

MAY 2023
(Released July 2023)

EQUITABLE GROWTH INDICATORS

Raji Chakrabarti, Dan Garcia, and Maxim Pinkovsky

Summary

- **INFLATION**

Inflation is declining overall, as well as in the high-inflation categories of food and housing. Households headed by young people are experiencing inflation that is nearly 0.5 percentage point above the national average.

- **EARNINGS**

Real earnings in April and May 2023 increased at the fastest rate since May 2020, except for Hispanic and younger workers whose earnings remained stable.

- **EMPLOYMENT**

The employment gap between men and women is close to its lowest level since 2019 (11 percent vs. 13.3 percent in January 2019), having fallen throughout the pandemic and its aftermath.

- **CONSUMER SPENDING**

Real spending of the young (aged 25-34) remains low relative to its post-pandemic trend in each of the retail, gas, and restaurant categories. The young had increased their consumer spending the most following the pandemic, but currently spend less than do people aged 35-44 and only slightly more than do people aged 45-54, relative to their pre-pandemic levels.



INFLATION

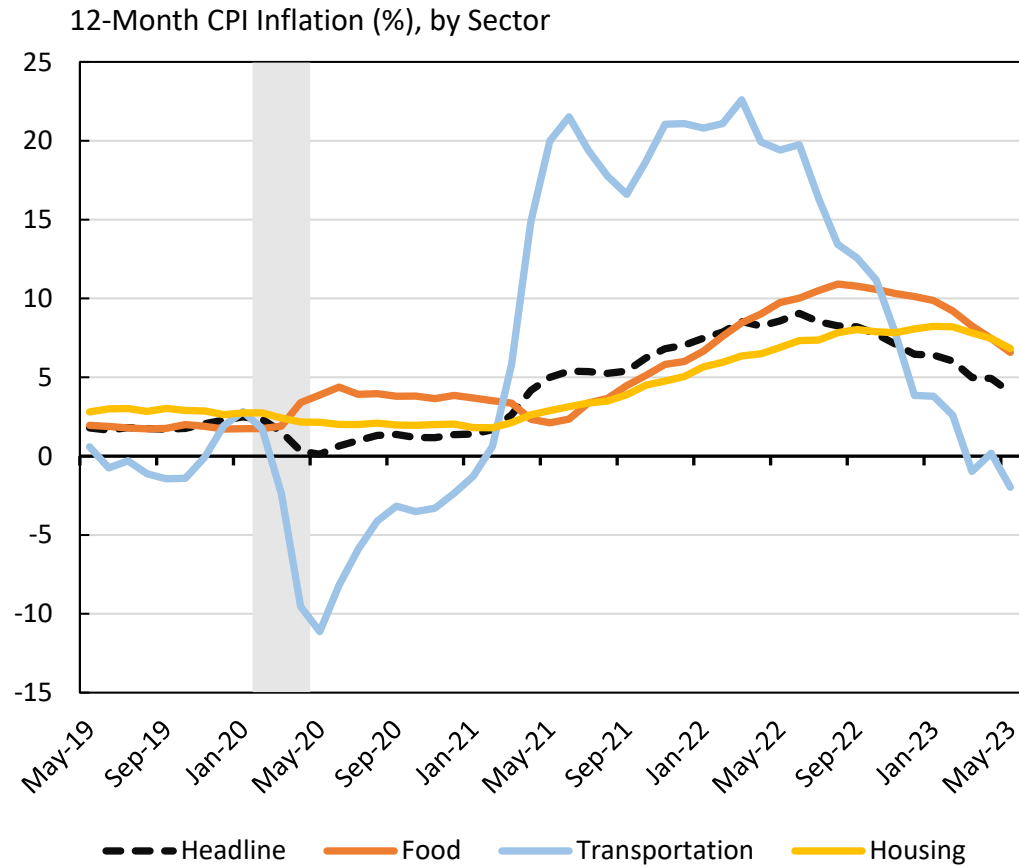
Takeaways | Inflation

- Gaps in demographic inflation rates increased significantly in 2021 and early 2022, a development that was largely attributable to heterogeneity in transportation spending.
- Middle-income households, the young, people without a college degree, residents of the South and Midwest, rural households, and Black and Hispanic households faced higher inflation than the overall average in 2021. Many of these gaps have now reversed.
- Currently, urban, college-educated, low-income households, and residents of the South face higher inflation than average.
- Households headed by people aged under 25 faced year-over-year inflation that is 0.44 percentage point higher than the national average in May 2023.

Data & Methods

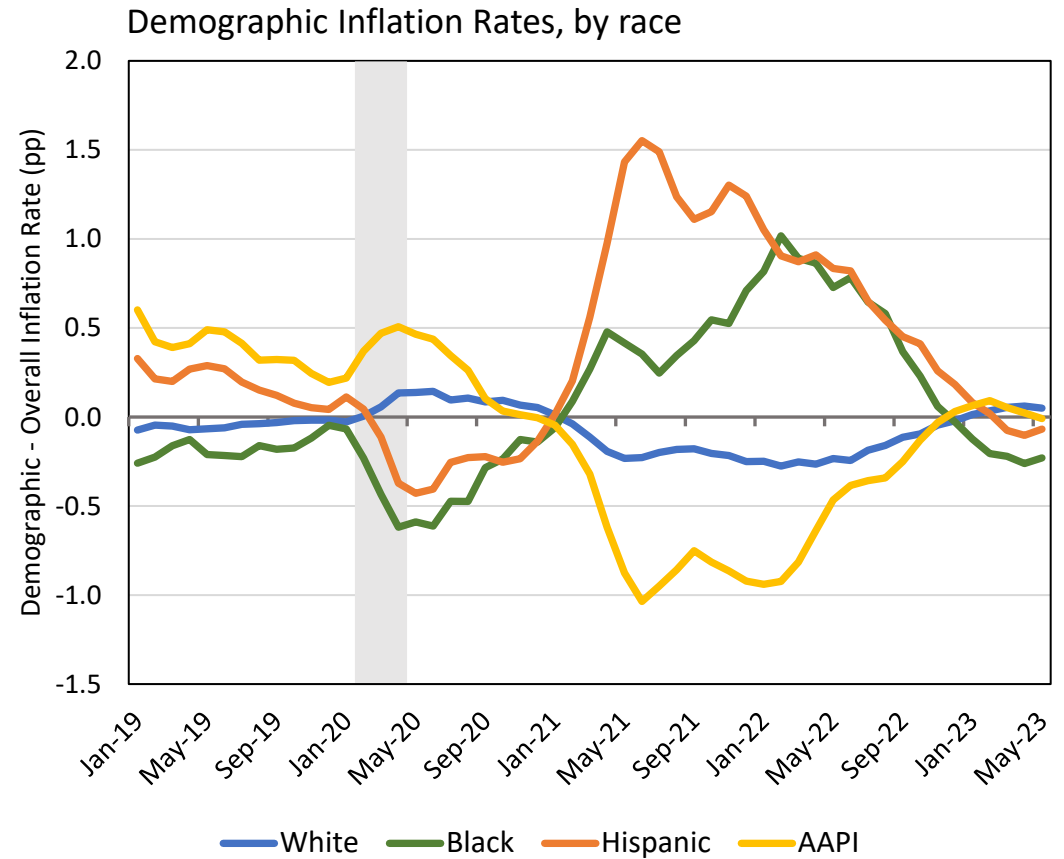
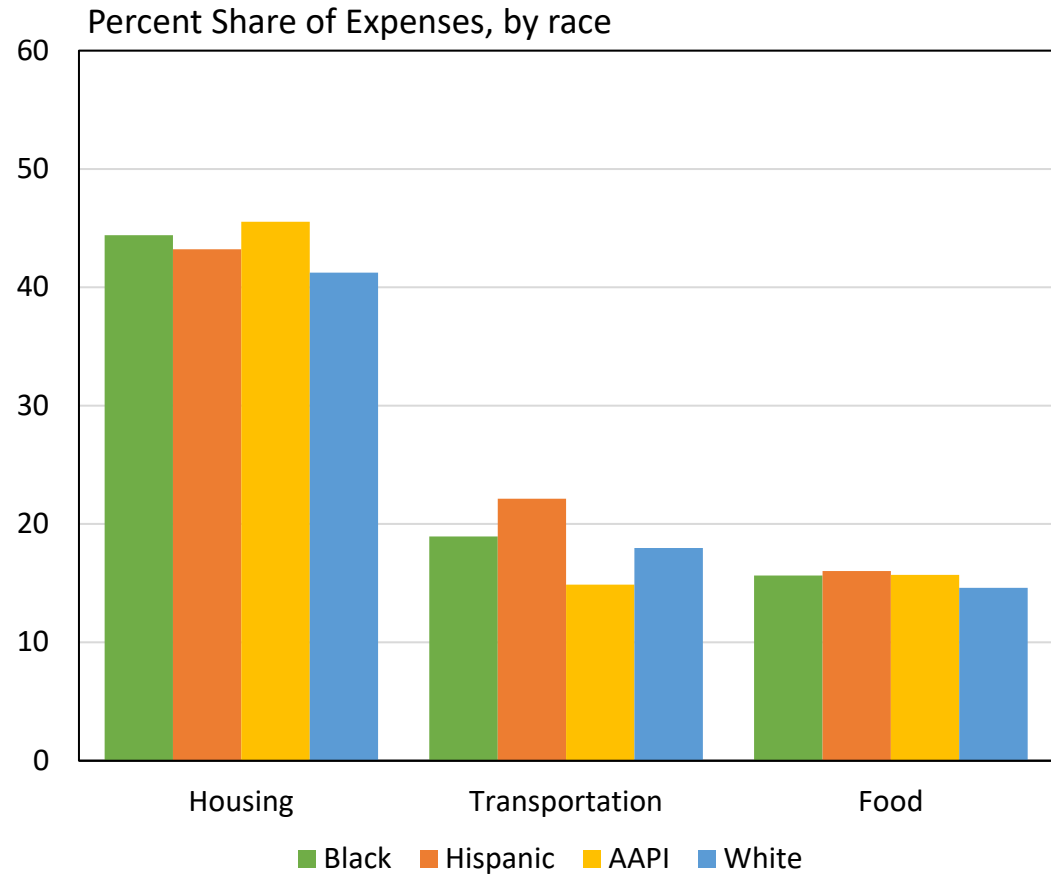
- Data on inflation by demographic groups are not produced by the Bureau of Labor Statistics.
- To calculate demographic inflation, we exploit the fact that the Consumer Expenditure Survey (CEX) can be used to compute spending shares of various consumption categories (for example, cereal, rent, and used cars) by demographic group (for example, Black, Hispanic, some college, and aged 45-54).
- 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 Category



