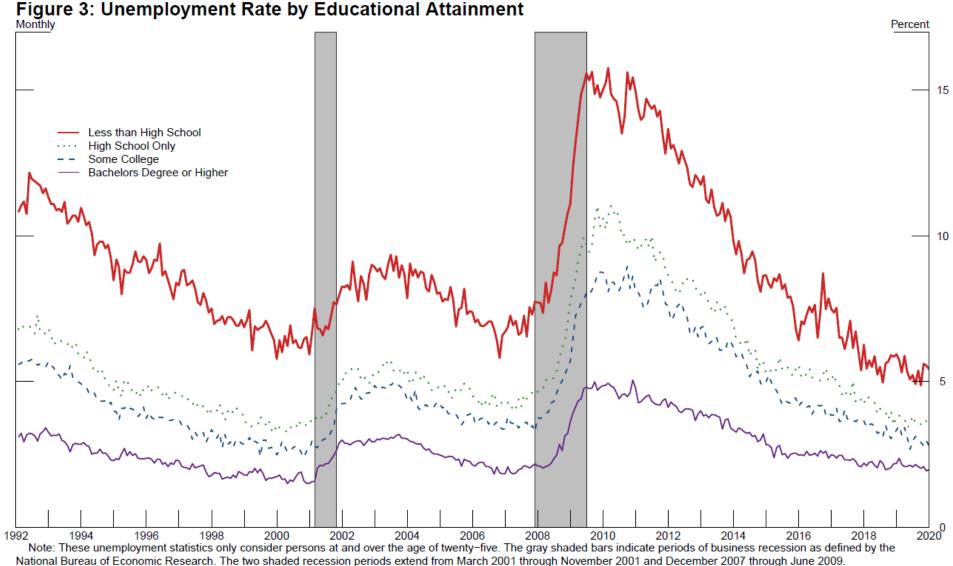
- The labor market at the end of 2019
- The labor market following the pandemic
- The current labor market
- Strong labor markets and shared prosperity
- Persistent benefits of long expansions
- Conclusion



Source: Bureau of Labor Statistics via Haver Analytics.

