

UPDATED THROUGH October 2023 | REGIONAL

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# EQUITABLE GROWTH INDICATORS

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# Full Report Highlights

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- **INFLATION**

Housing and transportation inflation is driving inflation heterogeneity across groups in the region, with Black, Hispanic, AAPI, higher-income, college-educated, and young households experiencing above-average inflation in 2023.

- **EARNINGS**

Average real earnings are higher in the region compared to the national average. Real earnings gaps across racial and ethnic groups, educational groups, and men and women have remained in their long-run ranges, though the Black earnings gap appears to be slowly shrinking over time.

- **EMPLOYMENT**

Labor market gaps have declined in the region at rates similar to those of nation as a whole. In particular, the gender gap in the region has declined faster and fallen lower than the national gender gap.

- **CONSUMER SPENDING**

The region has had little growth in spending since its recovery from the pandemic when compared to the rest of the nation.

# INFLATION

UPDATED THROUGH October 2023 | REGIONAL

## Takeaways | Inflation

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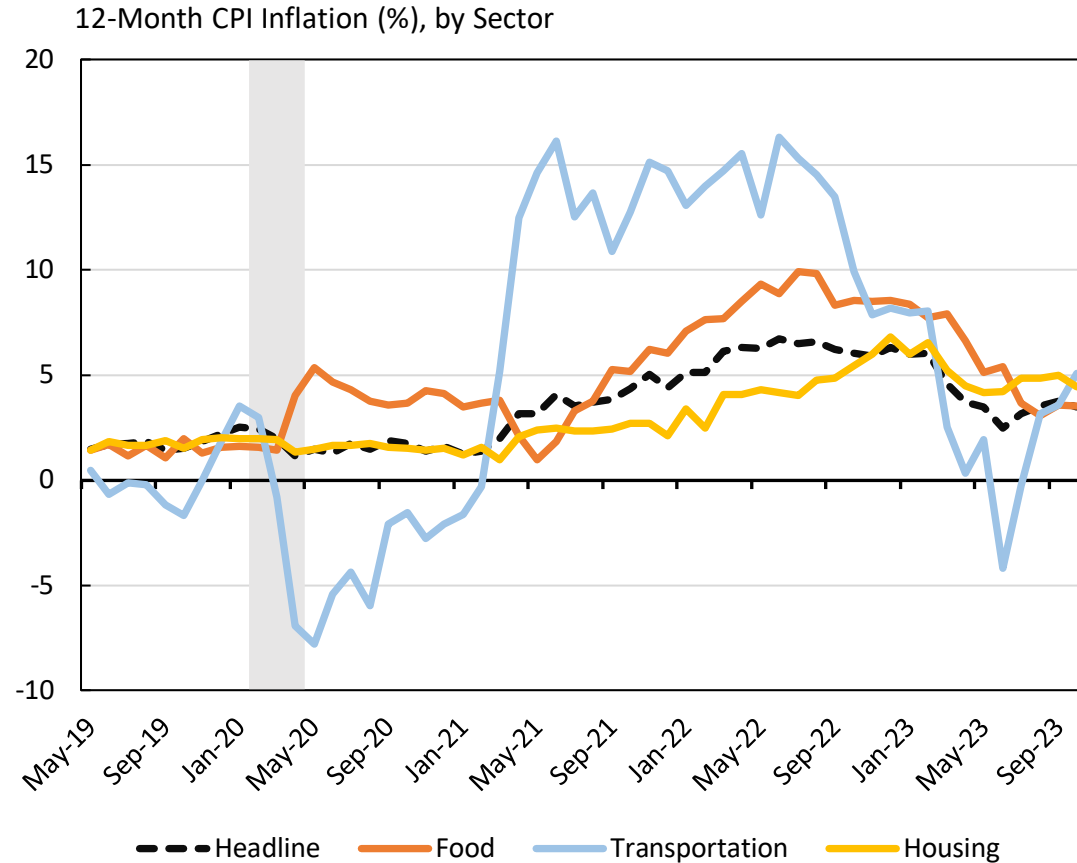
- Inflation over the past year has been higher in the rest of the nation than the region.
- Black, Hispanic, and AAPI households in the region experienced inflation that is around 0.5 percentage point higher than the regional average in October 2023, while white households experienced inflation that is below this average. These gaps are explained by generally lower housing and transportation expenditure shares for white households than for households in other racial and ethnic groups.
- Lower-income households in the region are experiencing somewhat lower inflation than higher-income households are, largely because transportation inflation has been rising rapidly in the region and lower-income households have a lower transportation expenditure share than higher-income households do.
- College-educated households and younger households in the region also experienced above average inflation because of their greater exposure to housing inflation, which is above regional headline inflation.
- These gaps follow much larger gaps during the 2021-22 inflationary episode, when groups with high exposure to transportation inflation (Hispanic, middle and high-income, non-college, and middle-age households) had inflation well above the region average. These gaps have now subsided.

## Data & Methods

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- Data on inflation by demographic groups are not produced by the Bureau of Labor Statistics.
- To calculate demographic inflation, we exploit the fact that the Consumer Expenditure Survey (CEX) can be used to compute spending shares of various consumption categories (for example, cereal, rent, and used cars) by demographic group (for example, Black, Hispanic, some college, and aged 45-54).
- We define the region in the CEX to be the union of the New York-New Jersey metro area (excluding counties in Pennsylvania) with all other counties in New York state.
- To compute the contribution of a consumption category in a particular city to demographic inflation for a specific group, we take that group's spending share on that category in that city (from the CEX) in the previous year and multiply it by the twelve-month inflation for that consumption category in that city (from the Consumer Price Index).
- We then add up all the contributions to get an inflation index for the demographic group.
- Our method is similar to the previous literature, for example, Hobijn and Lagakos (2005), McGranahan and Paulson (2006), and Jaravel (2019). We are the first to exploit price variation across cities whereas the above-mentioned studies assume people in different demographic groups and cities face the same prices.

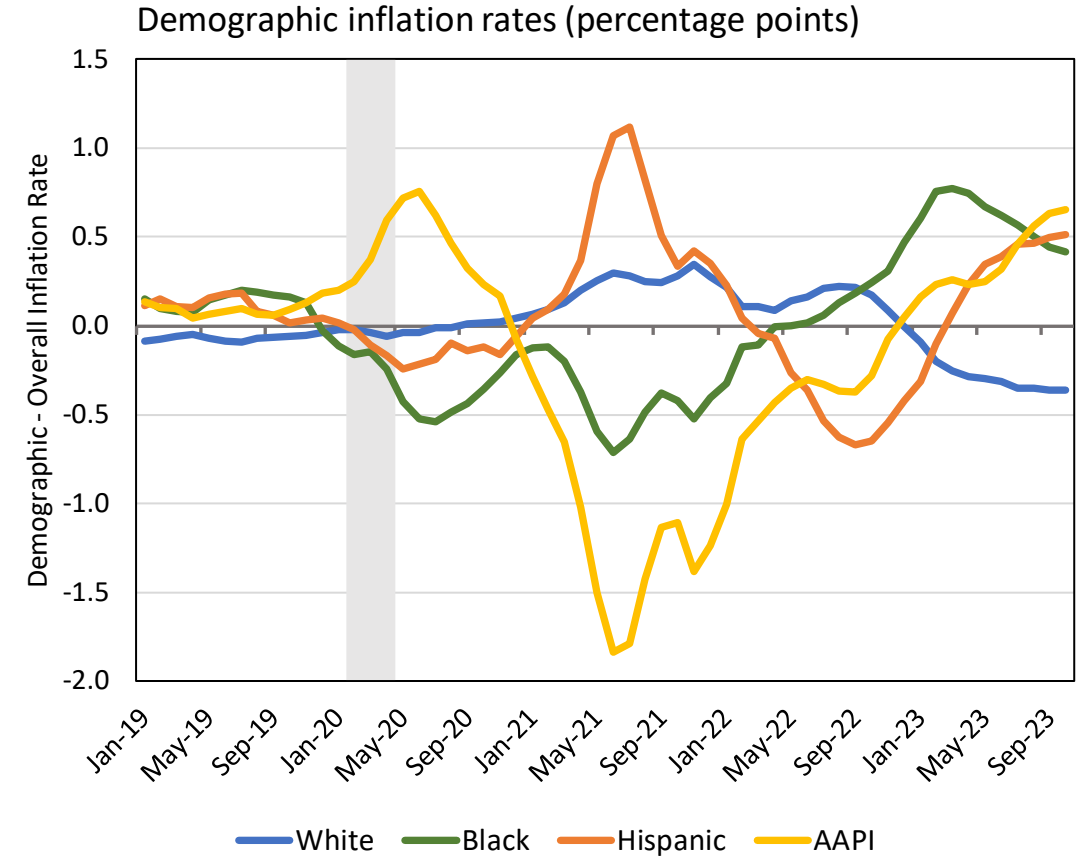
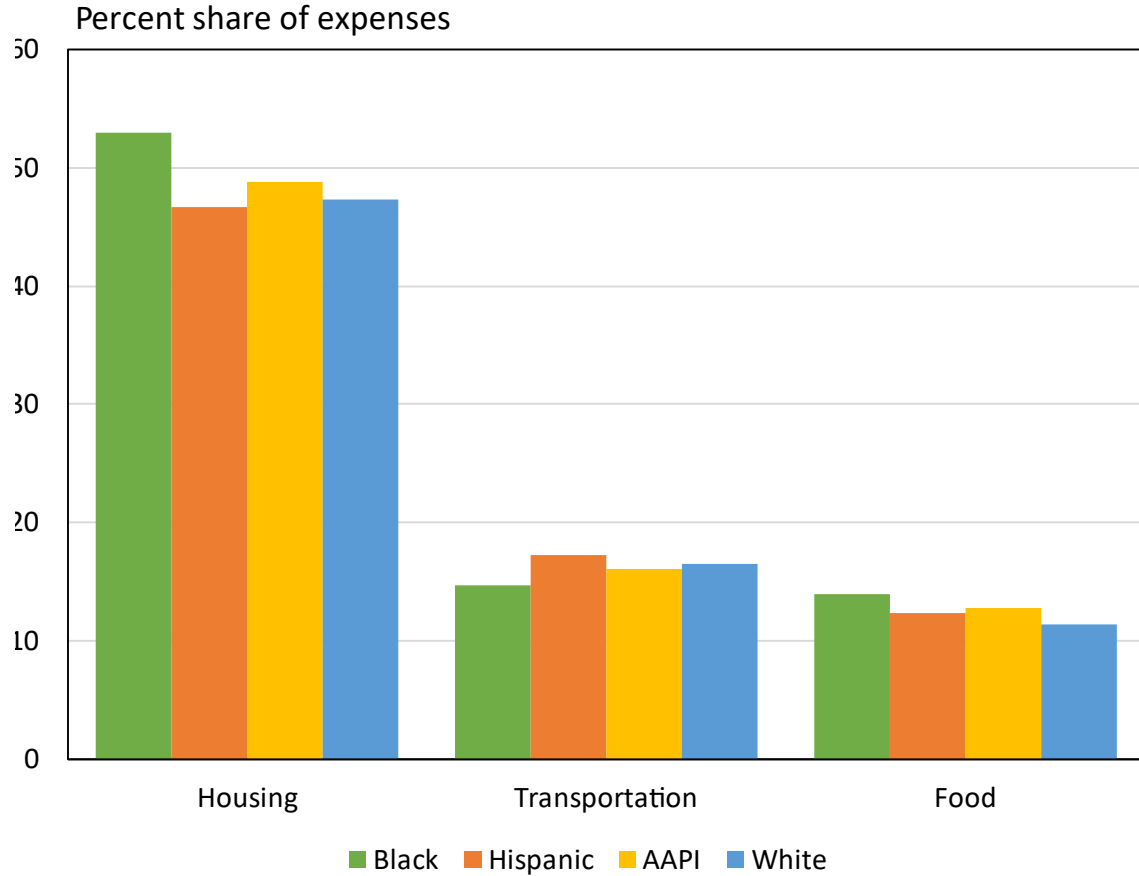
## Inflation by Sector



Sources: CPI via Haver Analytics; authors' calculations.

Note: Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

## Demographic Inflation by Race/Ethnicity

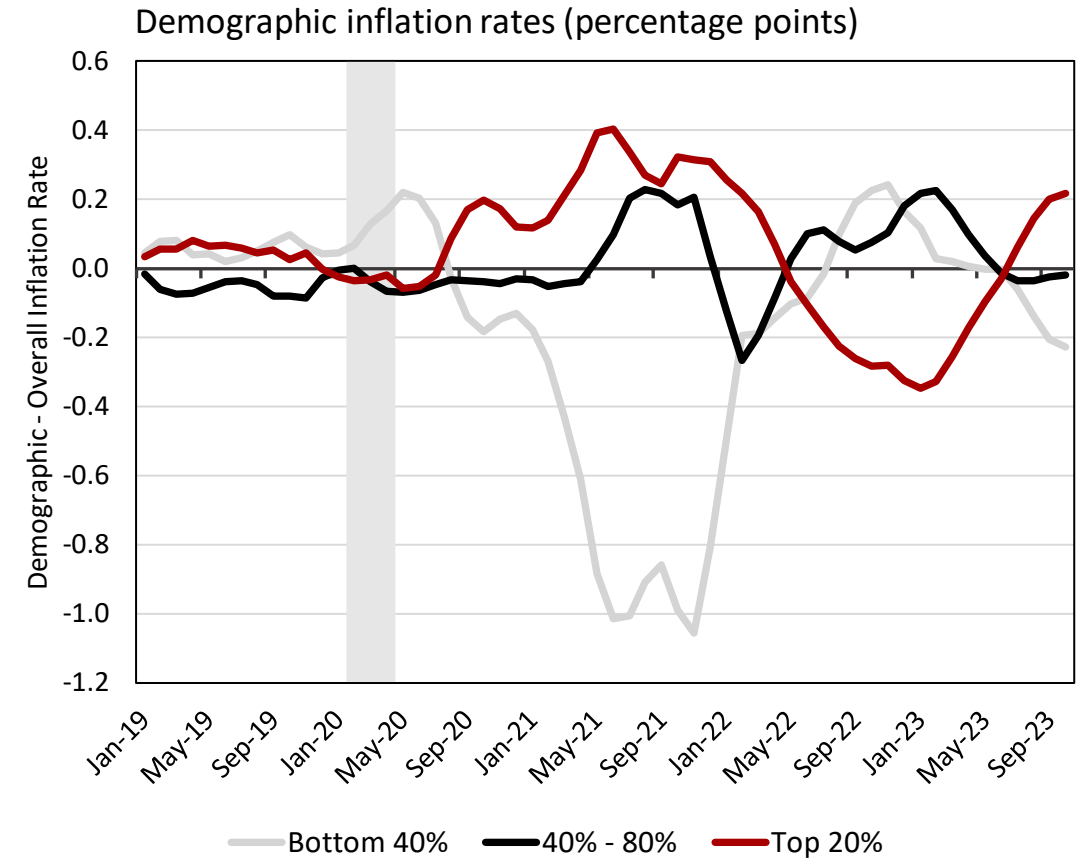
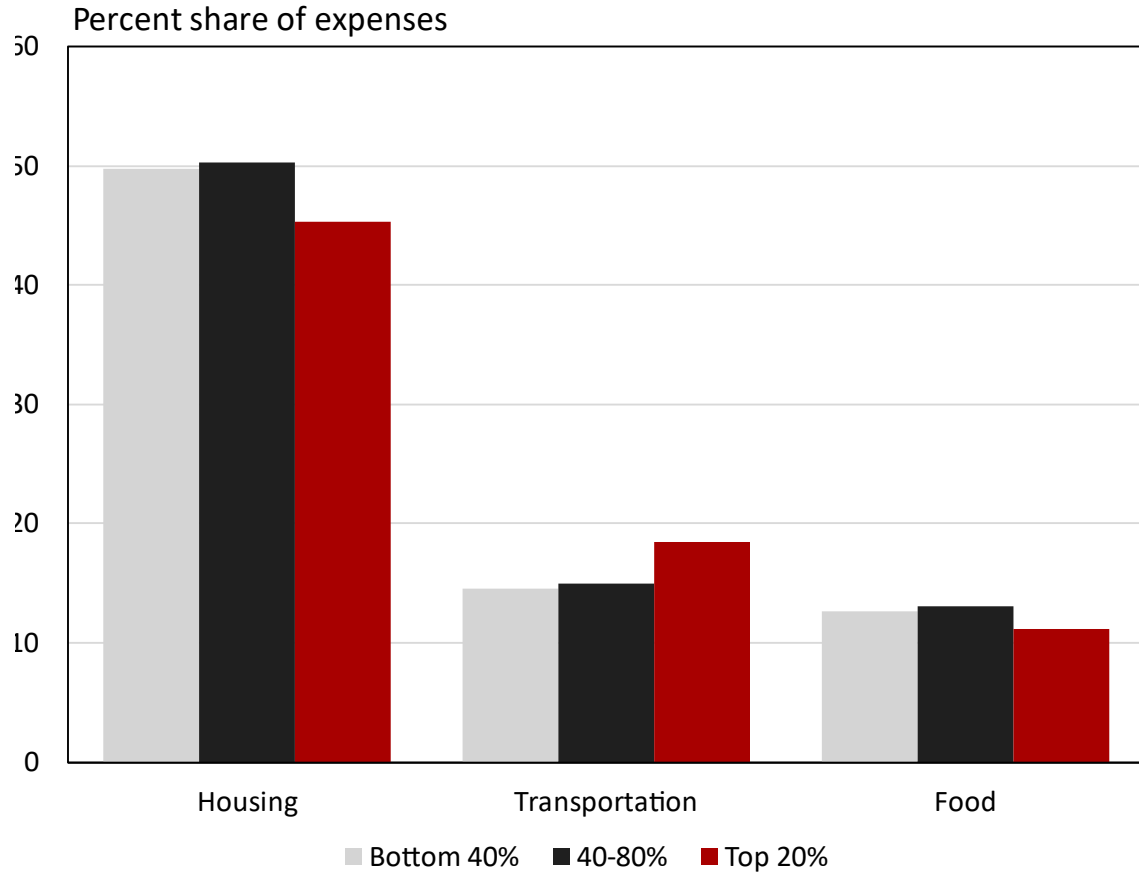


Sources: BLS Consumer Expenditure Survey microdata; BLS Consumer Price Indexes.

Notes: Expenditure shares use 2021 CEX microdata. Shaded region indicates the COVID-19 recession.

Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

## Demographic Inflation by Income



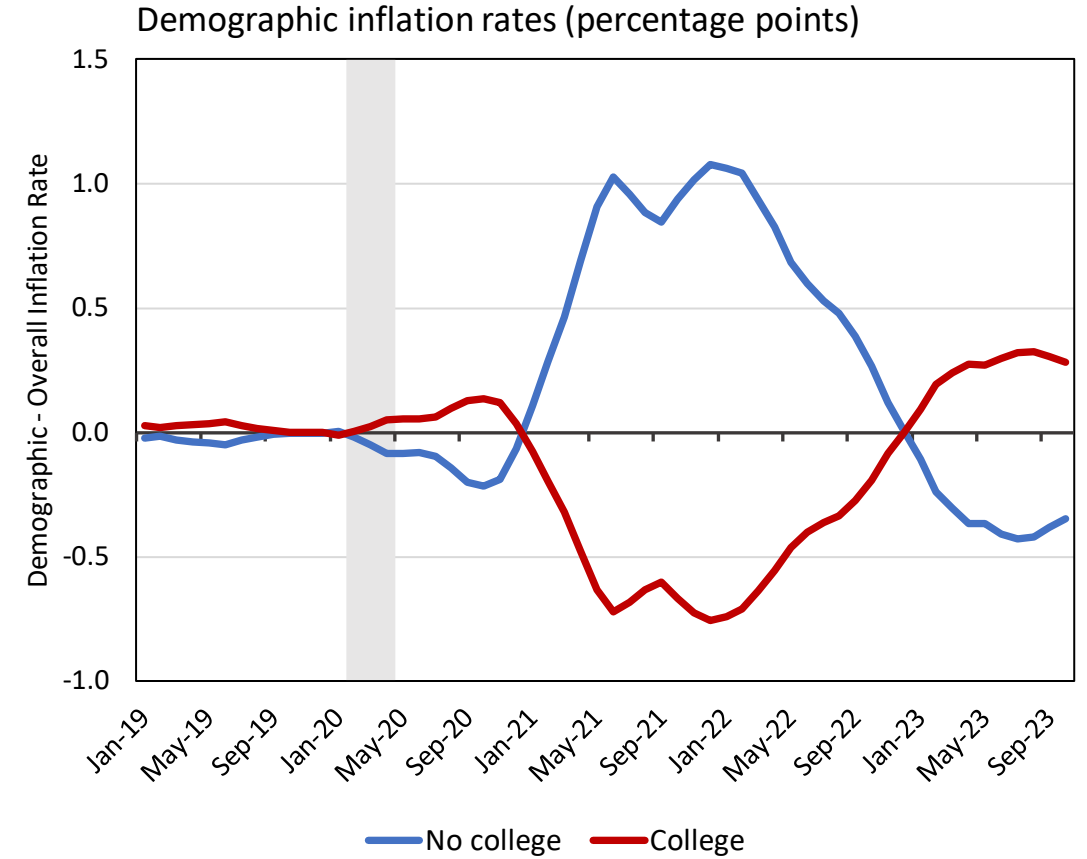
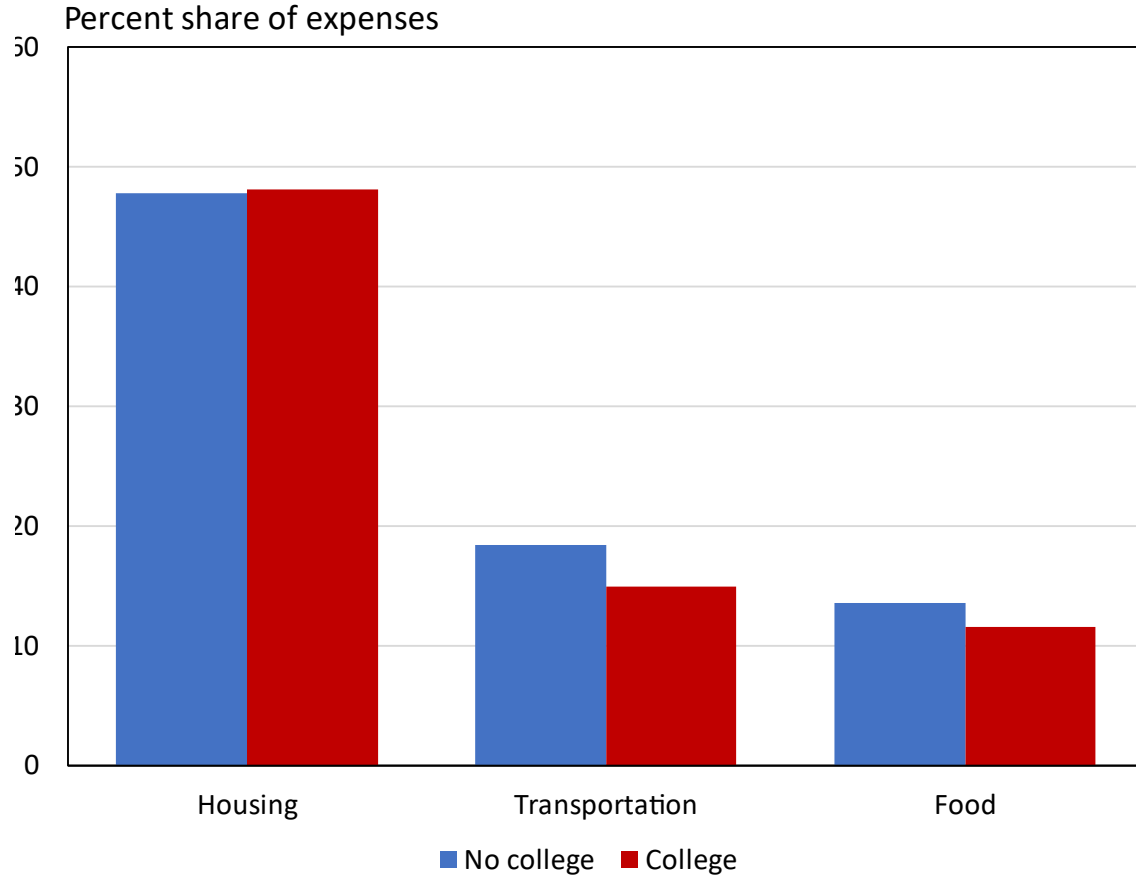
Sources: BLS Consumer Expenditure Survey microdata; BLS Consumer Price Indexes.

Notes: Expenditure shares use 2021 CEX microdata. Shaded region indicates the COVID-19 recession.

Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.



## Demographic Inflation by Education

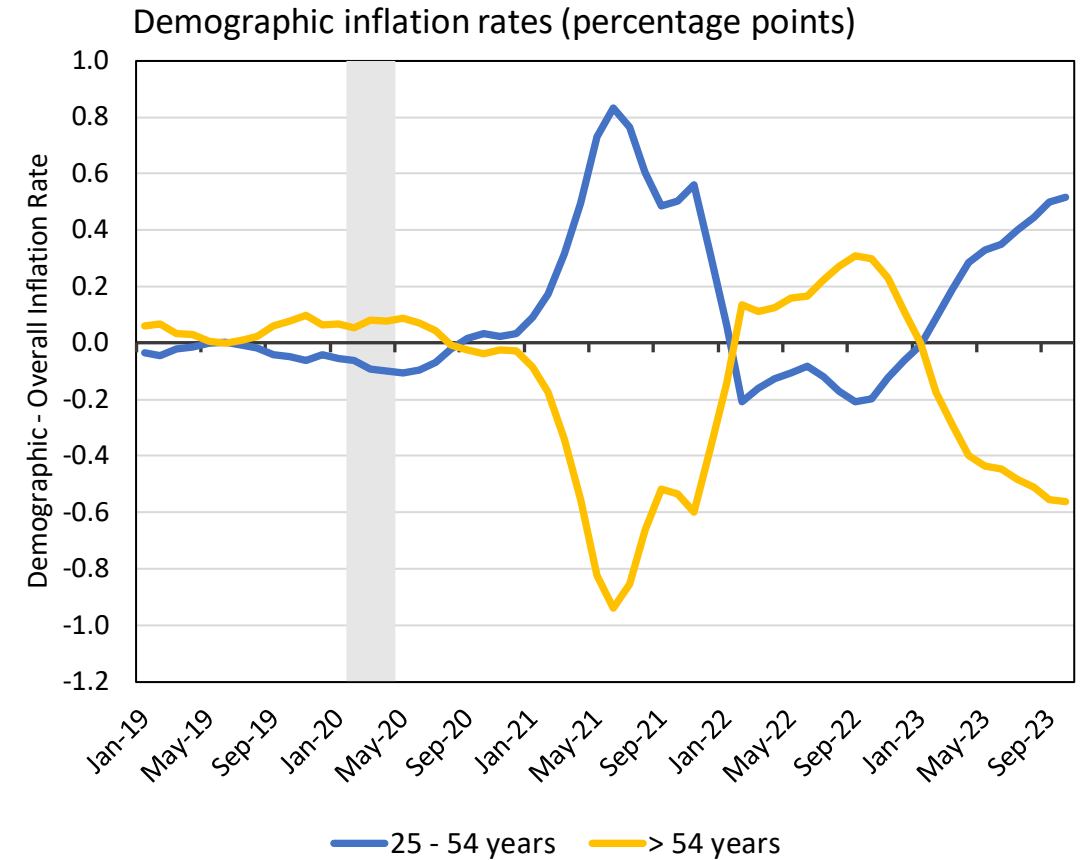
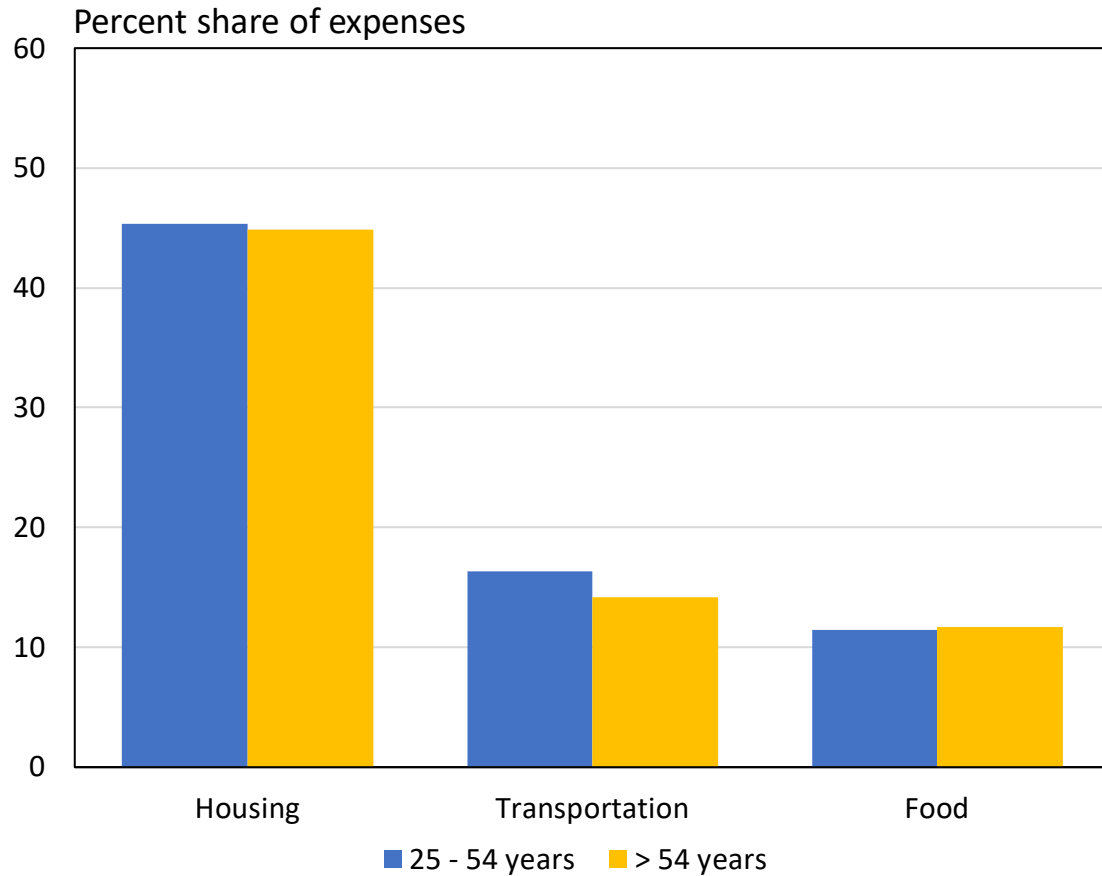


Sources: BLS Consumer Expenditure Survey microdata; BLS Consumer Price Indexes.

Notes: Expenditure shares use 2021 CEX microdata. Shaded region indicates the COVID-19 recession.

Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

## Demographic Inflation by Age



Sources: BLS Consumer Expenditure Survey microdata; BLS Consumer Price Indexes.

Notes: Expenditure shares use 2021 CEX microdata. Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ. Age group <25 omitted due to sample size concerns.

# EARNINGS

UPDATED THROUGH October 2023 | REGIONAL



## Takeaways | Earnings

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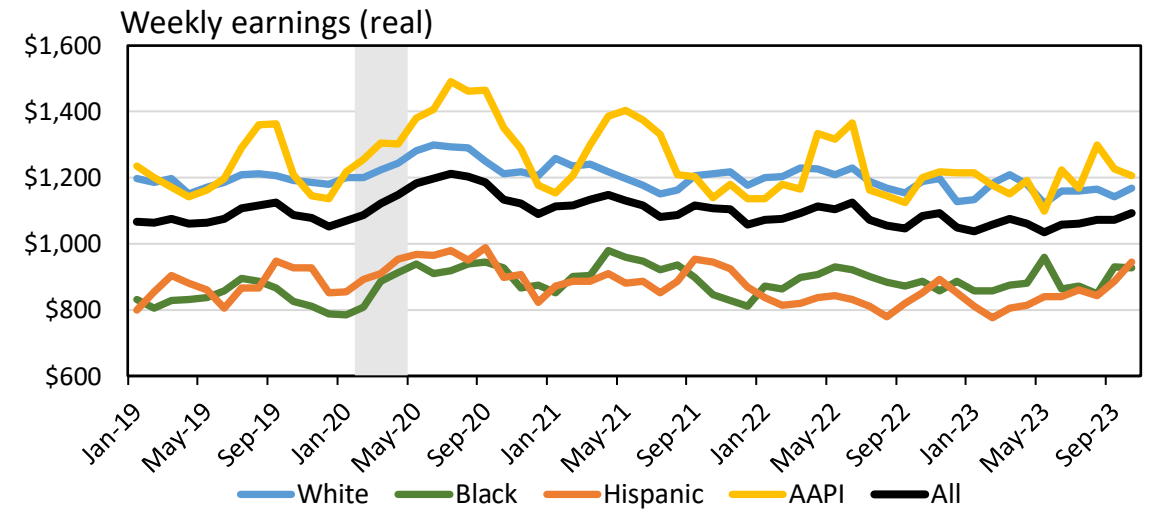
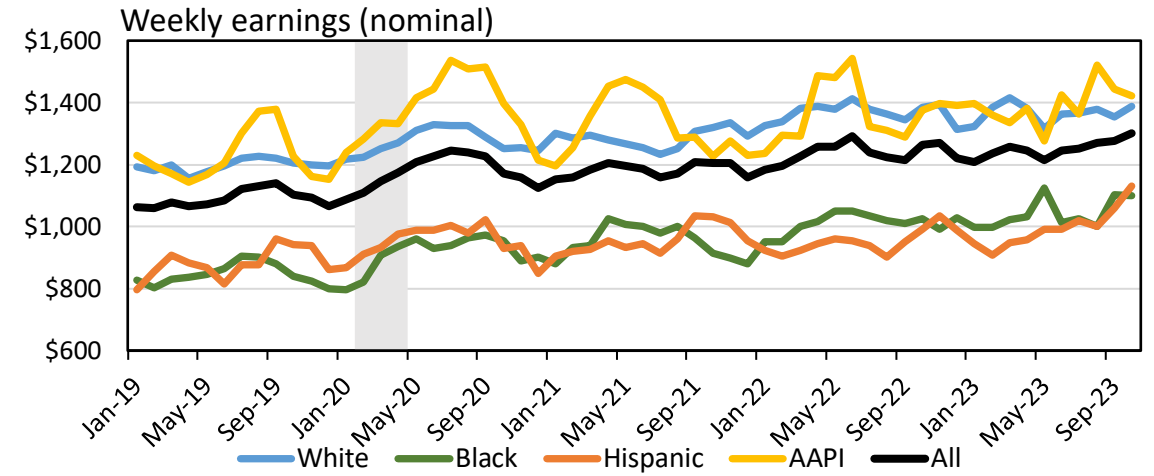
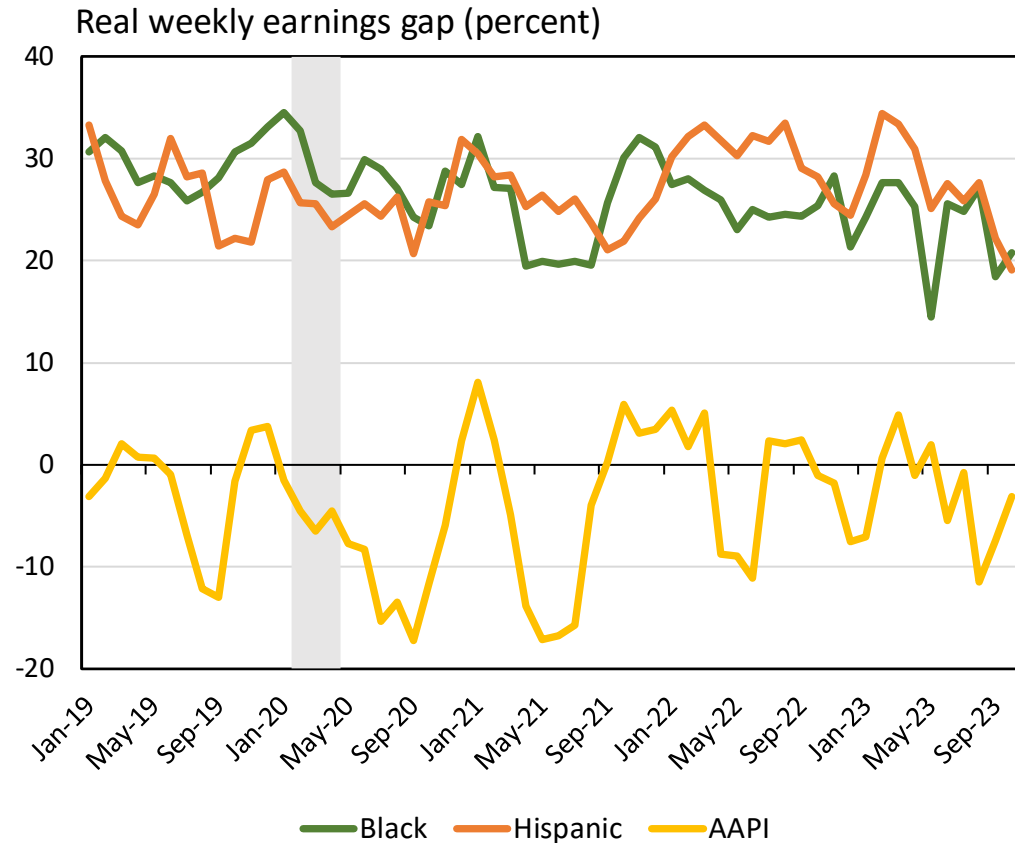
- Similar to the rest of the nation, real earnings in the region peaked during the pandemic recession and have fallen since and disparities (both nominal and real) are largest across education categories, with smaller but still substantial gaps across racial and ethnic categories, gender, and age.
- The average earnings for the region are higher than the rest of the country.
- The Black and Hispanic earnings gaps remain in the 20%-30% range, although there are indications that they have declined relative to the pre-pandemic period.
- The gender gap remains in the 15%-20% range in which it has been for most of the period since August 2019. The gender gap in the region has become somewhat lower than in the nation as a whole.
- The college premium remains in the 80%-100% range in which it has been since August 2019. The college premium in the region tends to be somewhat higher than in the nation as a whole.

## Data & Methods

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- We compute real earnings by deflating nominal earnings for each demographic using our estimates of demographic-specific inflation.
- Gaps are defined as the percentage difference in earnings between a majority group and a minority group in the labor market.
- The gender gap is defined as the percentage difference between male and female earnings.
- The racial gaps are defined as the percentage differences between earnings of white non-Hispanic workers and earnings of workers of the race or ethnicity in question.
- The college premium is defined as the percentage difference between earnings of college graduates and earnings of workers who did not graduate from college.
- We define the region in the CPS to be the union of the New York-New Jersey metro area (excluding counties in Pennsylvania) with all other counties in New York state.