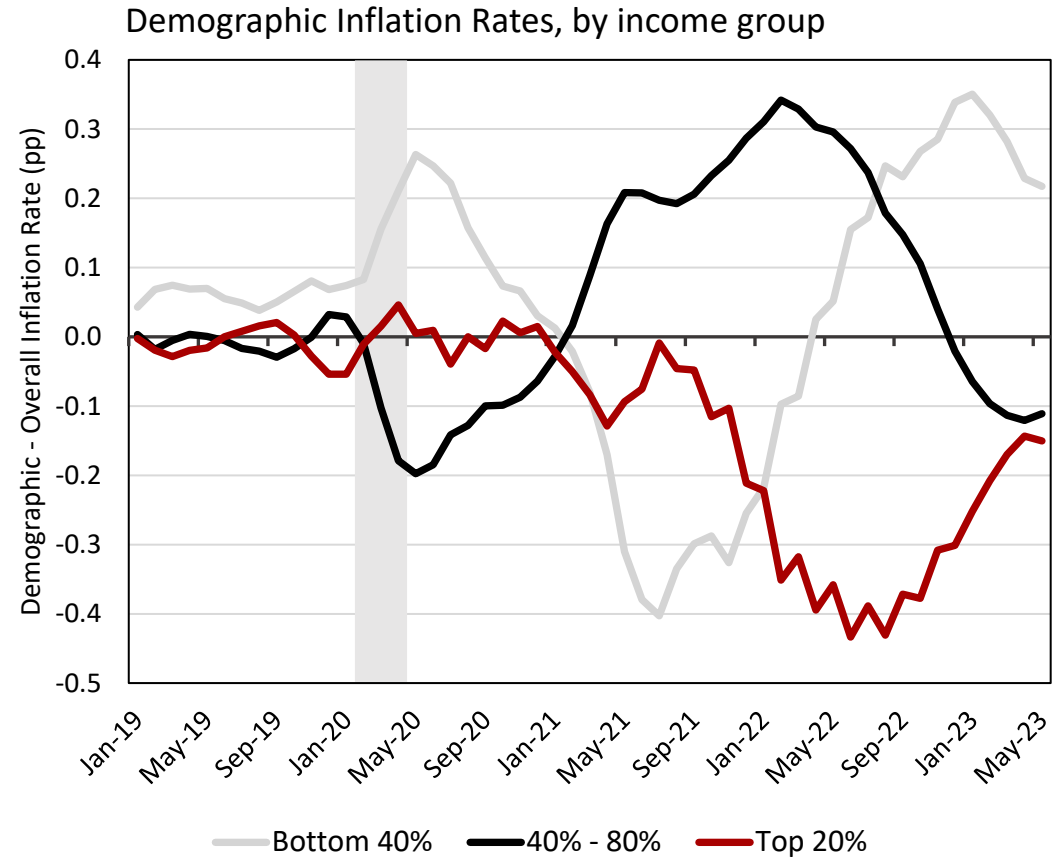
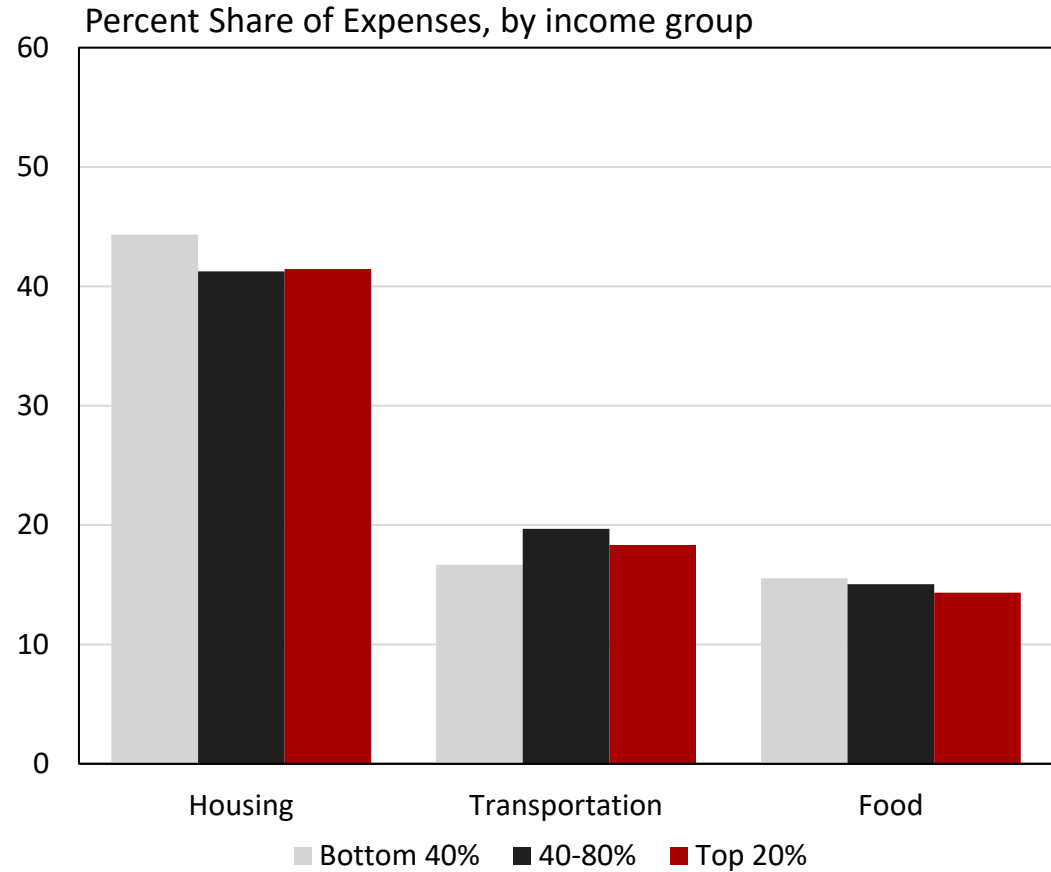
Sources: CPI via Haver Analytics; authors' calculations.
 Note: Shaded region indicates the COVID-19 recession.

Demographic Inflation by Race/Ethnicity



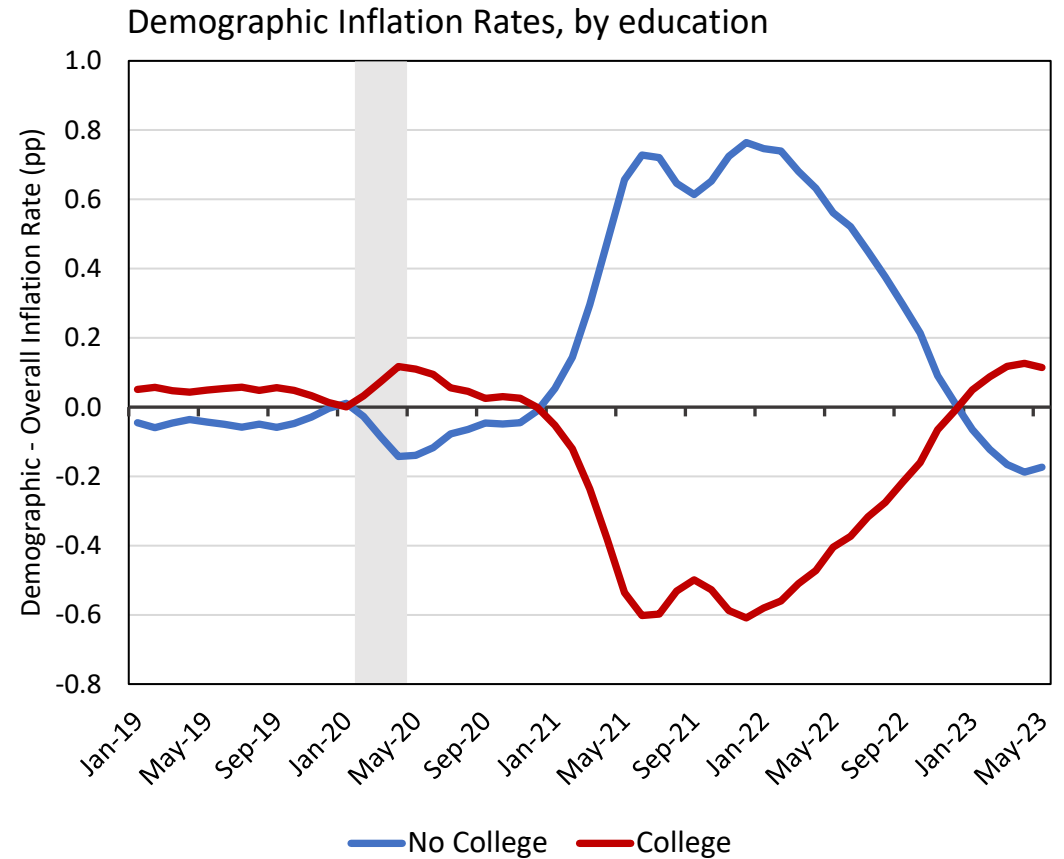
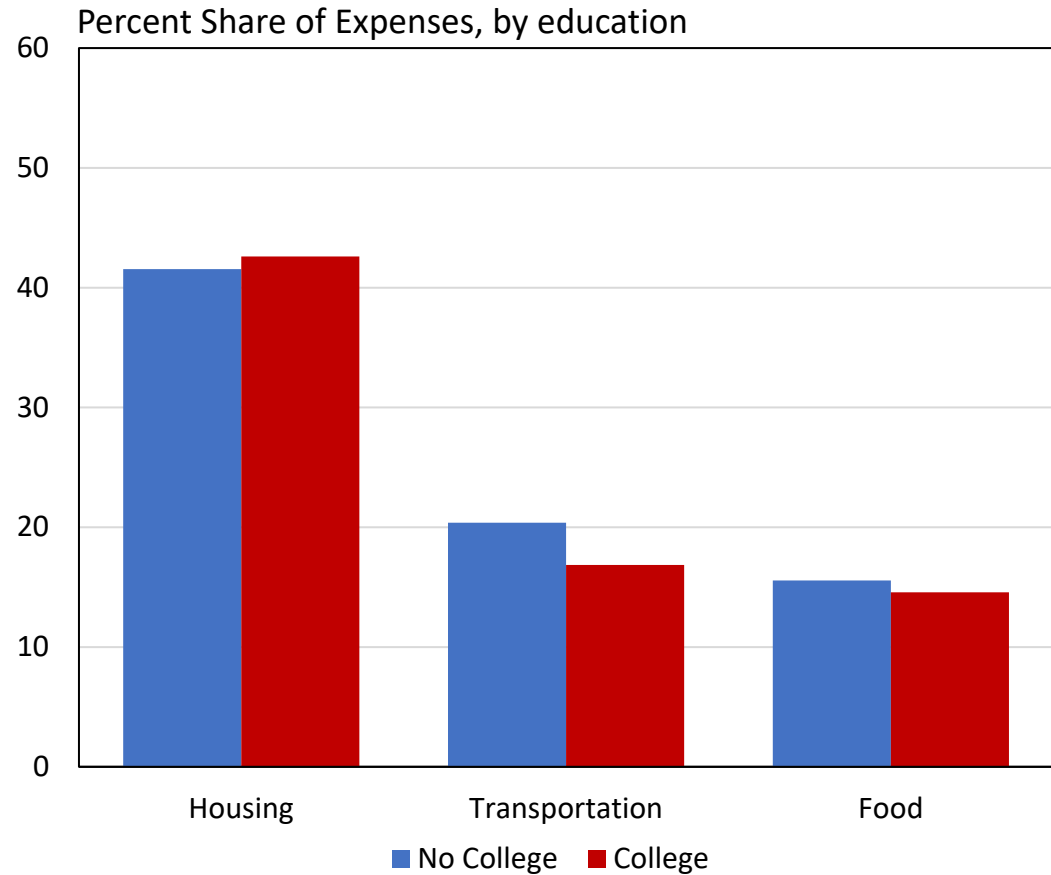
Sources: BLS Consumer Expenditure Survey Microdata; BLS Consumer Price Indexes.
 Notes: Expenditure shares use 2020 CEX microdata. Shaded region indicates the COVID-19 recession.