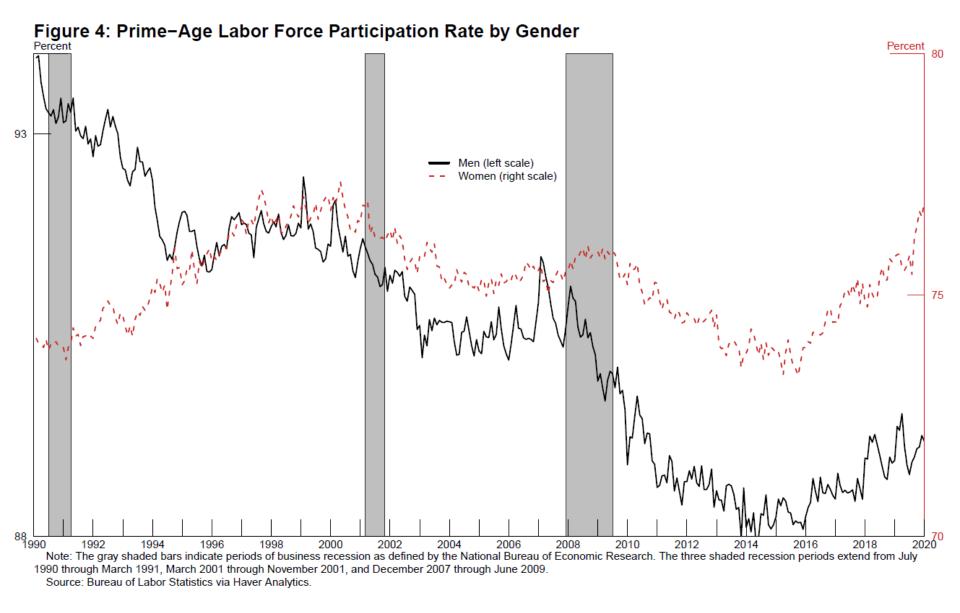


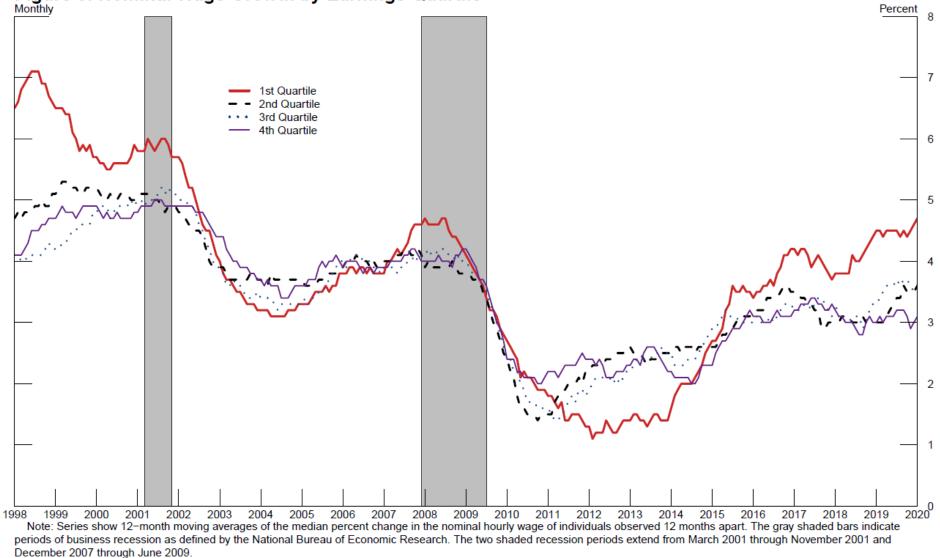
Source: Bureau of Labor Statistics via Haver Analytics.



#### Source: Bureau of Economic Research. The two shaded is Source: Bureau of Labor Statistics via Haver Analytics.

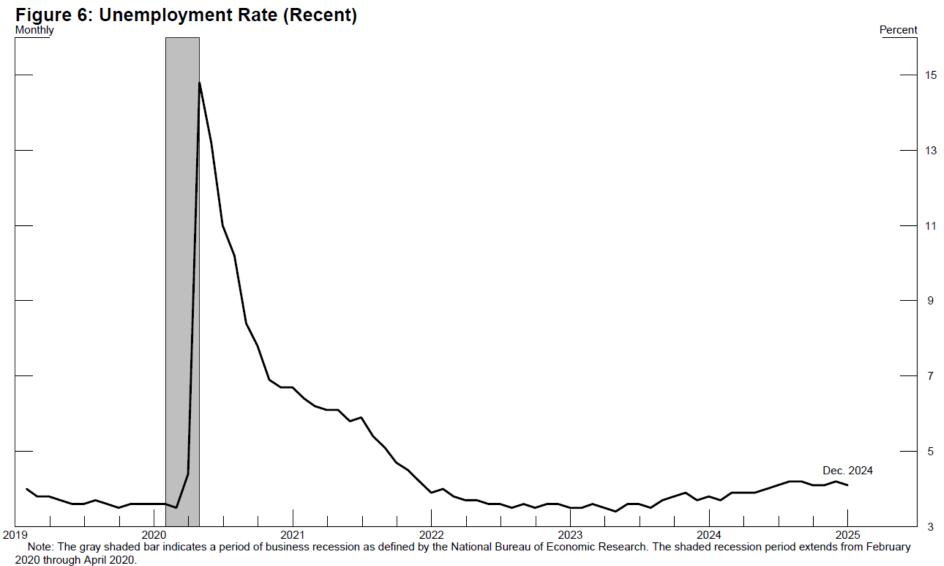
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Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker; Bureau of Labor Statistics; U.S. Census Bureau, Current Population Survey.