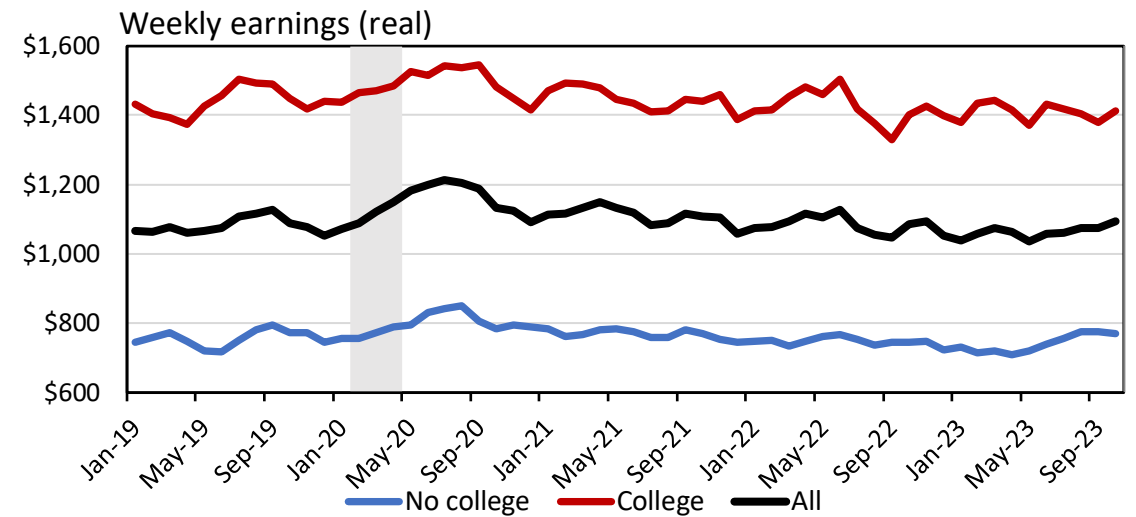
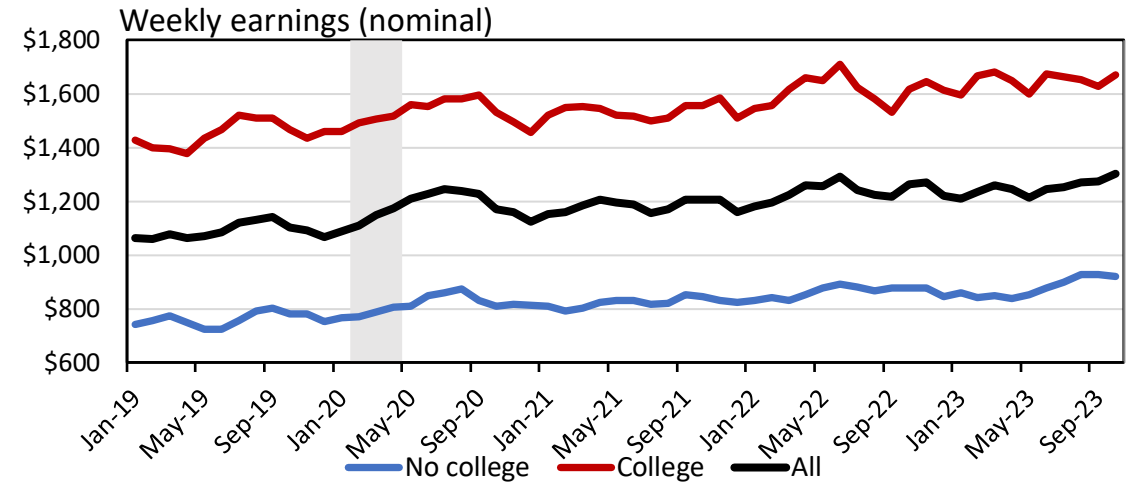
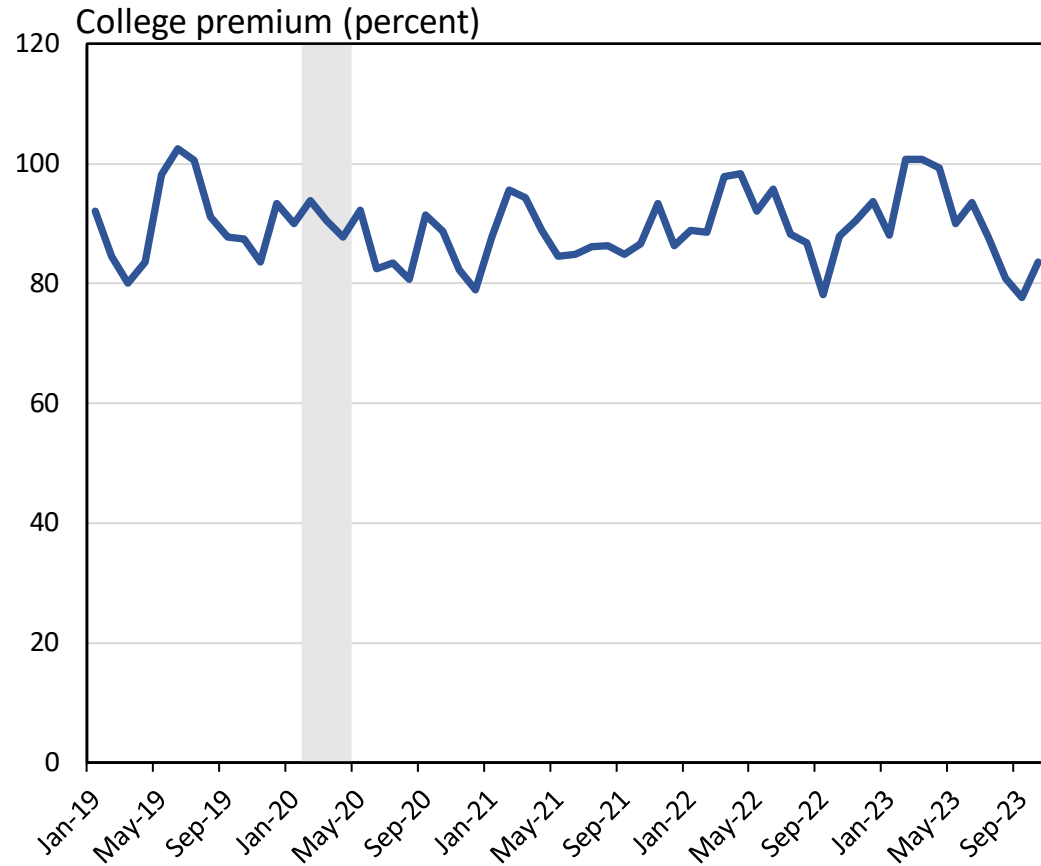
## Real/Nominal Earnings by Race/Ethnicity



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.  
 Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession. The race gap is defined here as the percent less in real earnings that the average Black/Hispanic/AAPI American earns on average compared to white Americans. For instance, a gap of 20% implies that the average Black/Hispanic/AAPI American earns 80% of the average white American. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Individual weekly earnings from April 2023 onward are top coded to \$2884.61, in accordance with pre-April 2023 CPS data conventions for continuity.

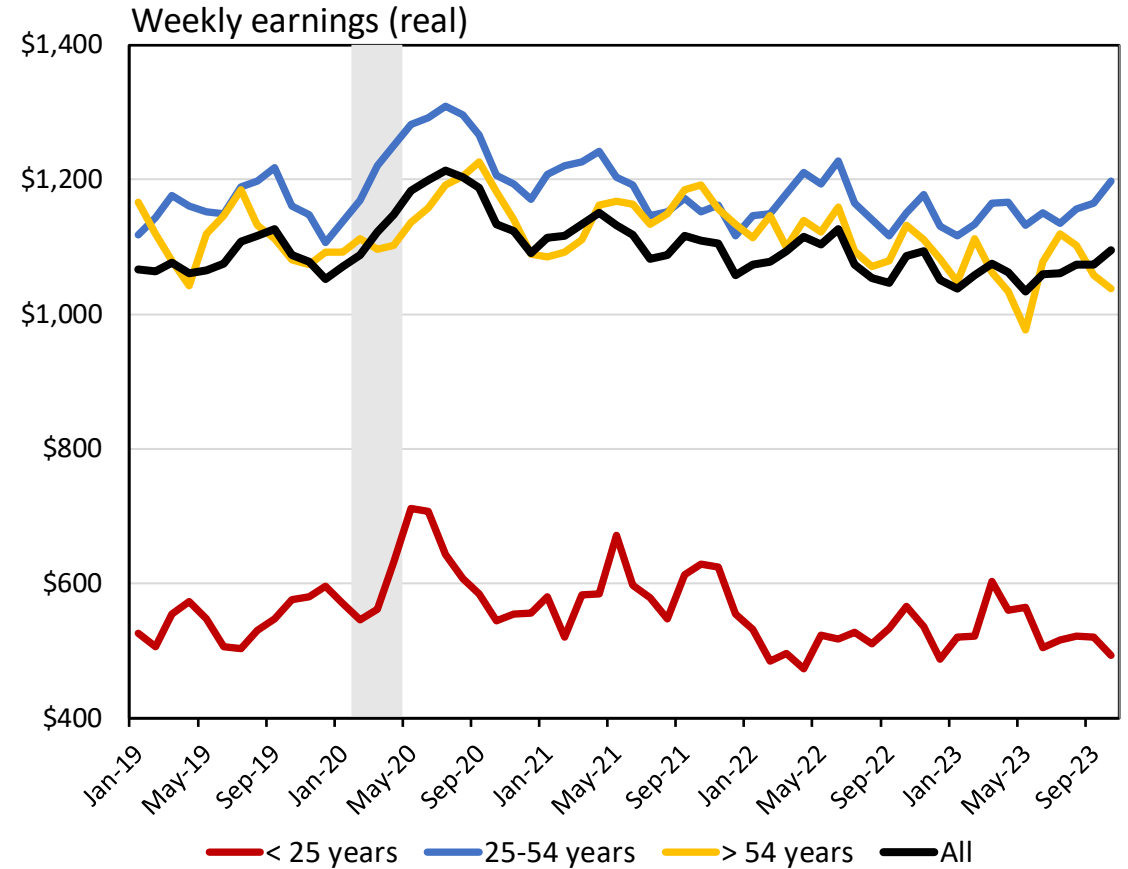
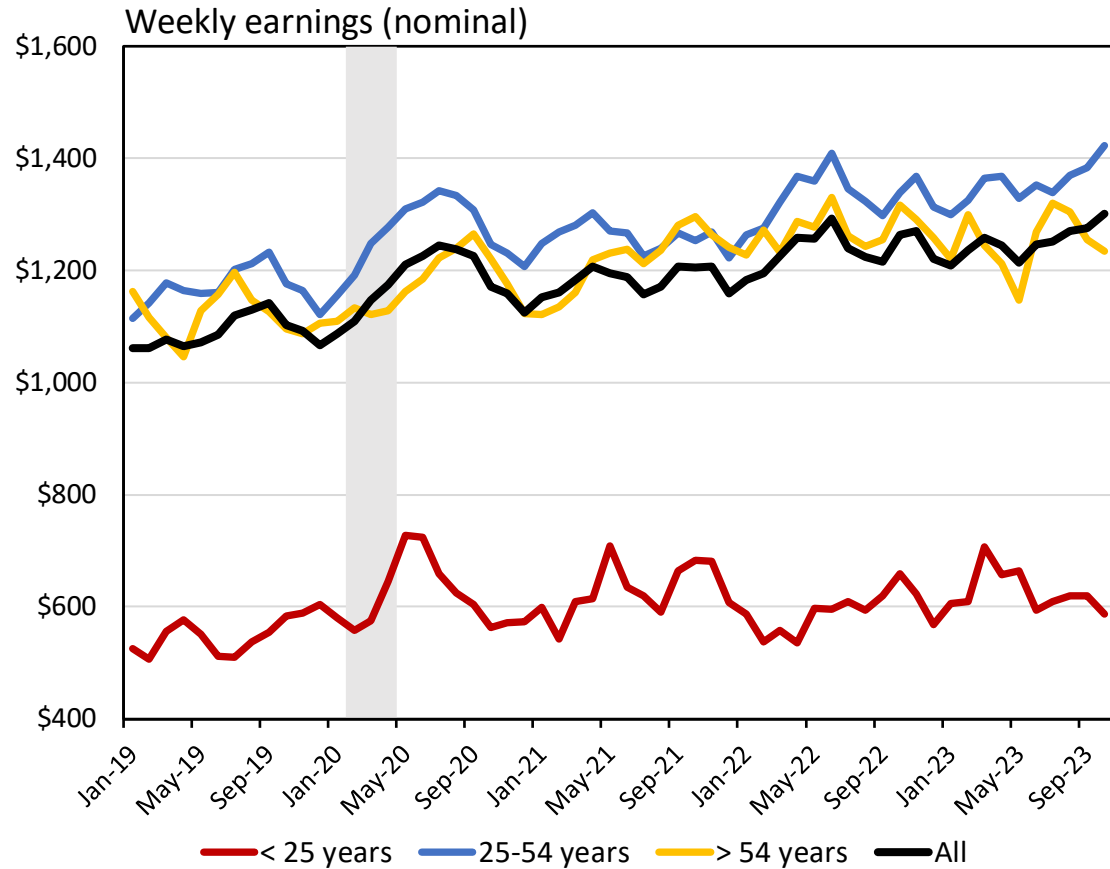
## Real/Nominal Earnings by Education



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages. Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession. College premium is defined here as the percent more that college graduates earn (weekly) on average compared to non-graduates. For instance, a gap of 80% implies that the average graduate earns 80% more than the average non-graduate. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Individual weekly earnings from April 2023 onward are top coded to \$2884.61, in accordance with pre-April 2023 CPS data conventions for continuity.

## Real/Nominal Earnings by Age

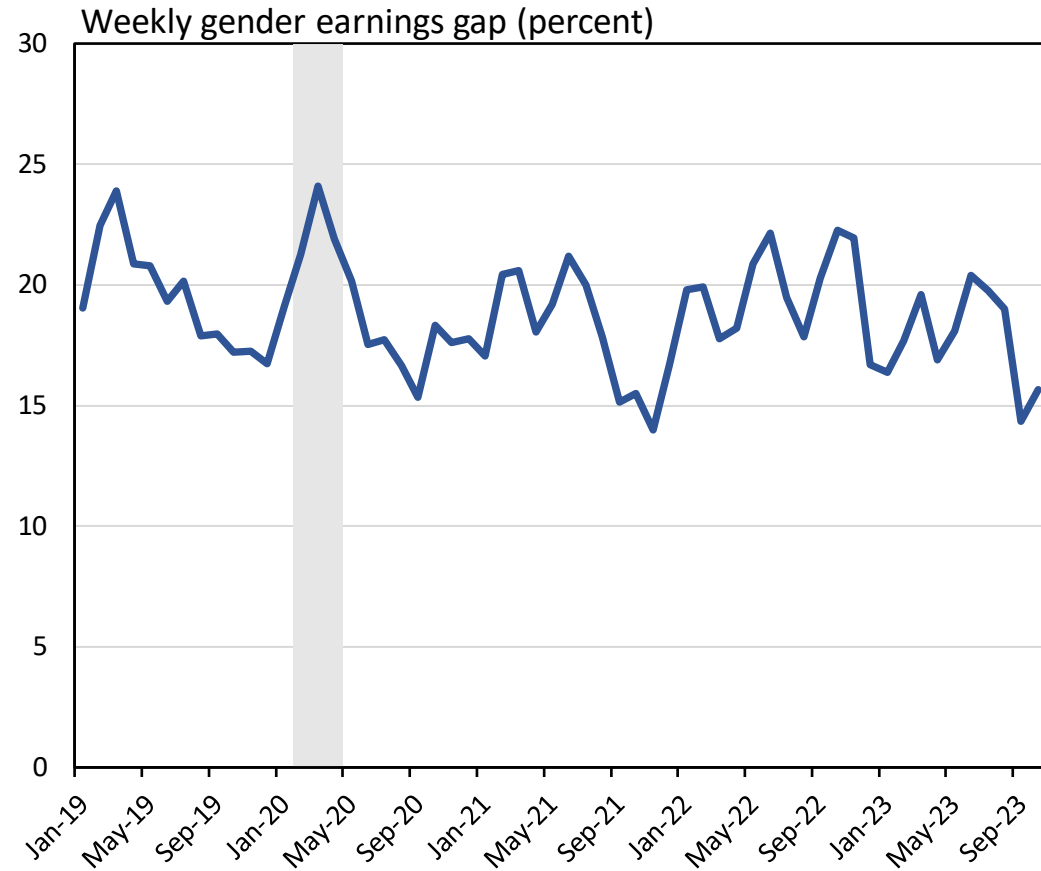


Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.  
 Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

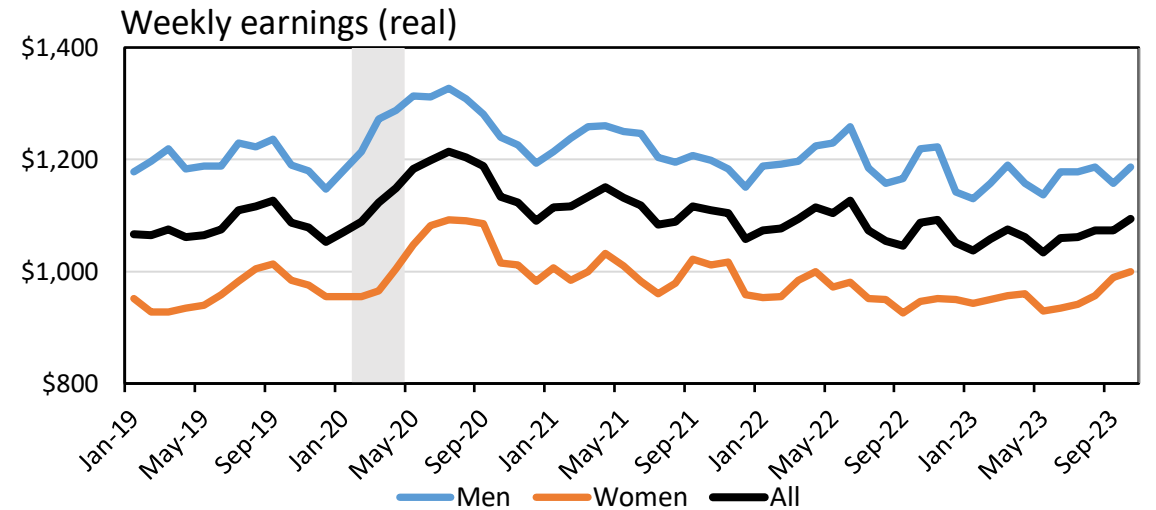
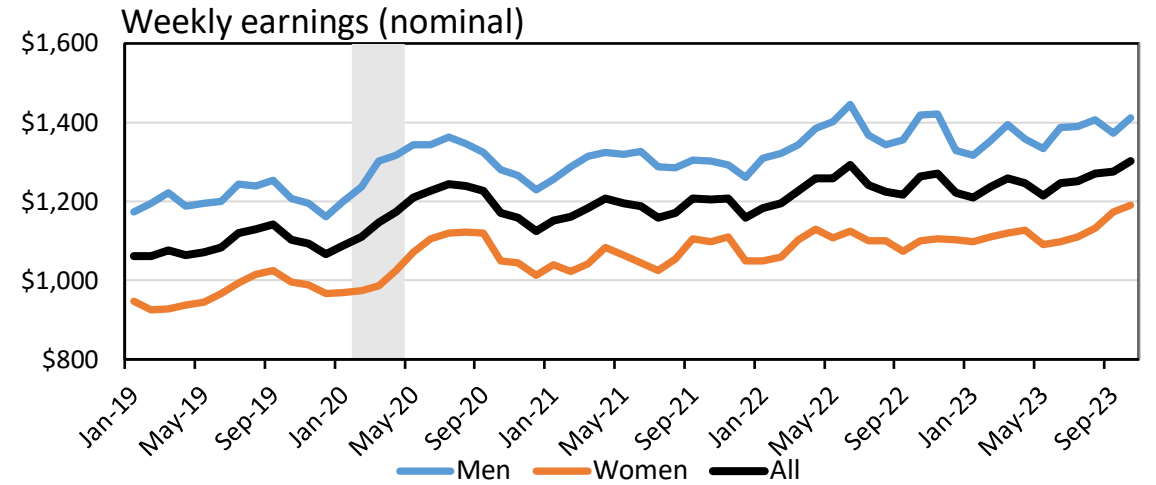
Individual weekly earnings from April 2023 onward are top coded to \$2,884.61, in accordance with pre-April 2023 CPS data conventions for continuity.



## Real/Nominal Earnings by Gender

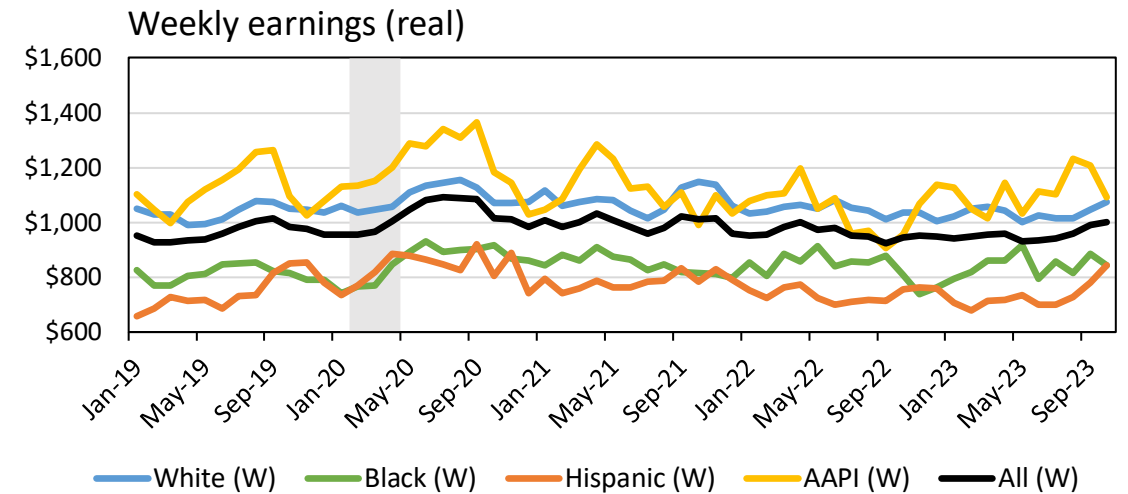
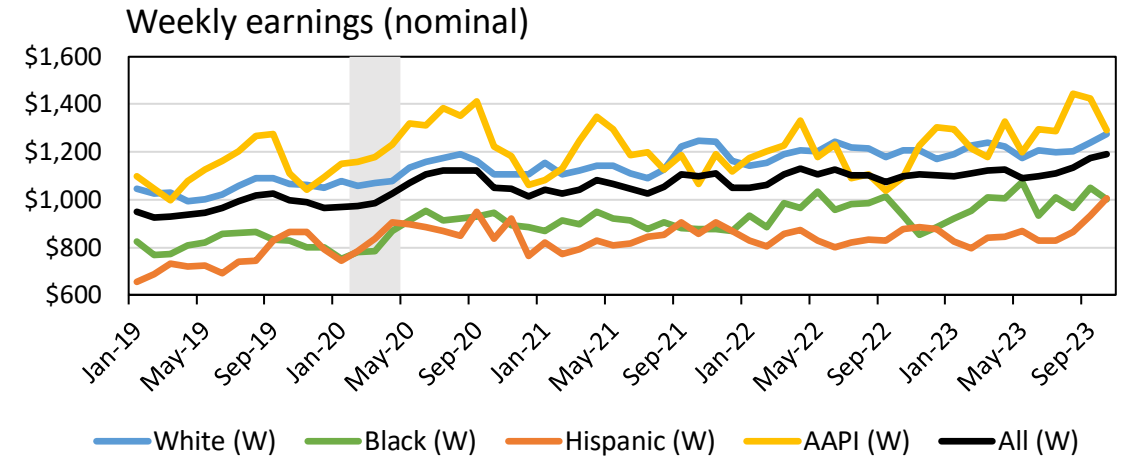
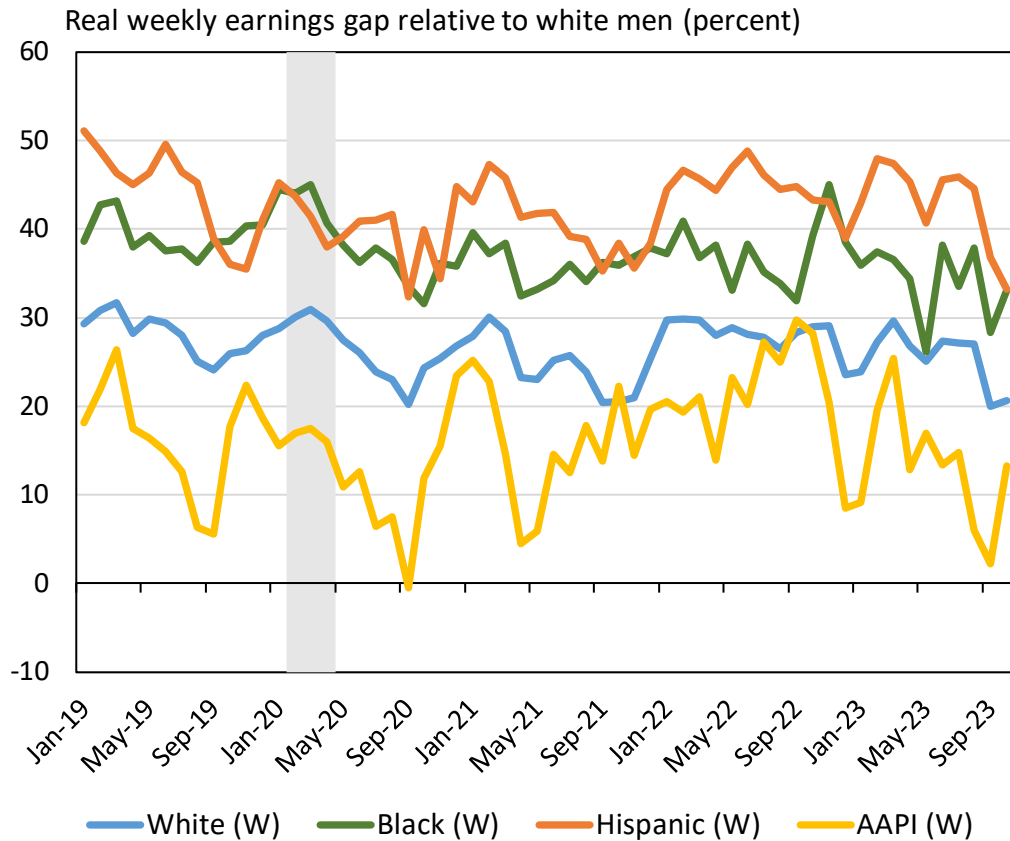


Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages. Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession. The gender gap is defined here as the percent less that women earn on average compared to men. For instance, a gap of 20% implies that the average woman earns 80% of the average man. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.



Individual weekly earnings from April 2023 onward are top coded to \$2,884.61, in accordance with pre-April 2023 CPS data conventions for continuity.

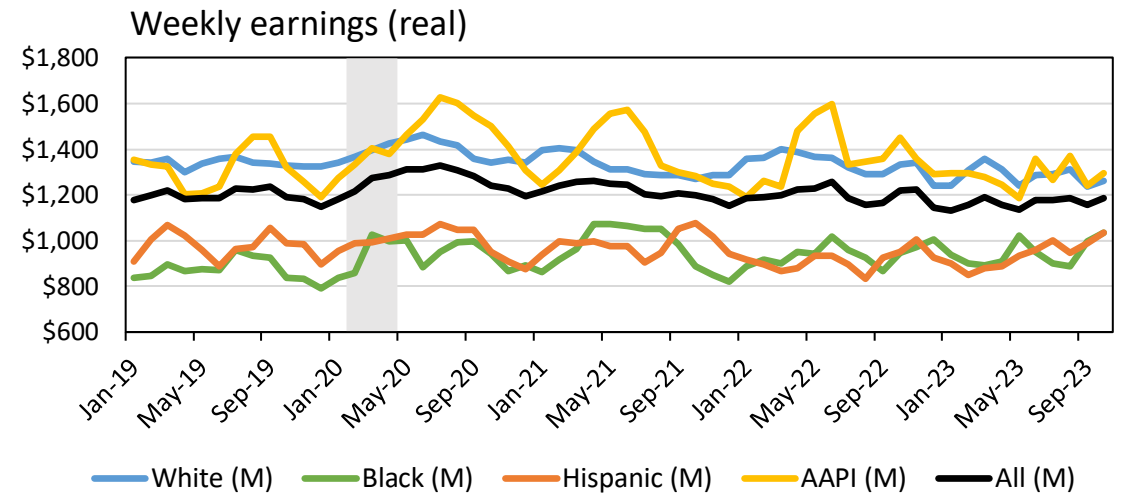
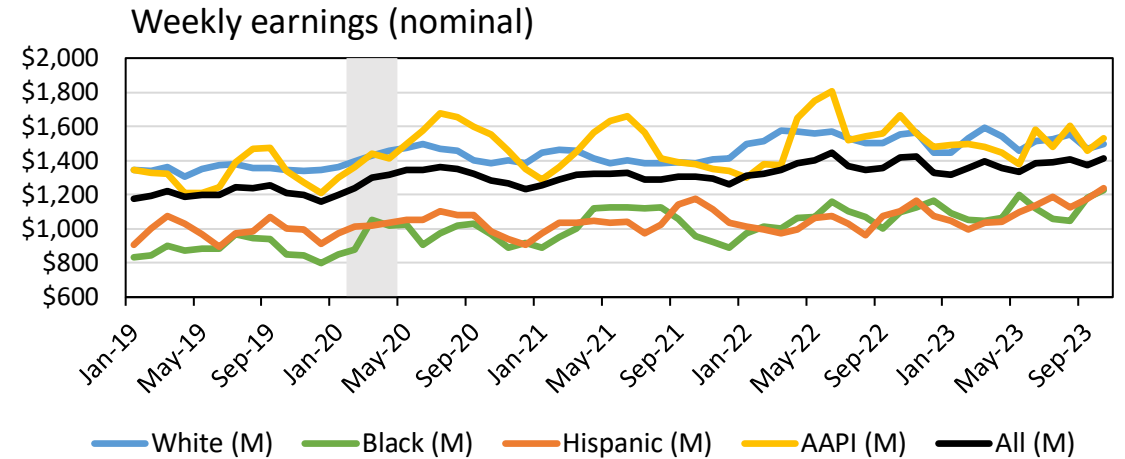
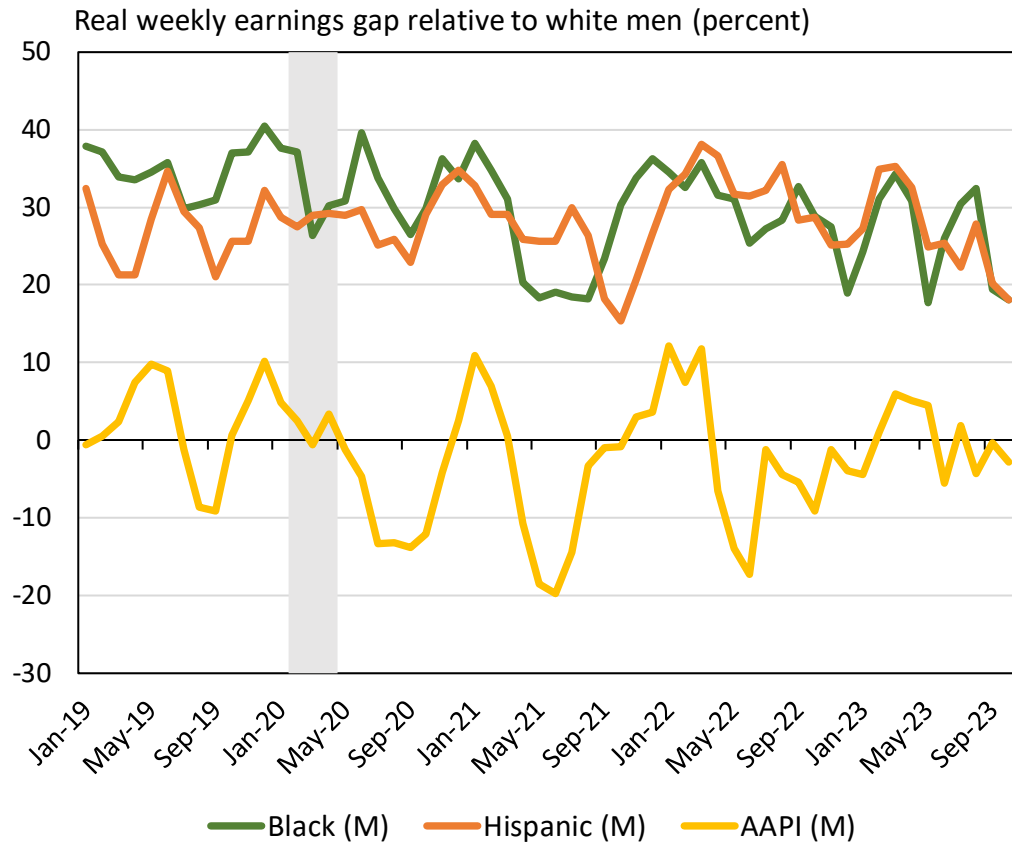
## Real/Nominal Earnings by Race x Gender (Women)



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages. Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession. The earnings gap is defined here as the percent less that a woman of each racial/ethnic group earns on average compared to white men. For instance, a gap of 40% implies that the average Black/Hispanic/AAPI/white woman earns 60% of the average white man. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Individual weekly earnings from April 2023 onward are top coded to \$2,884.61, in accordance with pre-April 2023 CPS data conventions for continuity.

## Real/Nominal Earnings by Race x Gender (Men)



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata, authors' calculations, three-month moving averages.  
 Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession. The earnings gap is defined here as the percent less that a man of each racial/ethnic group earns on average compared to white men. For instance, a gap of 20% implies that the average Black/Hispanic/AAPI man earns 80% of the average white man. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Individual weekly earnings from April 2023 onward are top coded to \$2,884.61, in accordance with pre-April 2023 CPS data conventions for continuity.

# EMPLOYMENT

EMPLOYMENT TO POPULATION RATIO | REGIONAL  
UPDATED THROUGH October 2023

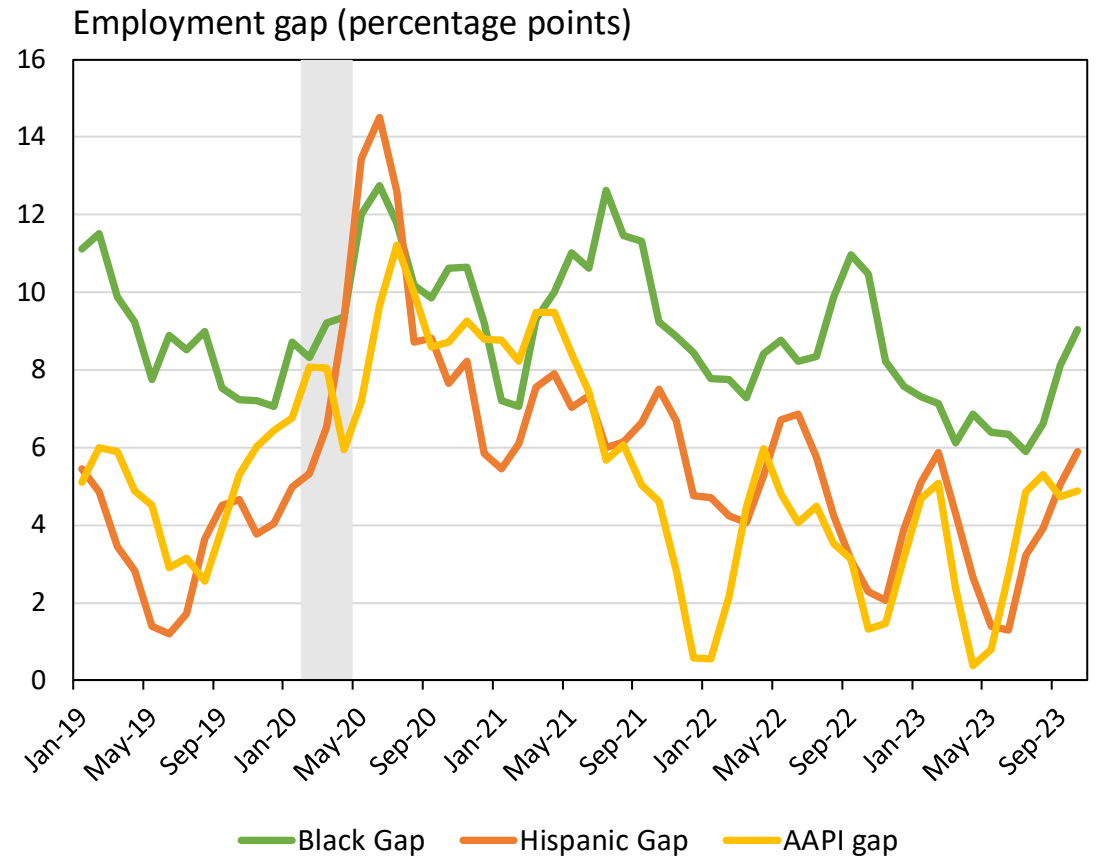
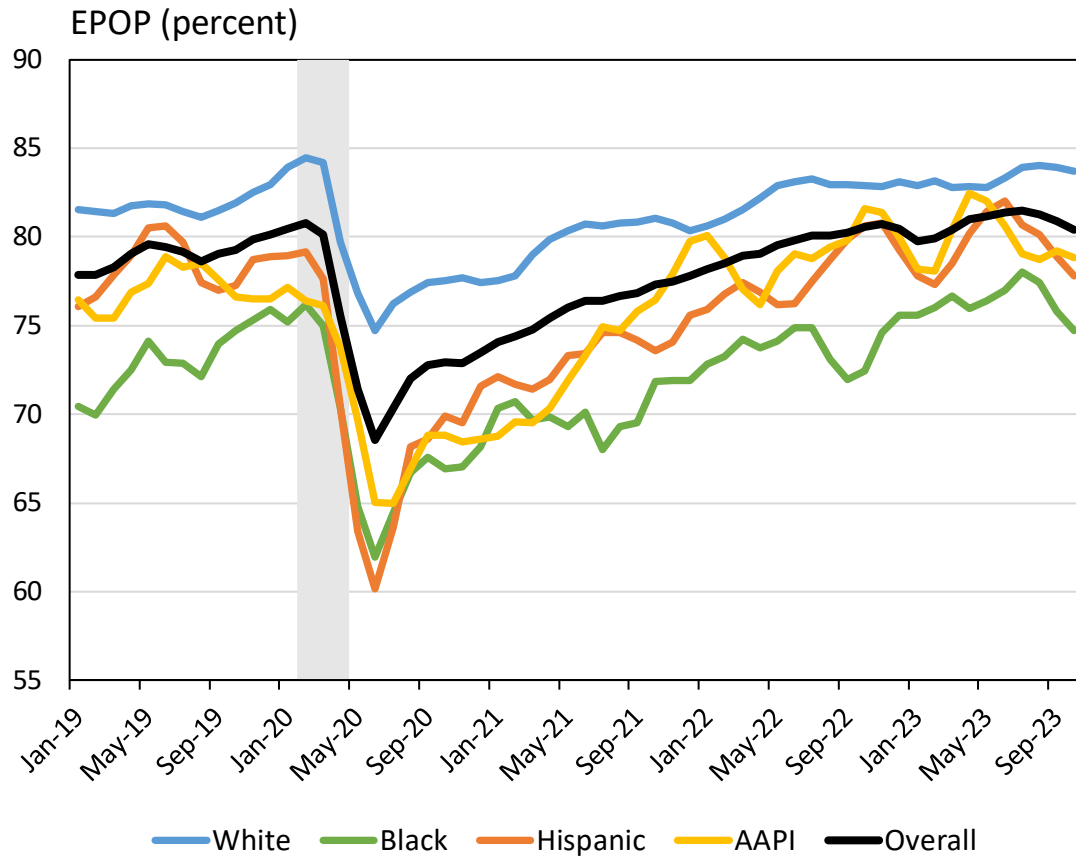


## Takeaways | EPOP

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- The employment to population ratio (EPOP) in the region is following many of the trends observed in the nation. In particular, EPOP has recovered to its pre-pandemic levels (comparing with October 2019) both in the aggregate, for men and women, and for all racial and ethnic groups. Employment rates peaked around July 2023 and have been moderately declining since.
- As in the nation as a whole, employment gaps are largest for Black workers, followed by Hispanic and AAPI workers. These gaps have declined to pre-pandemic levels but the rate of decline has slowed.
- The college and gender employment gaps have also been declining steadily, as in the national data.
- The rural employment gap has been rising in 2023 and stands at 3.66 percentage points in October.
- We define the region in the CPS for all labor market charts to be the union of the New York-New Jersey metro area (excluding counties in Pennsylvania) with all other counties in New York state.

## EPOP by Race/Ethnicity

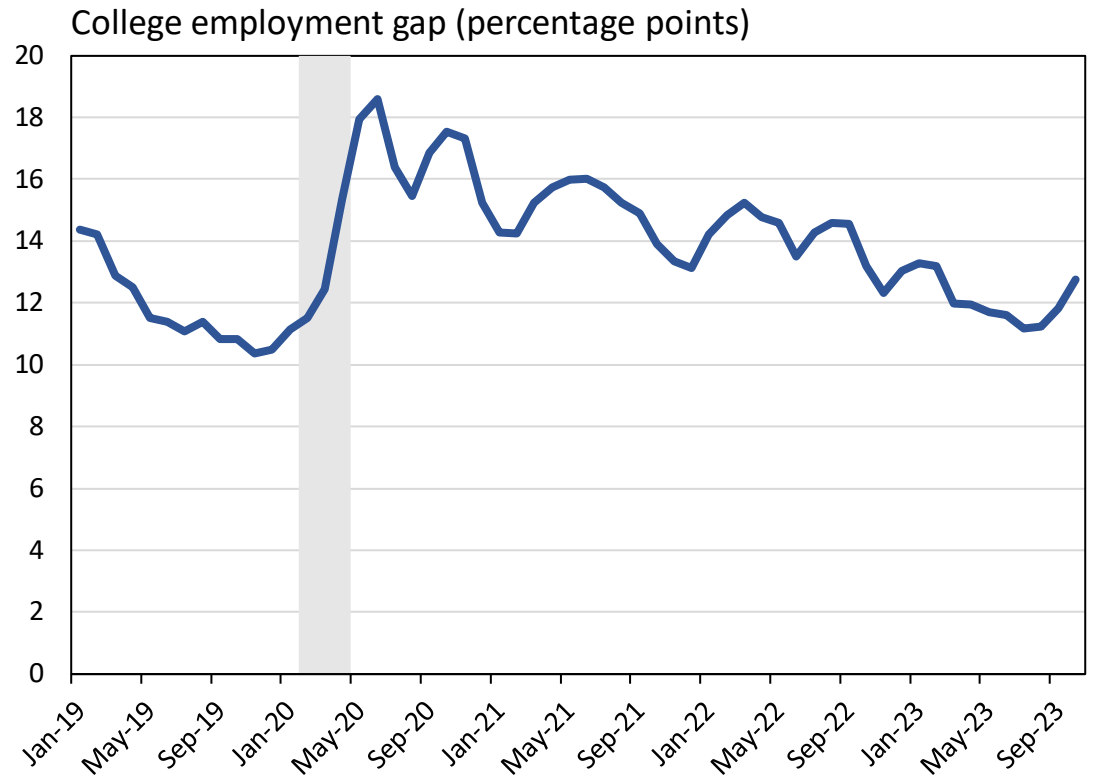
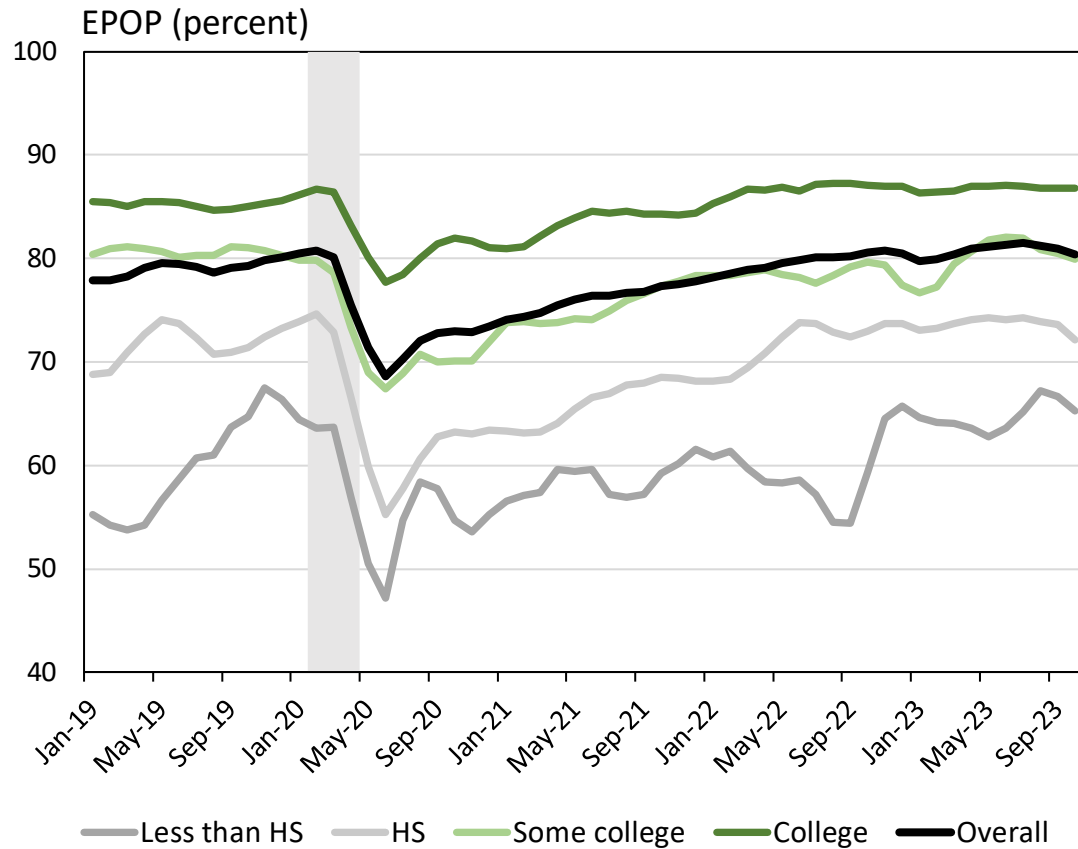


Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Employment gap defined relative to white employment.