Demographic Inflation by Income



Sources: BLS Consumer Expenditure Survey Microdata; BLS Consumer Price Indexes.
 Notes: Expenditure shares use 2020 CEX microdata. Shaded region indicates the COVID-19 recession.

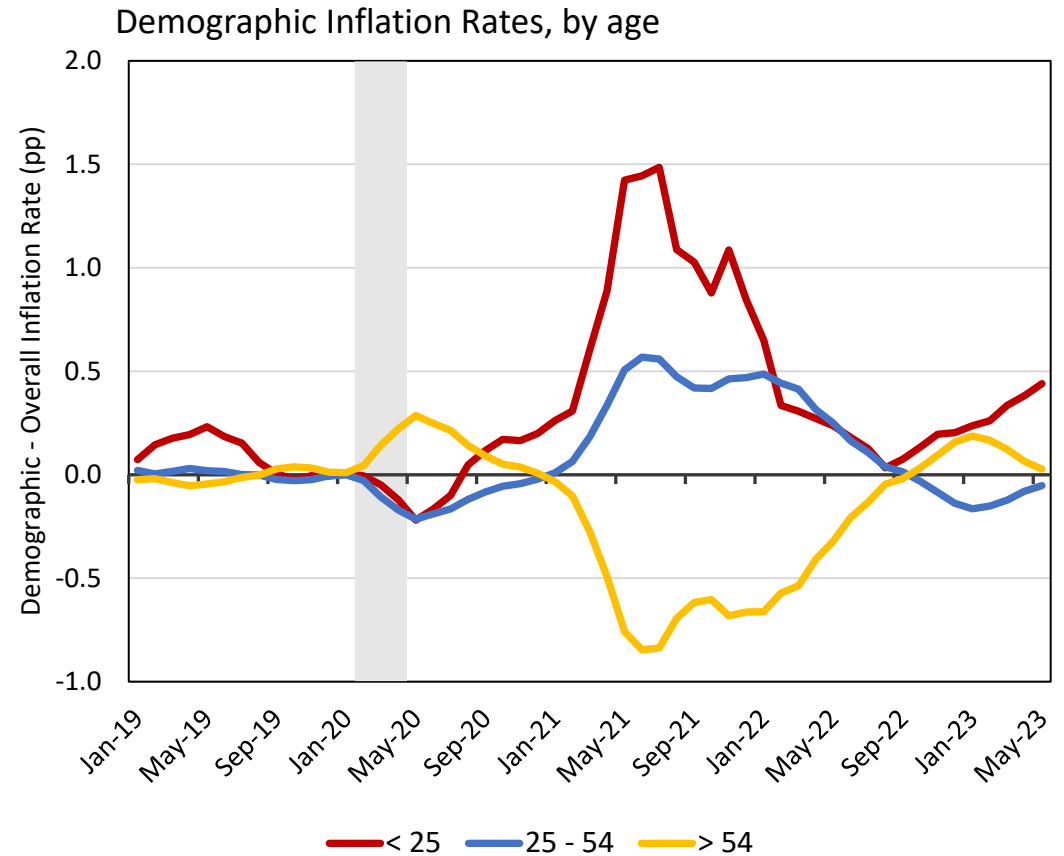
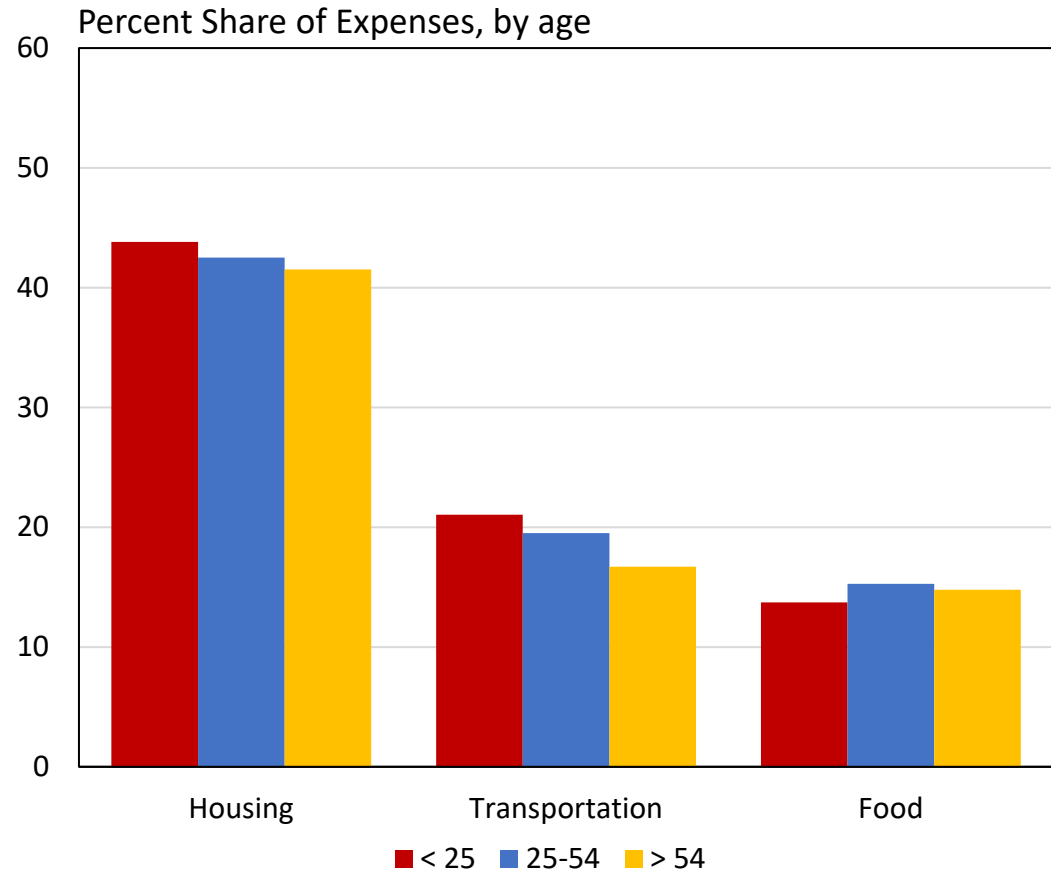
Demographic Inflation by Education



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

Notes: Expenditure shares use 2020 CEX Microdata. Shaded region indicates the COVID-19 recession.

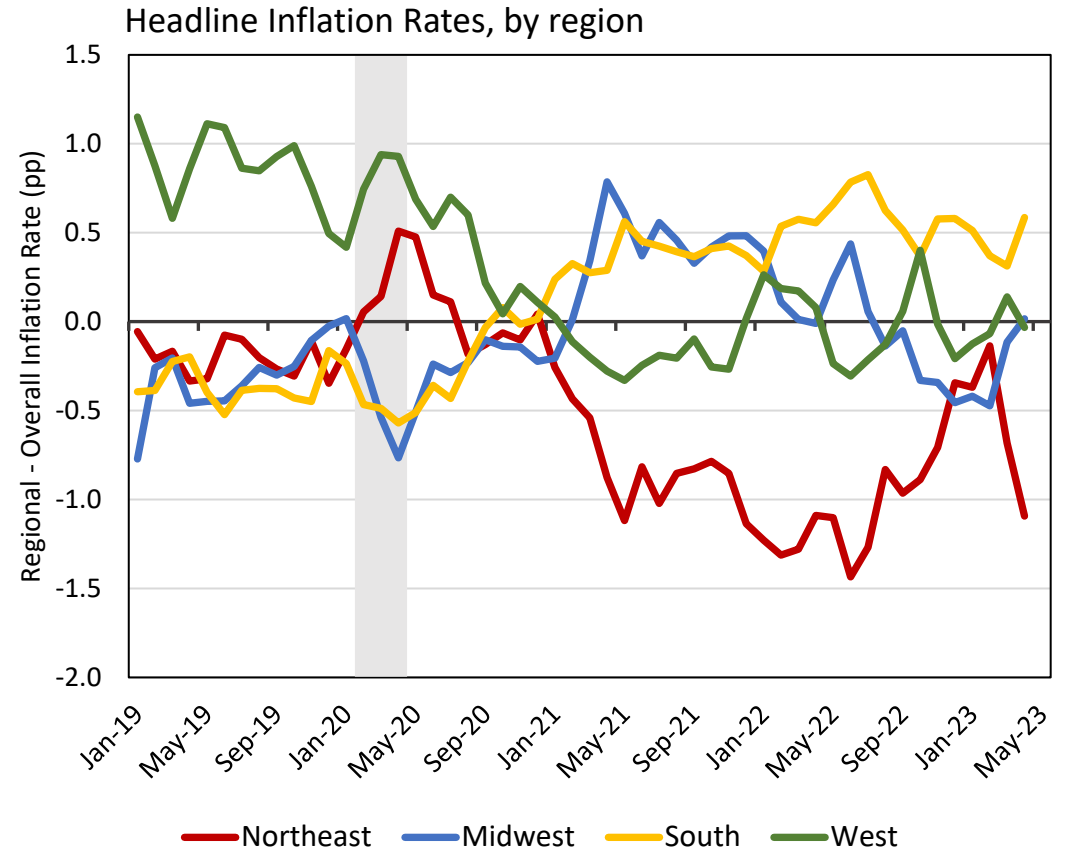
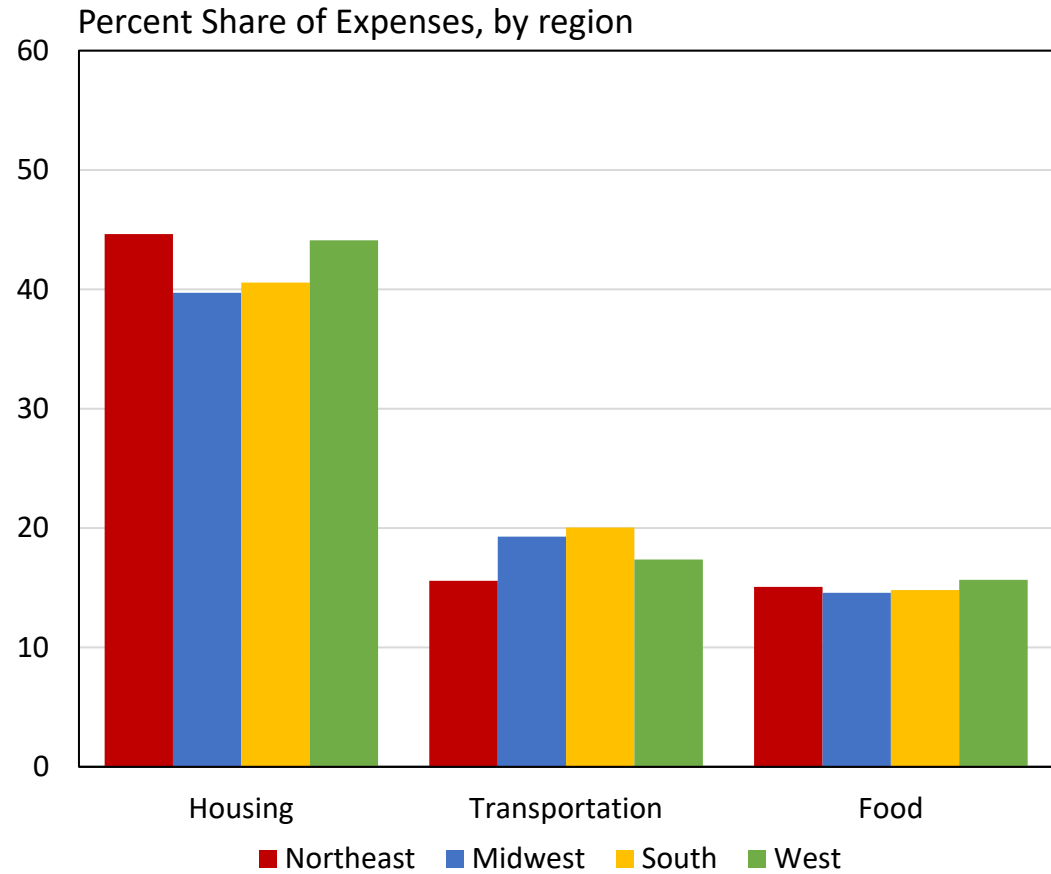
Demographic Inflation by Age