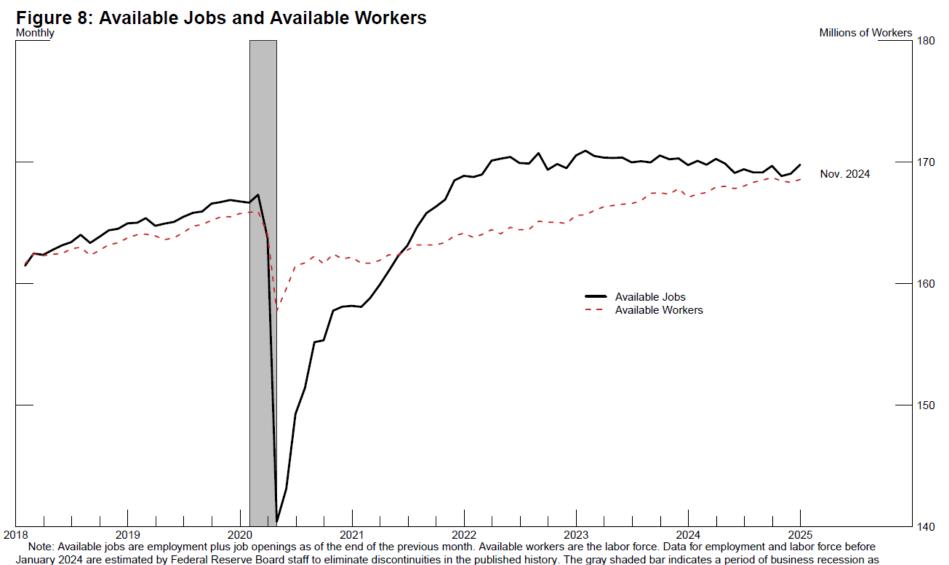
#### Figure 5: Nominal Wage Growth by Earnings Quartile



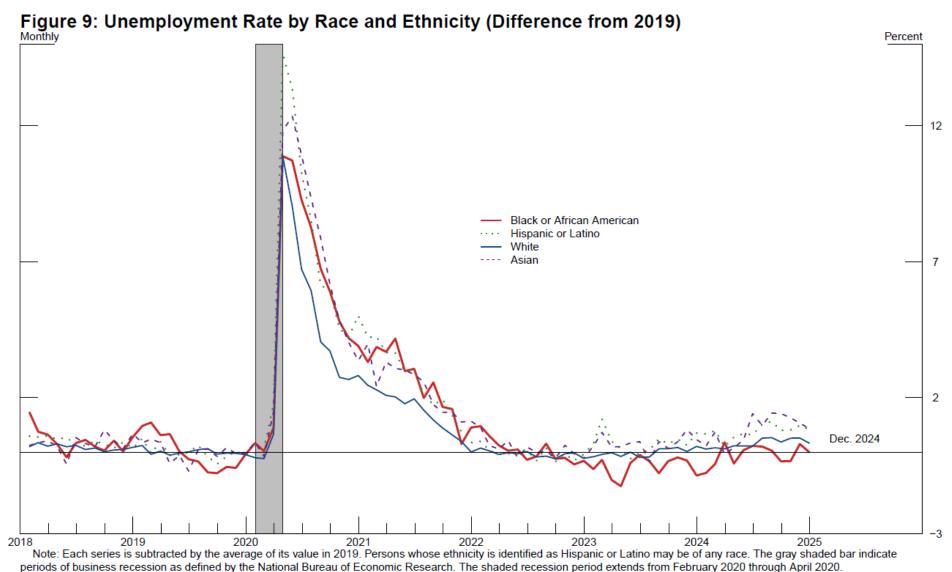
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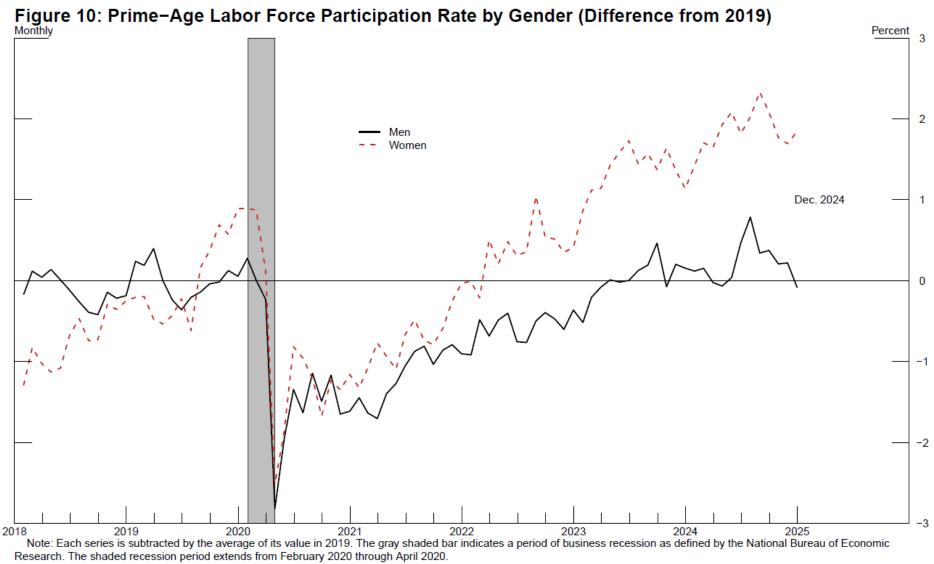
Source: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey



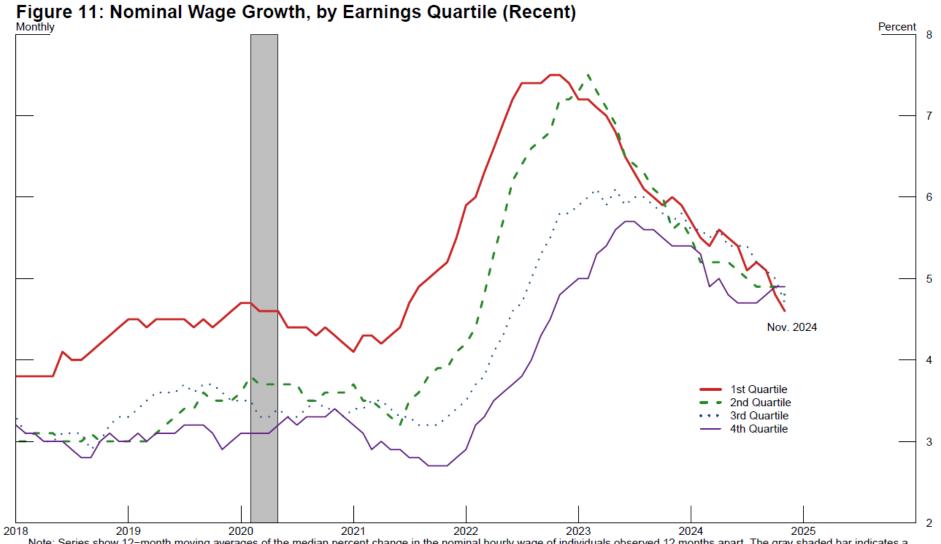
defined by the National Bureau of Economic Research. The shaded recession period extends from February 2020 through April 2020. Source: Bureau of Labor Statistics via Haver Analytics; U.S. Census Bureau; Federal Reserve Board staff calculations.