## EPOP by Education

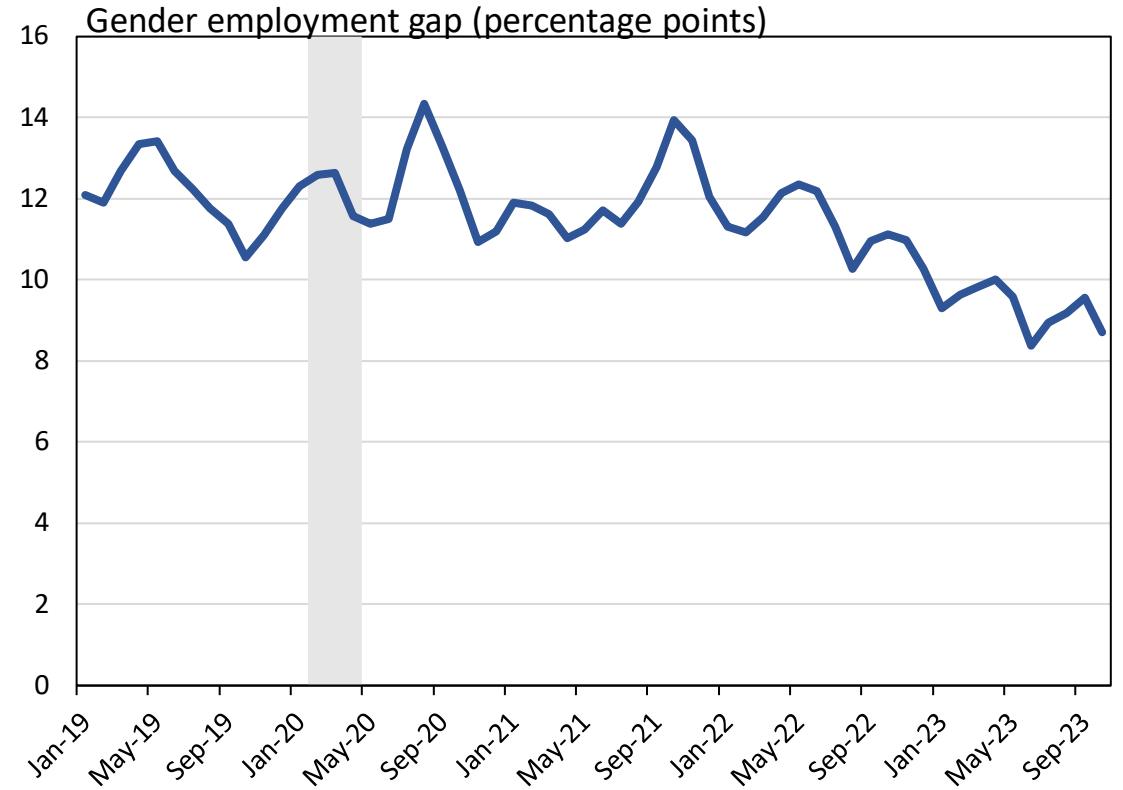
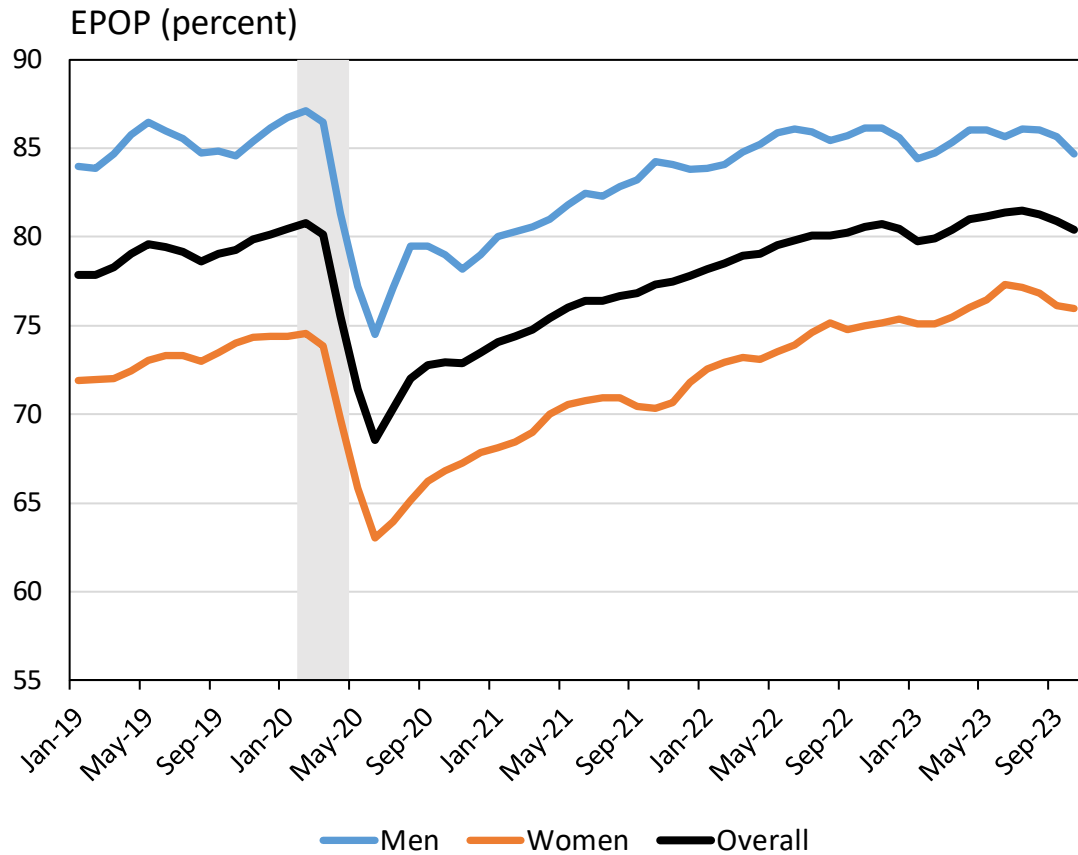


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College employment gap defined as employment of college graduates relative to non-graduates.

## EPOP by Gender



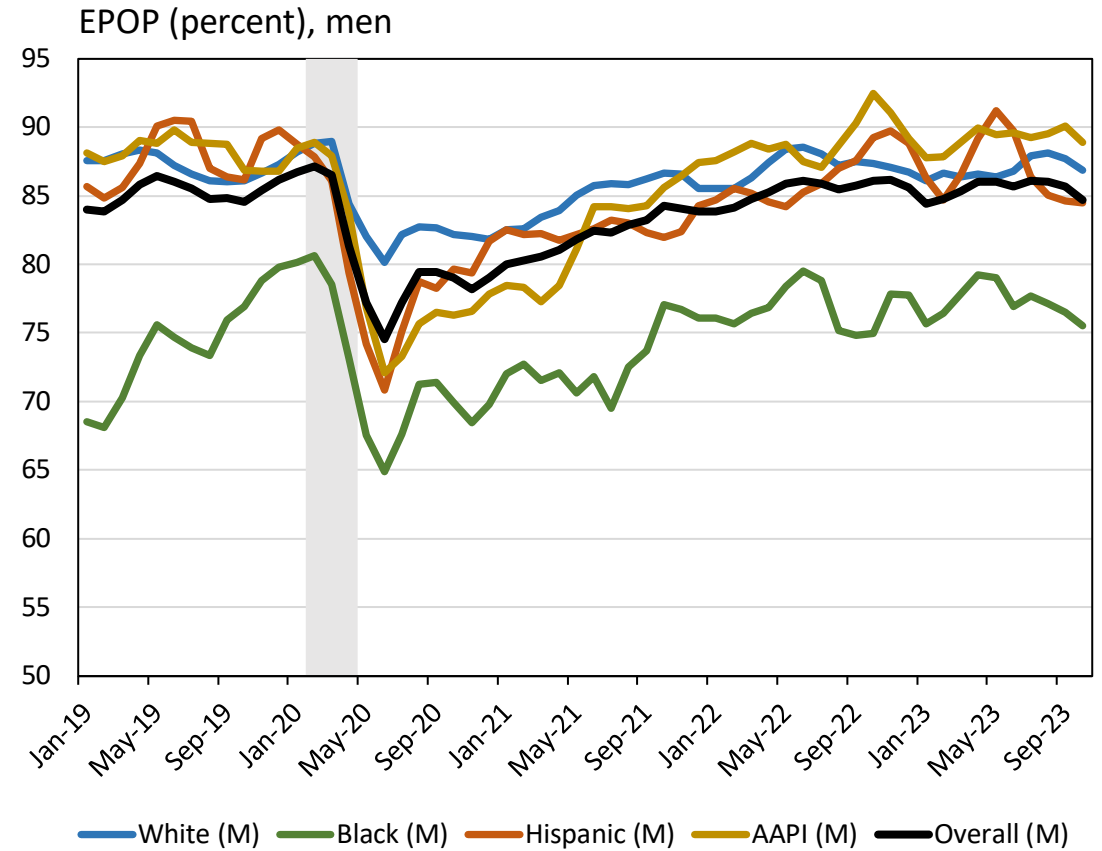
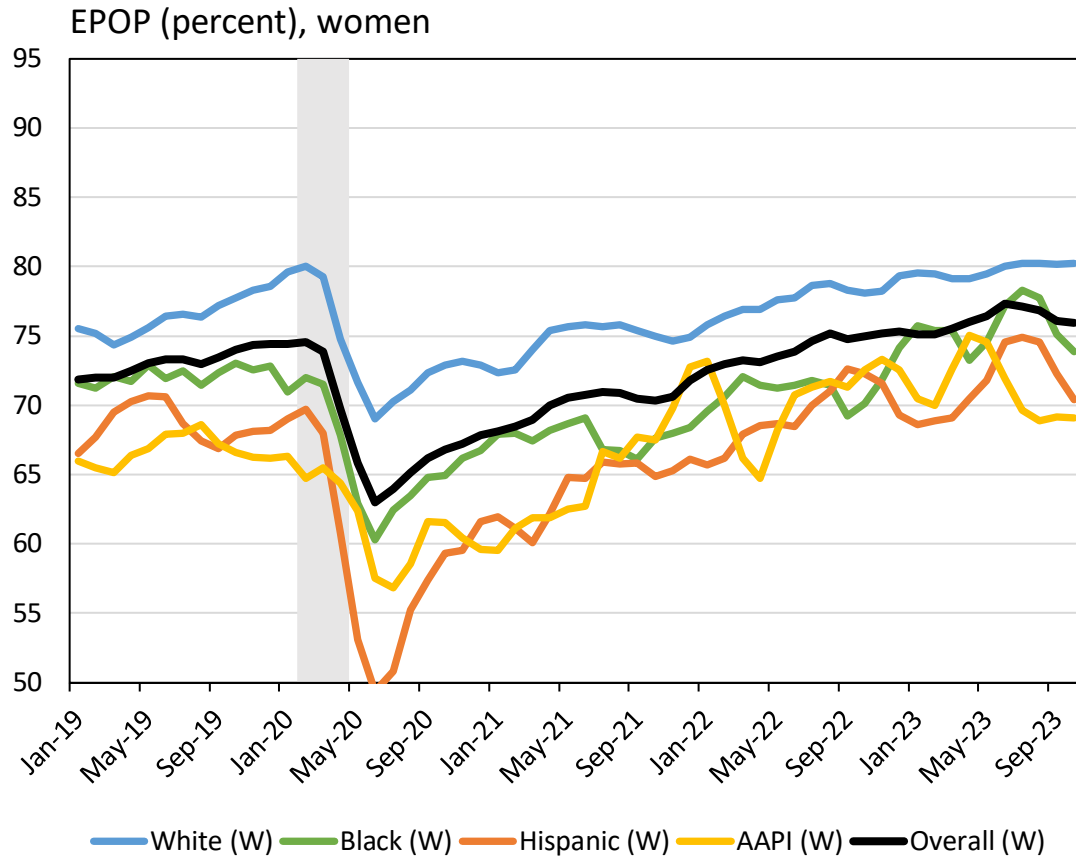
Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Gender employment gap defined as employment of men relative to women.



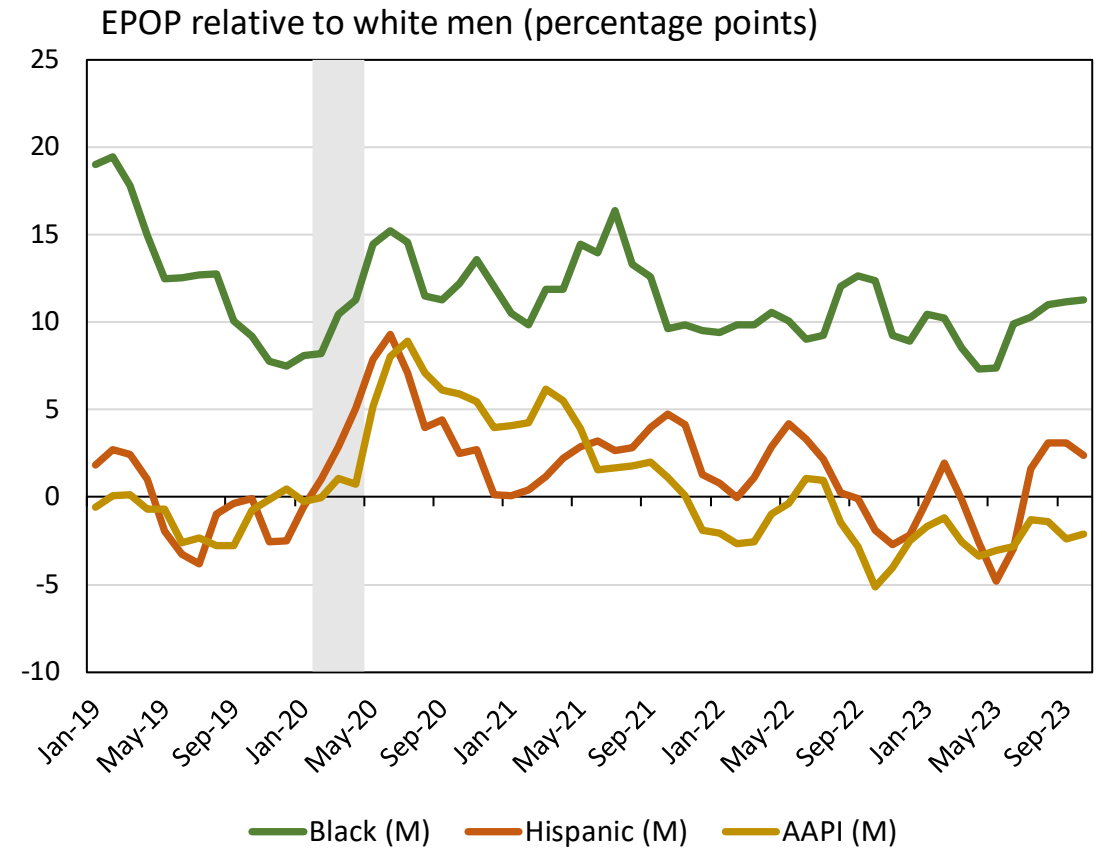
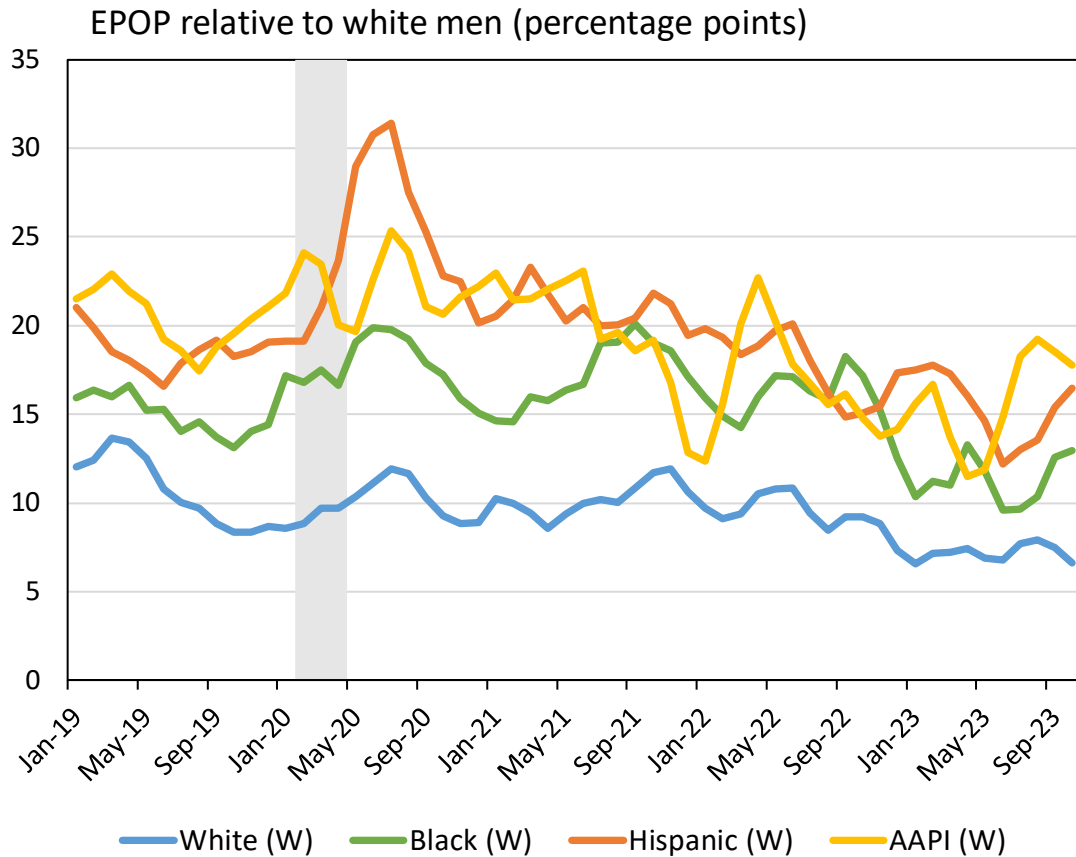
## EPOP by Race x Gender



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

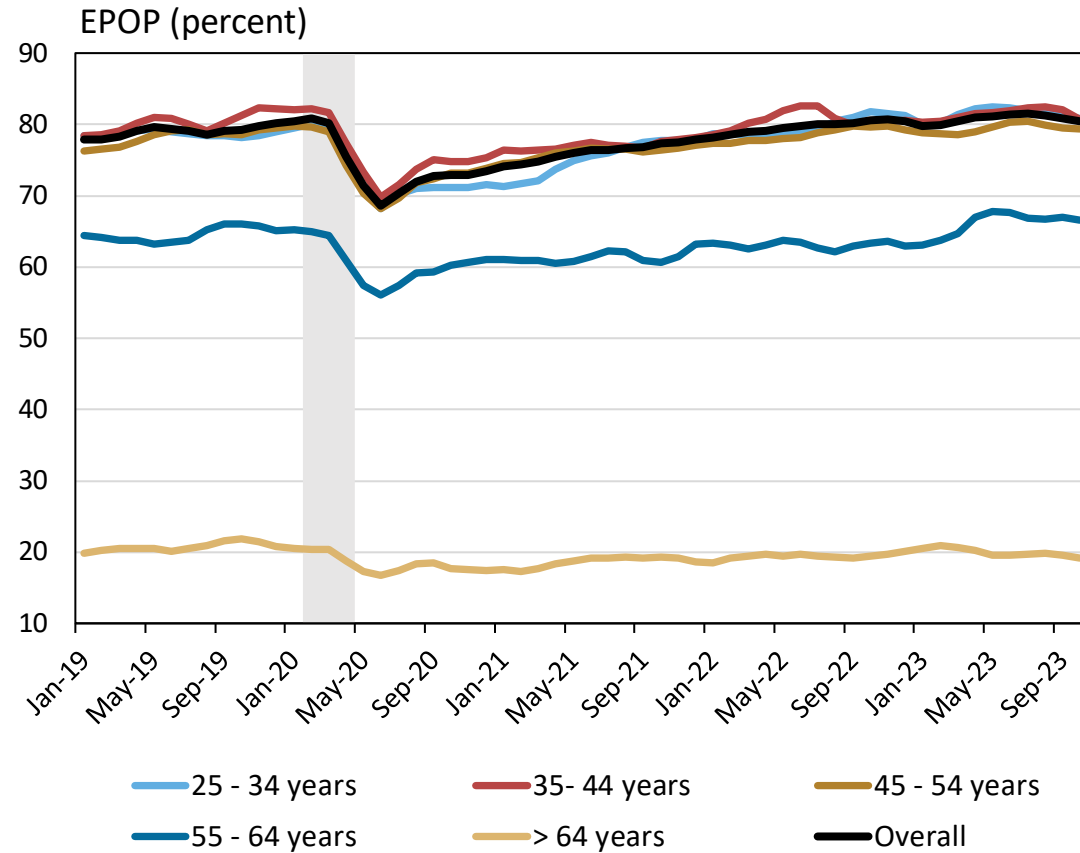
## EPOP Gaps by Race x Gender



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

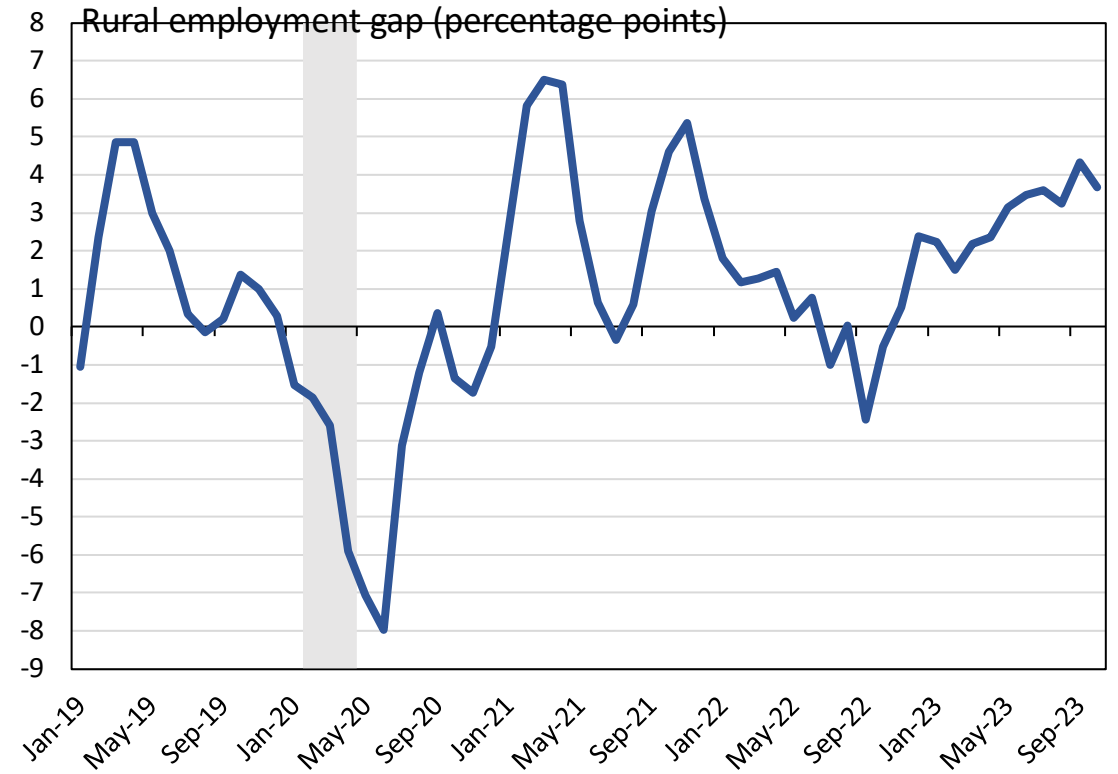
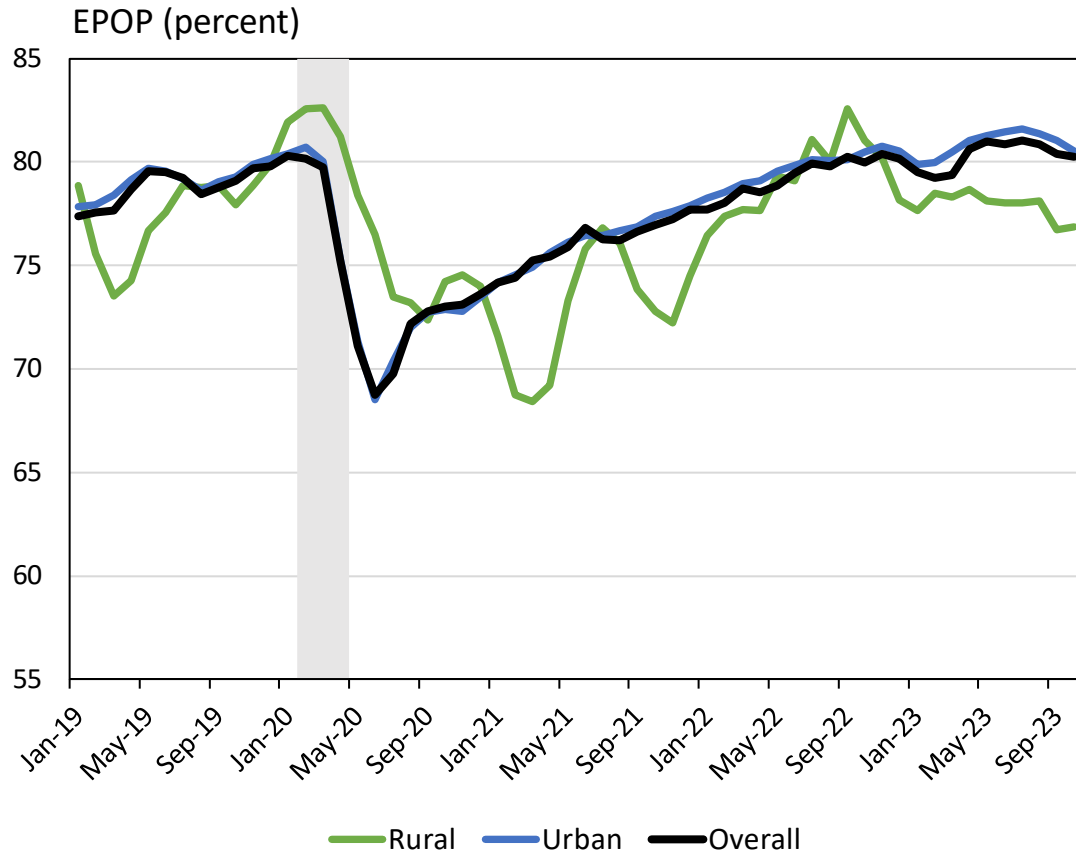
## EPOP by Age



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Overall line uses prime-age (25-54) sample. Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

## EPOP by Urban Status



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Rural employment gap defined as employment of urban workers relative to rural workers.

# EMPLOYMENT

UNEMPLOYMENT | REGIONAL  
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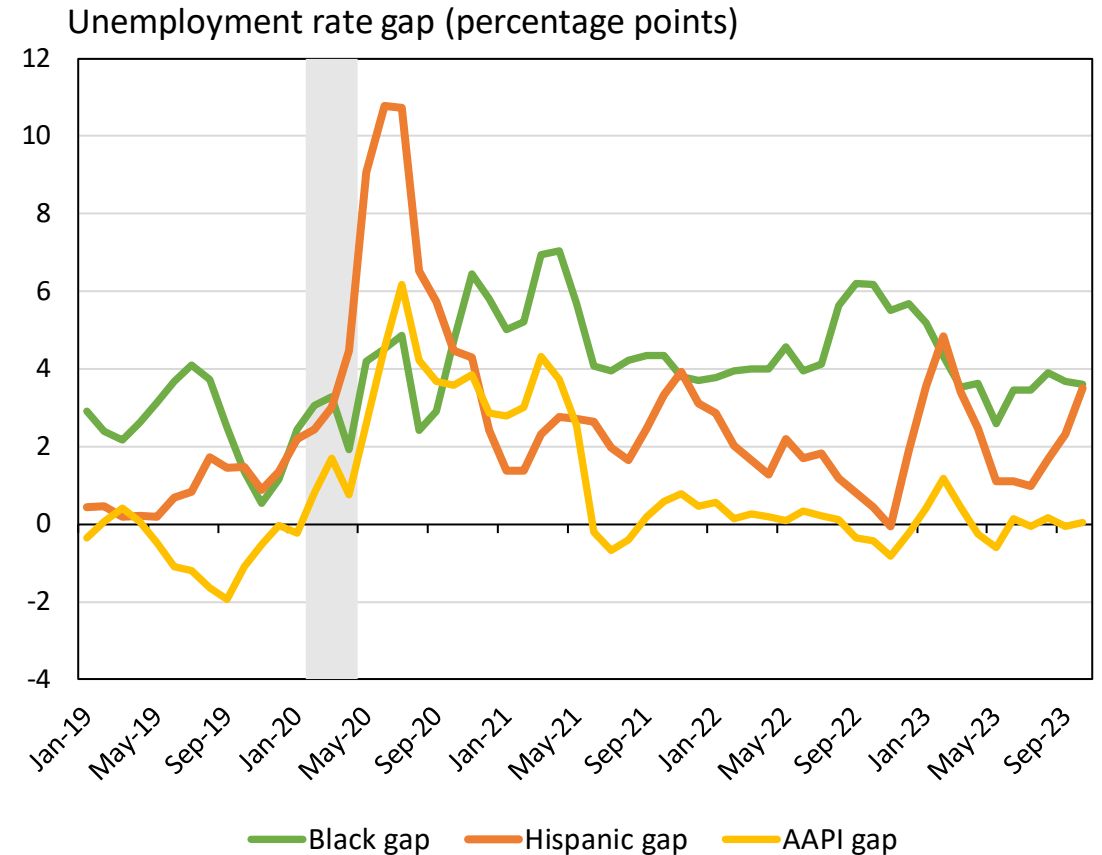
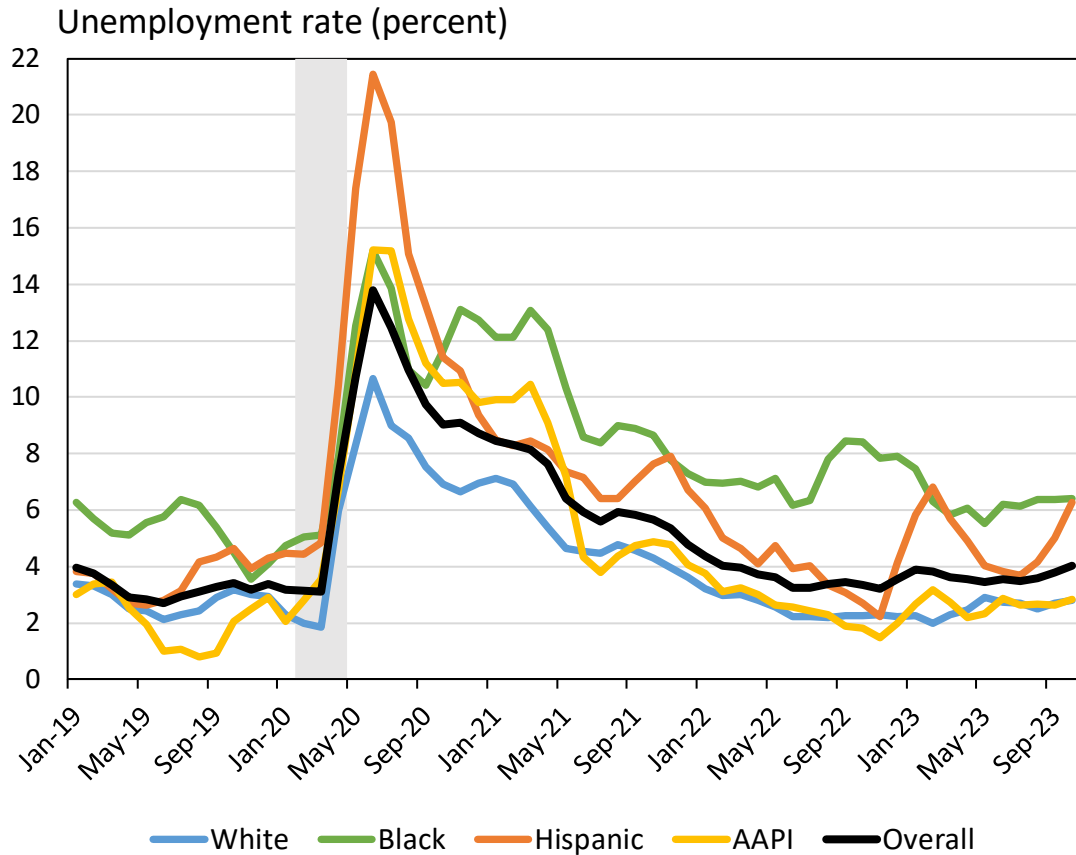


## Takeaways | Unemployment Rate

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- We define unemployment rate as the fraction of unemployed in the labor force. The overall unemployment rate in the region peaked at more than 14% during the pandemic, which was higher than the national peak at 11%. Both have returned to pre-pandemic levels.
- In both the region and the nation, unemployment rate gaps increased during the pandemic, but are now close to pre-pandemic levels.
- Unemployment rates in the region in October 2023 are highest for workers with less than a high school degree (6.70%), followed by Black workers (6.28%), followed by workers aged 25-34 (4.97%)
- The college unemployment gap peaked at 11% during the pandemic in the region (compared to 7% in the nation) but has returned to a similar level to the nationwide gap in 2023.

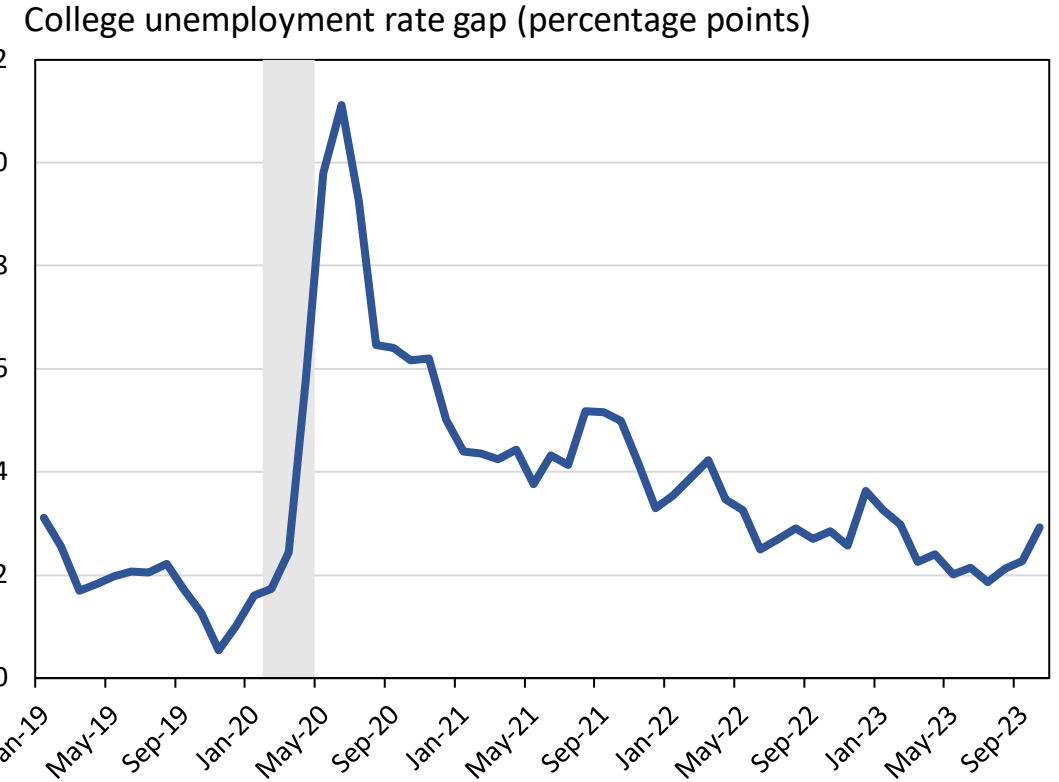
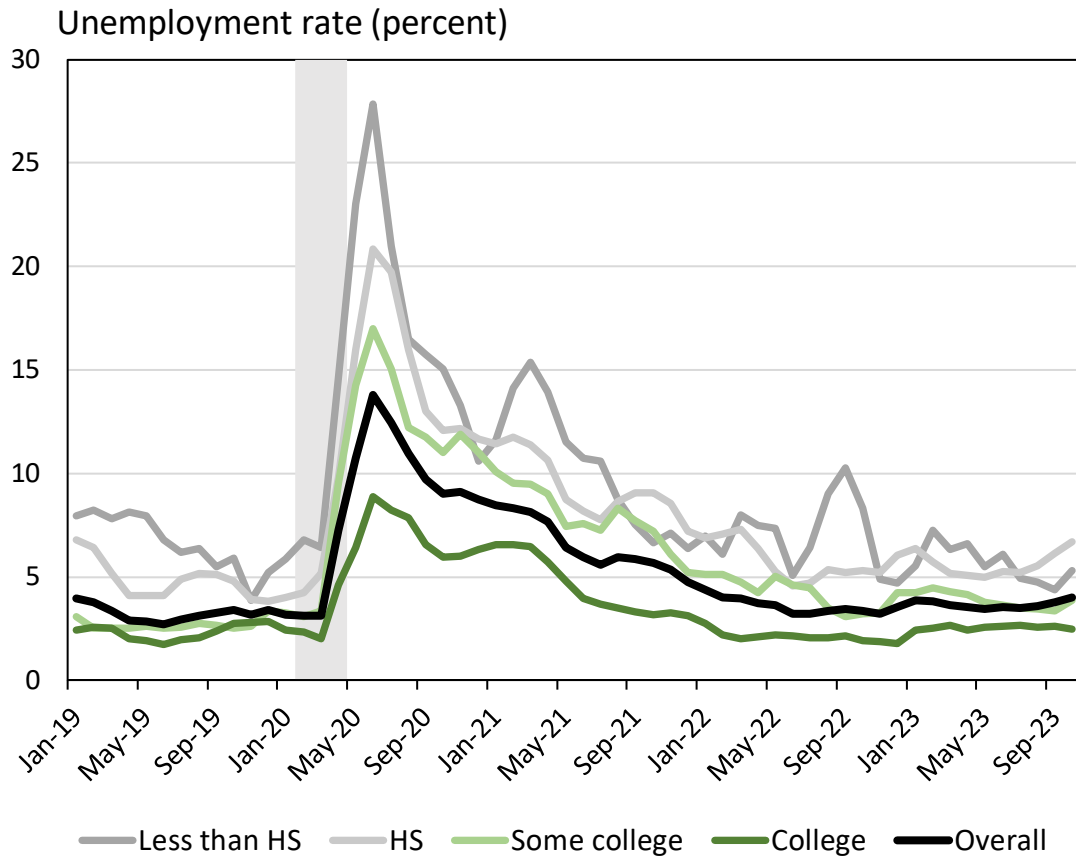
## Unemployment Rate by Race/Ethnicity



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

## Unemployment Rate by Education



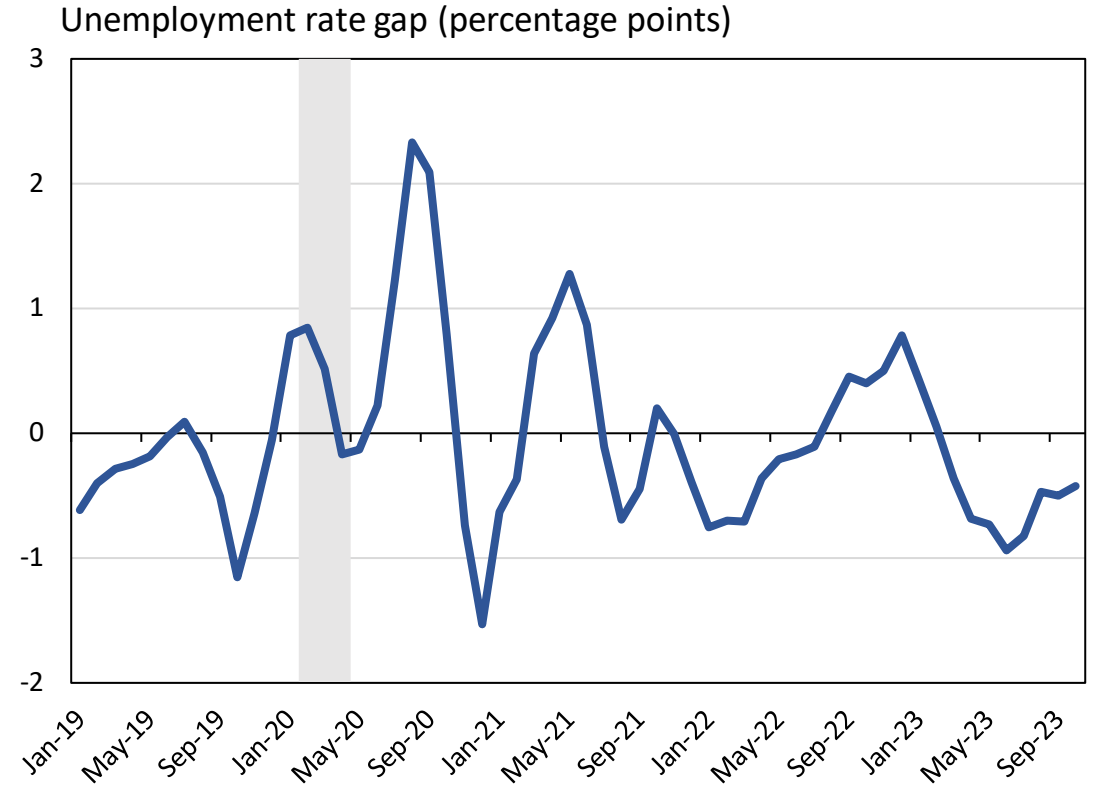
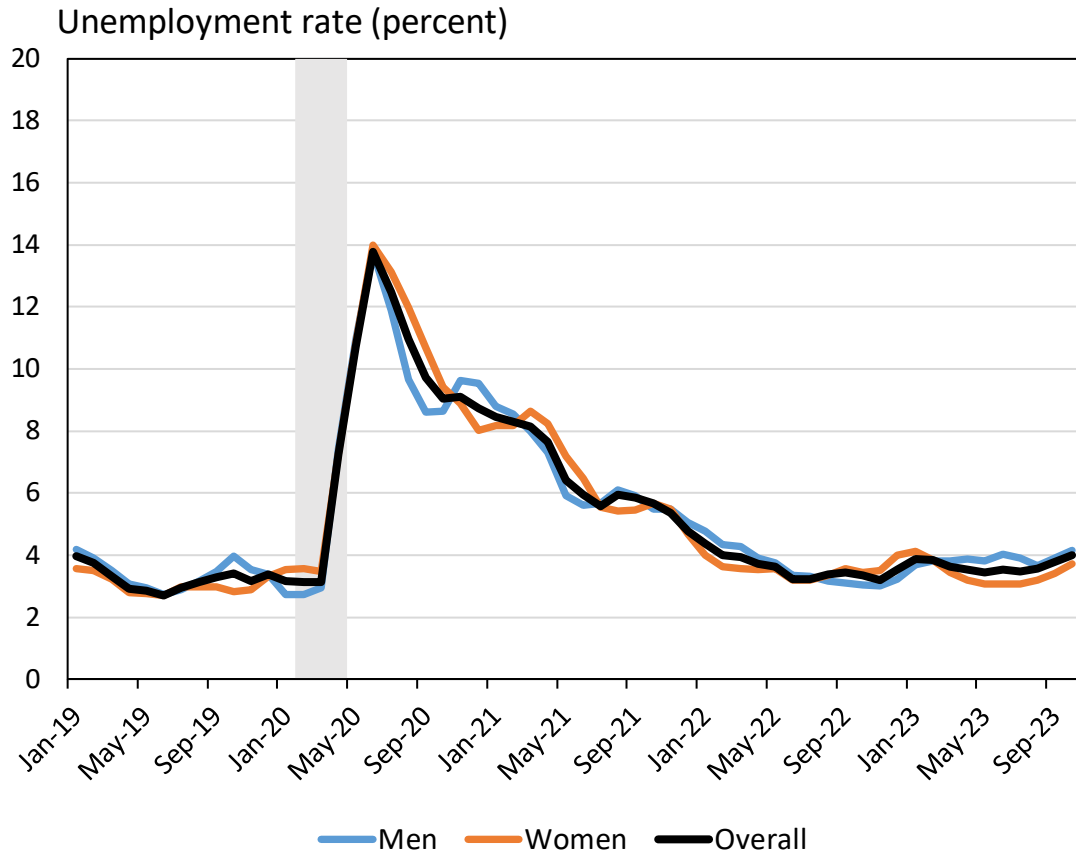
Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

College unemployment gap defined as unemployment of non-college graduates relative to graduates.