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

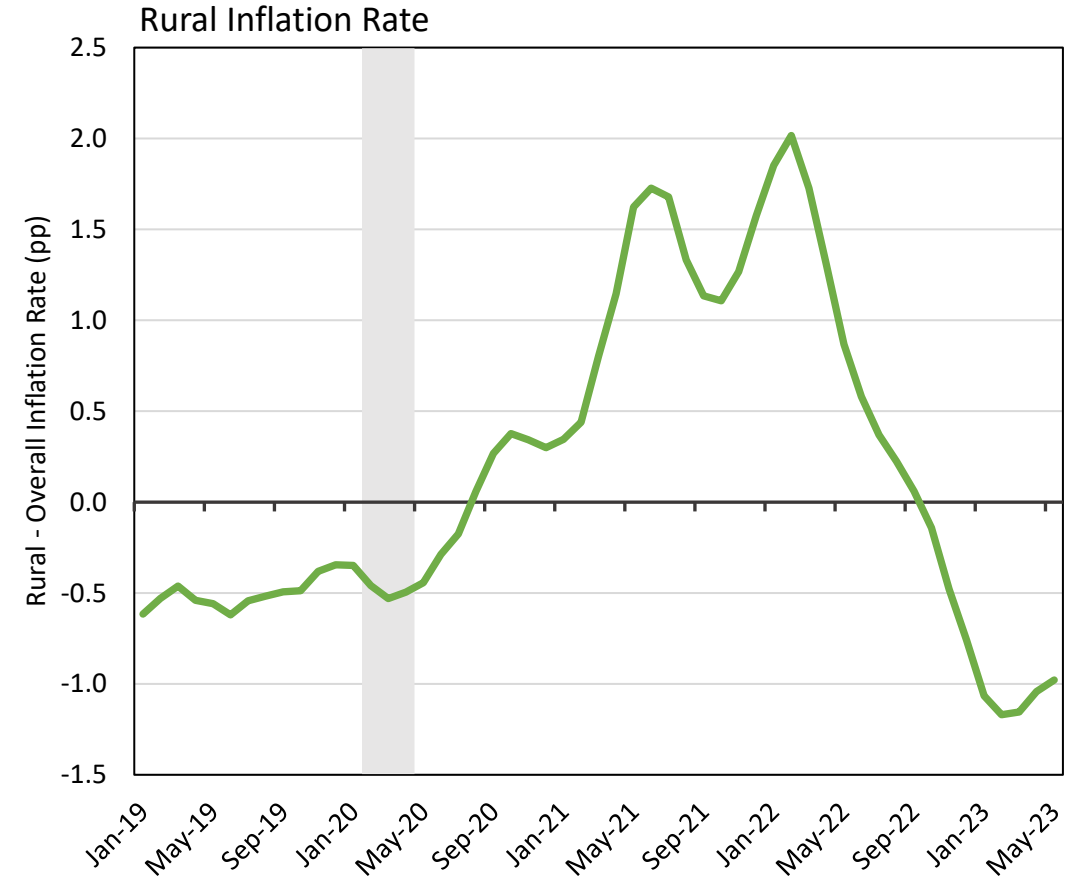
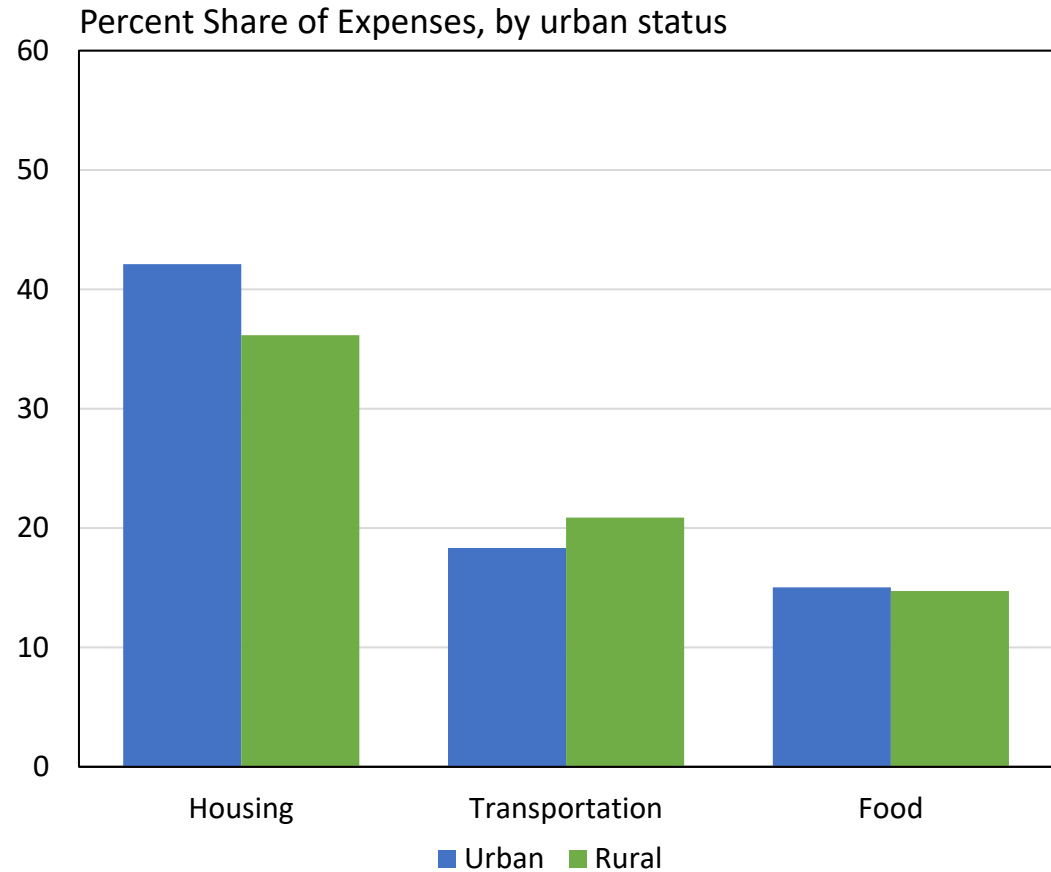
Notes: Expenditure shares use 2020 CEX microdata. Shaded region indicates the COVID-19 recession.

Demographic Inflation by U.S. Region



Sources: BLS Consumer Expenditure Survey Microdata; BLS Consumer Price Indexes.
 Notes: Expenditure shares use 2020 CEX microdata. Shaded region indicates the COVID-19 recession.

Demographic Inflation by Urban Status



Sources: BLS Consumer Expenditure Survey Microdata; BLS Consumer Price Indexes.
 Notes: Expenditure shares use 2020 CEX microdata. Shaded region indicates the COVID-19 recession.

A conceptual image with a dark blue background. In the center, the word "EARNINGS" is written in white, bold, uppercase letters, enclosed in a white rectangular border. The background features several stacks of coins of varying heights. On top of these stacks, there are small, dark silhouettes of people. From left to right: a woman stands on a stack of about 10 coins; a man and a child stand on a stack of about 15 coins; a woman stands on a stack of about 20 coins; a man stands on a stack of about 30 coins; and a man with a bag stands on the tallest stack of about 40 coins. The overall scene suggests a progression of financial success or earnings.