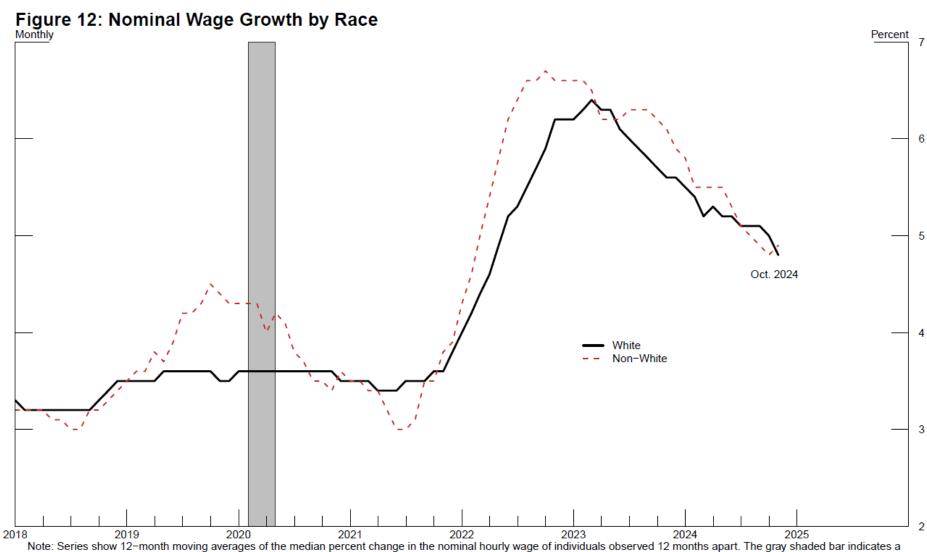
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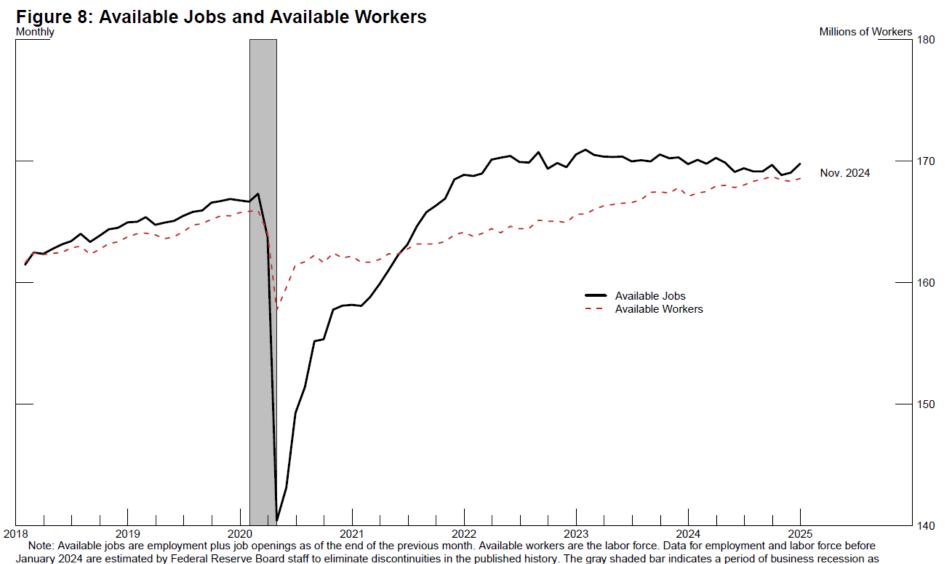
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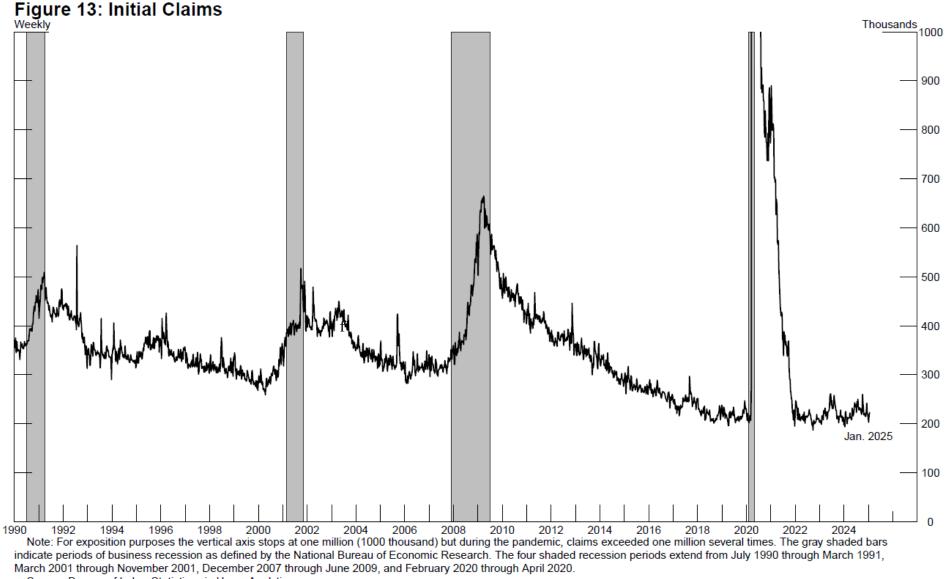
Note: Series show 12-month moving averages of the median percent change in the nominal hourly wage of individuals observed 12 months apart. The gray shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research. The shaded recession period extends from February 2020 through April 2020. Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker; Bureau of Labor Statistics; U.S. Census Bureau, Current Population Survey.



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Source: Bureau of Labor Statistics via Haver Analytics.



## Conclusion

- Historical evidence suggests that broadly shared economic prosperity is more likely when the economy grows over time with low unemployment and stable prices
- Long, noninflationary expansions are associated with narrower gaps in employment and earnings across demographic groups
- Shared prosperity is a byproduct of sustained accomplishment of our mission



## Do Noninflationary Economic Expansions Promote Shared Prosperity? Evidence from the U.S. Labor Market

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