## Unemployment Rate by Gender

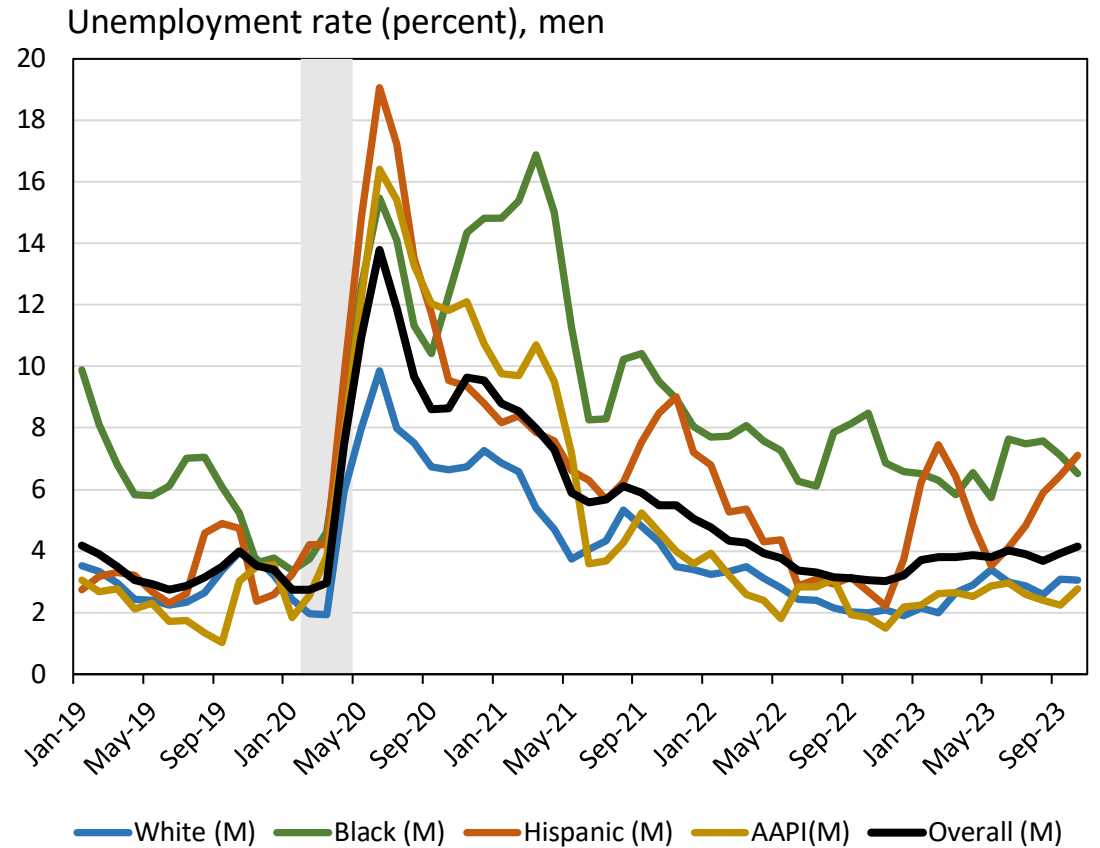
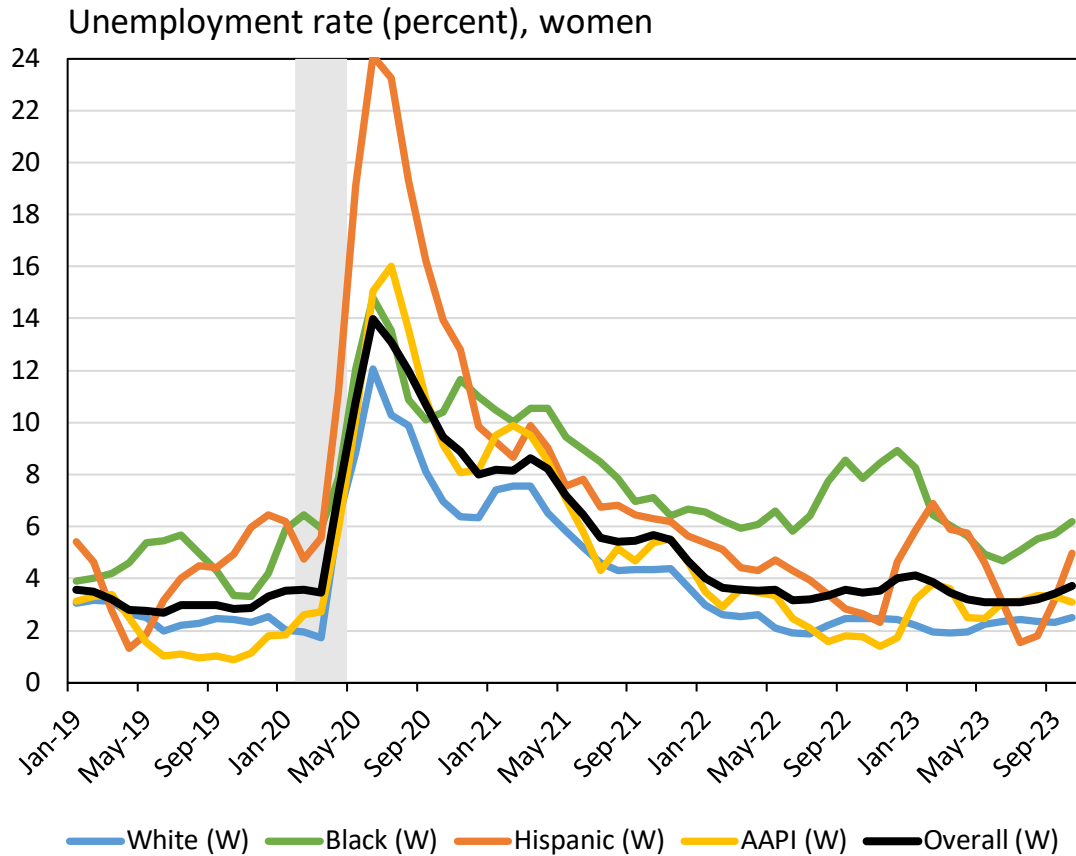


Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Gender employment gap defined as unemployment of women relative to men.

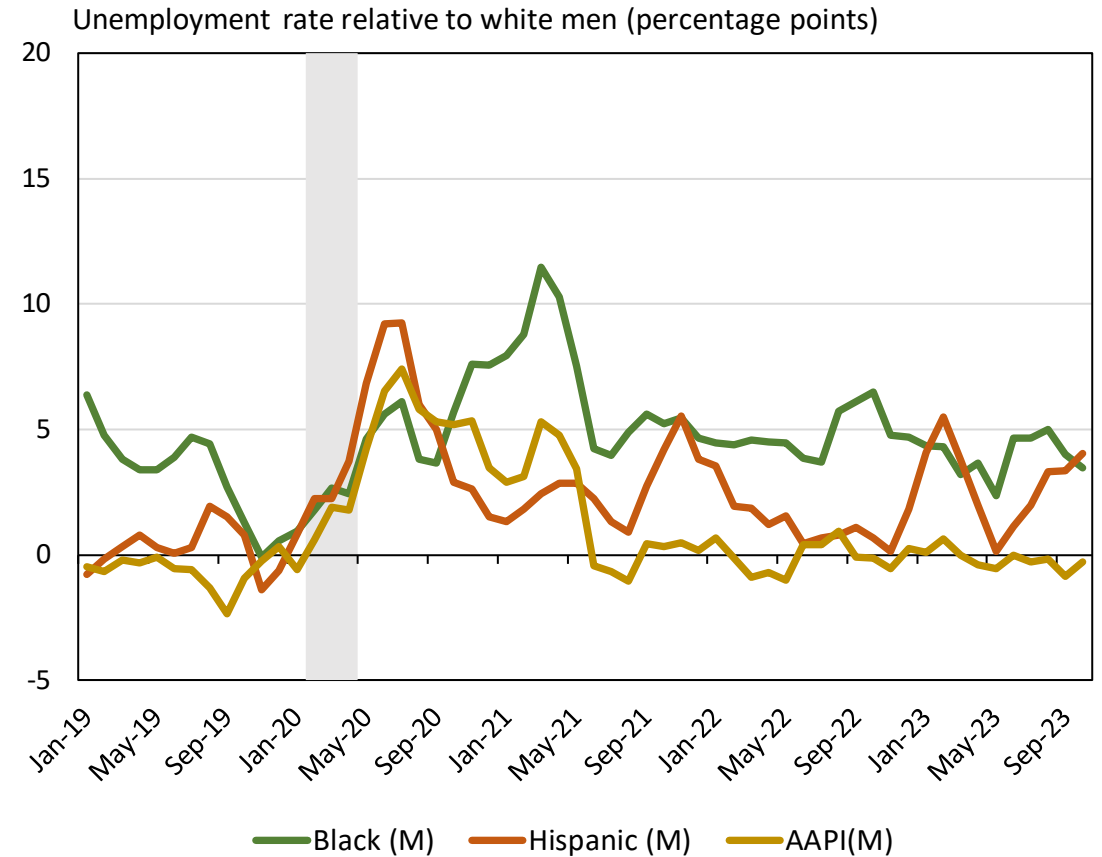
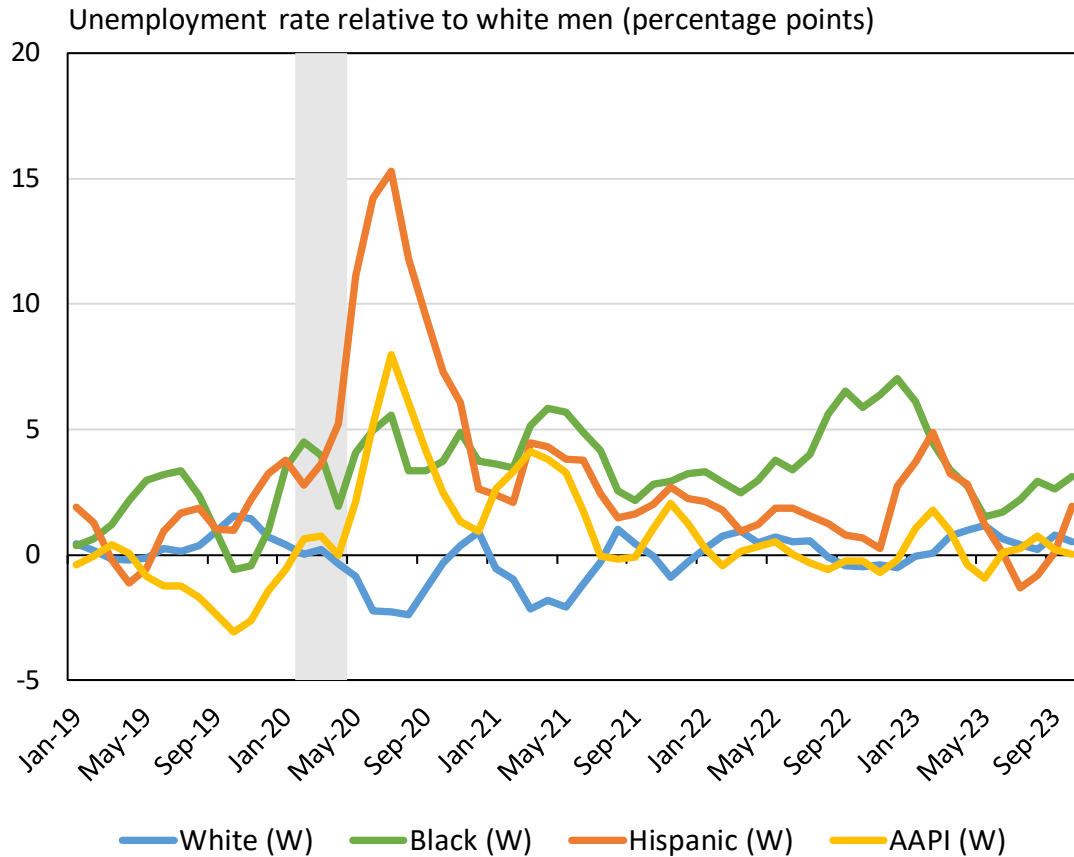
## Unemployment Rate by Race x Gender



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.

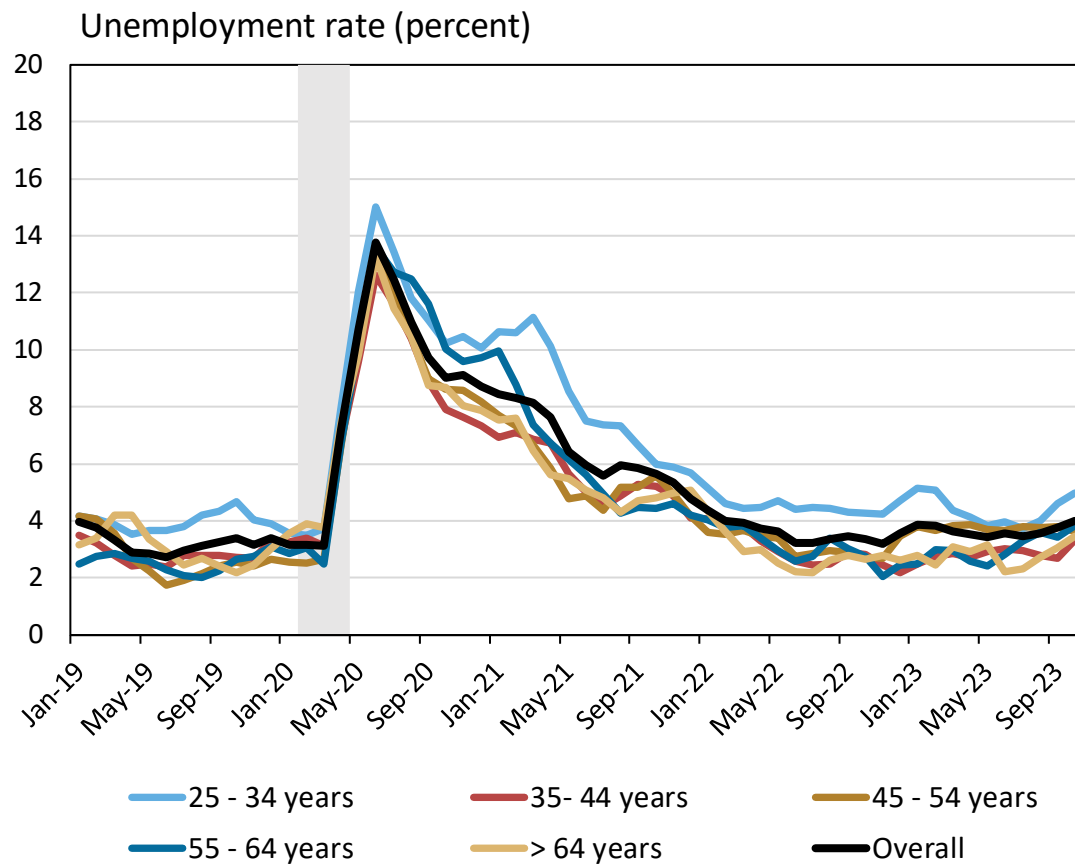
Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

## Unemployment Rate Gaps by Race x Gender



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.  
 Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

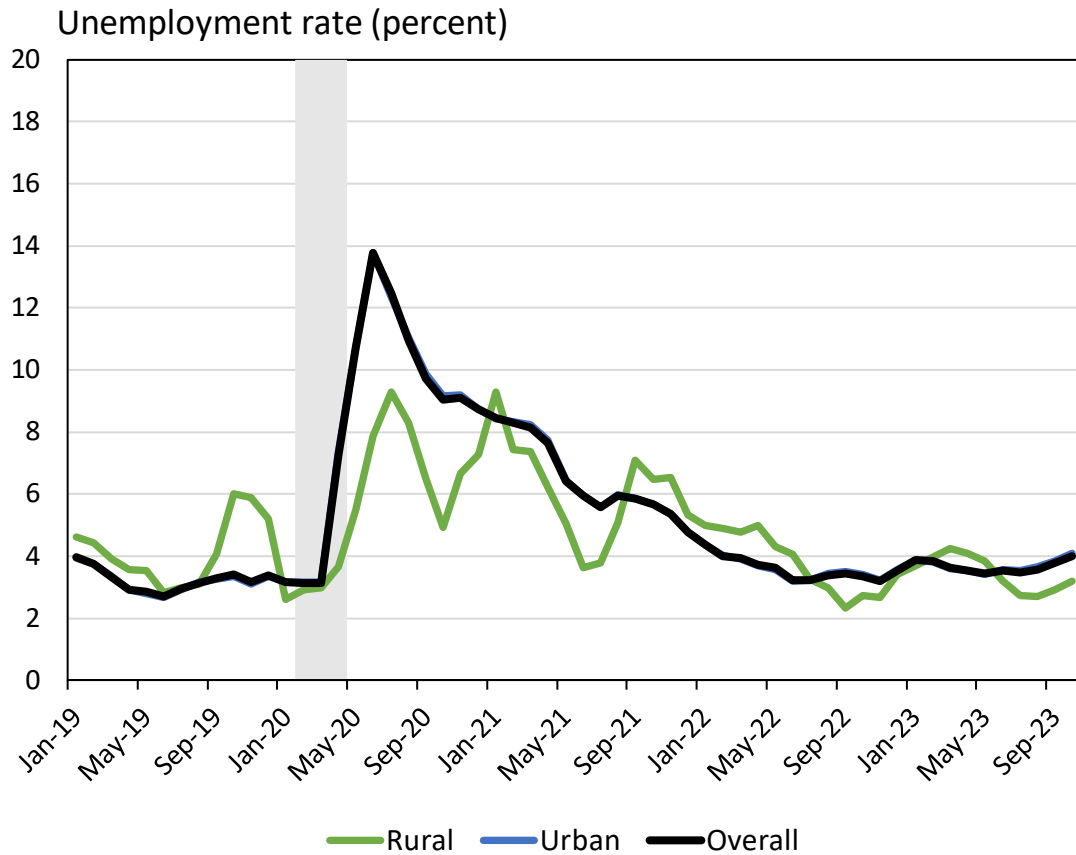
## Unemployment Rate by Age



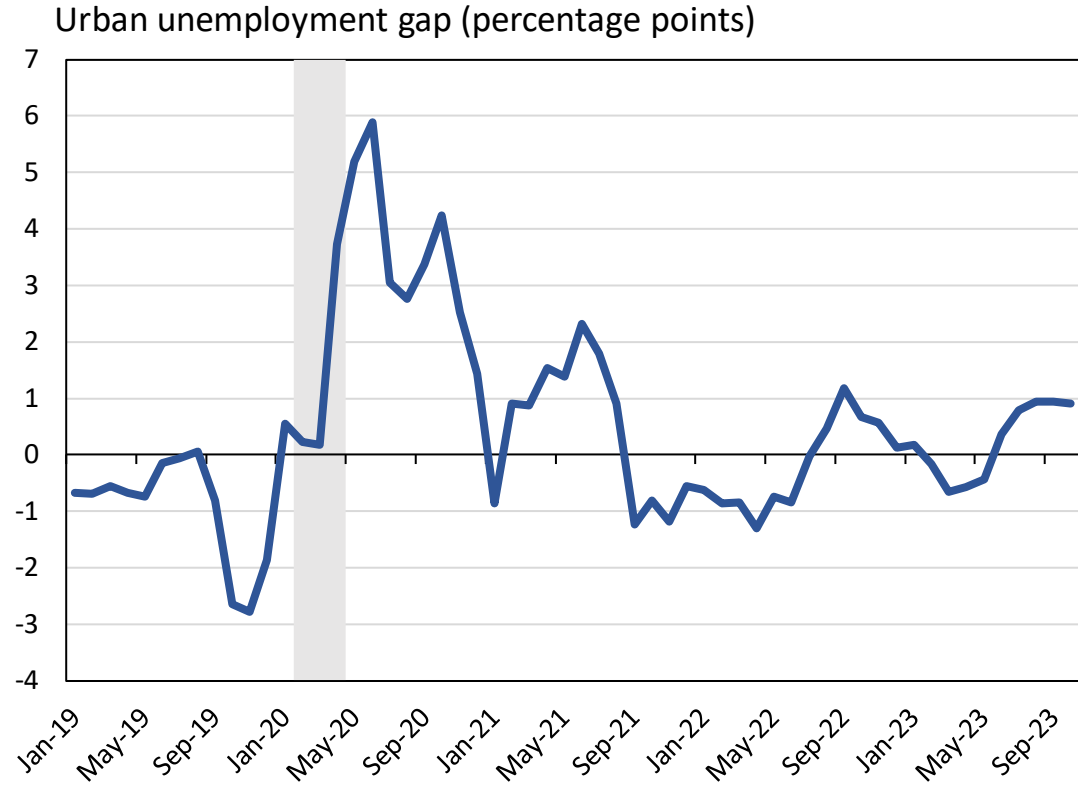
Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.

Notes: Overall line uses prime-age (25-54) sample. Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

## Unemployment Rate by Urban Status



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.  
 Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.



Urban unemployment gap defined as unemployment of urban workers relative to rural workers.

# EMPLOYMENT

LABOR FORCE PARTICIPATION | REGIONAL  
UPDATED THROUGH October 2023

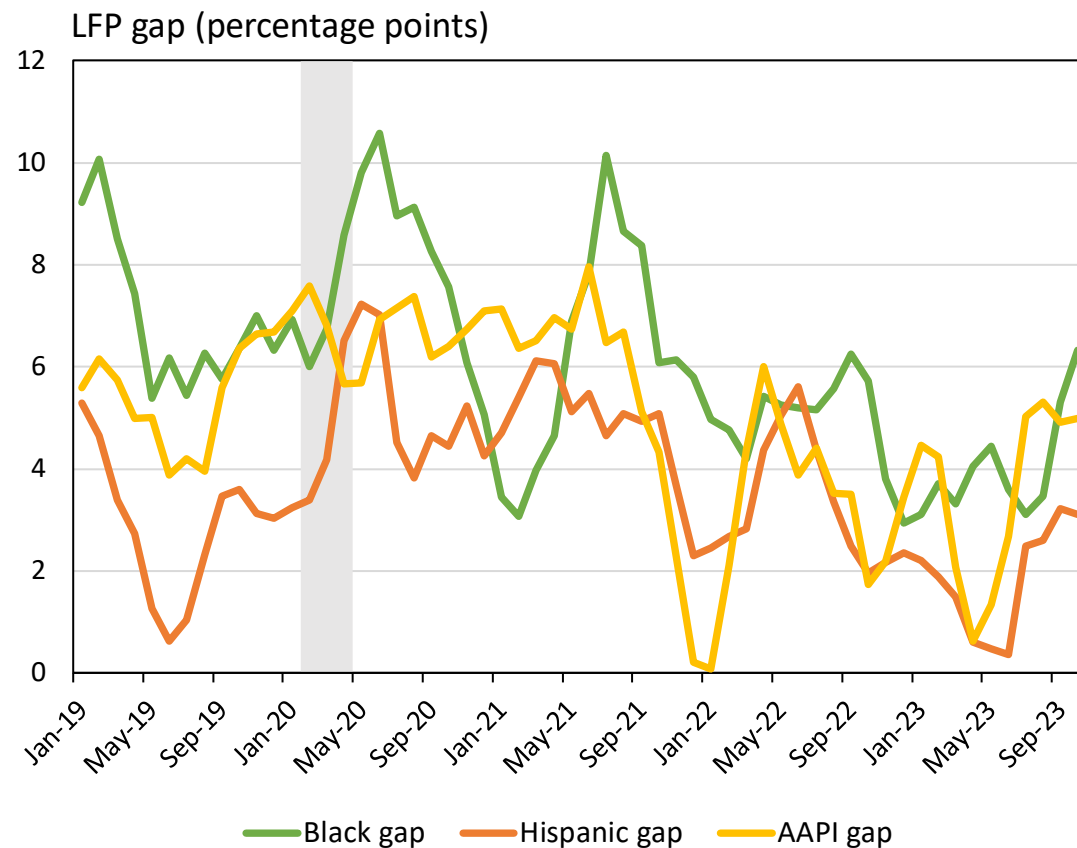
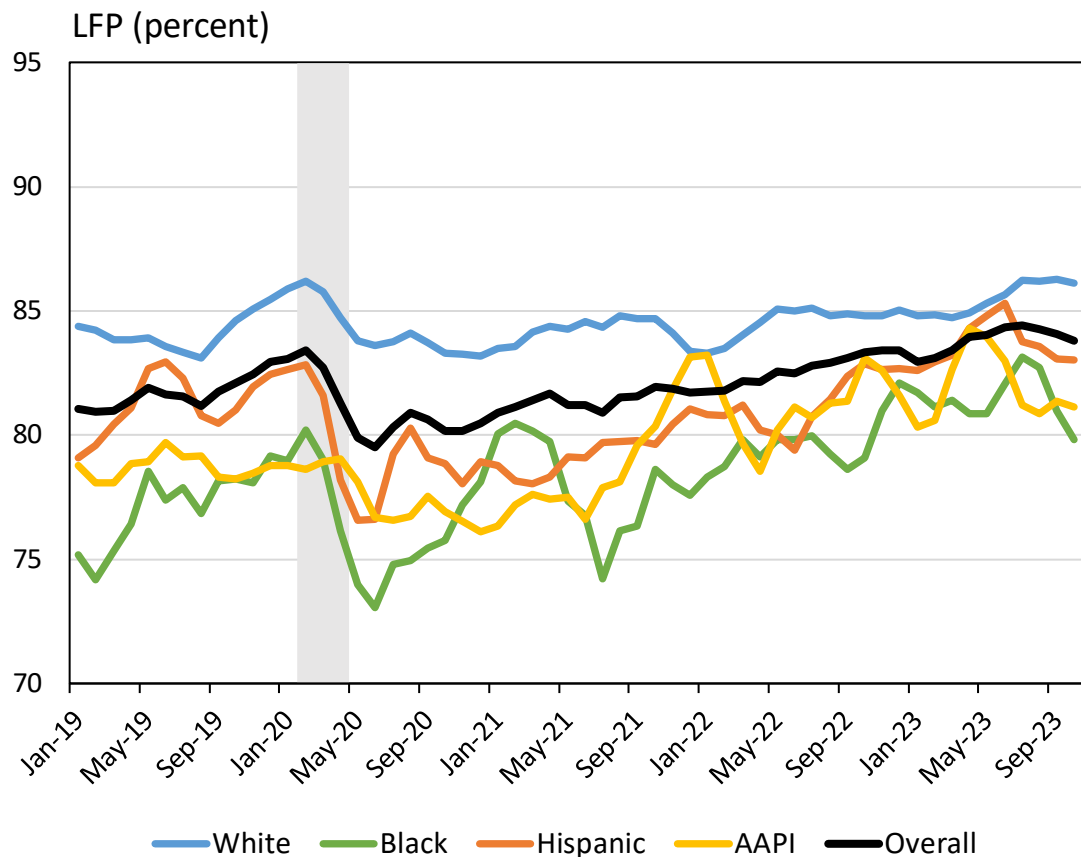


## Takeaways | Labor Force Participation

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- The dynamics and heterogeneity in labor force participation (LFP) in the region mirror those of EPOP.
- LFP rates in the region are now at or above their pre-pandemic levels (comparing with October 2019, both on average and for men, women, and all racial and ethnic groups).
- Black, Hispanic, and Asian workers have LFPs below the region average.
- The college LFP gap in the region has not fallen below pre-pandemic levels. However, the gender LFP gap in the region continues to decline, reaching 9.4% in October 2023.

## Labor Force Participation by Race/Ethnicity



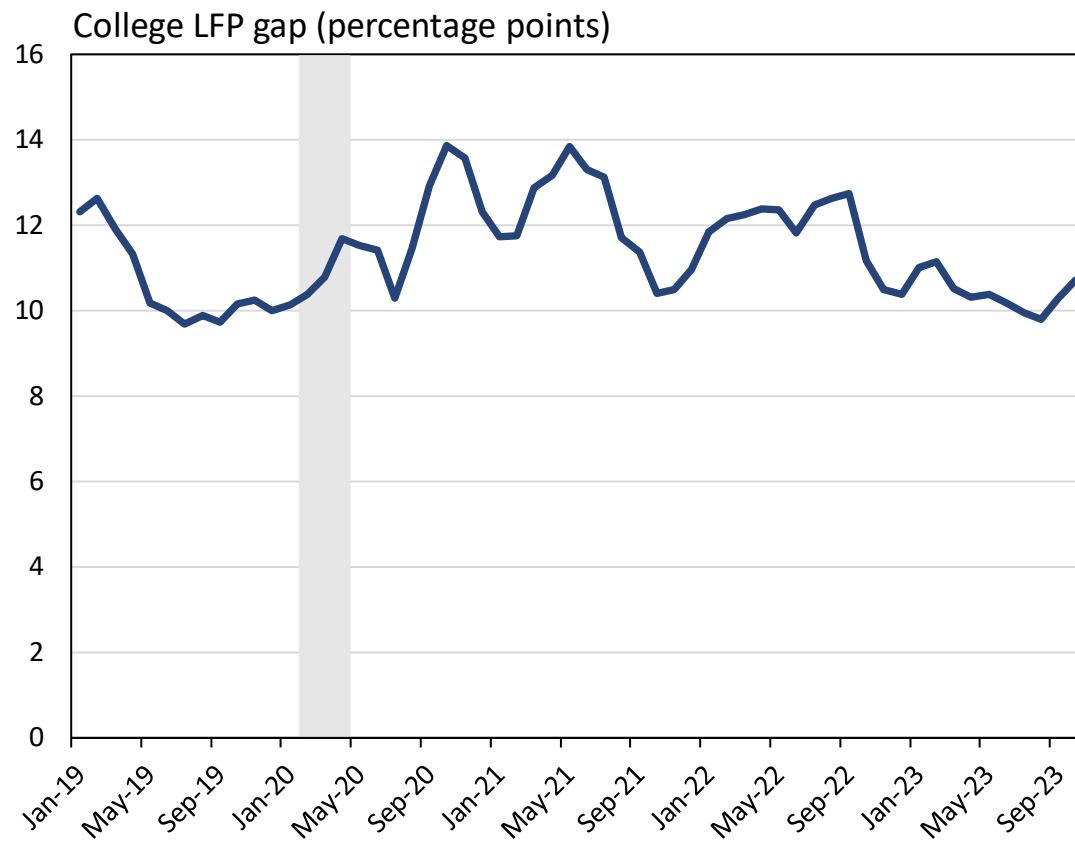
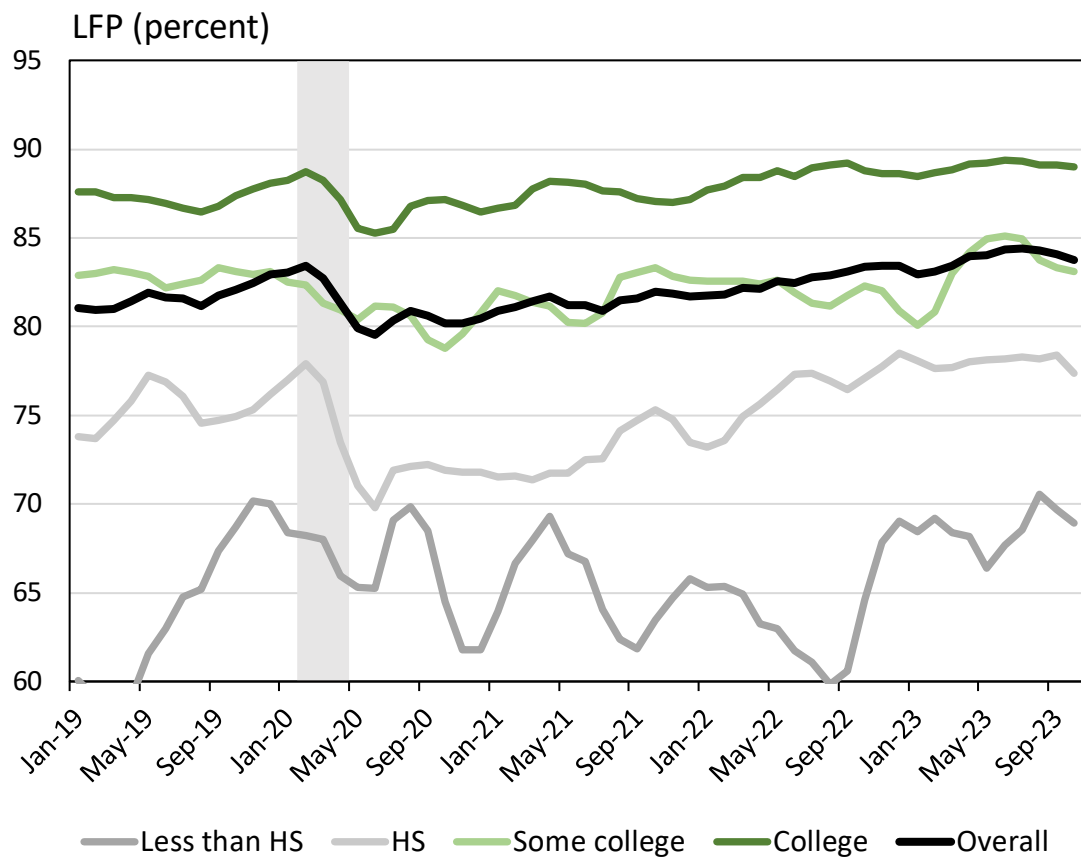
Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

LFP gap defined relative to white LFP.



## Labor Force Participation by Education

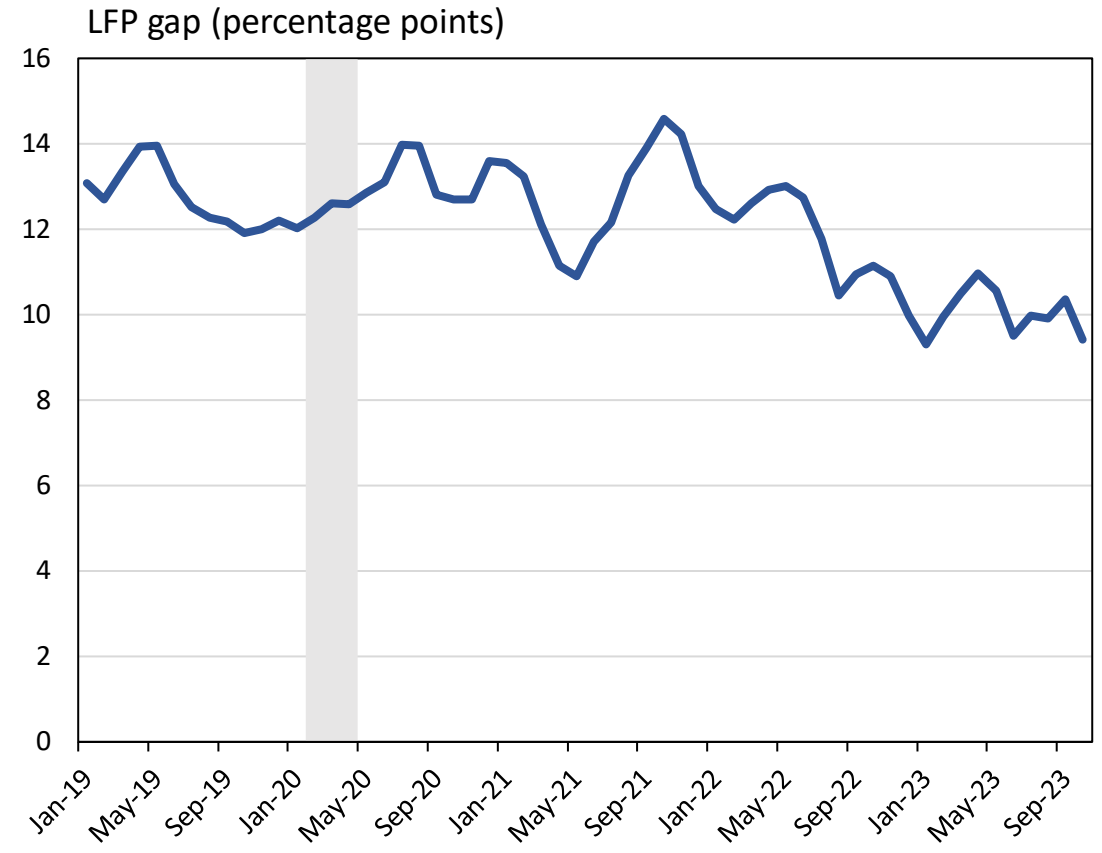
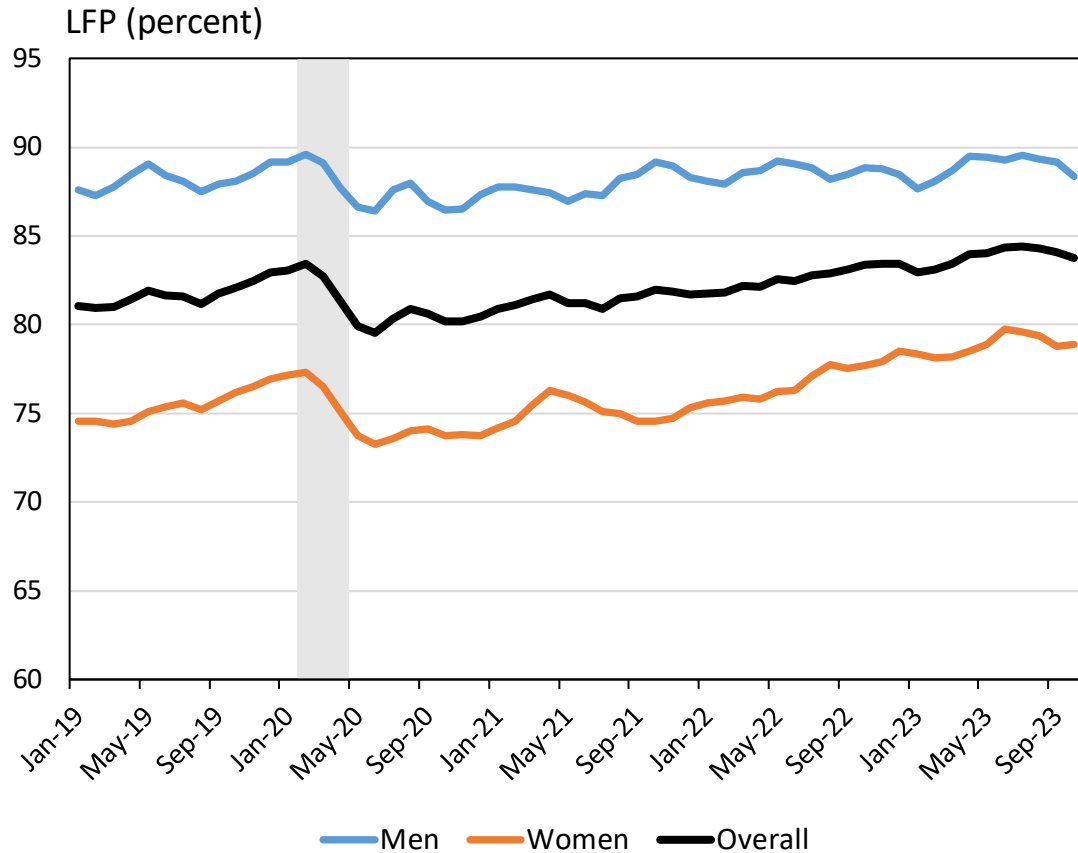


Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

College LFP gap defined as LFP of college graduates relative to non-graduates.