EARNINGS

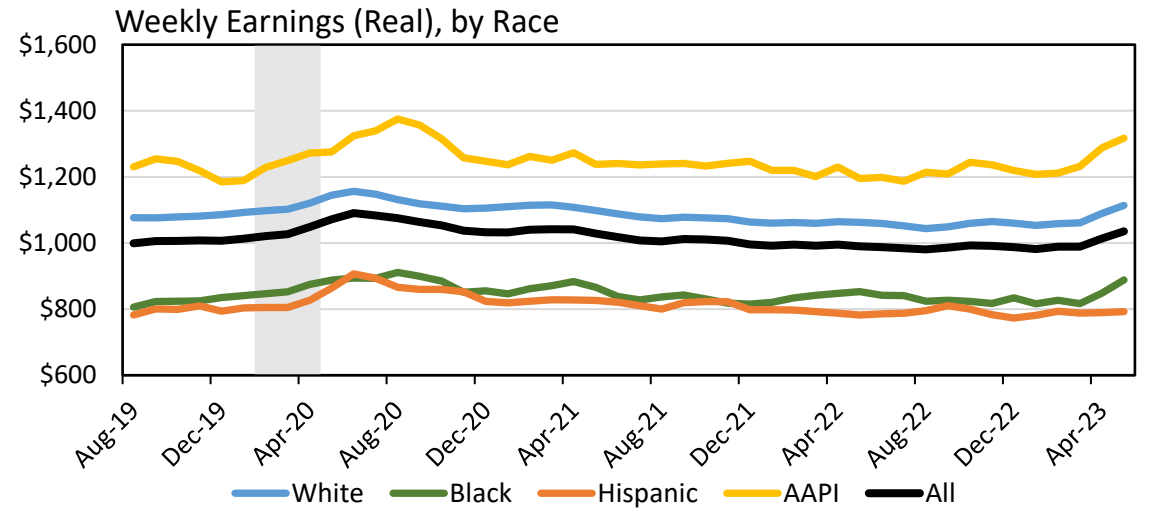
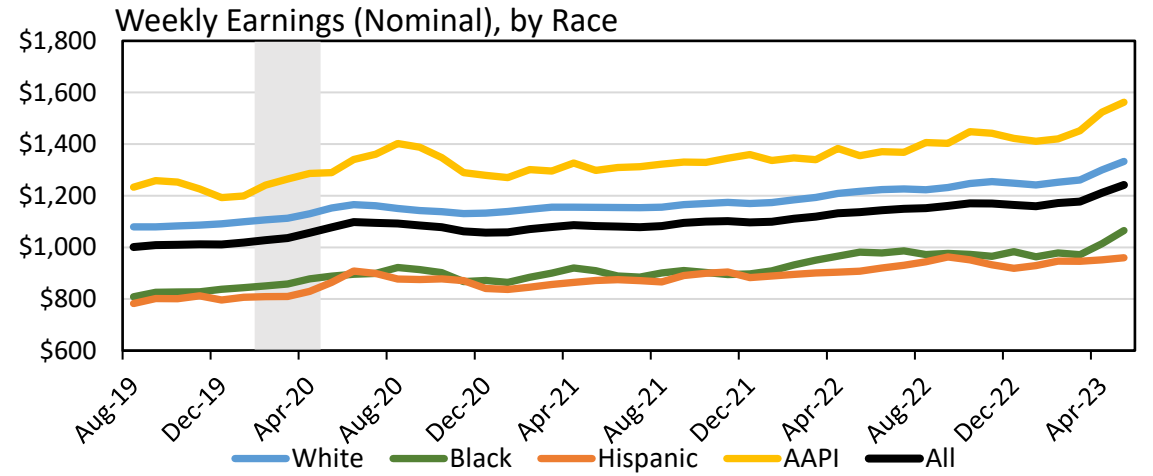
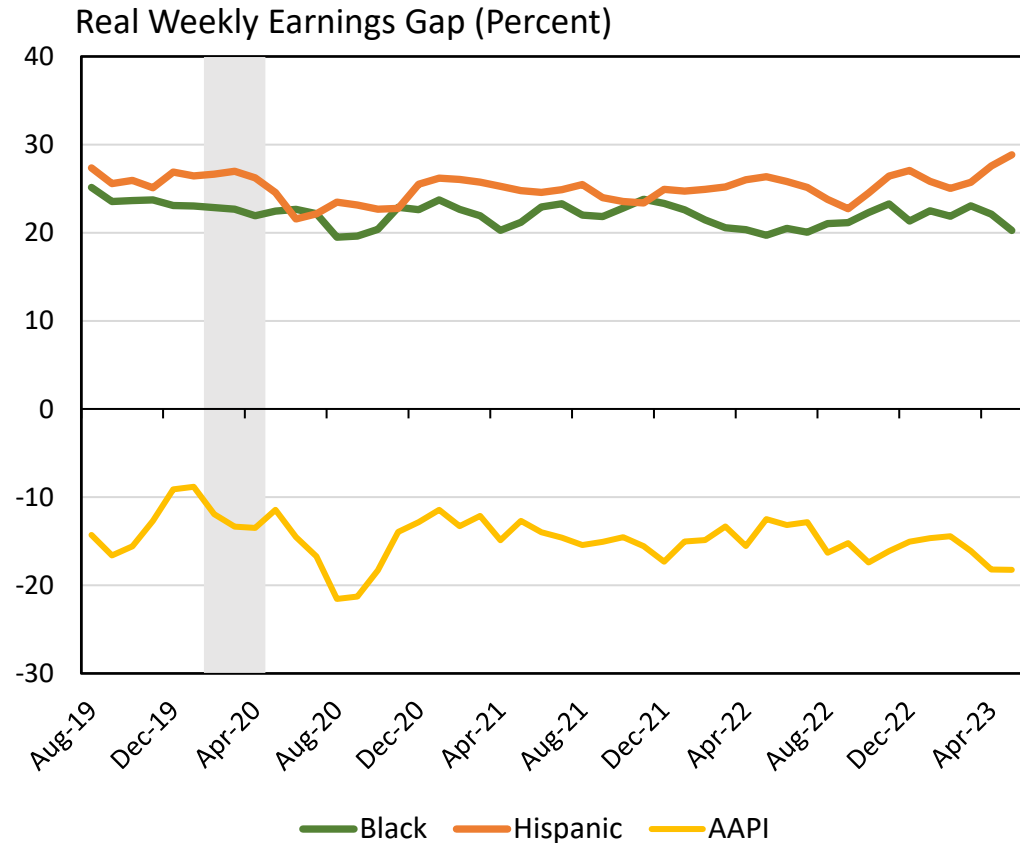
Takeaways | Earnings

- Real earnings peaked during the pandemic recession and have fallen since.
- Earnings disparities (both nominal and real) are largest across education categories, with smaller but still substantial gaps across racial and ethnic categories, gender, age and geography.
- Real earnings of Black, Asian and white workers experienced a sharp increase in May 2023, while real earnings of Hispanic workers stagnated.
- The gender earnings gap declined perceptibly immediately following the pandemic recession and has remained stable since, rising slightly in May 2023.
- Veteran-nonveteran earnings gaps are now smaller than those during the pre-pandemic period, with veterans earning slightly more than comparable nonveterans on average.
- Earnings of rural workers have been falling behind earnings of urban workers, with the rural-urban gap growing from slightly above 20 percent to more than 25 percent since the pre-pandemic period.
- The college premium has risen to nearly 95 percent in May 2023, up significantly from just over 80 percent in December 2022.

Data & Methods

- We compute real earnings by deflating nominal earnings for each demographic using our estimates of demographic-specific inflation.
- Comparable nonveterans are male high school graduates reweighted by age, race, and birthplace to match veterans.
- 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.

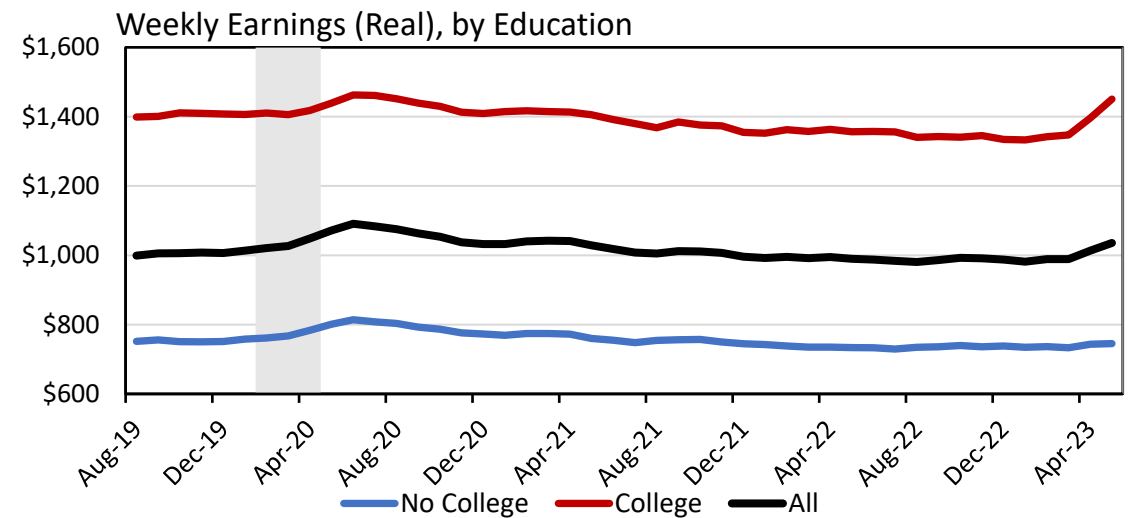
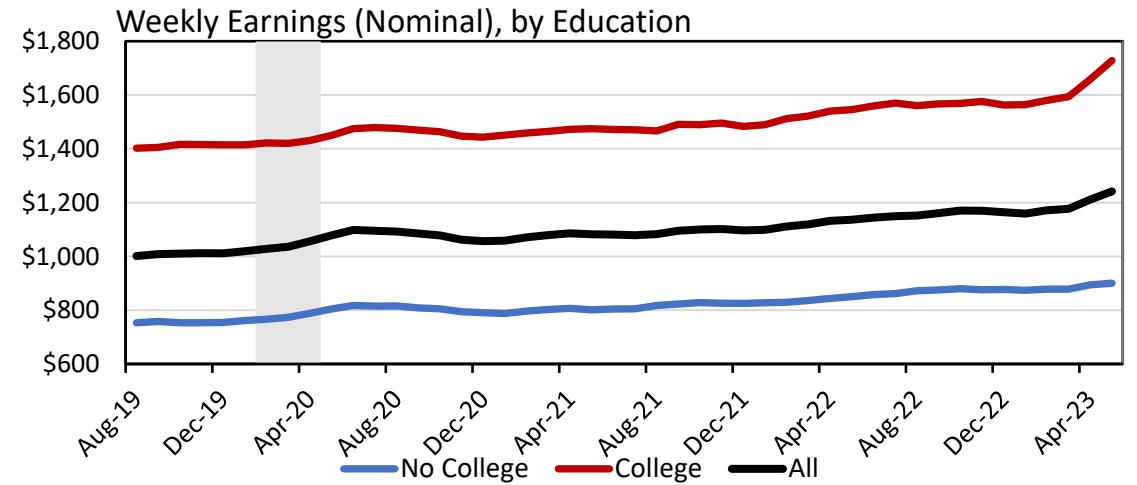
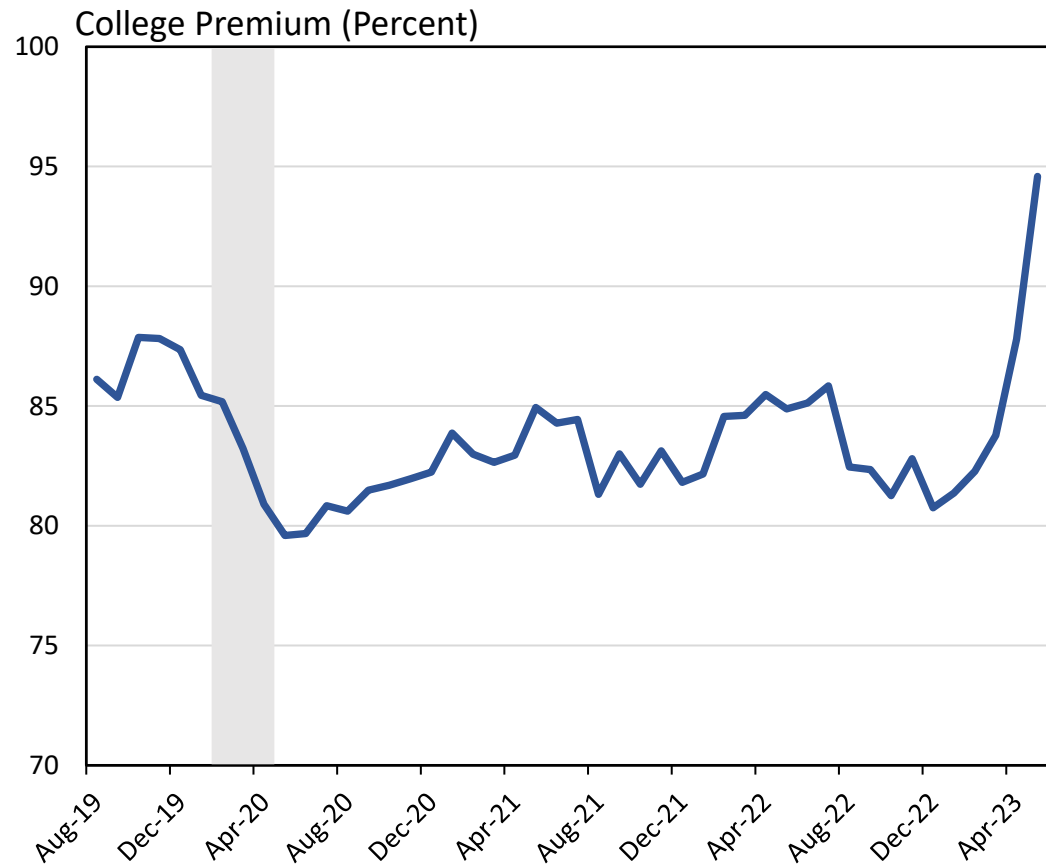
Real/Nominal Earnings by Race/Ethnicity



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

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.

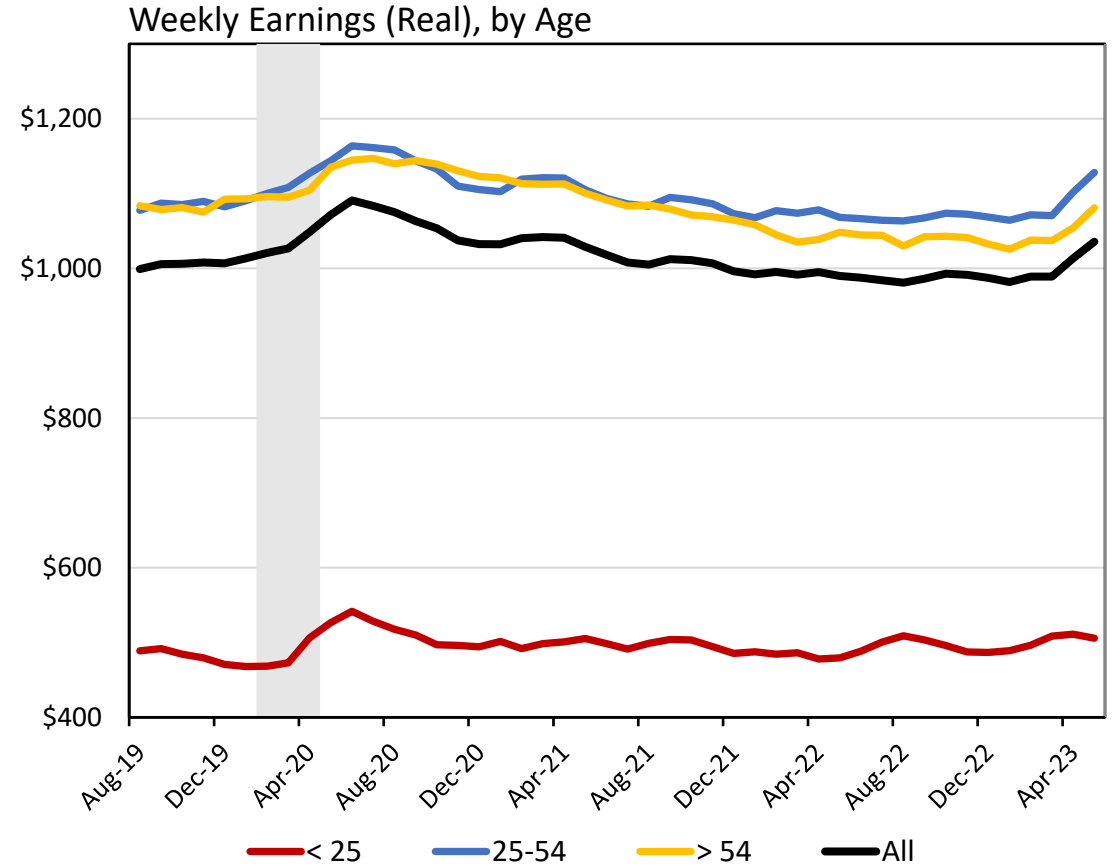
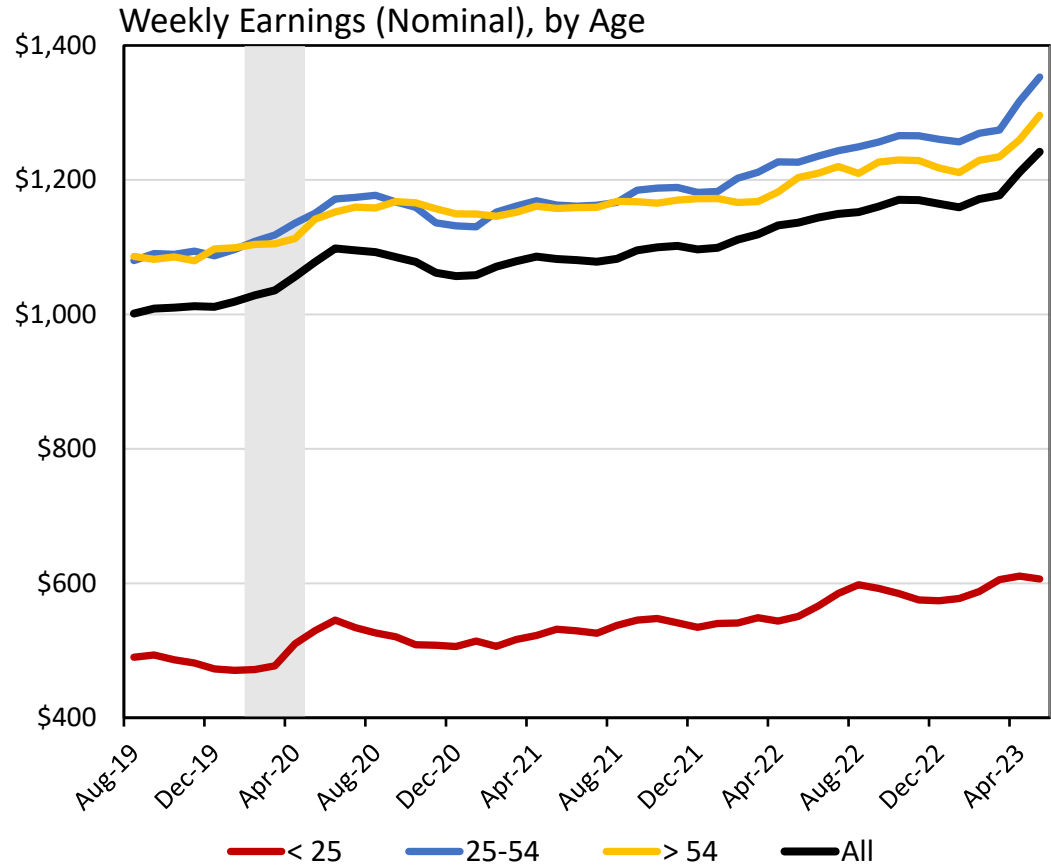
Real/Nominal Earnings by Education