## Labor Force Participation by Gender

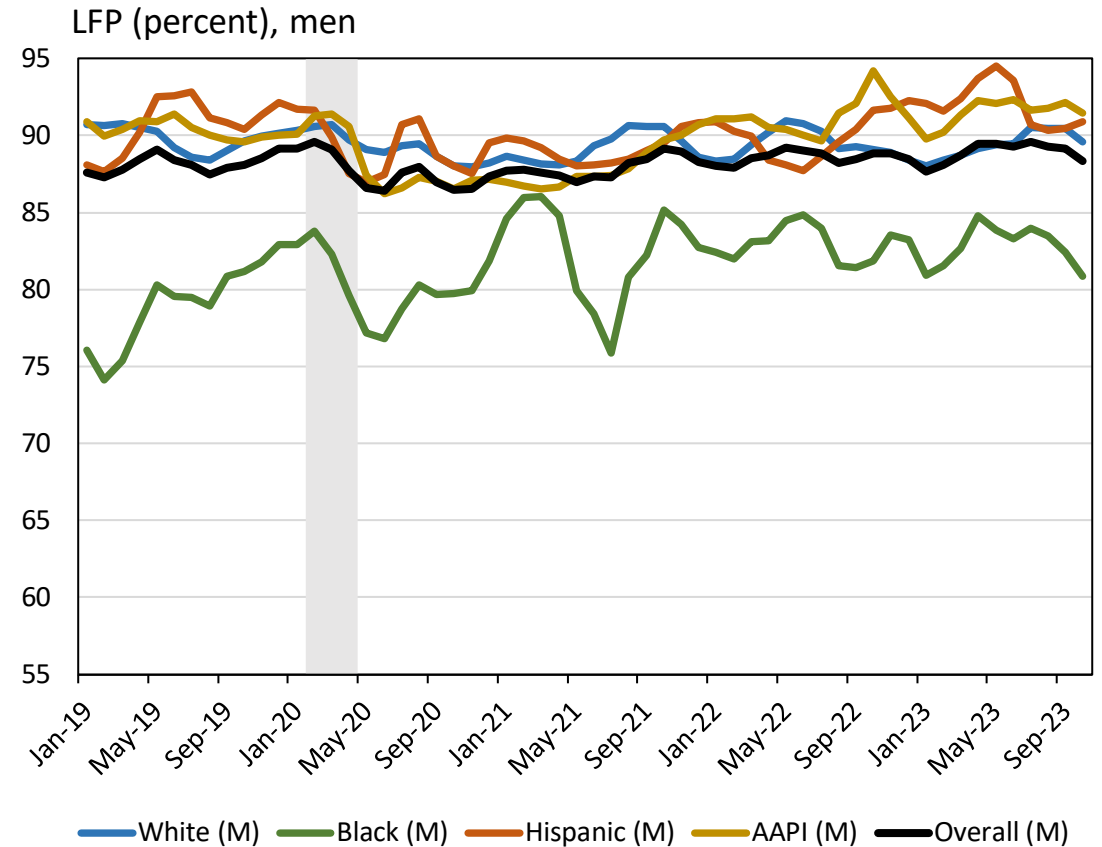
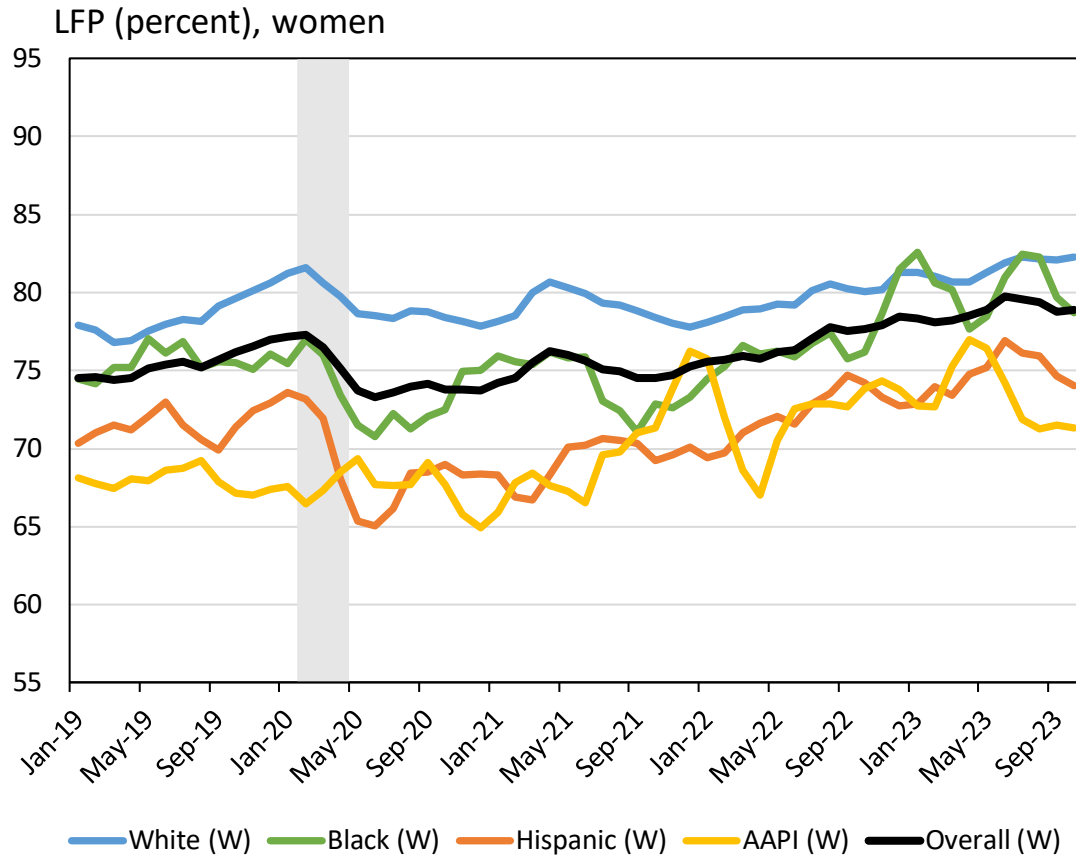


Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Gender LFP gap defined as LFP of men relative to women.

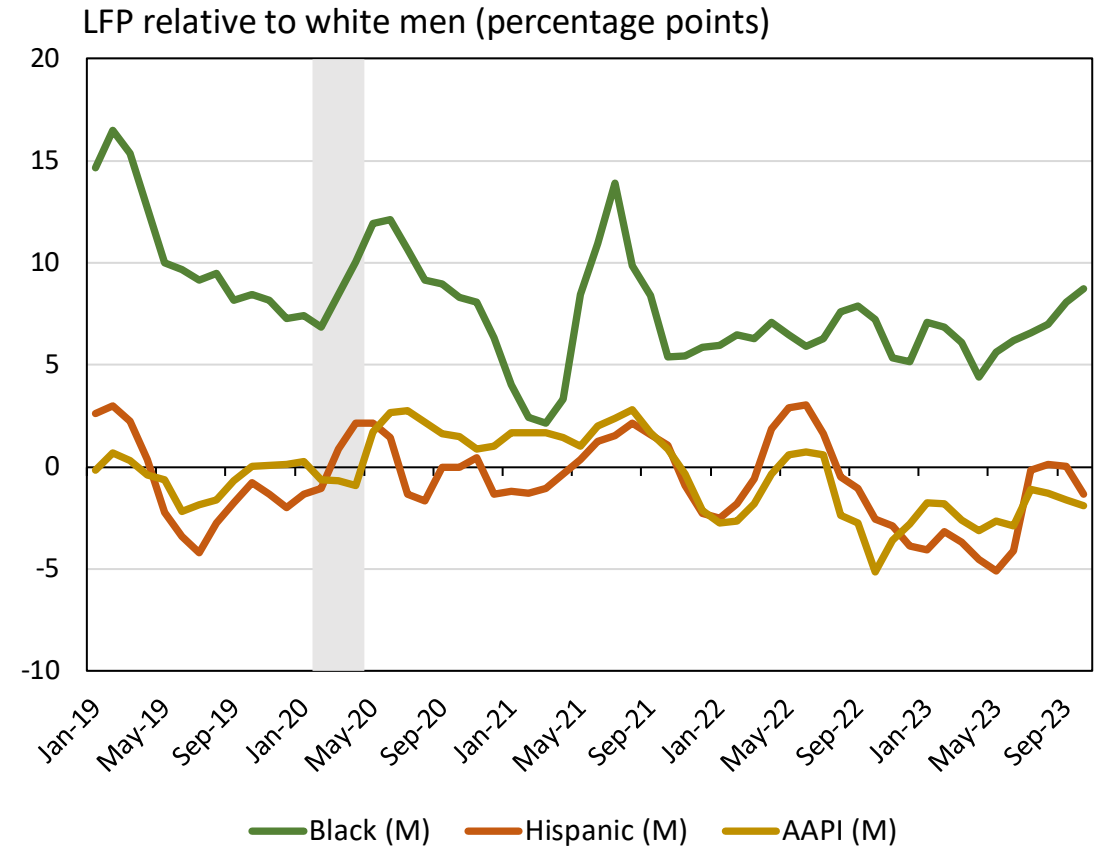
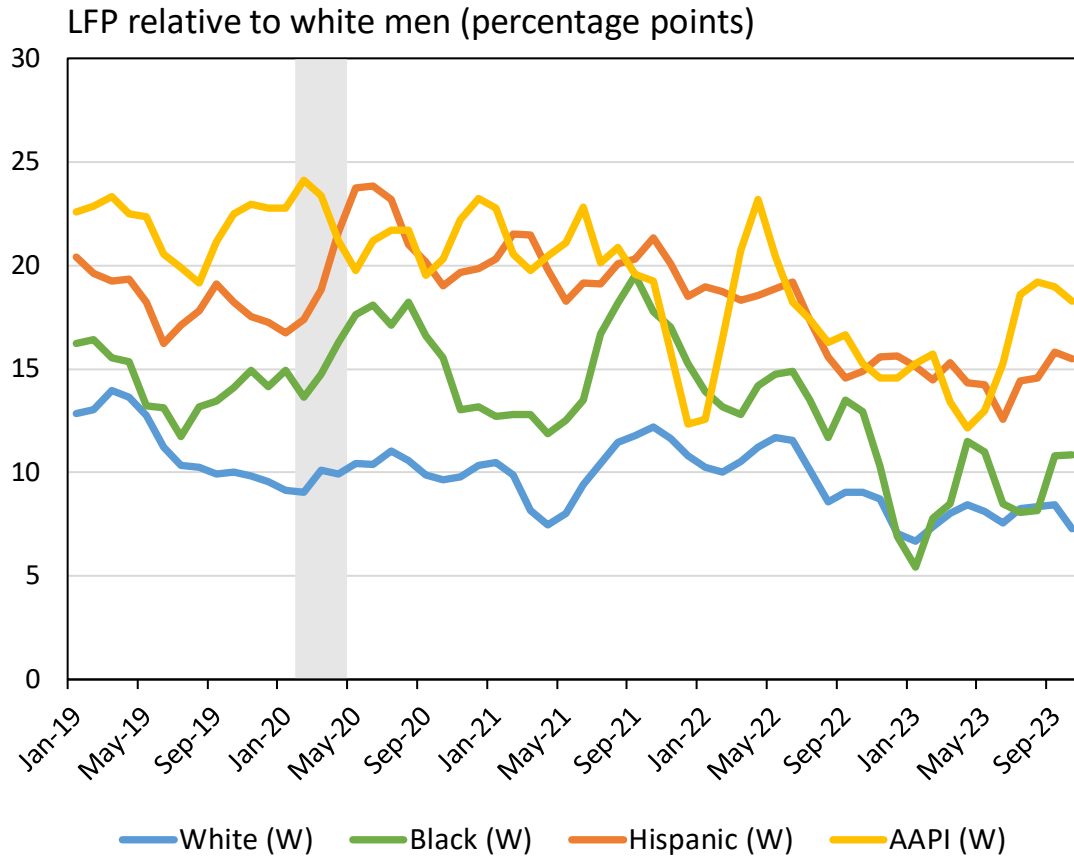
## Labor Force Participation by Race x Gender



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

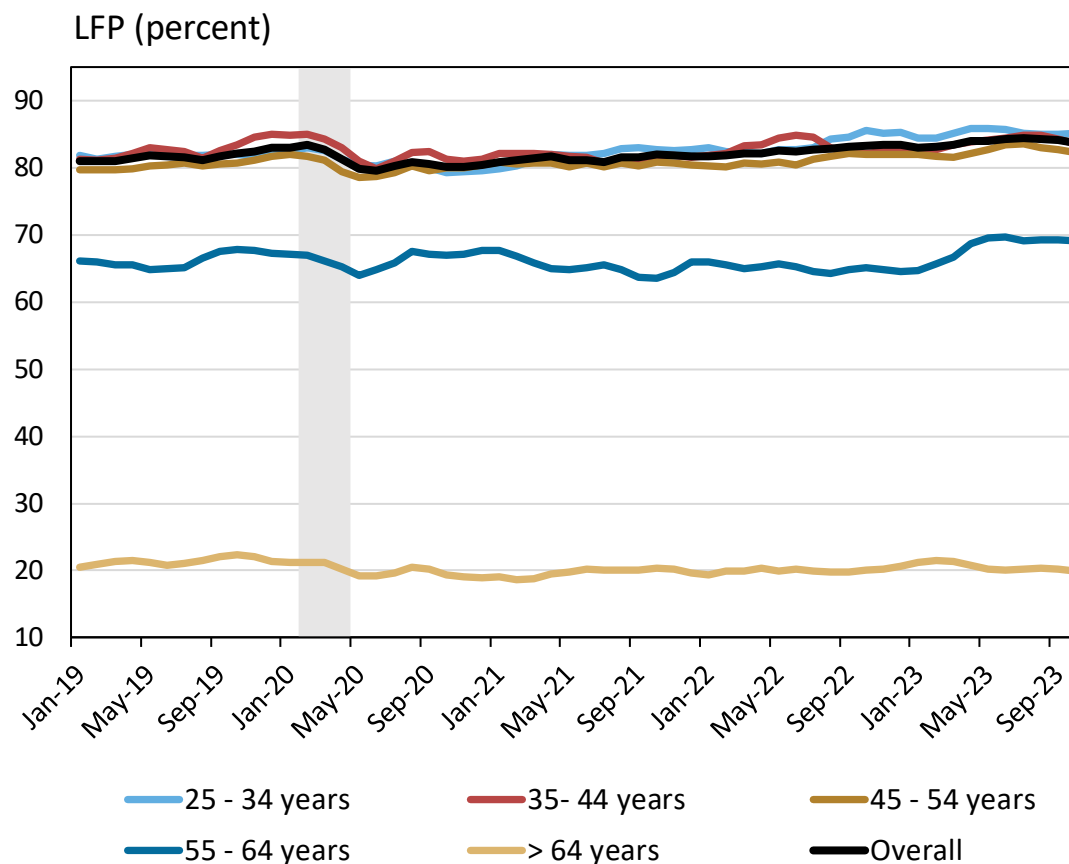
## Labor Force Participation Gaps by Race x Gender



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations; three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

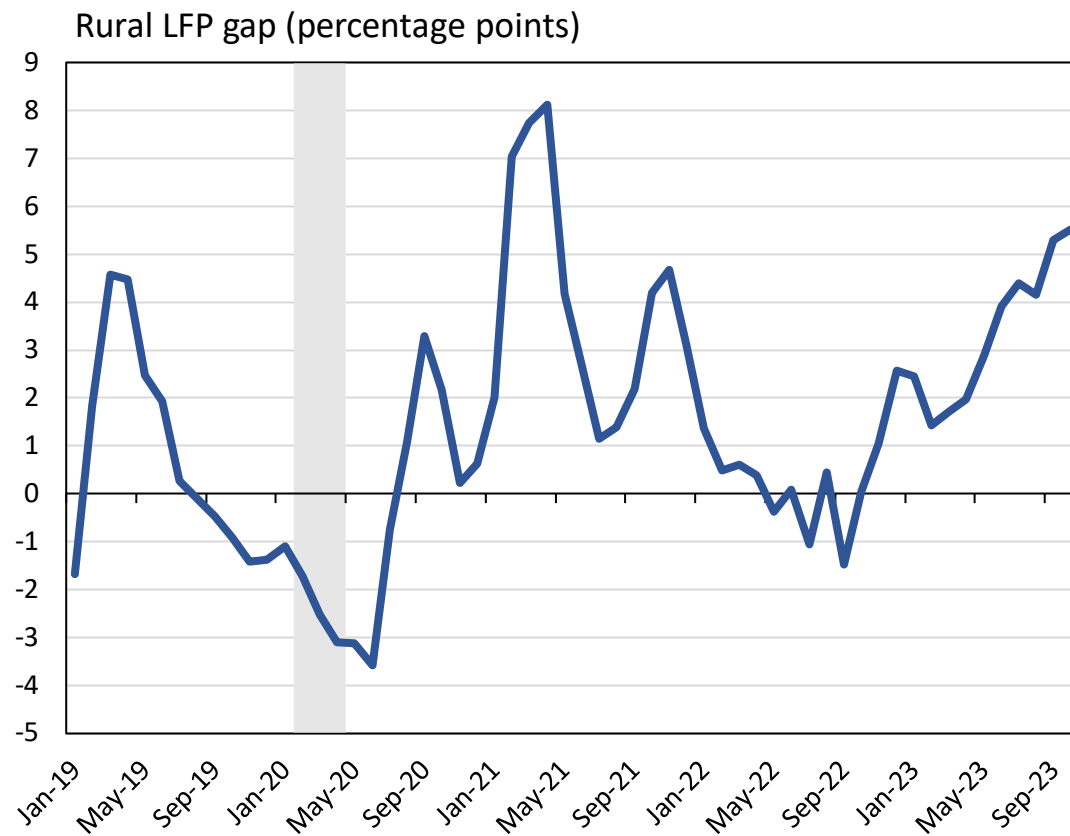
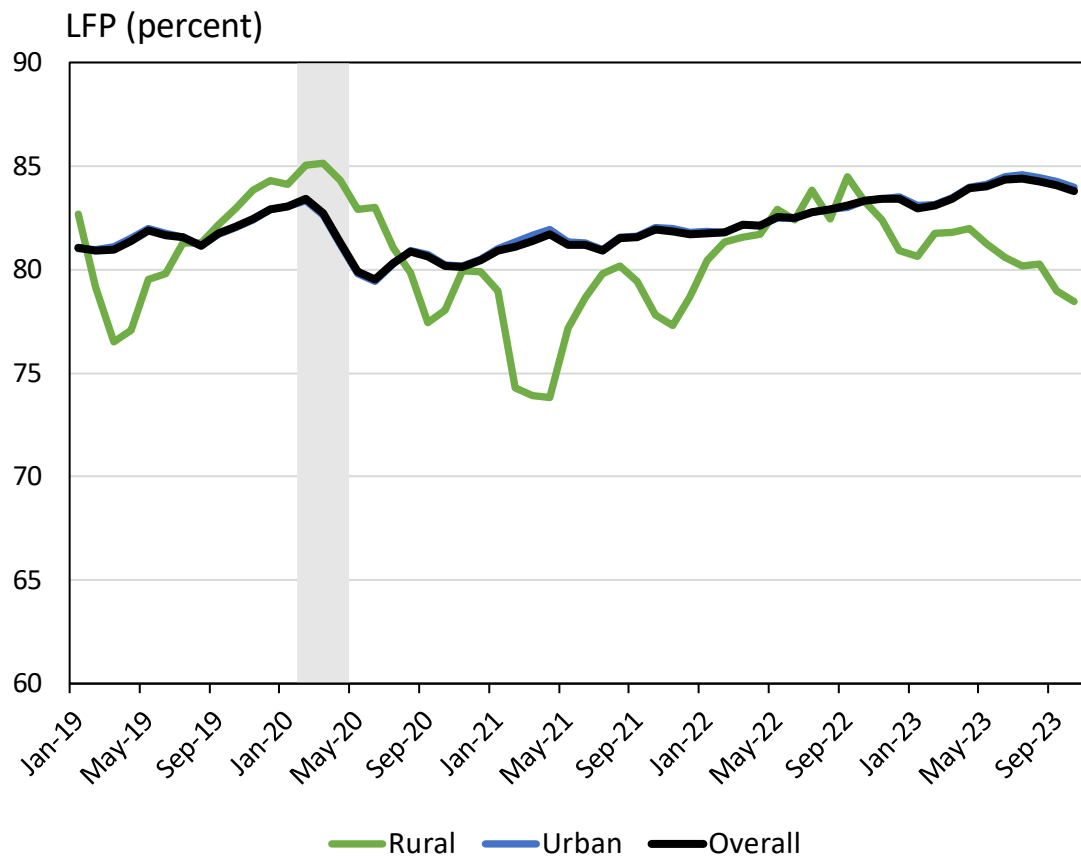
## Labor Force Participation by Age



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.

Notes: Overall line uses prime-age (25-54) sample. Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

## Labor Force Participation by Urban Status



Sources: U.S. Census Bureau/BLS - Current Population Survey microdata; authors' calculations, three-month moving averages.

Notes: Restricted to prime-age individuals (25-54). Shaded region indicates the COVID-19 recession. Includes all counties belonging to the Federal Reserve Second District excluding Puerto Rico, the US Virgin Islands, Warren County, NJ, and Fairfield County, CT, and additionally including Ocean County, NJ.

Rural LFP gap defined as LFP of urban workers relative to rural workers.

# CONSUMER SPENDING

UPDATED THROUGH October 2023 | REGIONAL



## Takeaways | Consumer Spending

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- Consumer spending growth in the region has been largely stagnant relative to the pre-pandemic period. This is in contrast to the nation as a whole, which has seen real retail spending rise by about 20% relative to pre-pandemic levels. The region also experienced a larger drop in consumption during the height of the pandemic in the spring of 2020.
- Similar to the rest of the nation, in the region, lower income, less educated, and younger individuals experienced a significantly faster growth rate, or a slower decline in spending since the pandemic. There are some signs, however, that spending among the young and less educated is weakening, as in the nation.
- In both the region and in the nation, consumer spending recovery gaps are largest among age groups and smallest among income groups, with education gaps in the middle.
- As of October 2023, the young and middle-aged (25-44) in the region have seen their real spending grow by 5.2% since the pre-pandemic period, while older individuals (55+) have seen it shrink by 8.2%.

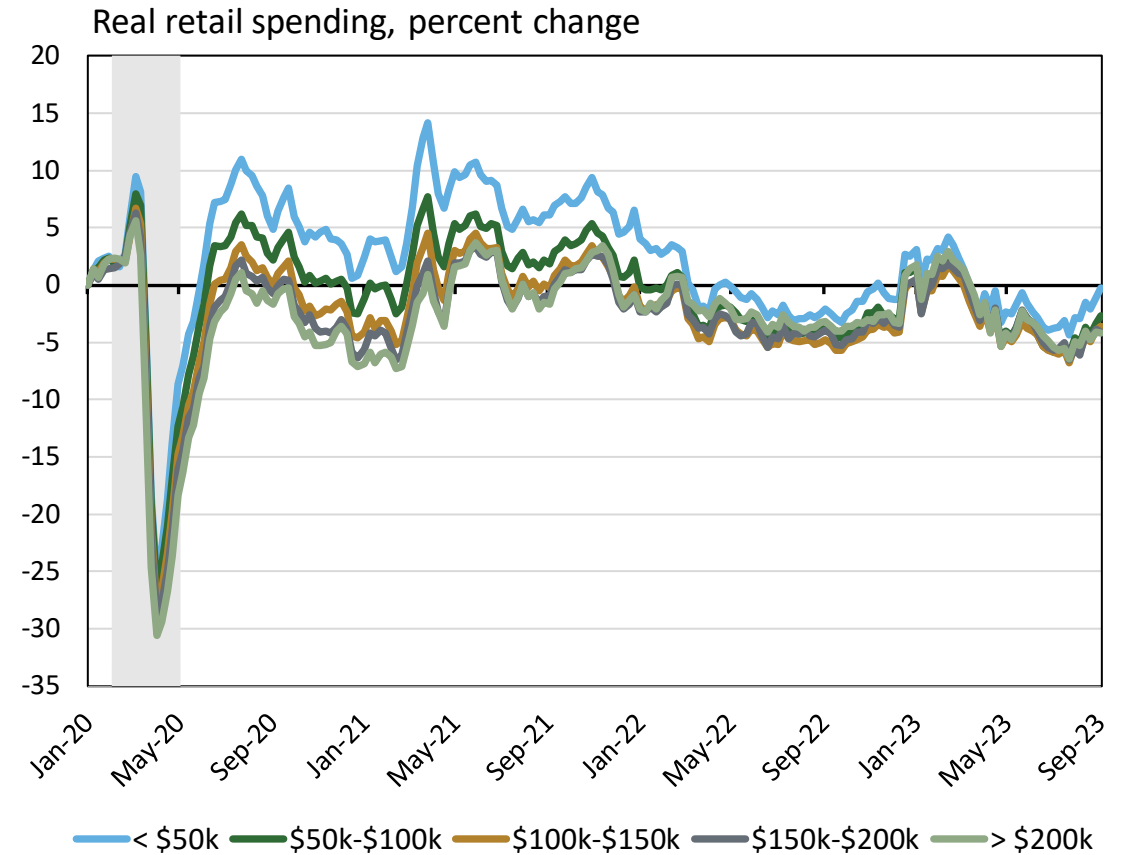
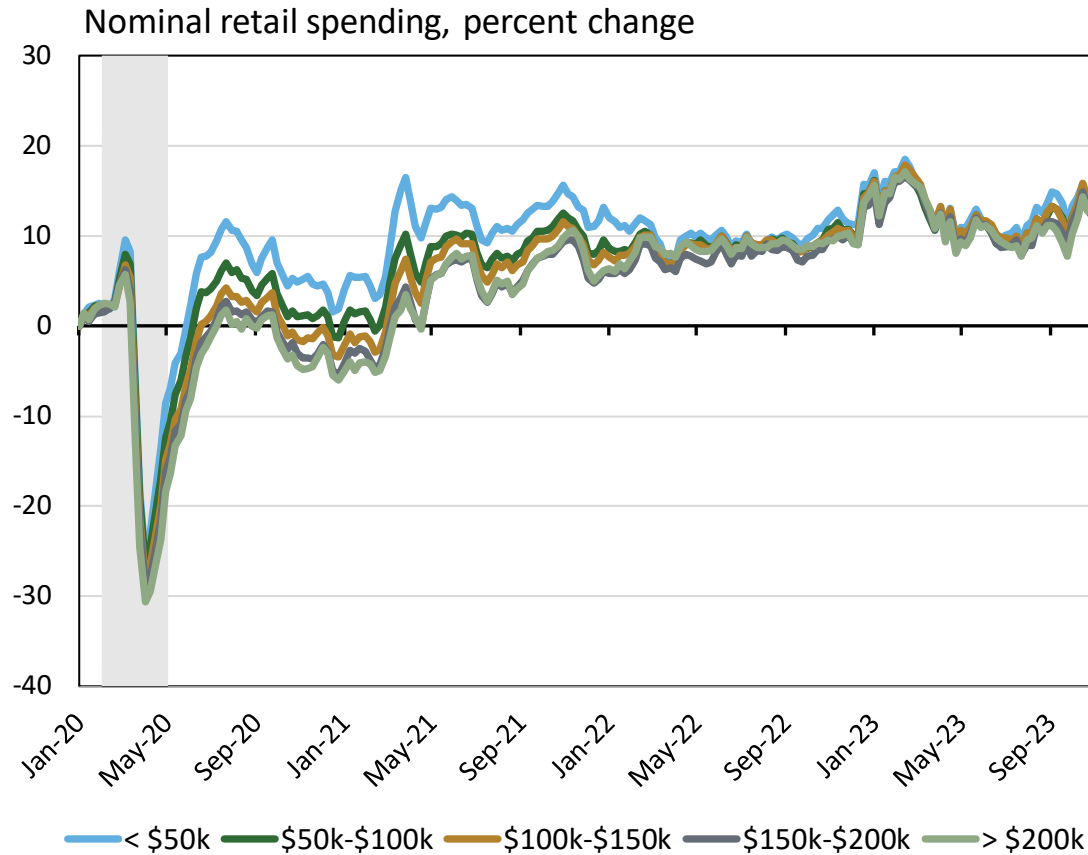


## Data & Methods

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- We leverage a permissioned panel of around 40 million U.S. households' debit and credit card spending from Commerce Signals, a TransUnion company.
- Commerce Signals data correlate well with U.S. Census Bureau data in measuring aggregate trends in retail, restaurants, and gas station spending, but is released at high frequency (weekly).
- Data are seasonally adjusted by first considering a week in the year and dividing over the 52-week moving average centered at that week. The mean of these ratios across years is used as that week's denominator for seasonal adjustment.
- Real consumer spending trends use the demographic inflation price indexes from the Inflation section when possible. For county demographic spending (besides urban vs. rural), regional price indexes are used.
- We define the region to be all counties in New York State, Northern New Jersey, and Fairfield County, Connecticut. This is equivalent to the [Second District of the Federal Reserve](#) excluding Puerto Rico and the US Virgin Islands.

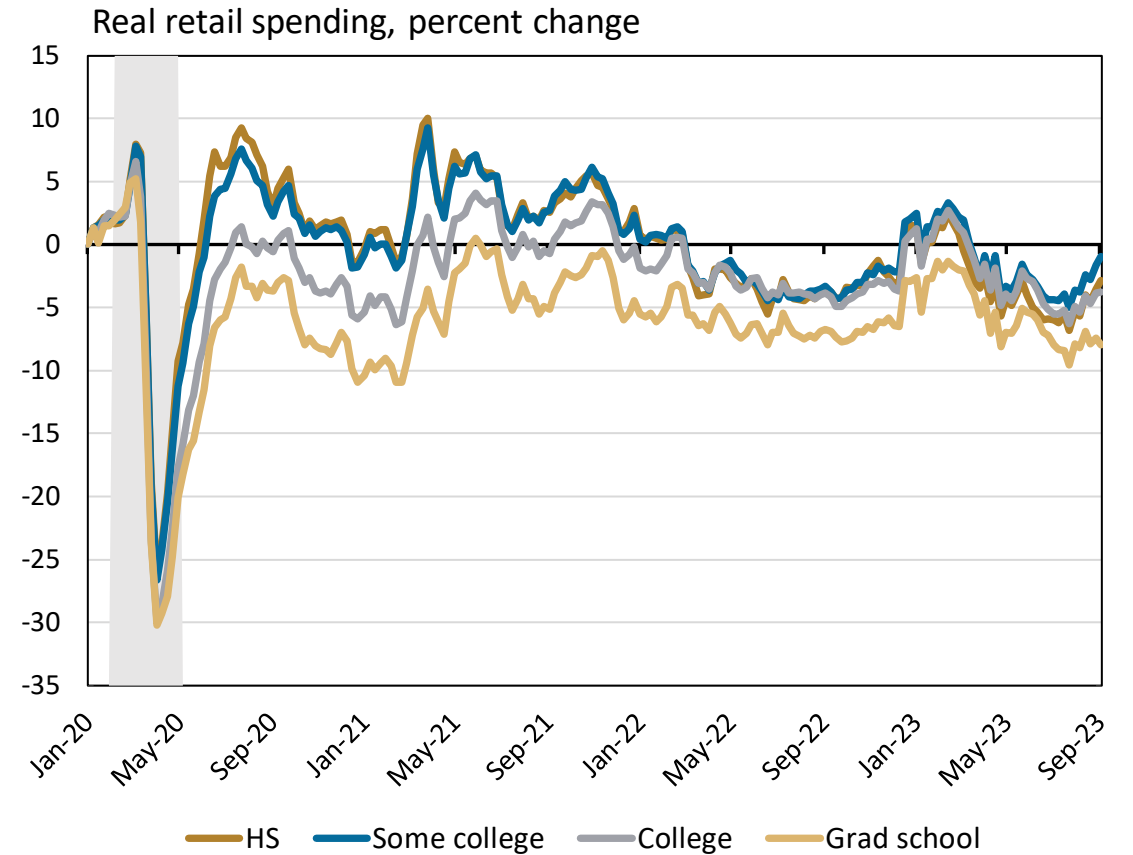
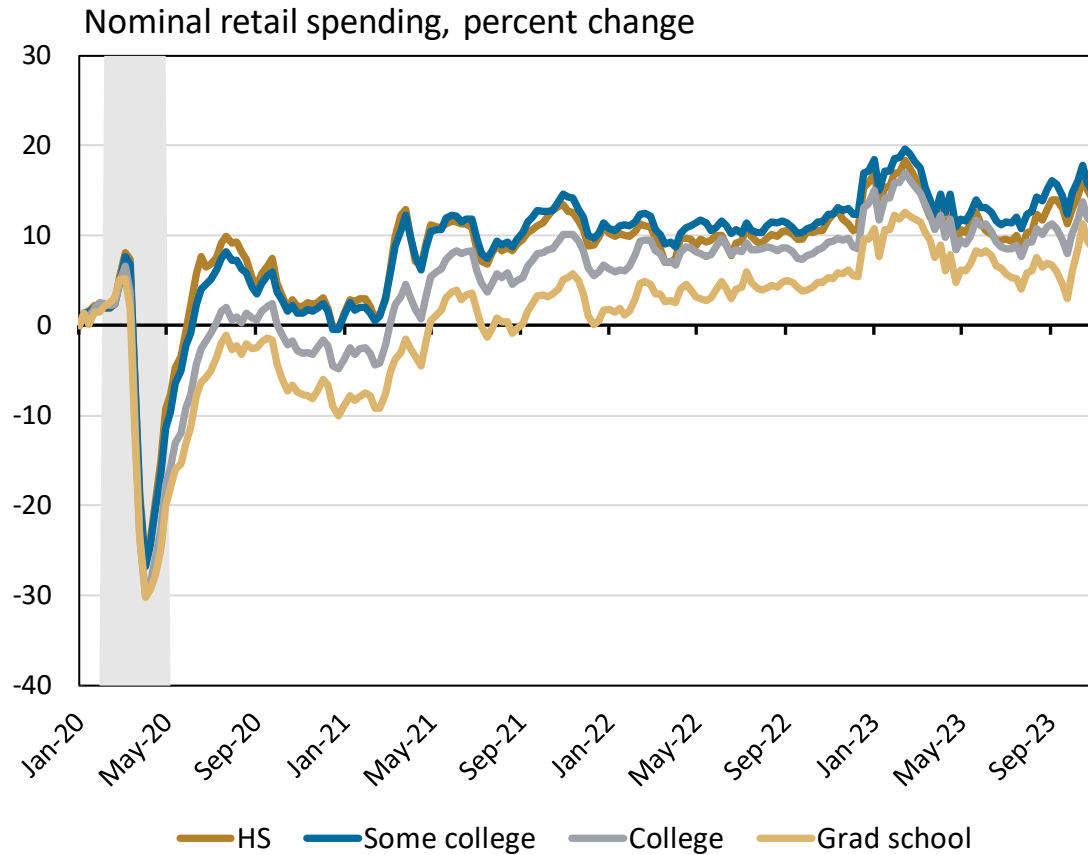
## Retail Spending by Income



Source: Commerce Signals – Three-week moving averages.  
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Retail Spending by Education

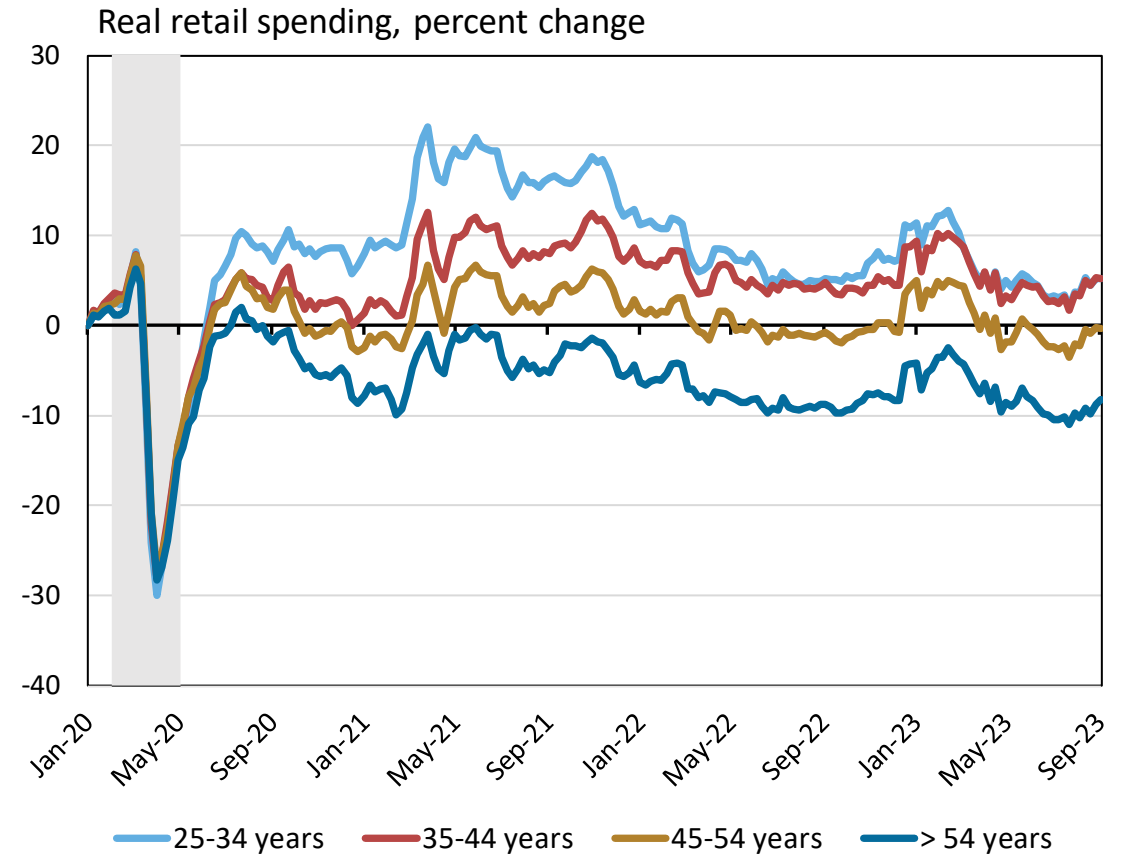
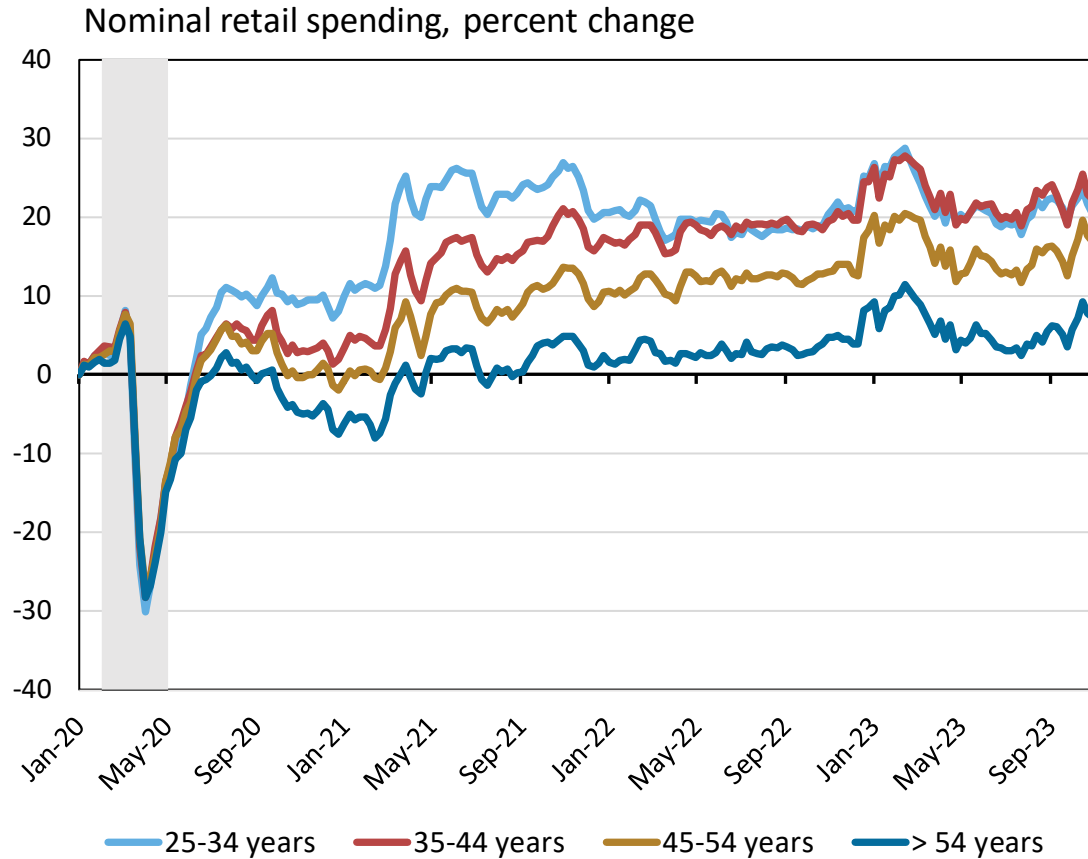


Source: Commerce Signals – Three-week moving averages.

Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Retail Spending by Age

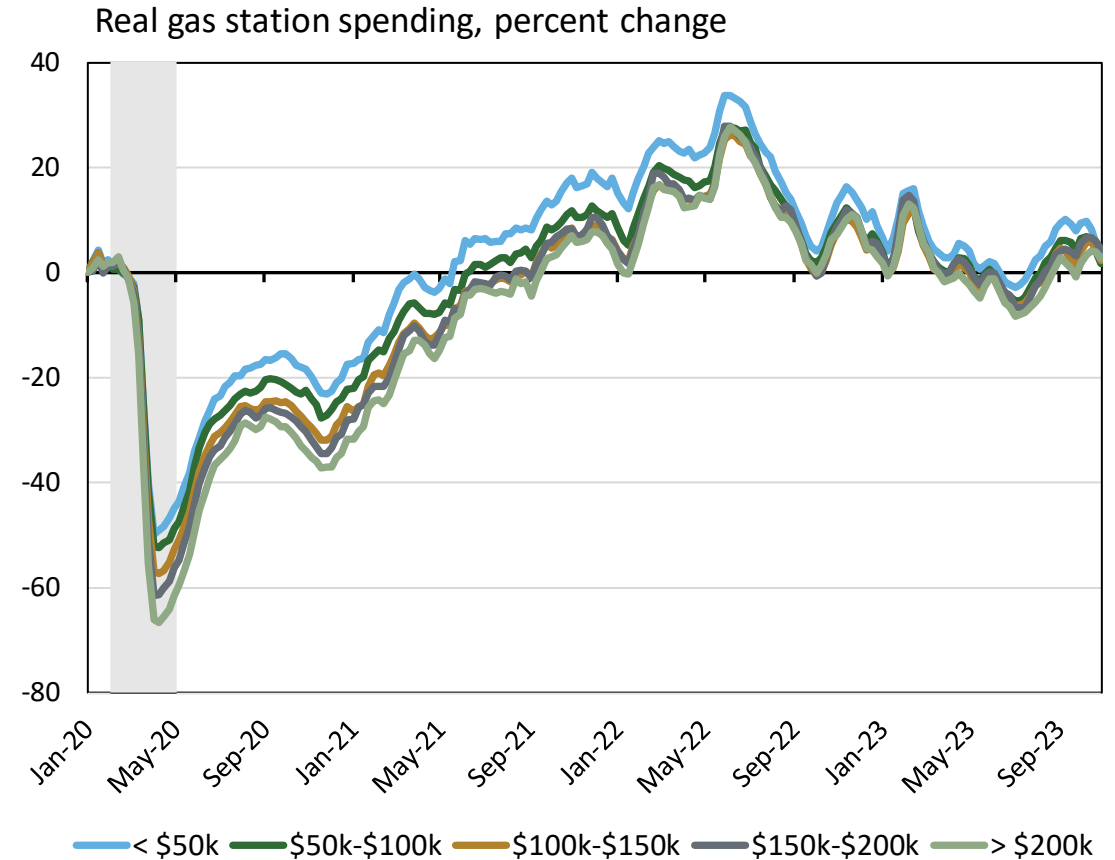
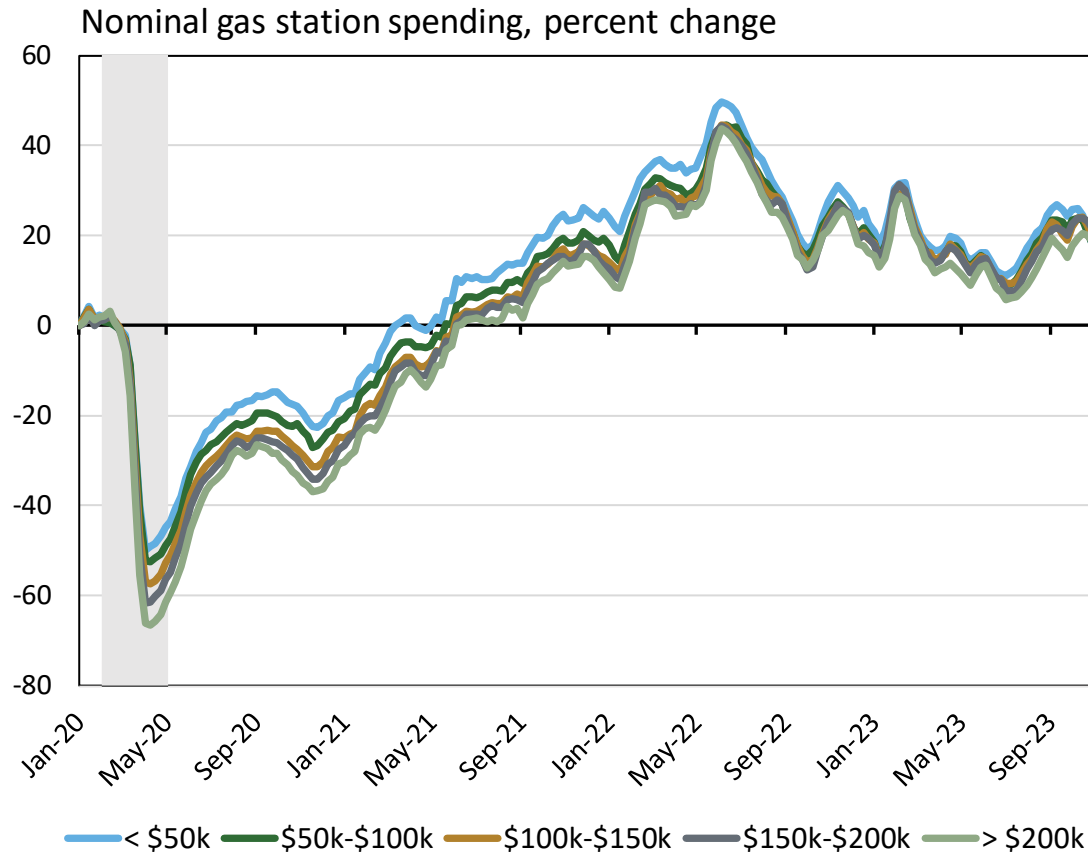


Source: Commerce Signals – Three-week moving averages.

Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Gas Station Spending by Income

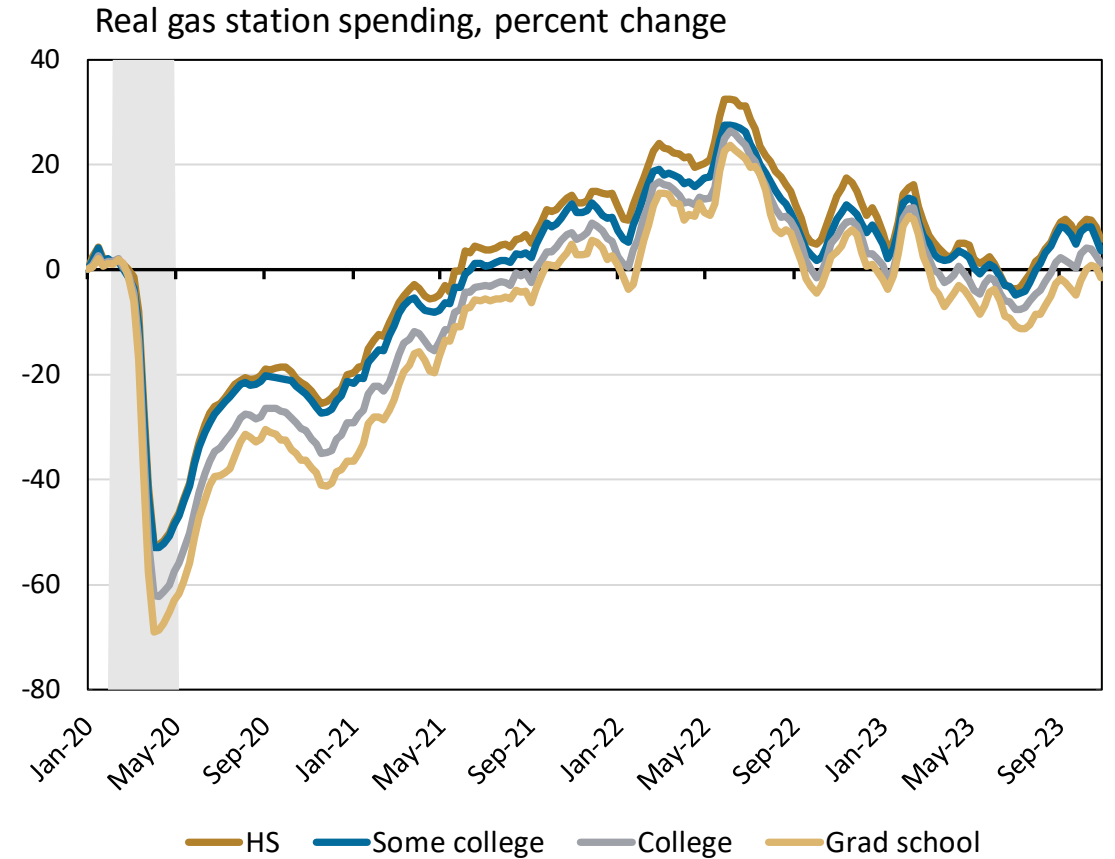
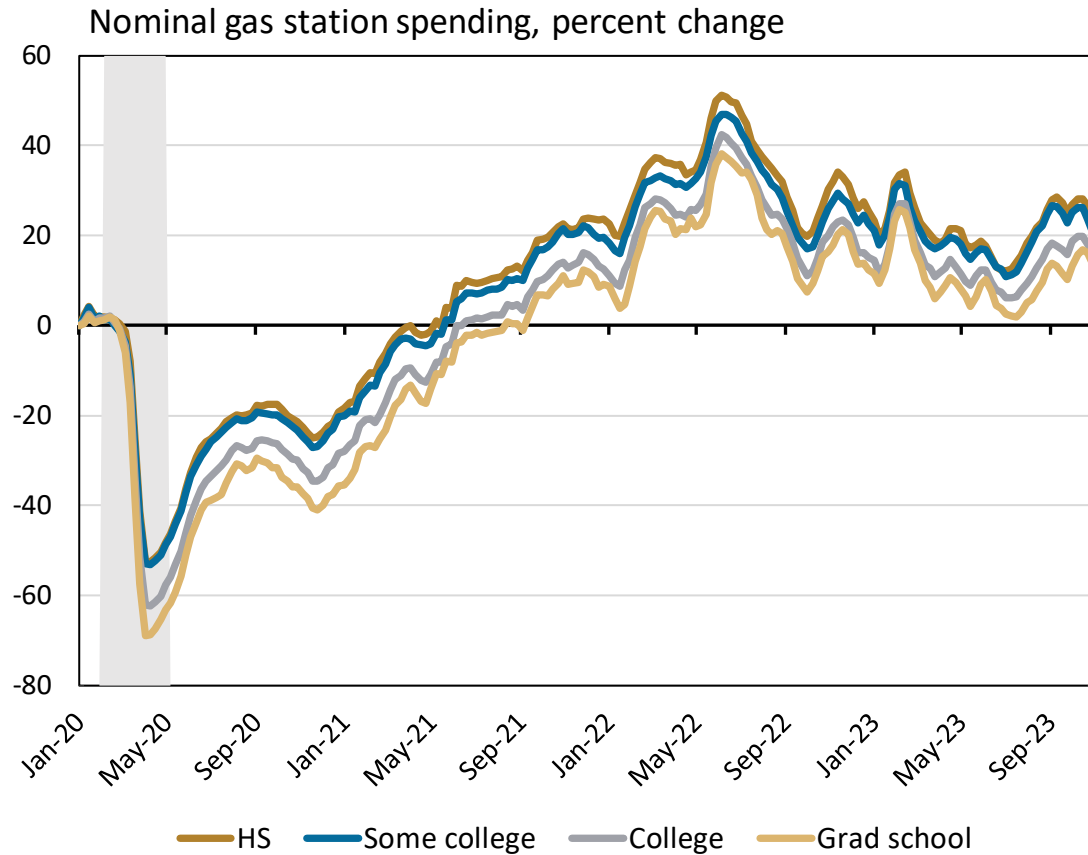


Source: Commerce Signals – Three-week moving averages.

Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Gas Station Spending by Education

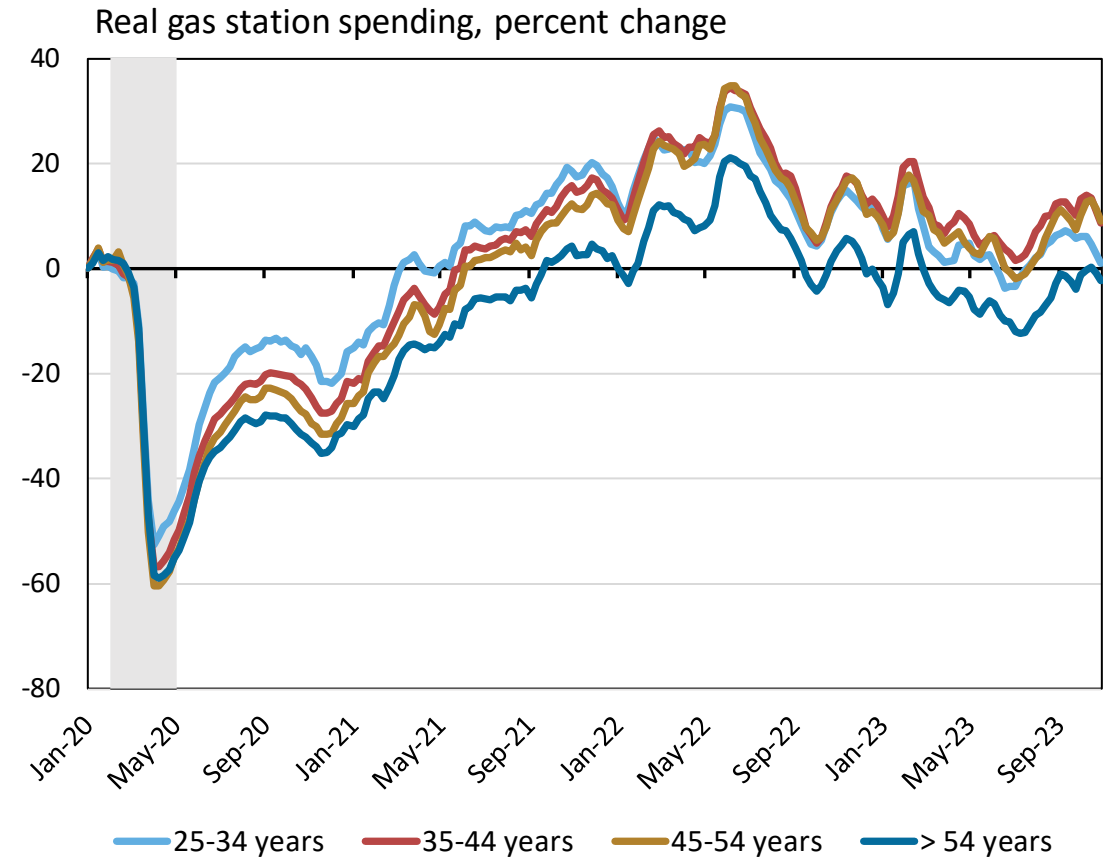
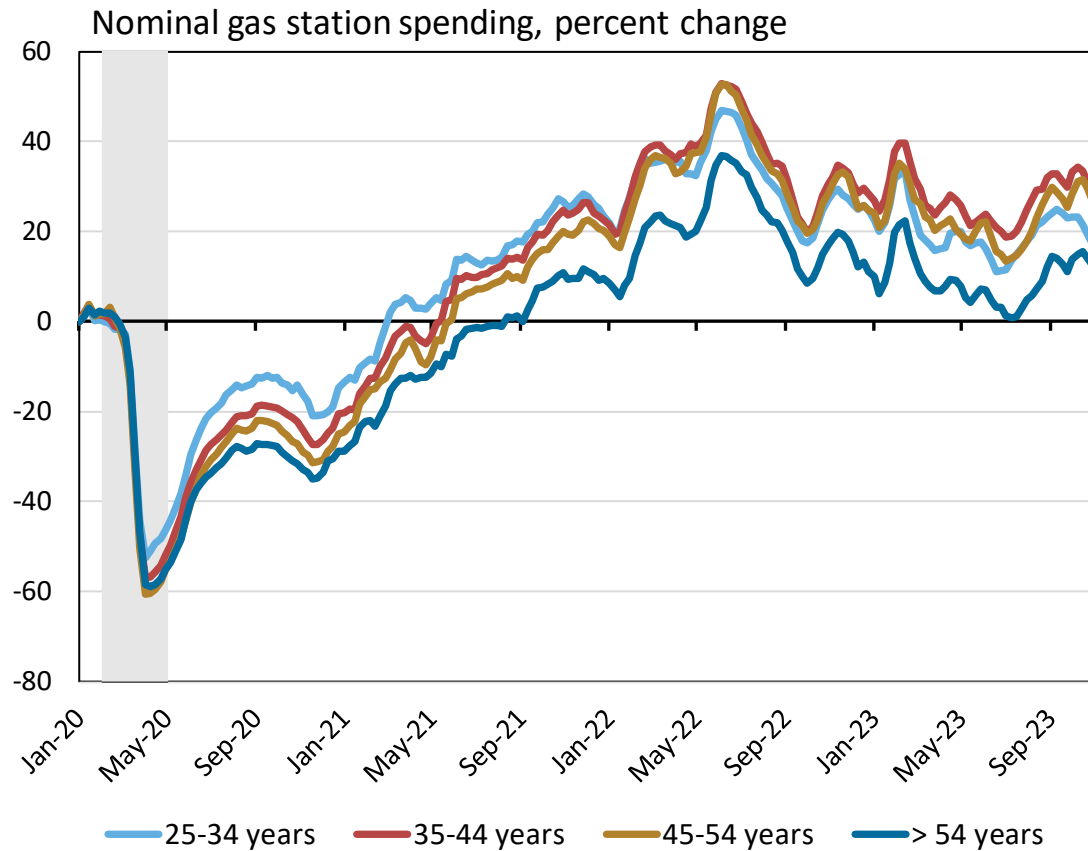


Source: Commerce Signals – Three-week moving averages.

Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Gas Station Spending by Age

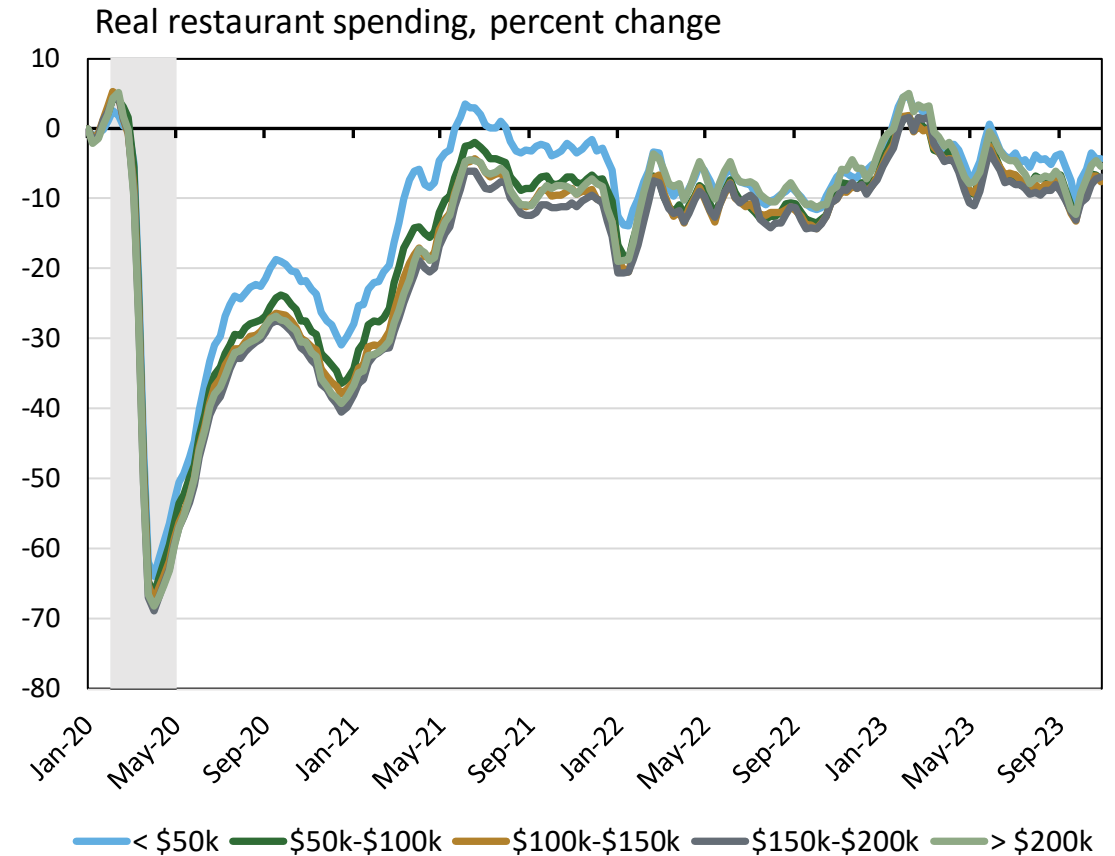
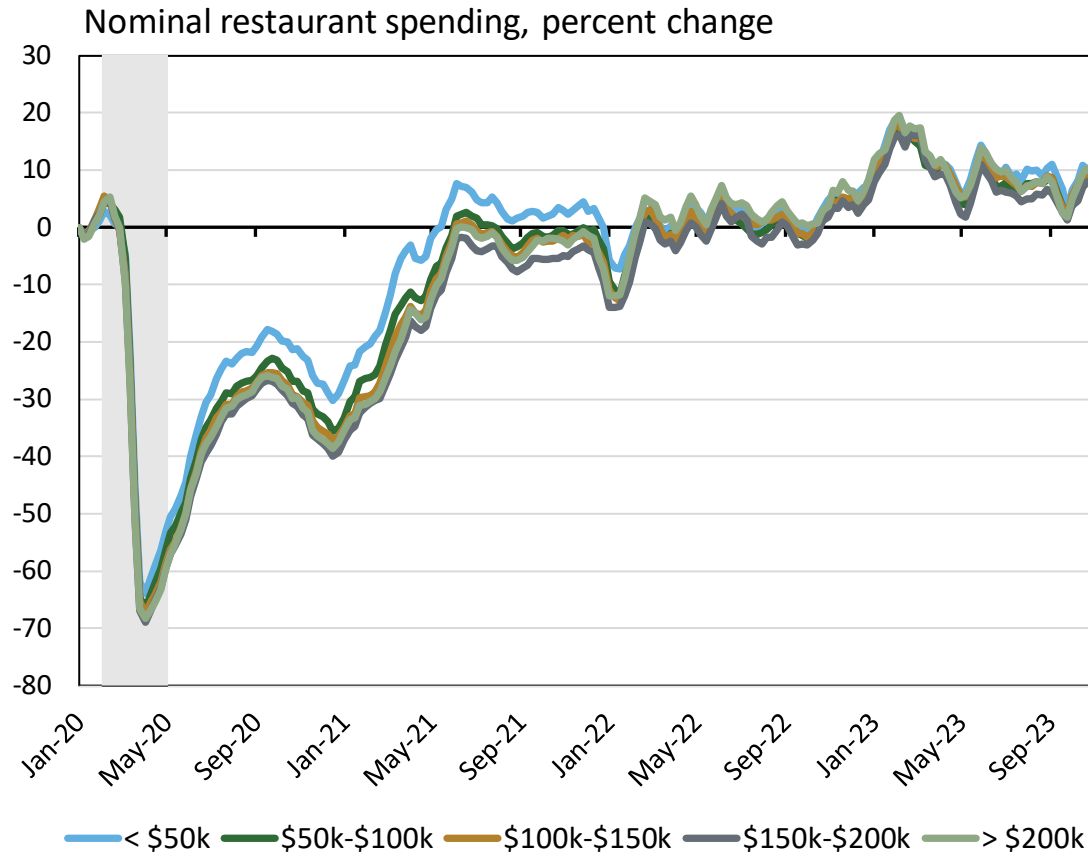


Source: Commerce Signals – Three-week moving averages.

Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Restaurant Spending by Income



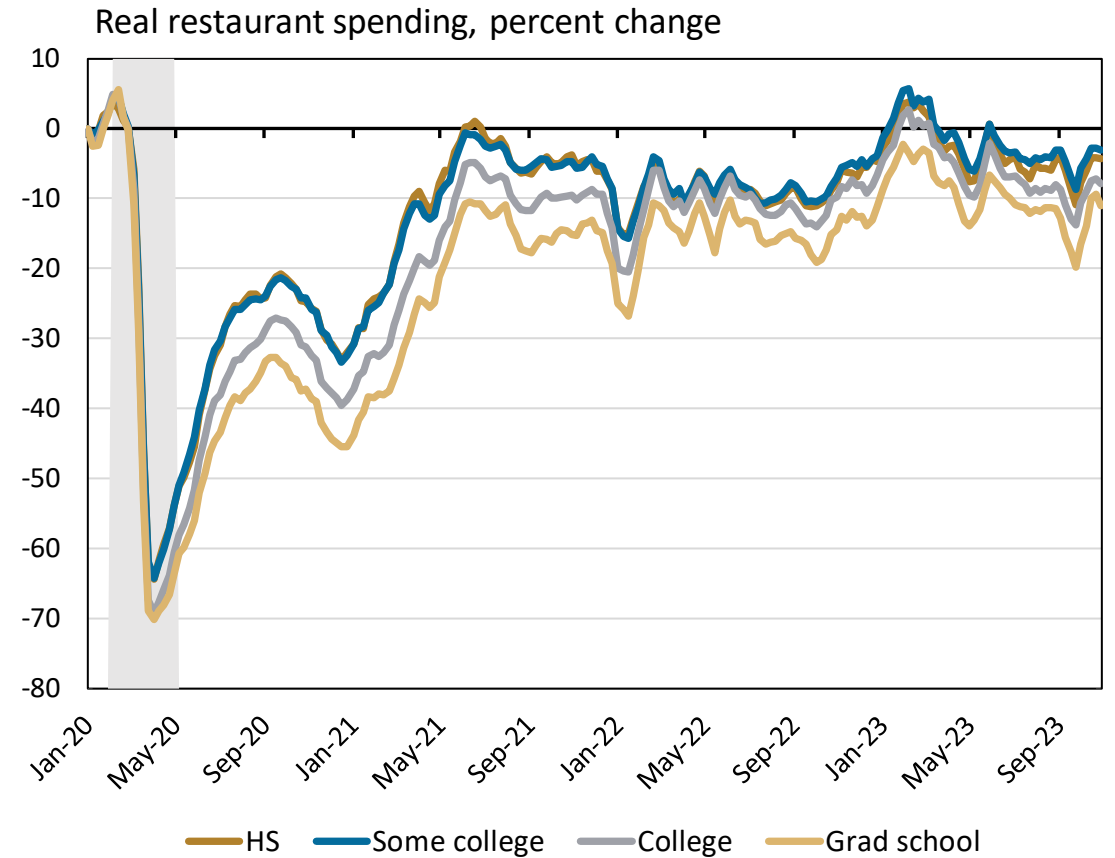
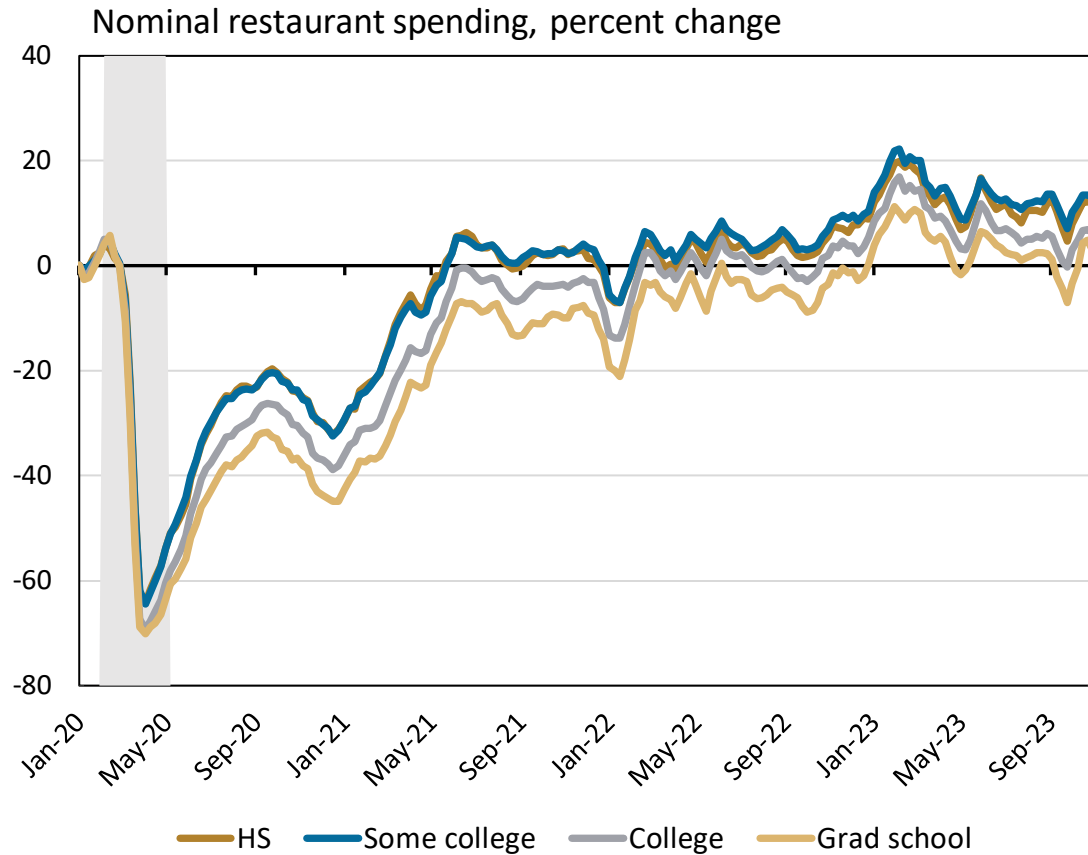
Source: Commerce Signals – Three-week moving averages.

Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.



## Restaurant Spending by Education

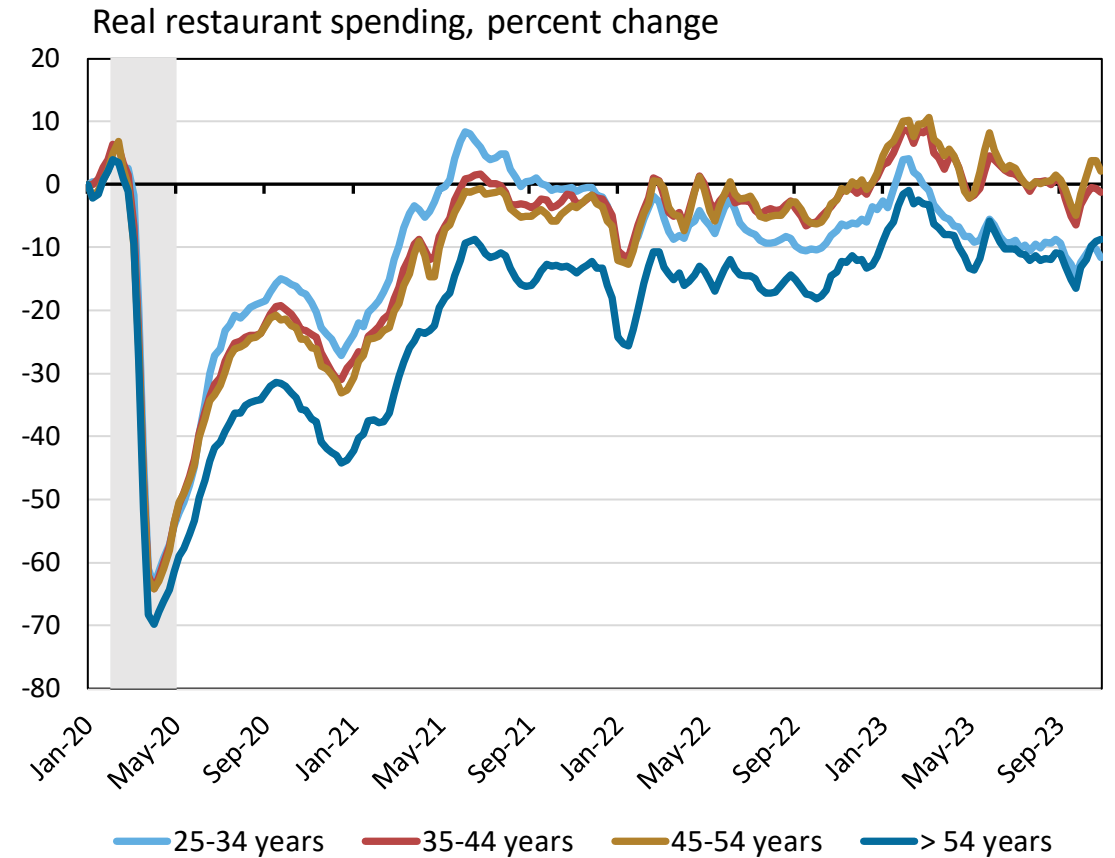
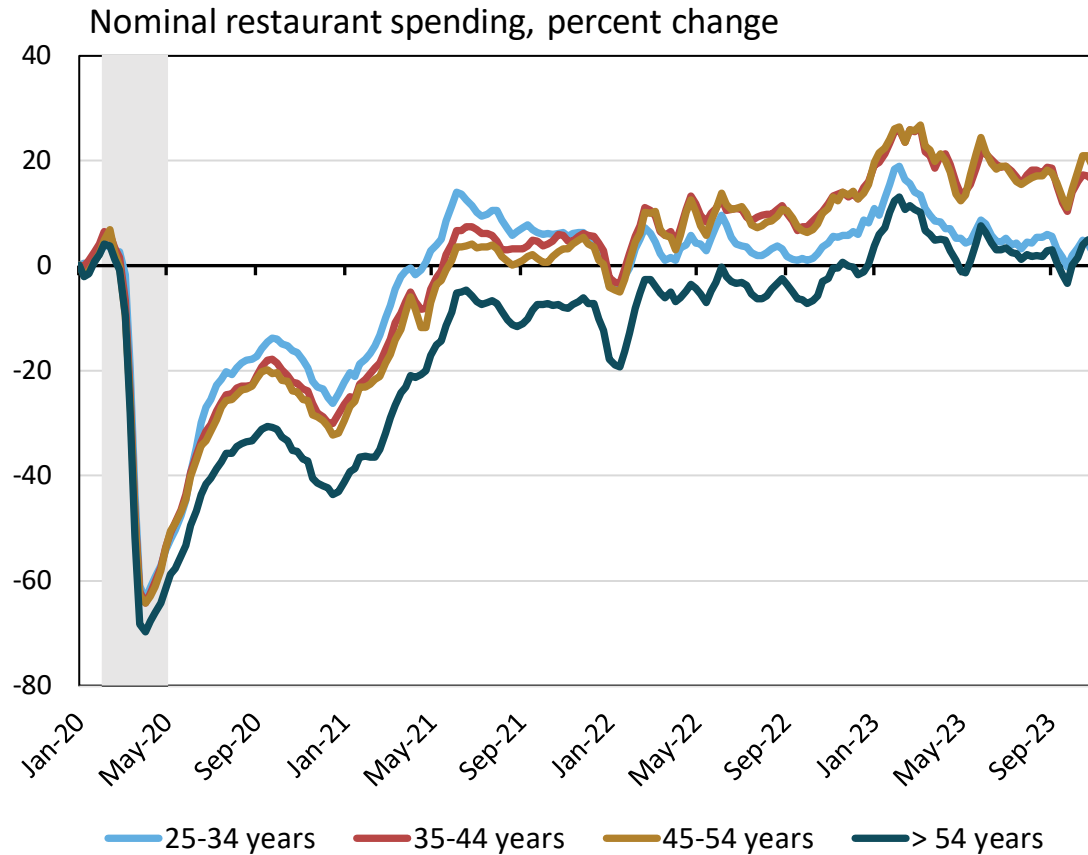


Source: Commerce Signals – Three-week moving averages.

Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Restaurant Spending by Age



Source: Commerce Signals – Three-week moving averages.

Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 4, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Retail Spending by County Household Income

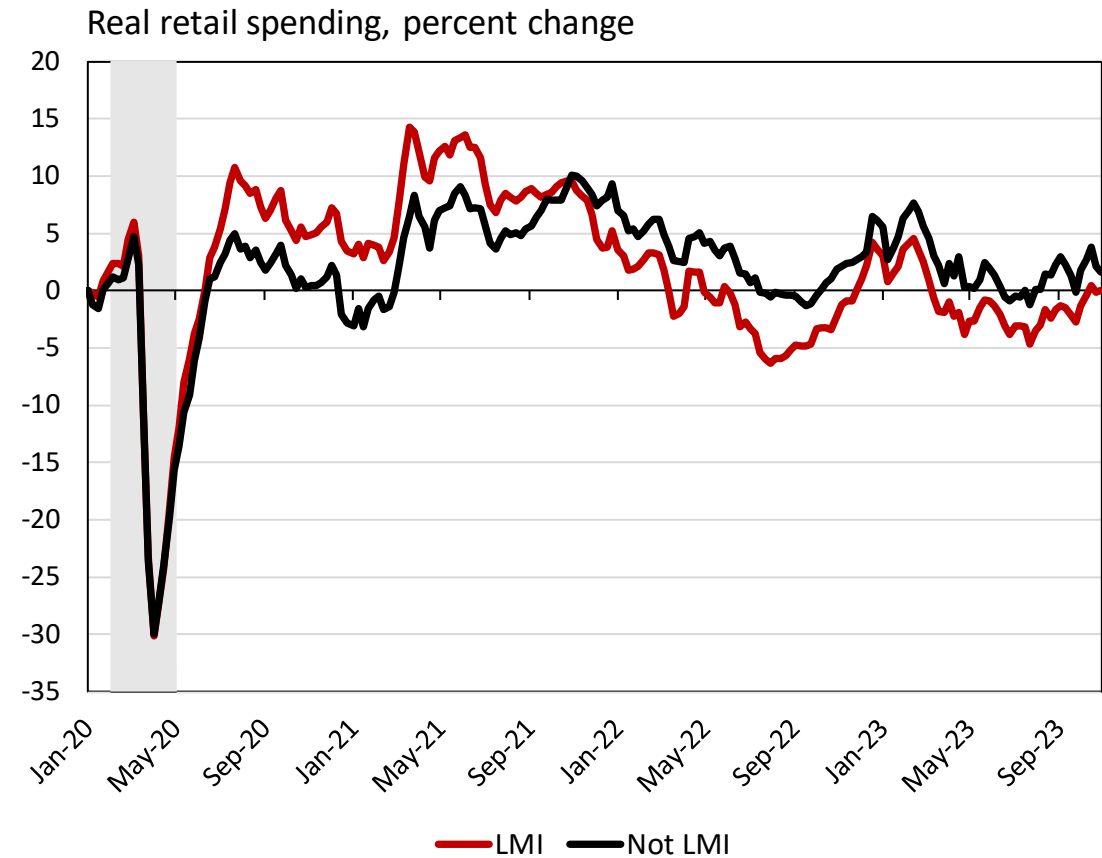
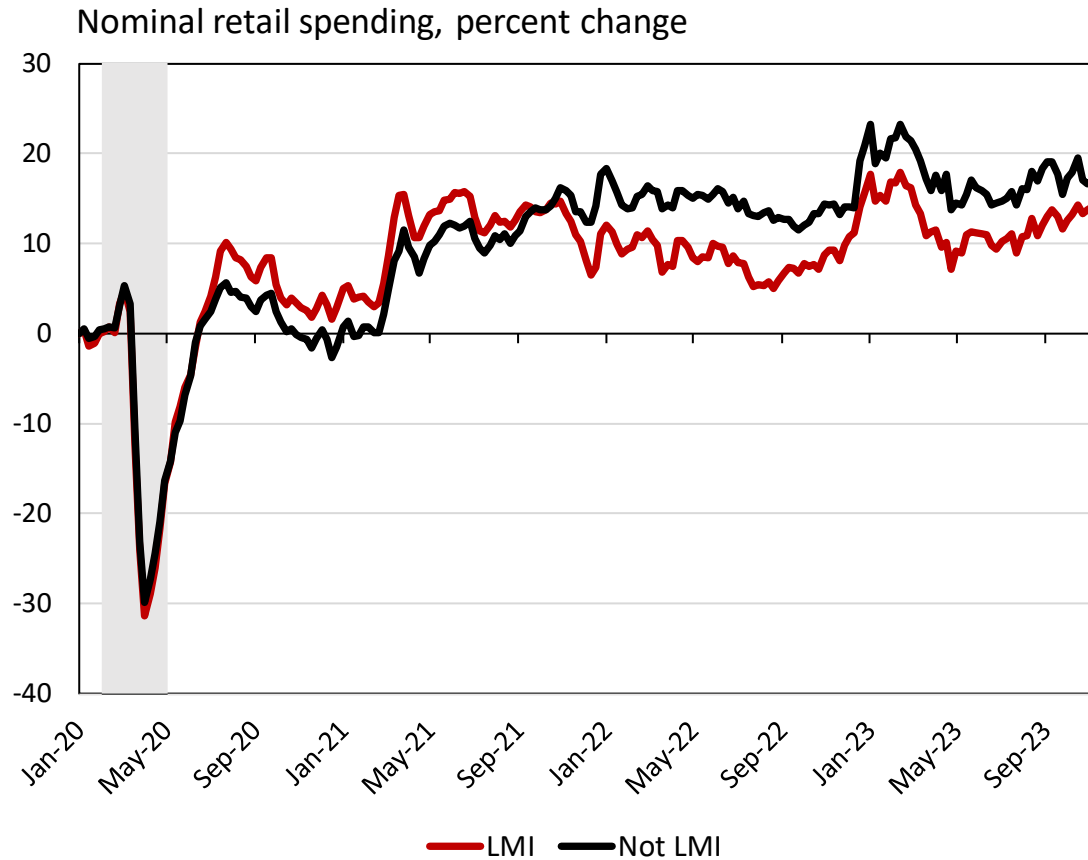


Source: Commerce Signals – Three-week moving averages.