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

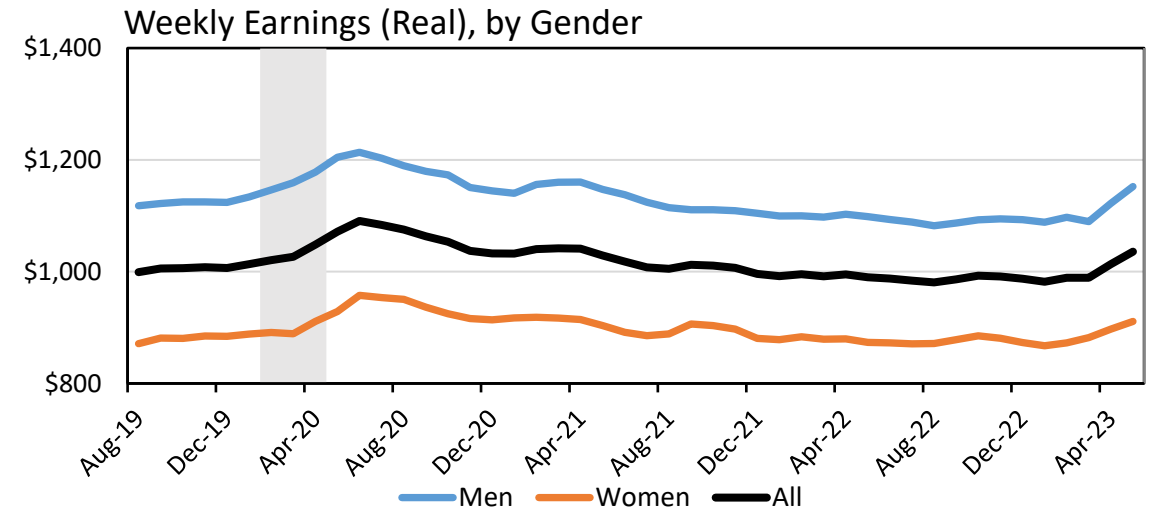
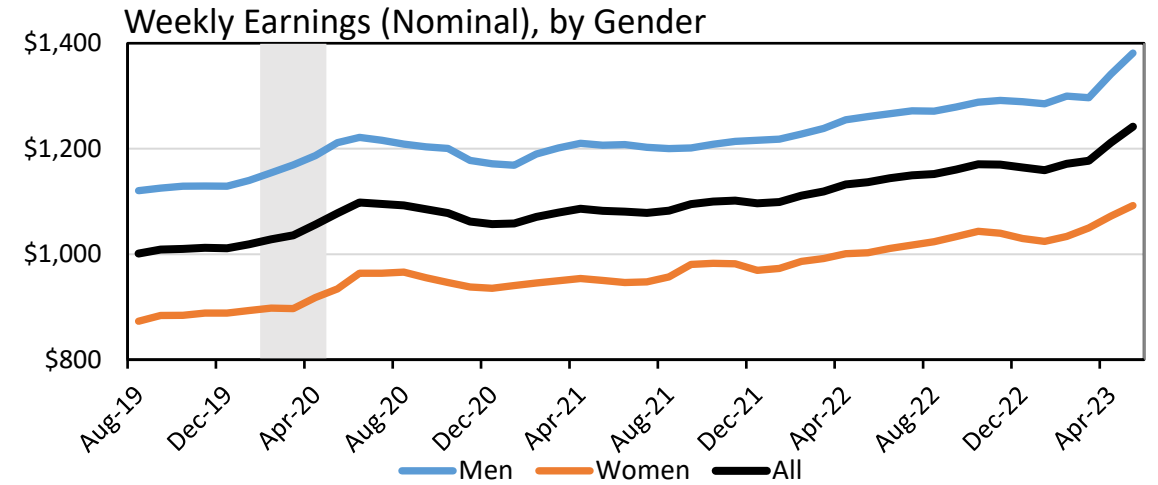
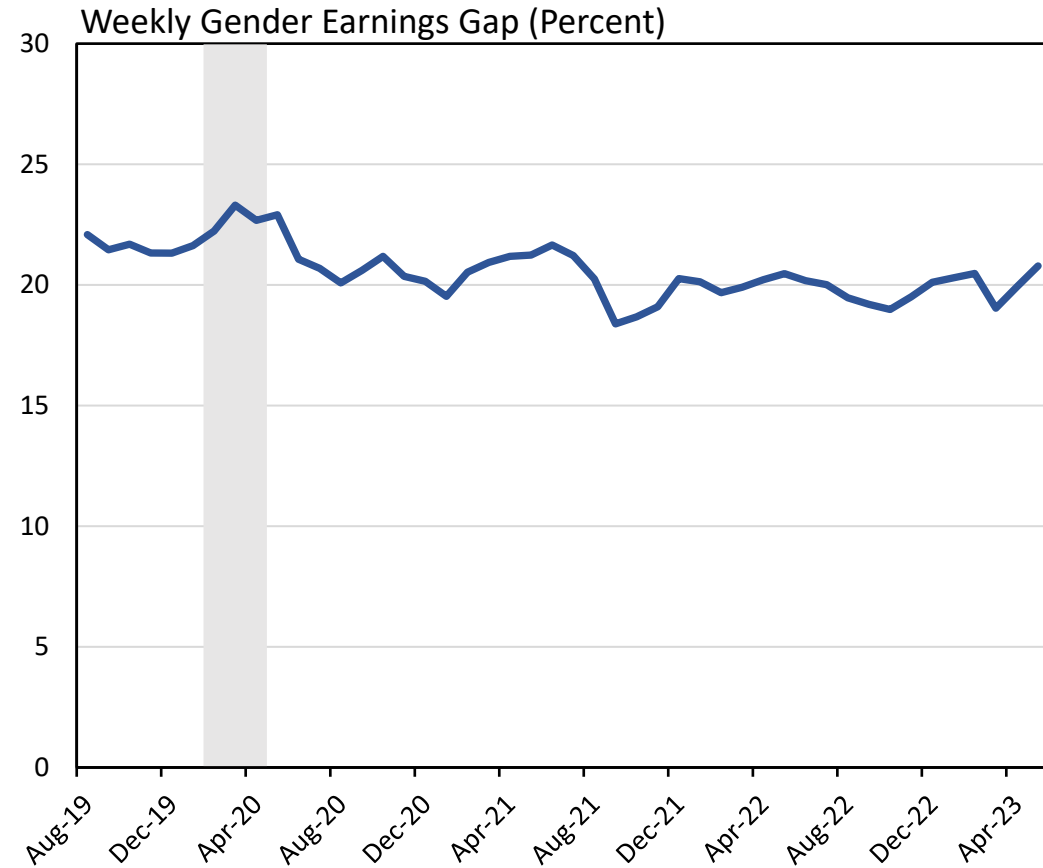
Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession. College premium is defined here as the percent more that college graduates earn (weekly) on average compared to non-graduates. For instance, a gap of 80% implies that the average graduate earns 80% more than the average non-graduate.

Real/Nominal Earnings by Age



Sources: U.S. Census Bureau/BLS -Current Population Survey Microdata; authors' calculations; three-month moving average.
 Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession.

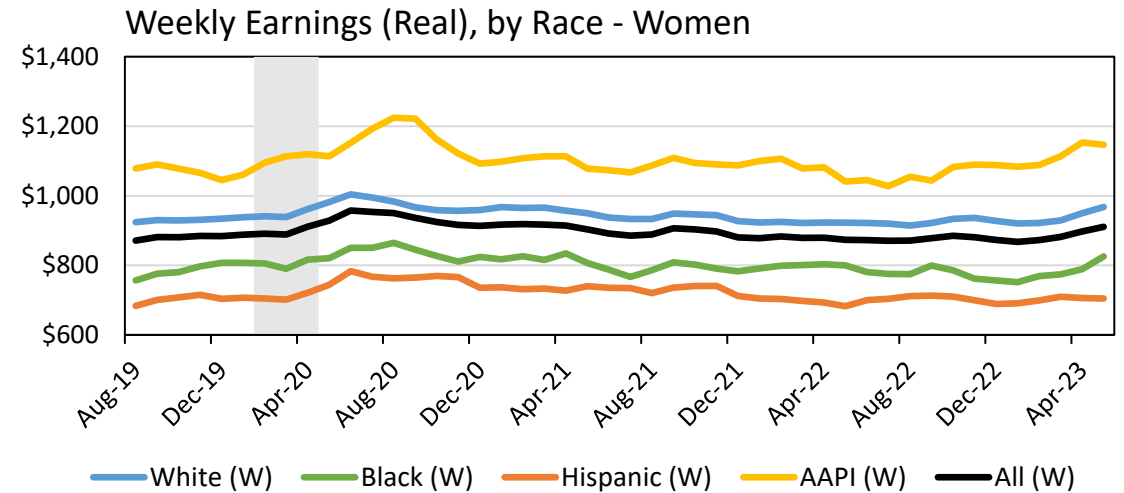
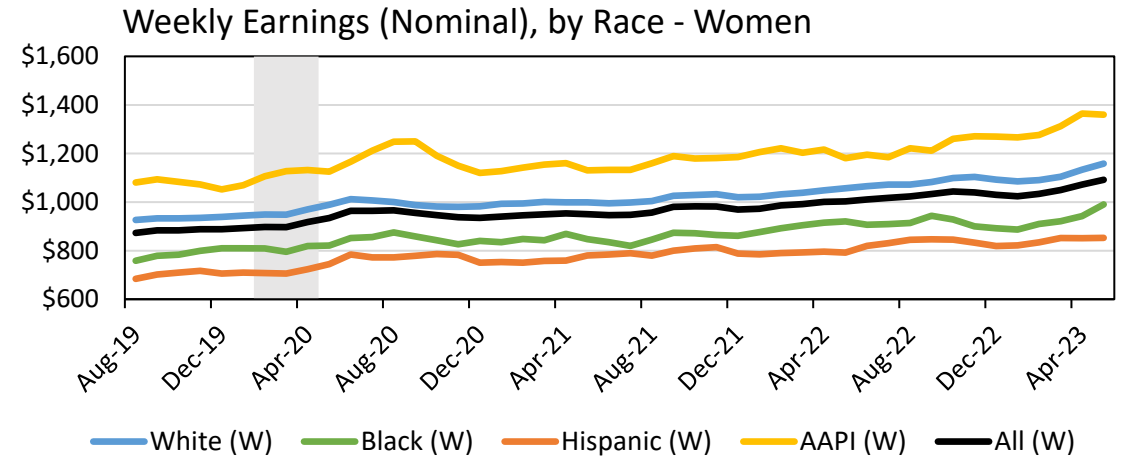
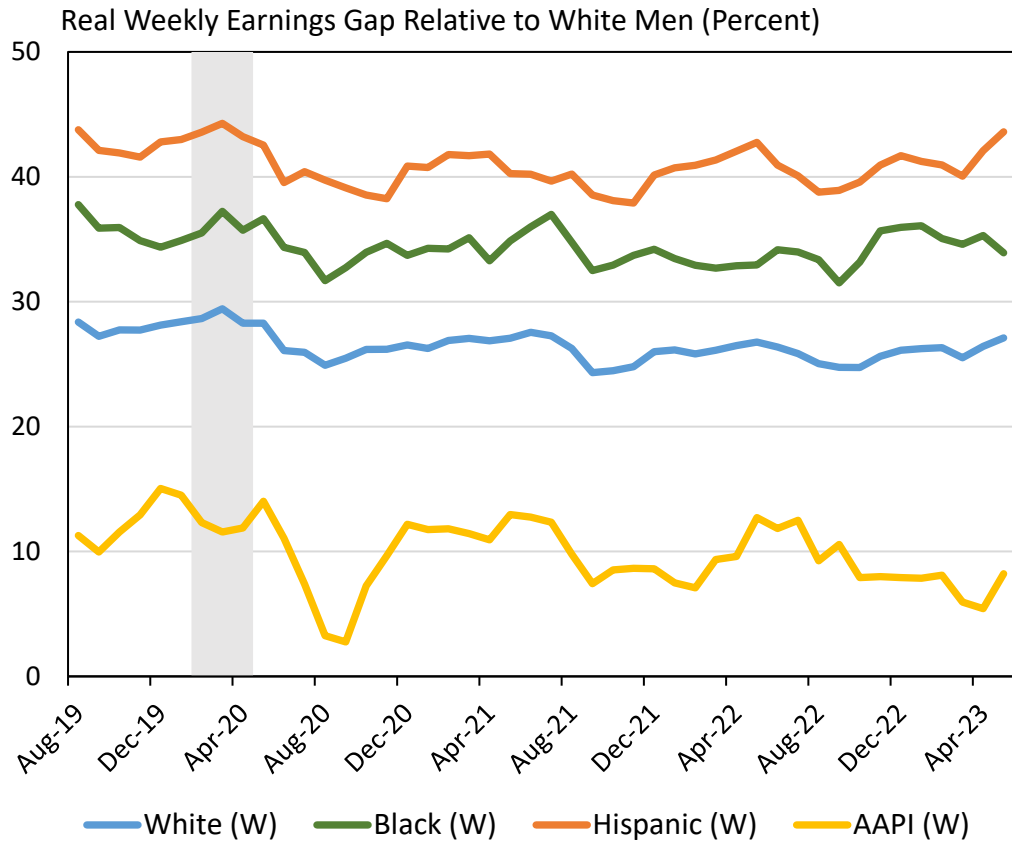
Real/Nominal Earnings by Gender



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

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.