Notes: Low-income counties are defined as those with household incomes below the 25<sup>th</sup> percentile of national household income. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Retail Spending by Low to Moderate Income (LMI) Status

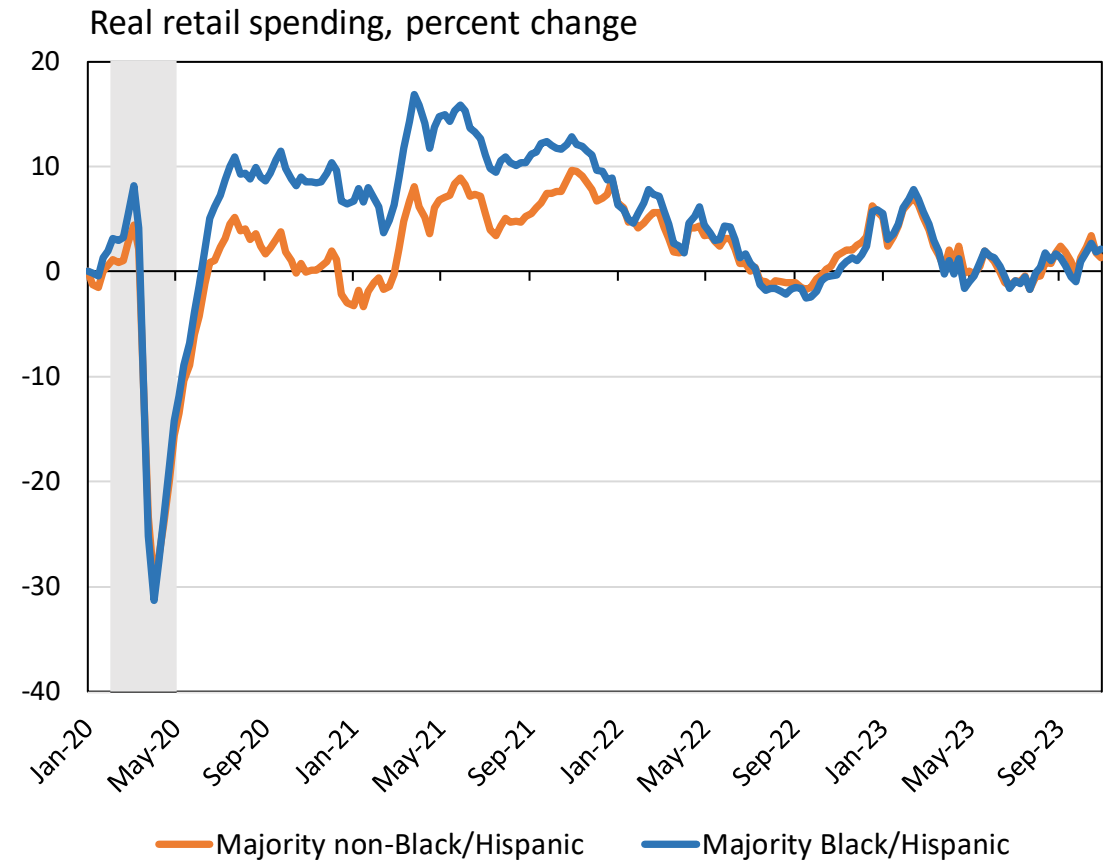
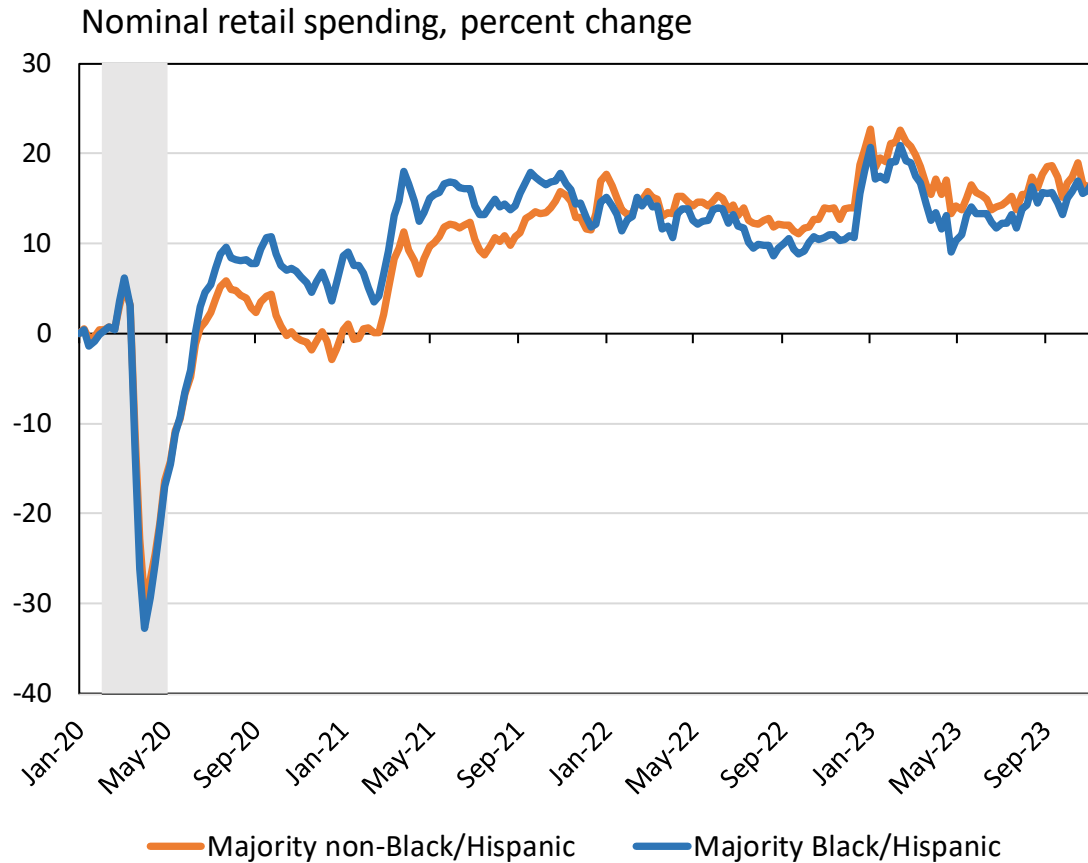


Source: Commerce Signals – Three-week moving averages.

Notes: Low-to-moderate income (LMI) counties are defined as those where the majority of households earn below 80% of the metro area median. Real spending uses corresponding urban/rural prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Retail Spending by County Demographics

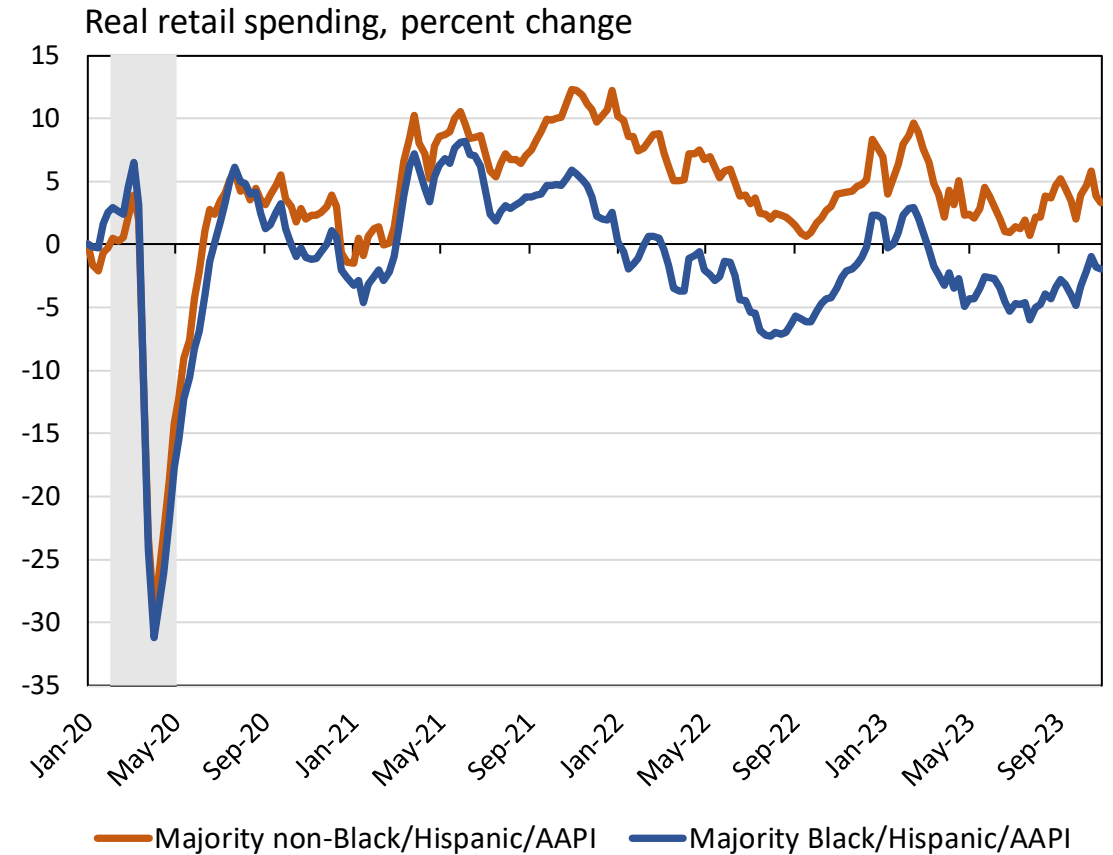
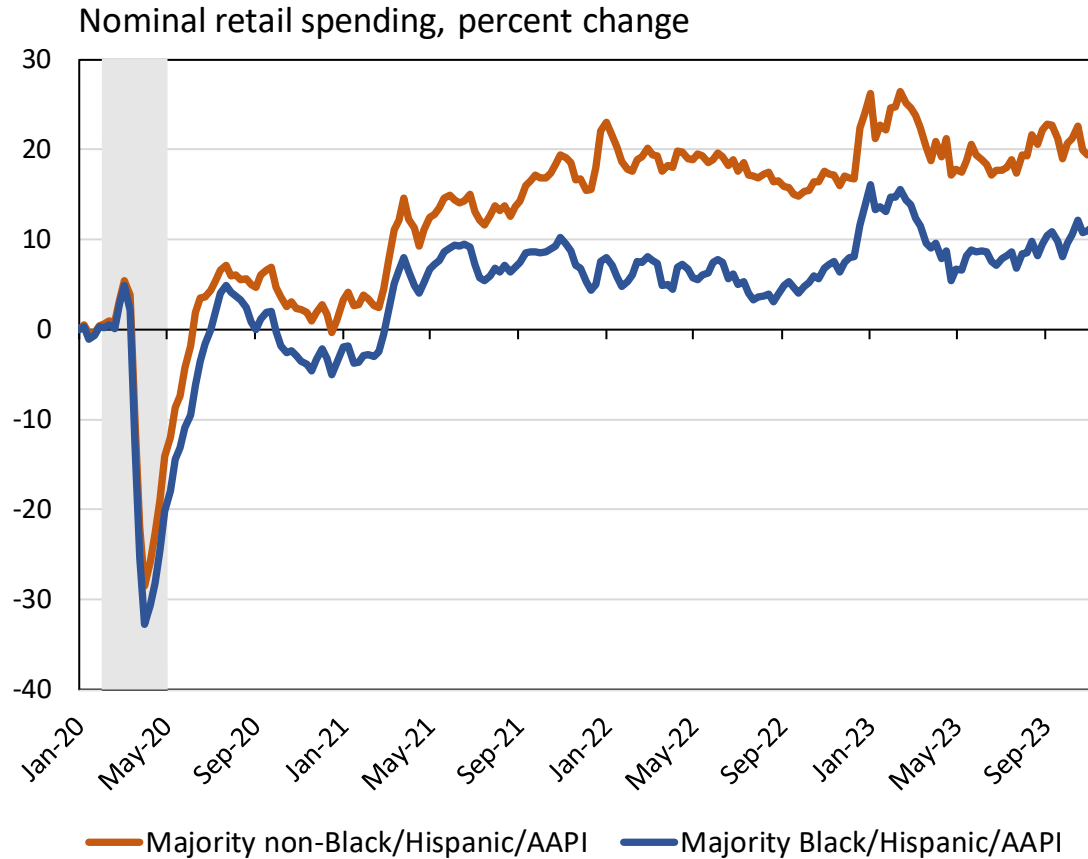


Source: Commerce Signals – Three-week moving averages.

Notes: Majority Black/Hispanic counties are defined as those where greater than 50% of the county’s population is Black or Hispanic. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Retail Spending by County Demographics

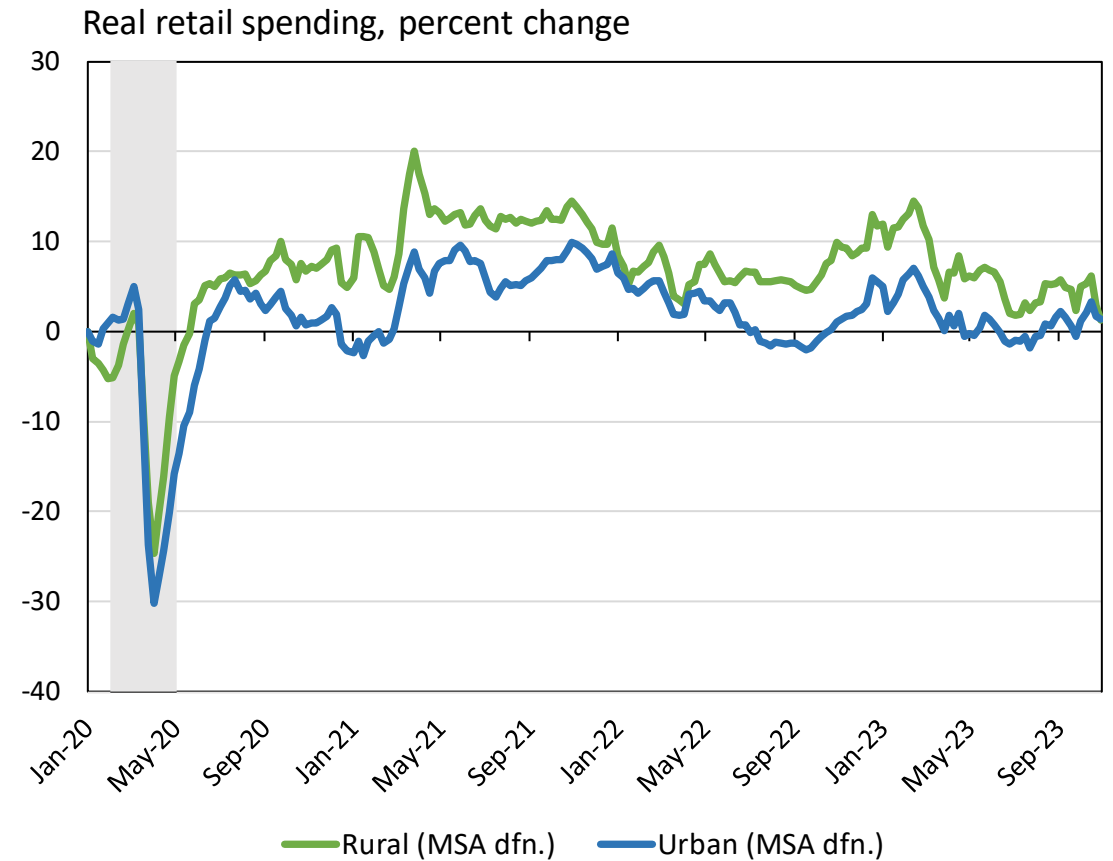
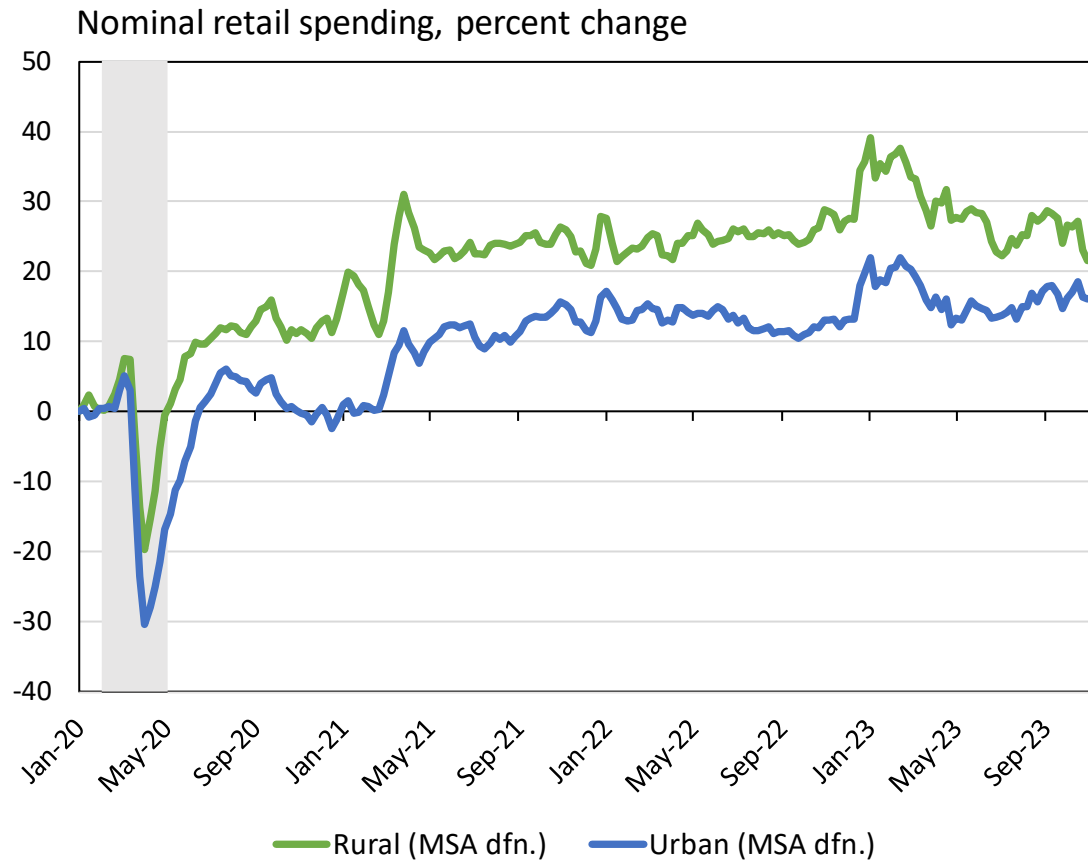


Source: Commerce Signals – Three-week moving averages.

Notes: Majority Black/Hispanic/AAPI counties are defined as those where greater than 50% of the county’s population is Black, Hispanic, or AAPI. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Retail Spending by County Urban/Rural Status

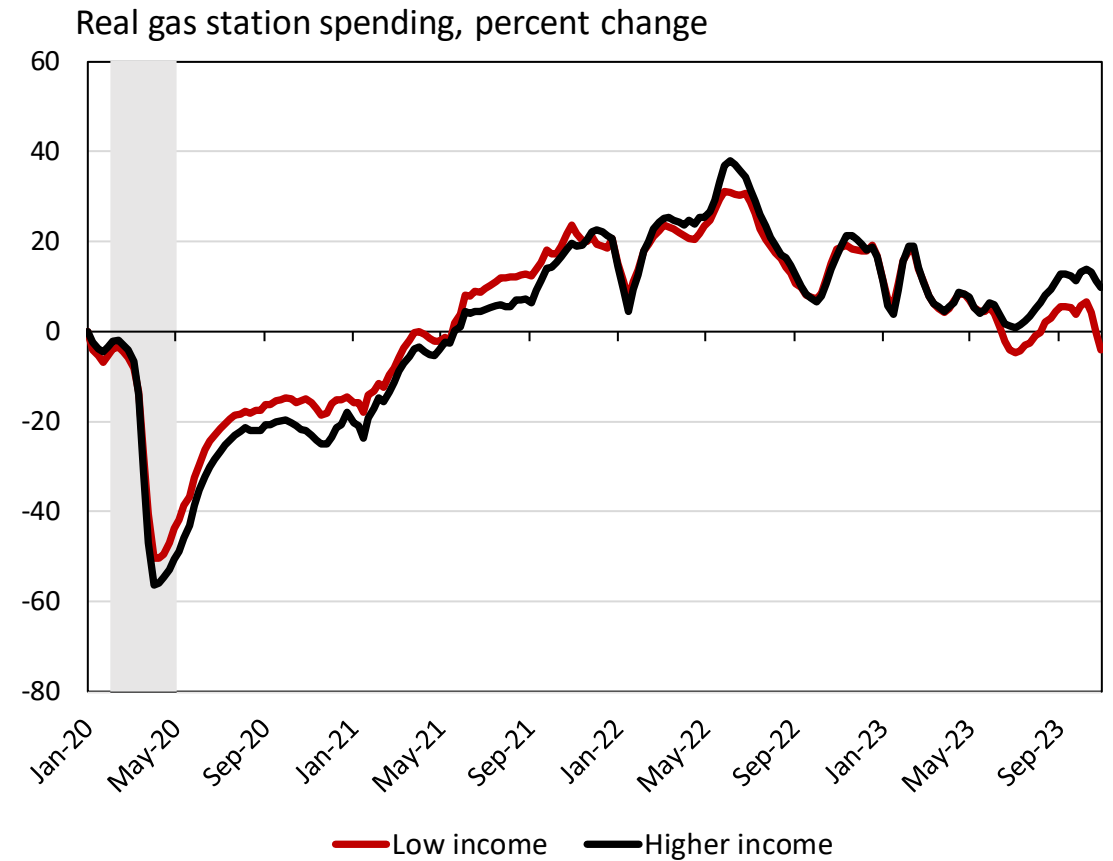
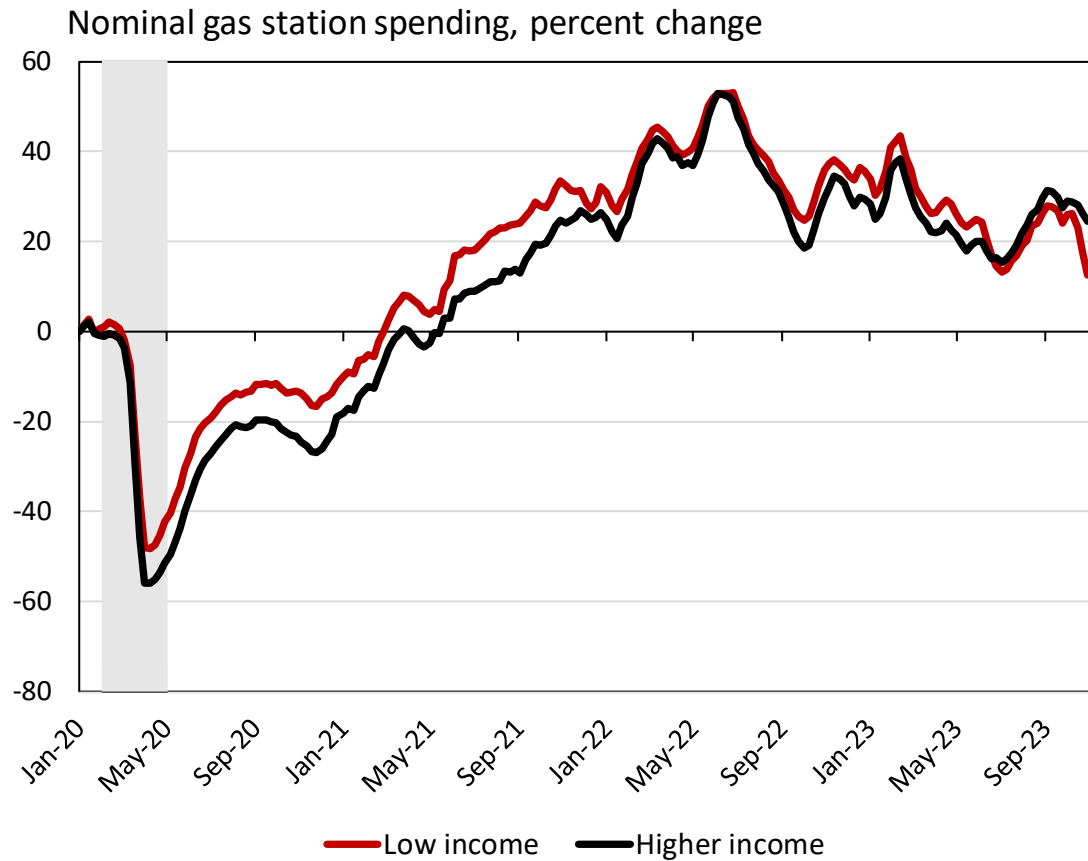


Source: Commerce Signals – Three-week moving averages.

Notes: Urban counties are defined as those located in a Metropolitan Statistical Area (MSA). Real spending uses corresponding urban prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Gas Station Spending by County Household Income



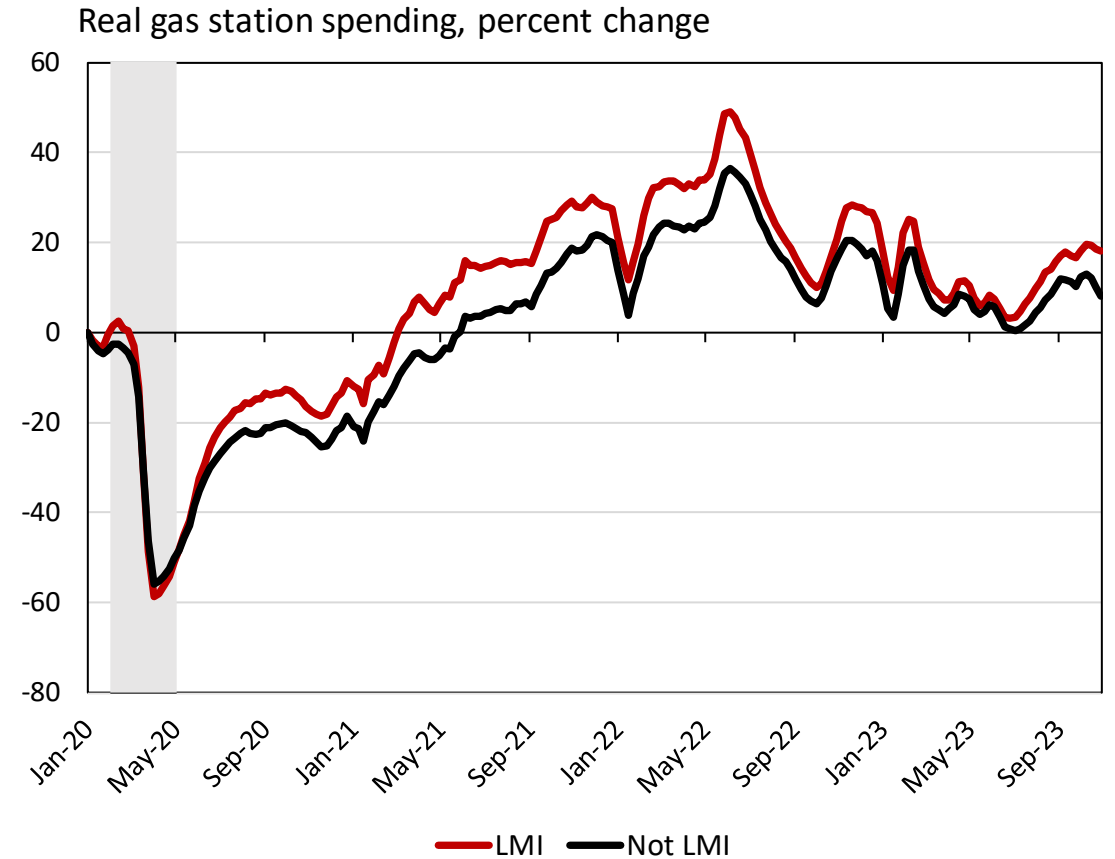
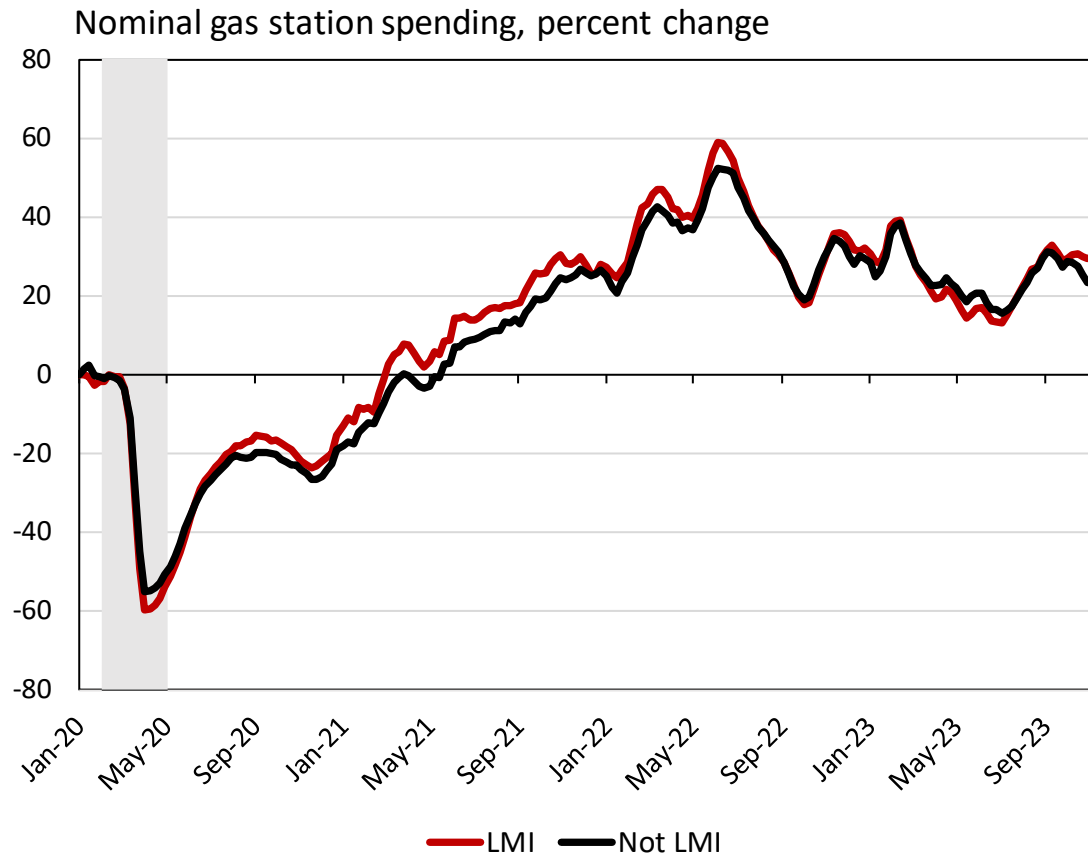
Source: Commerce Signals – Three-week moving averages.

Notes: Low-income counties are defined as those with household incomes below the 25<sup>th</sup> percentile of national household income. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.



## Gas Station Spending by Low to Moderate Income (LMI) Status

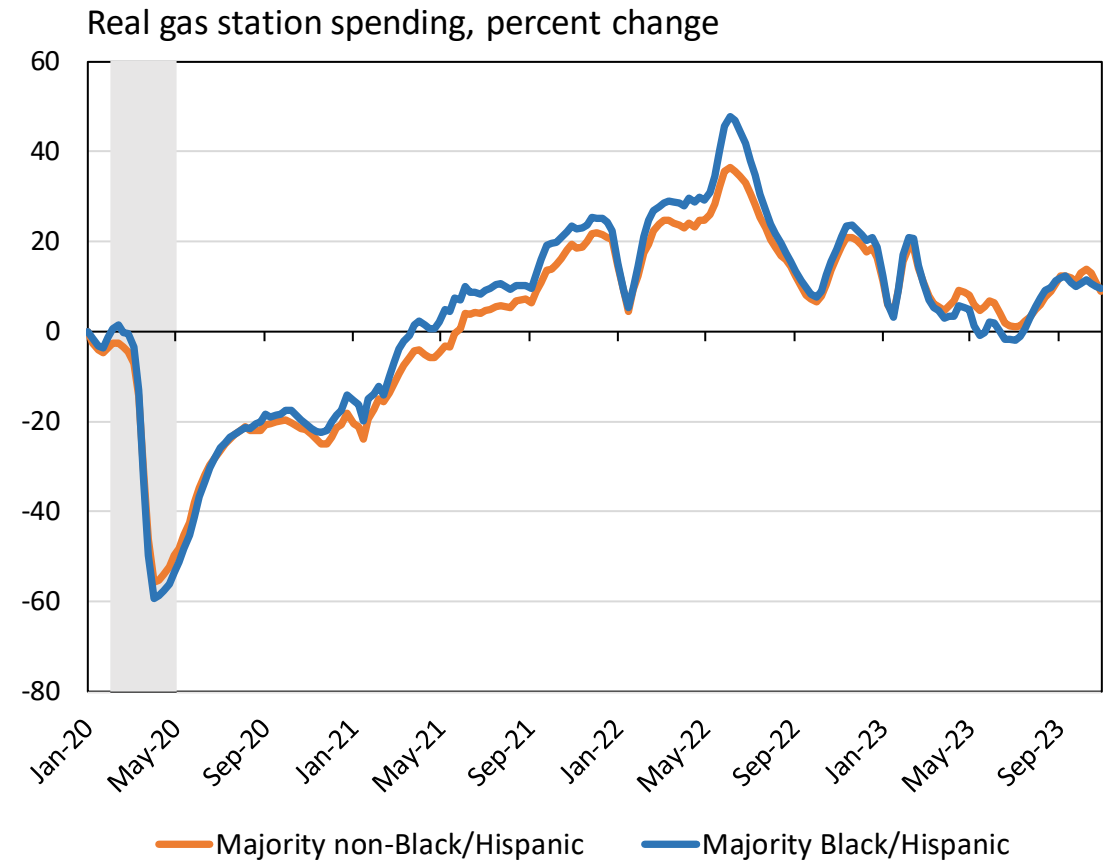
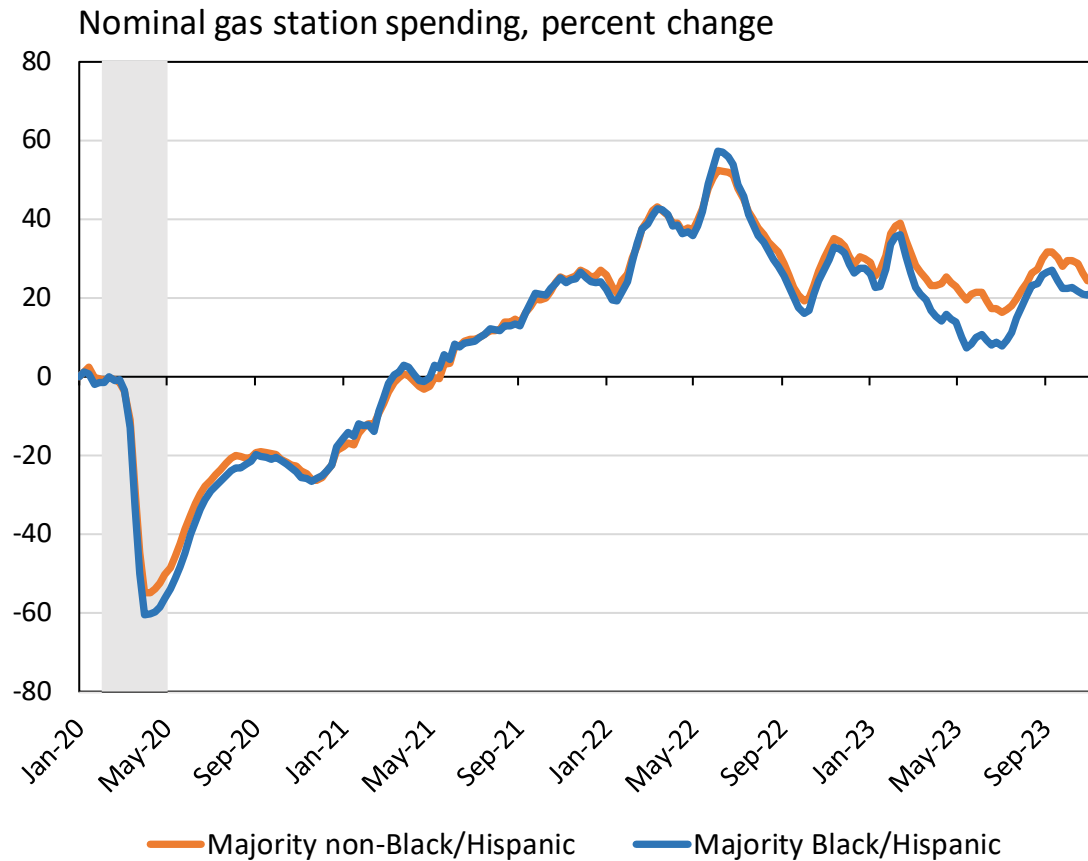


Source: Commerce Signals – Three-week moving averages.

Notes: Low-to-moderate income (LMI) counties are defined as those where the majority of households earn below 80% of the metro area median. Real spending uses corresponding urban/rural prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

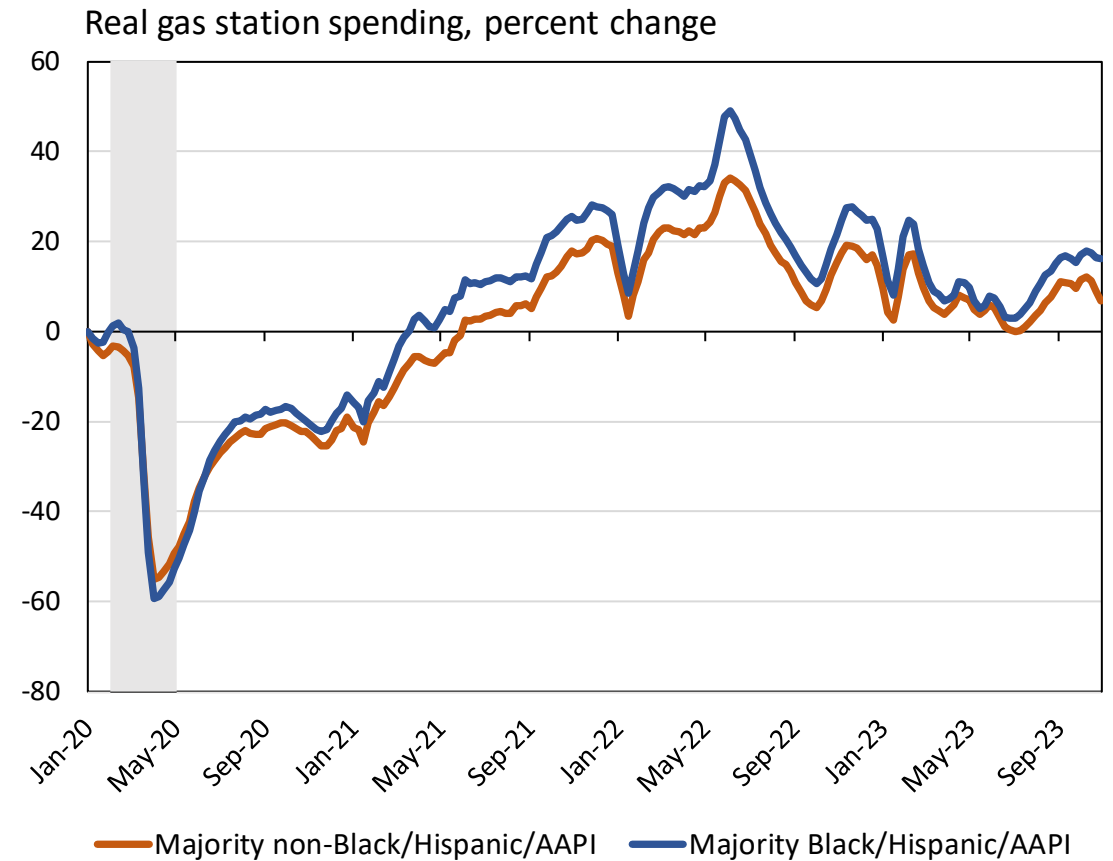
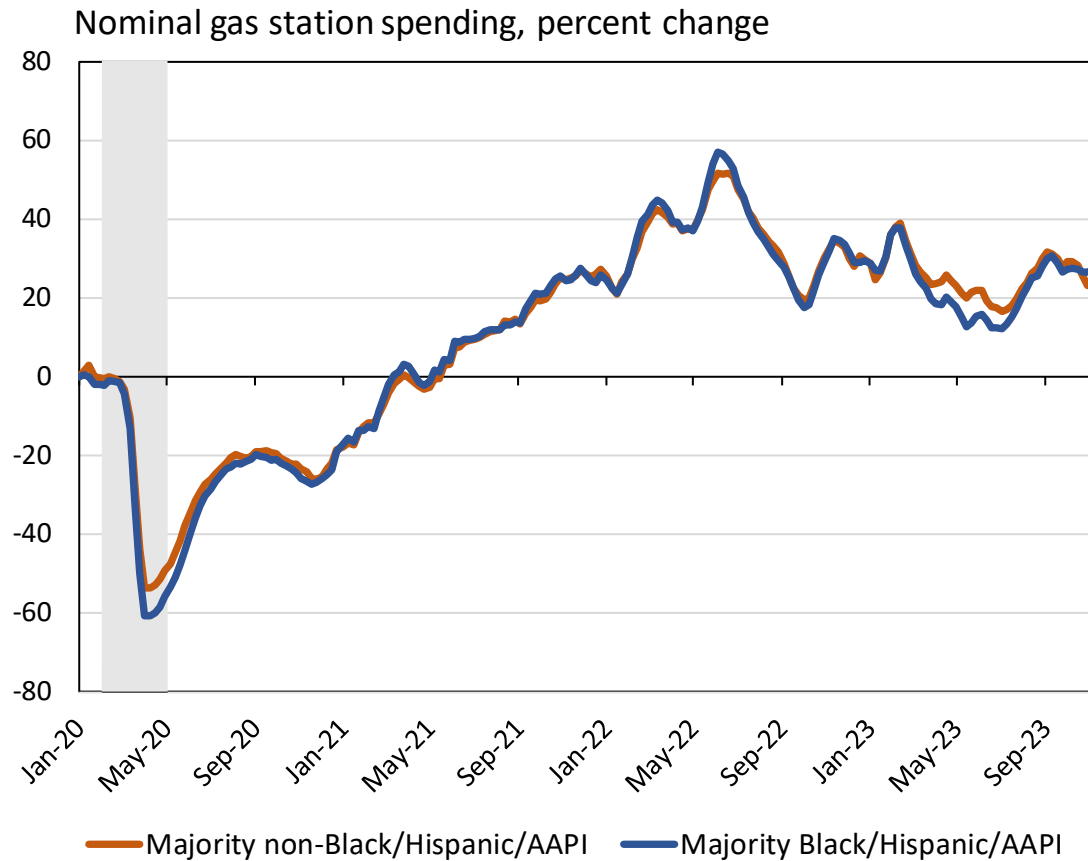
## Gas Station Spending by County Demographics



Source: Commerce Signals – Three-week moving averages,  
 Notes: Majority Black/Hispanic counties are defined as those where greater than 50% of the county's population is Black or Hispanic. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Gas Station Spending by County Demographics

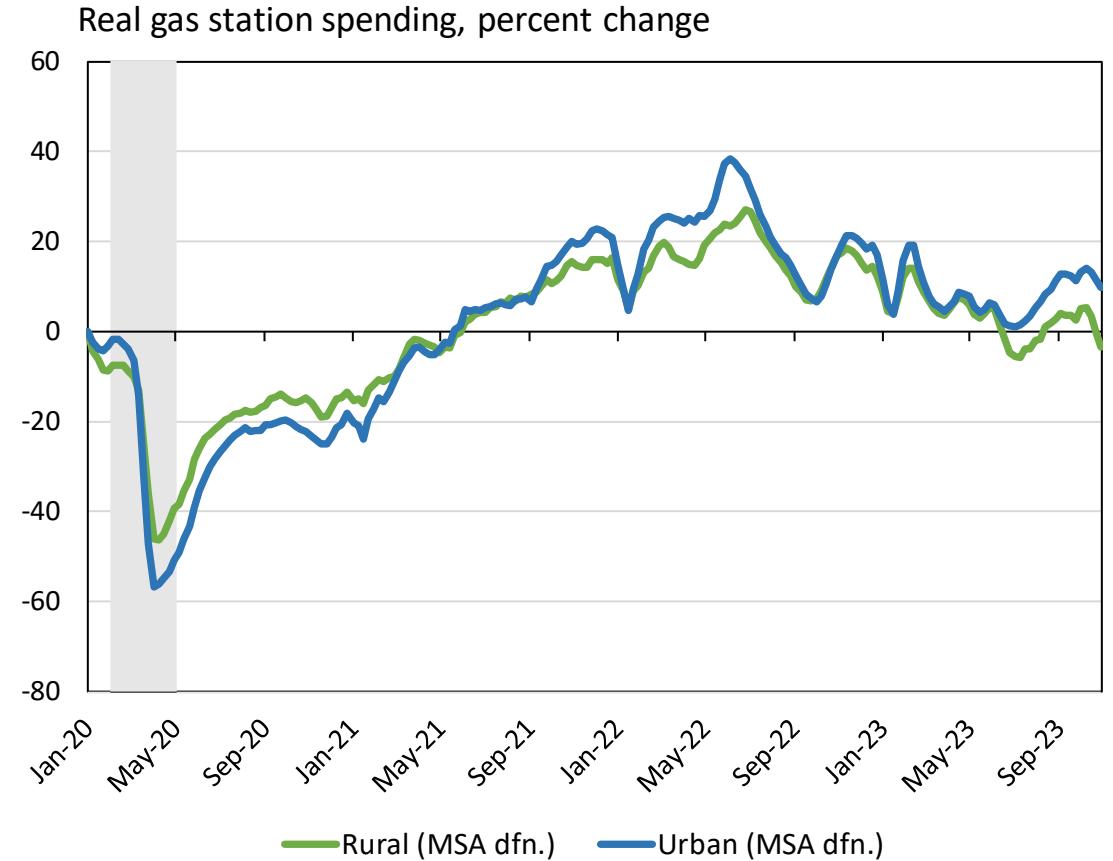
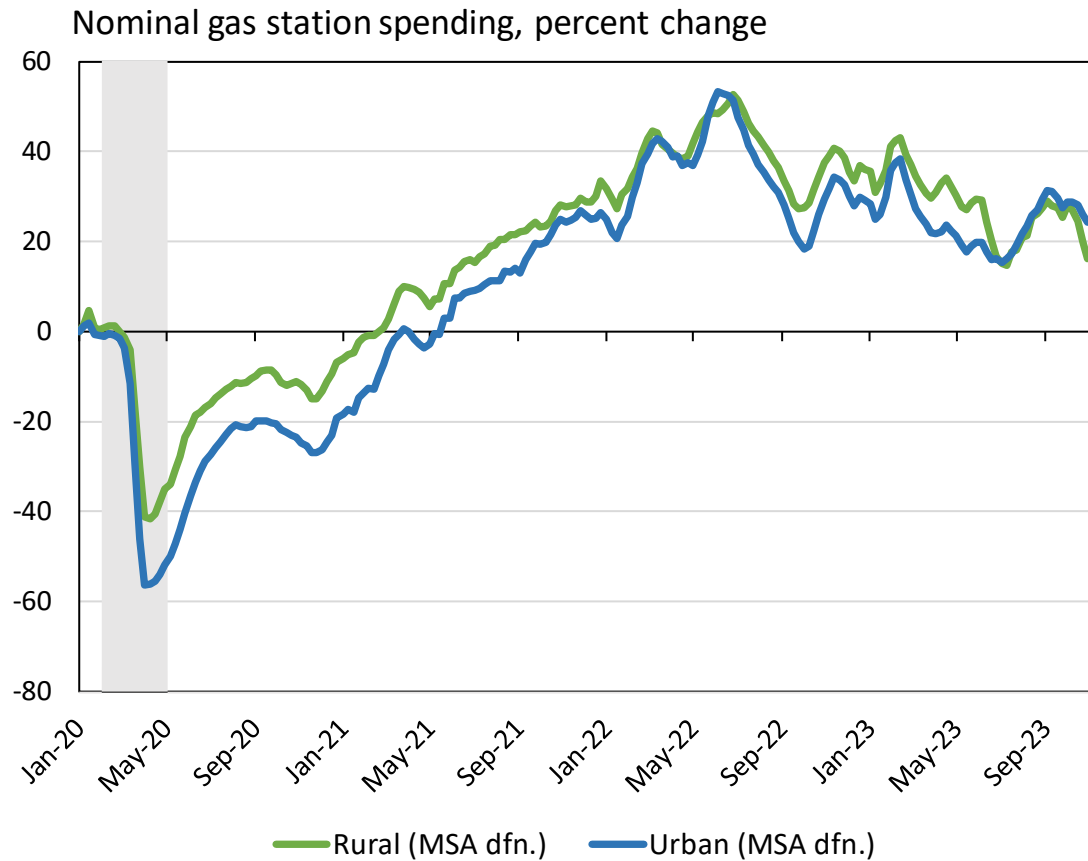


Source: Commerce Signals – Three-week moving averages.

Notes: Majority Black/Hispanic/AAPI counties are defined as those where greater than 50% of the county's population is Black, Hispanic, or AAPI. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Gas Station Spending by County Urban/Rural Status

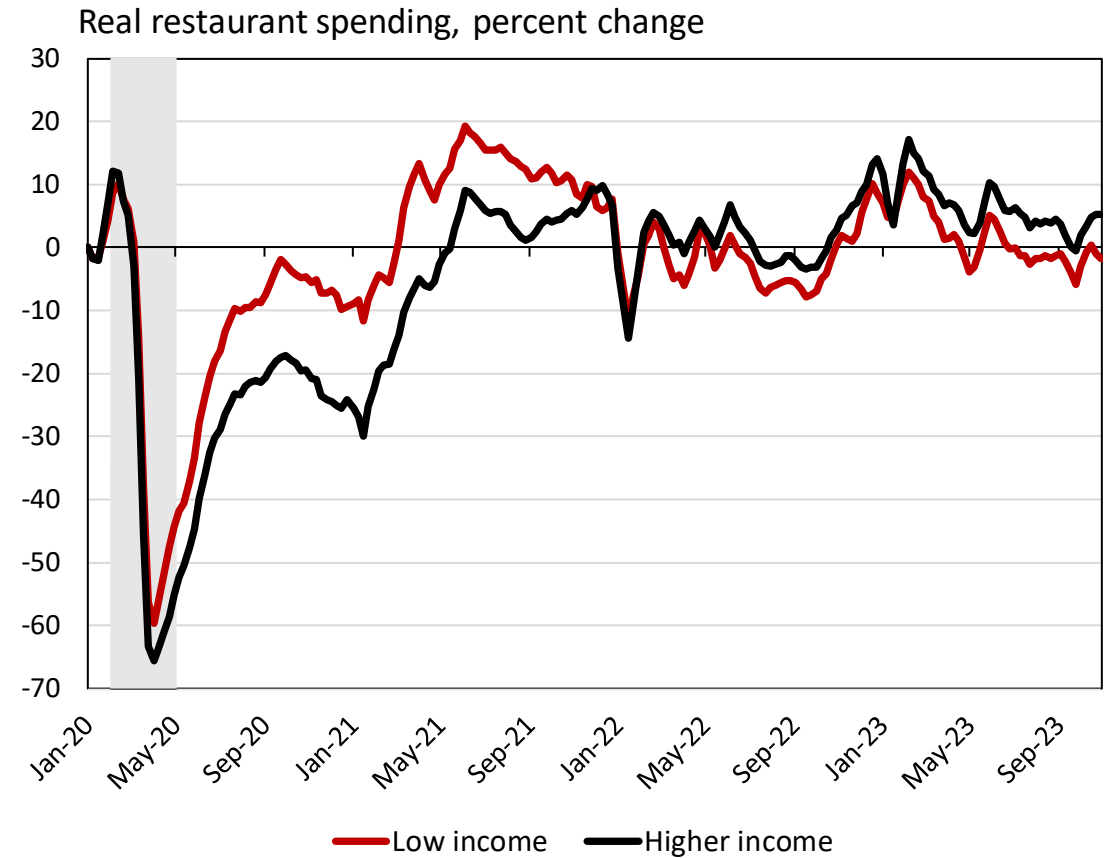
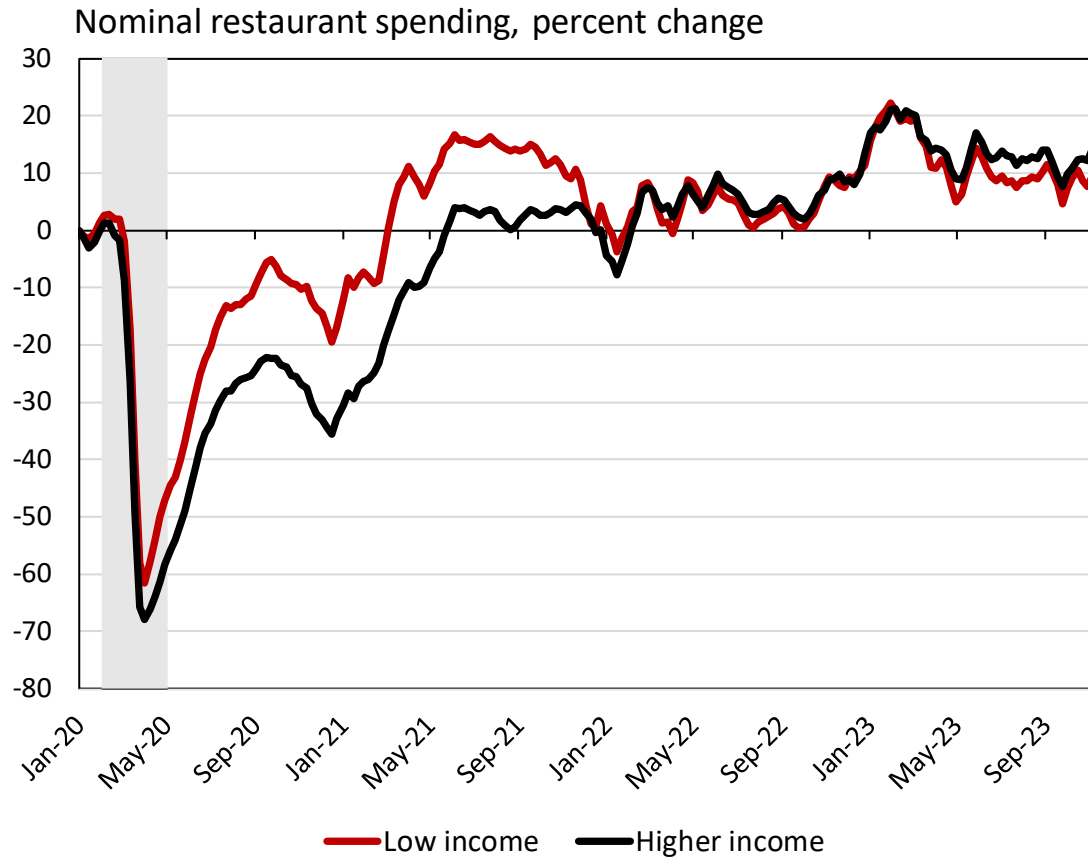


Source: Commerce Signals – Three-week moving averages.

Notes: Urban counties are defined as those located in a Metropolitan Statistical Area (MSA). Real spending uses corresponding urban prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Restaurant Spending by County Household Income

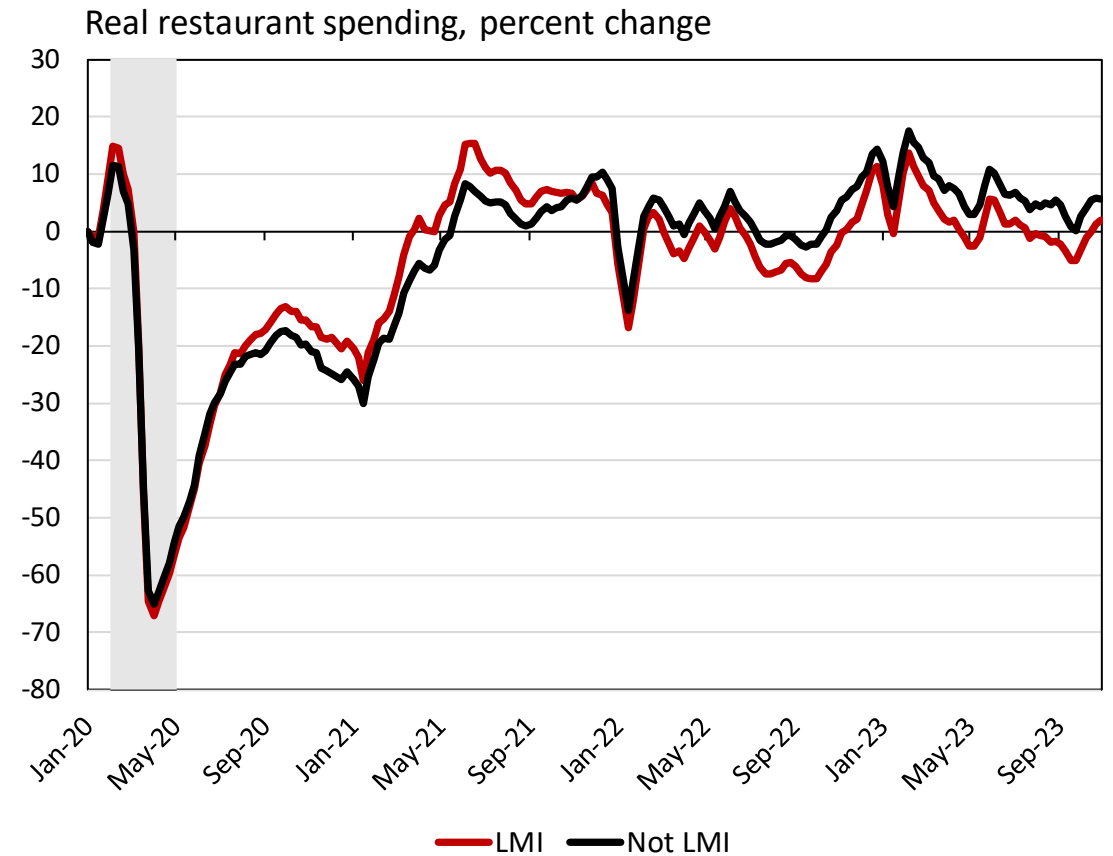
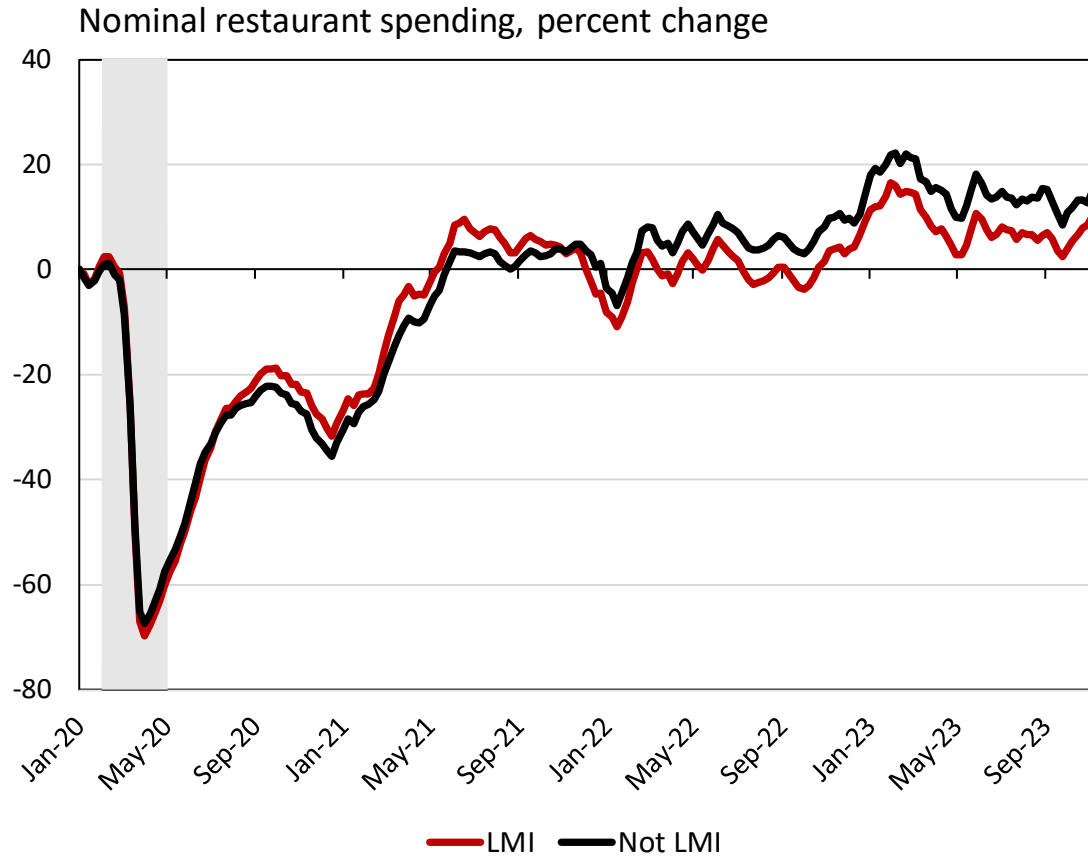


Source: Commerce Signals – Three-week moving averages.

Notes: Low-income counties are defined as those with household incomes below the 25<sup>th</sup> percentile of national household income. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Restaurant Spending by Low to Moderate Income (LMI) Status

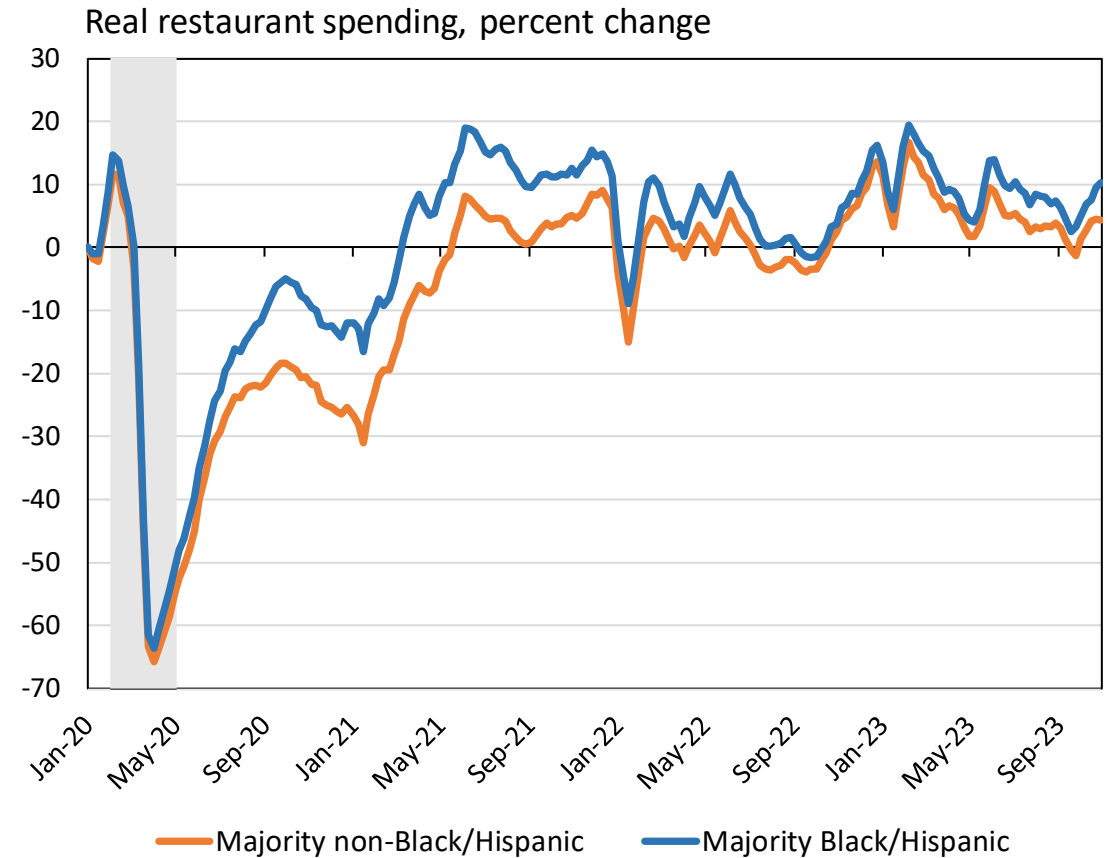
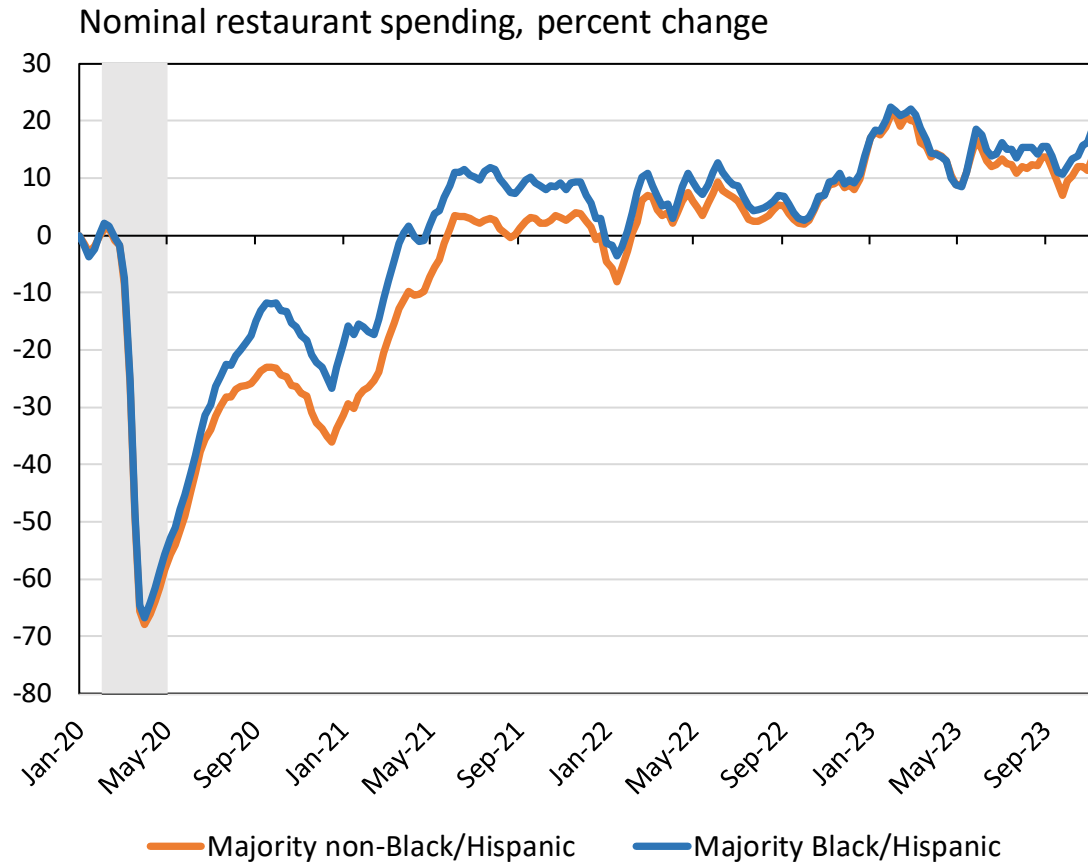


Source: Commerce Signals – Three-week moving averages.

Notes: Low-to-moderate income (LMI) counties are defined as those where the majority of households earn below 80% of the metro area median. Real spending uses corresponding urban/rural prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Restaurant Spending by County Demographics

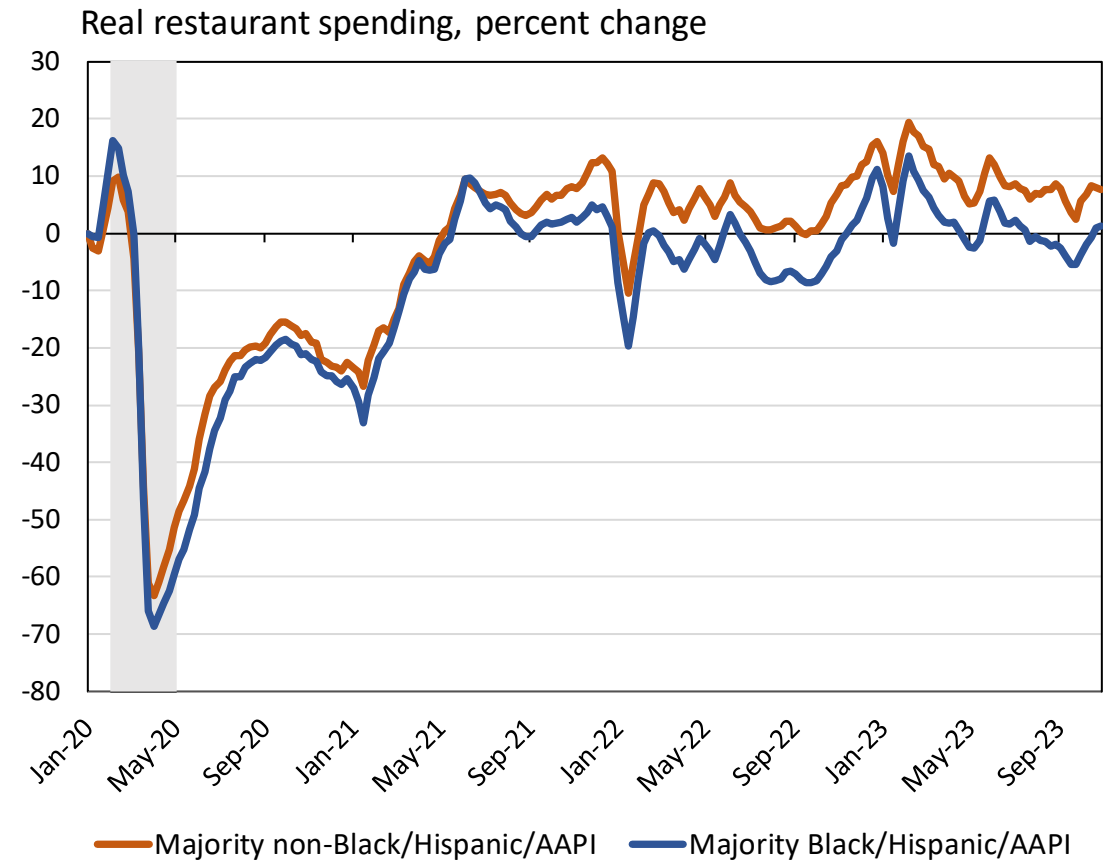
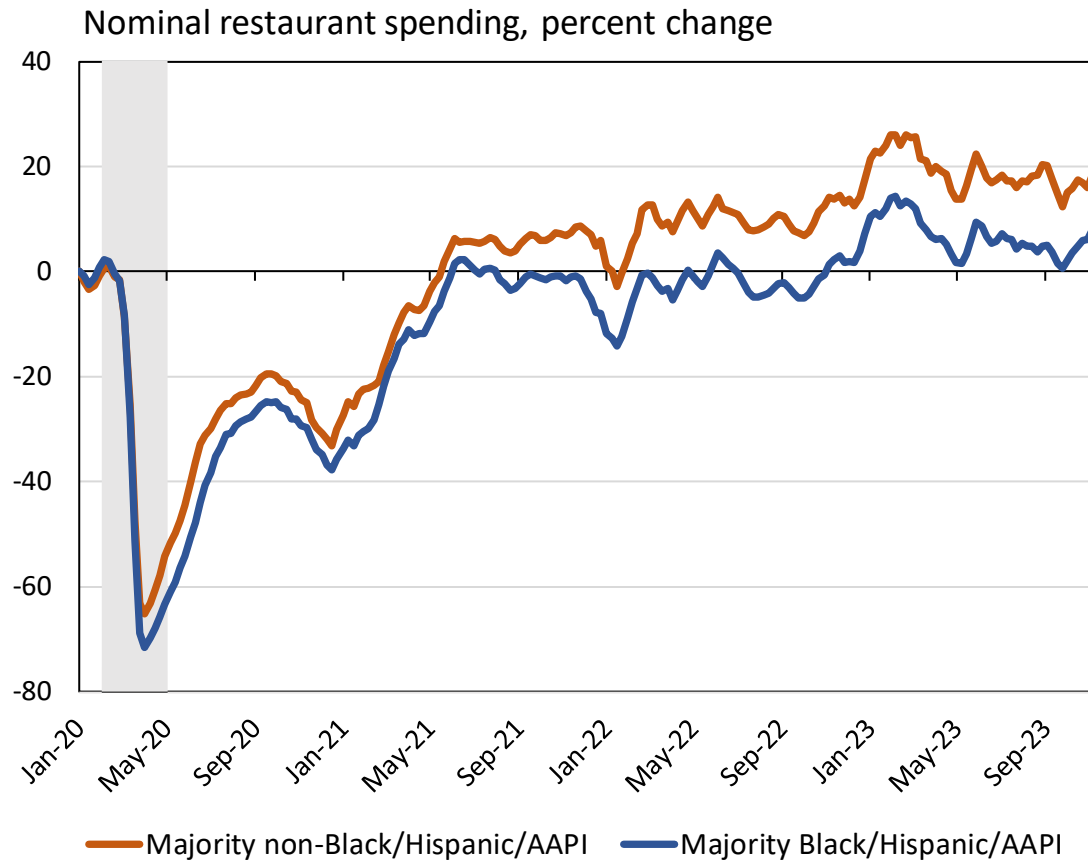


Source: Commerce Signals – Three-week moving averages.

Notes: Majority Black/Hispanic counties are defined as those where greater than 50% of the county’s population is Black or Hispanic. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.

## Restaurant Spending by County Demographics



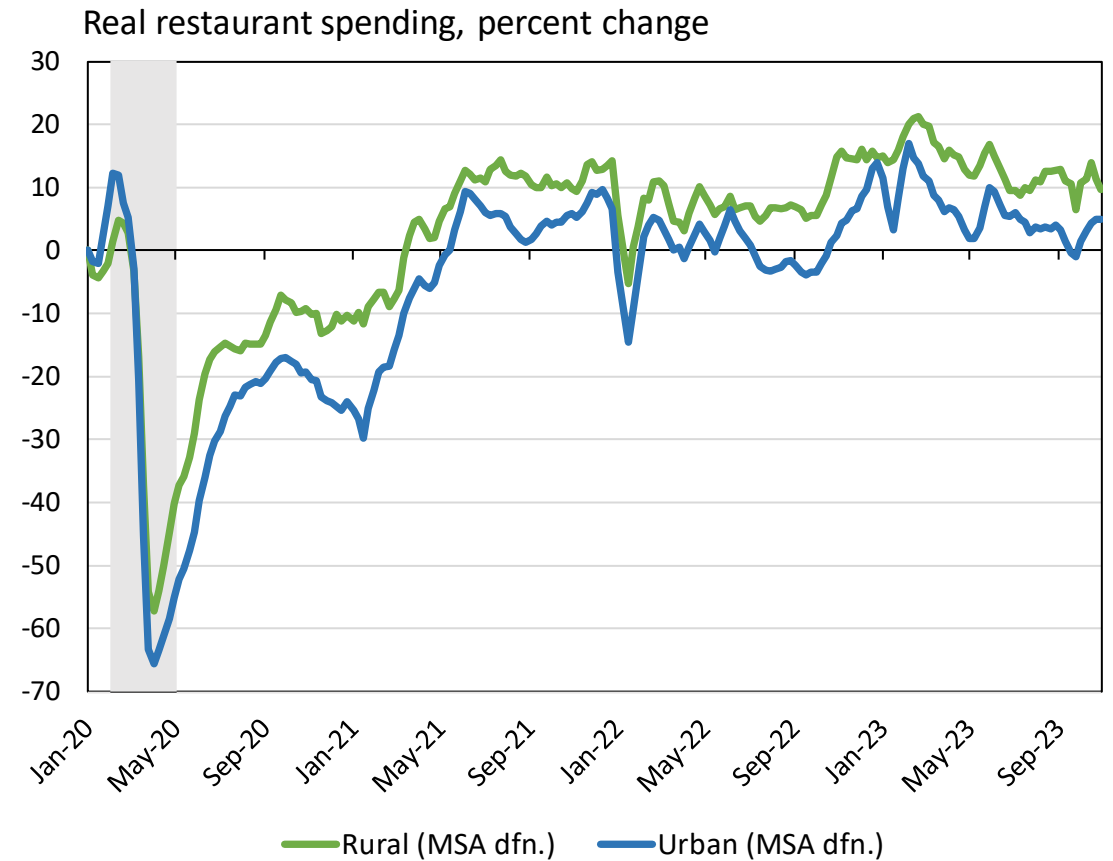
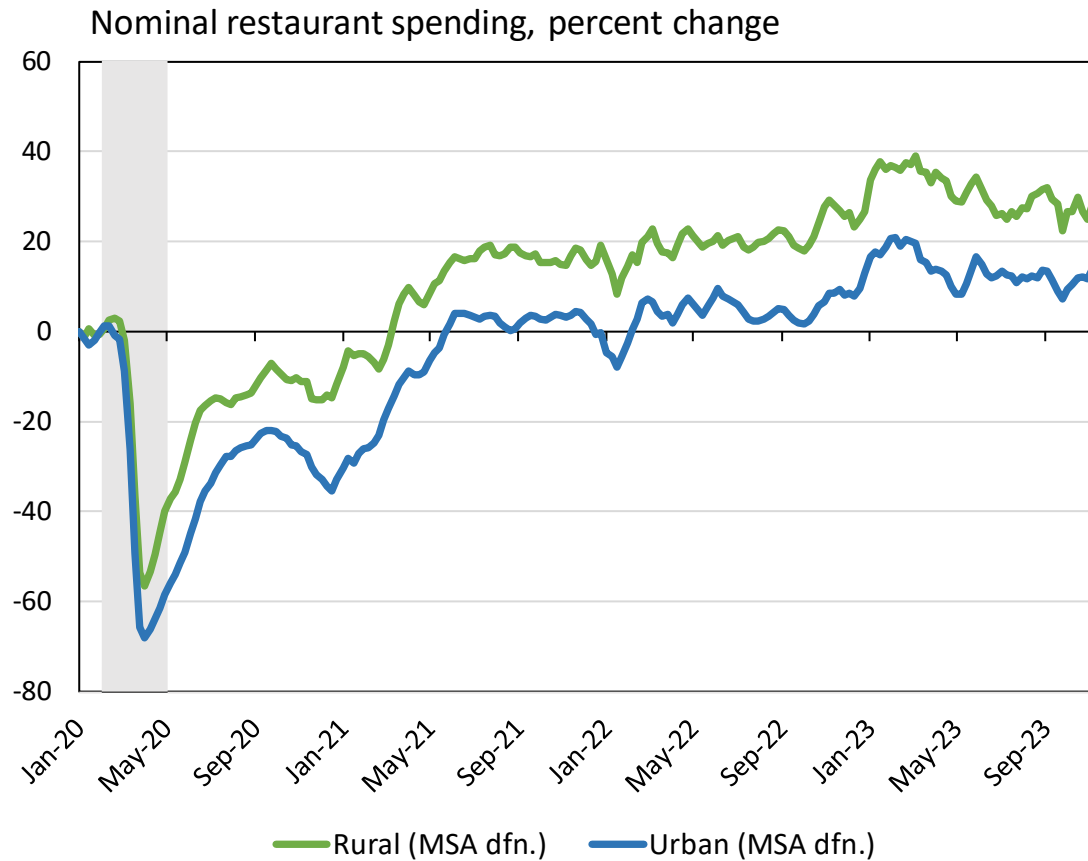
Source: Commerce Signals – Three-week moving averages.

Notes: Majority Black/Hispanic/AAPI counties are defined as those where greater than 50% of the county’s population is Black, Hispanic, or AAPI. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.



## Restaurant Spending by County Urban/Rural Status



Source: Commerce Signals – Three-week moving averages.

Notes: Urban counties are defined as those located in a Metropolitan Statistical Area (MSA). Real spending uses corresponding urban prices, indexed to January 2020. Shaded region indicates the COVID-19 recession. Includes all counties in the Federal Reserve Second District, excluding Puerto Rico and the Virgin Islands.

Nominal spending ranges from January 1, 2020, to November 11, 2023. Real spending ranges from January 1, 2020, to November 4, 2023.