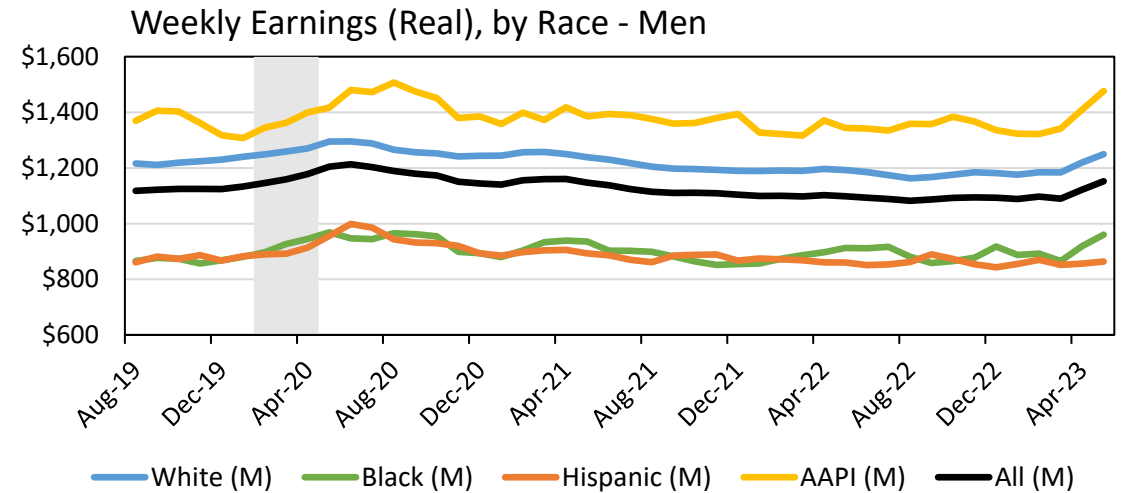
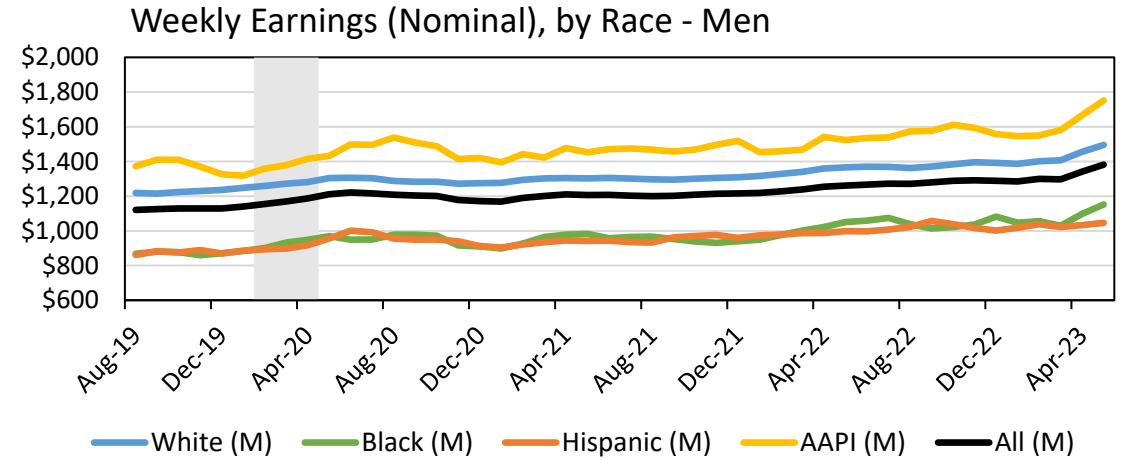
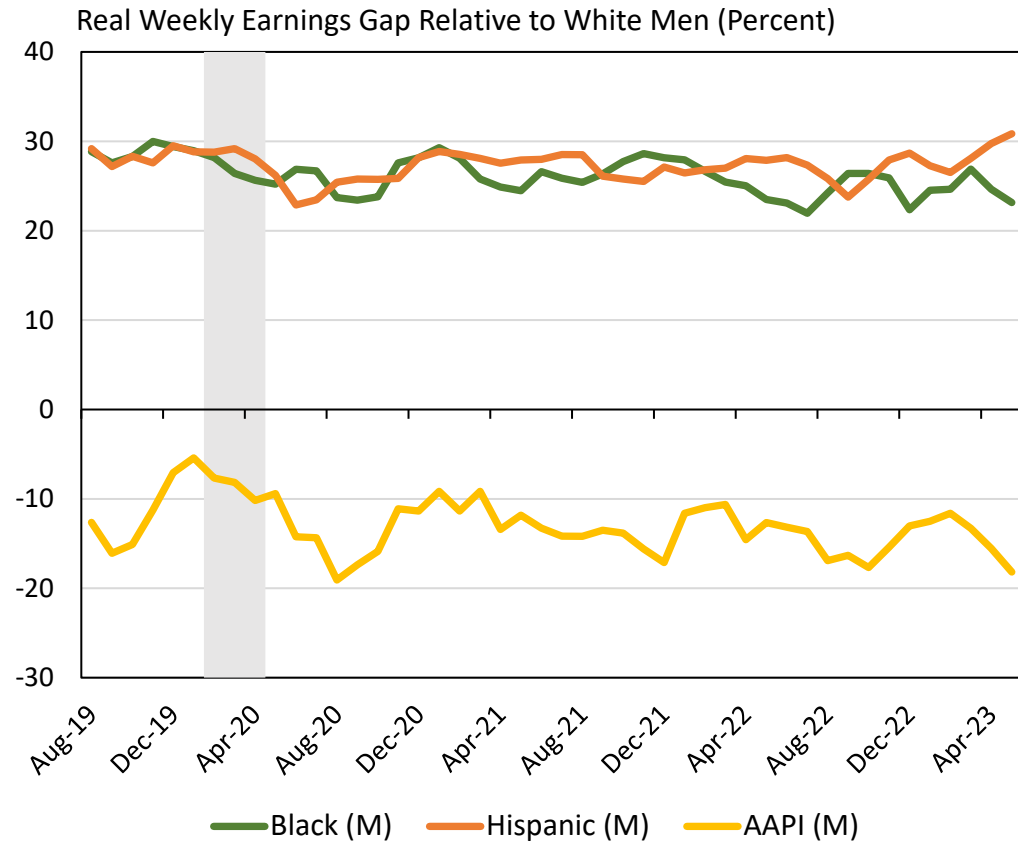
Real/Nominal Earnings by Race x Gender (Women)



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

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.

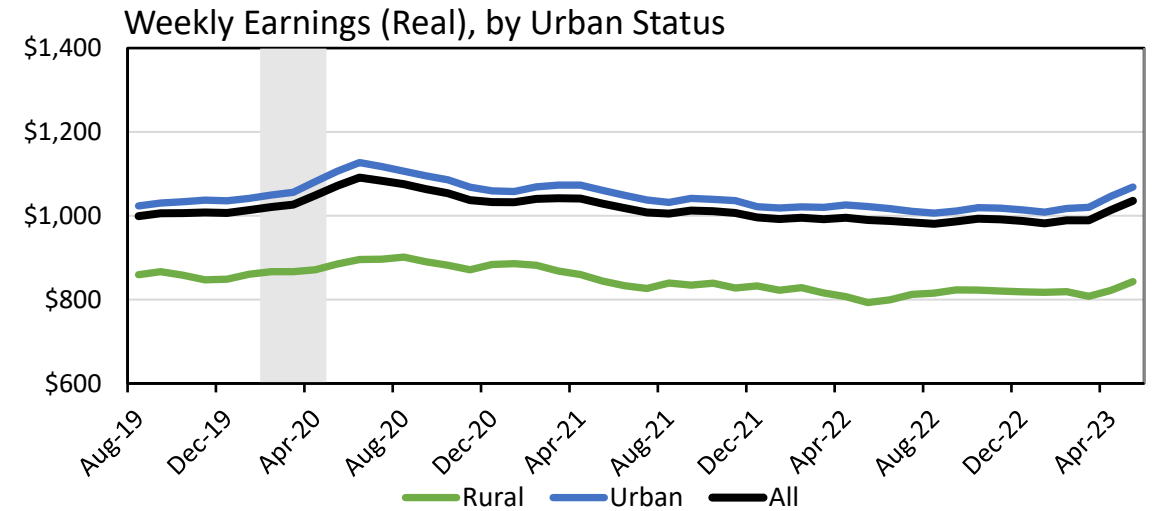
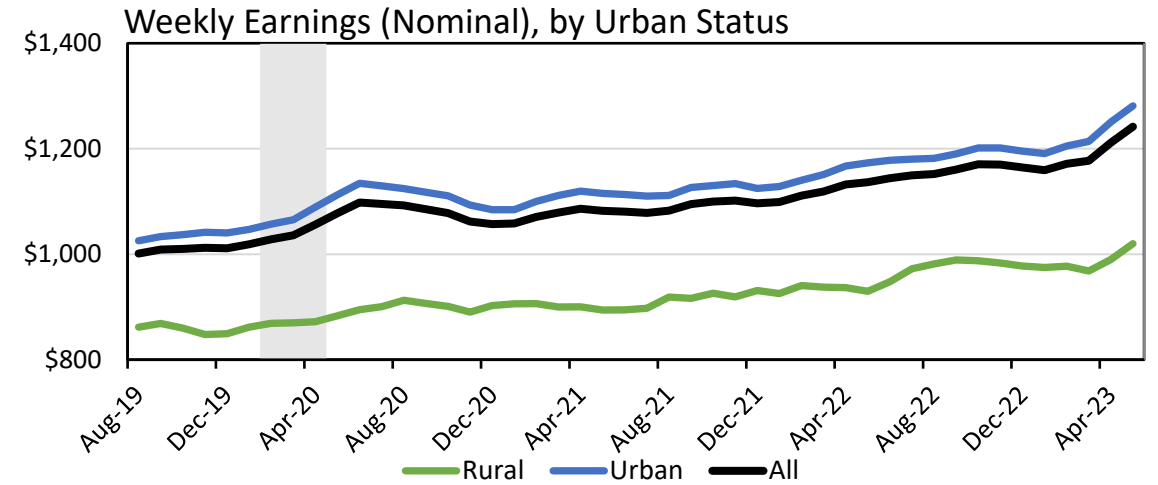
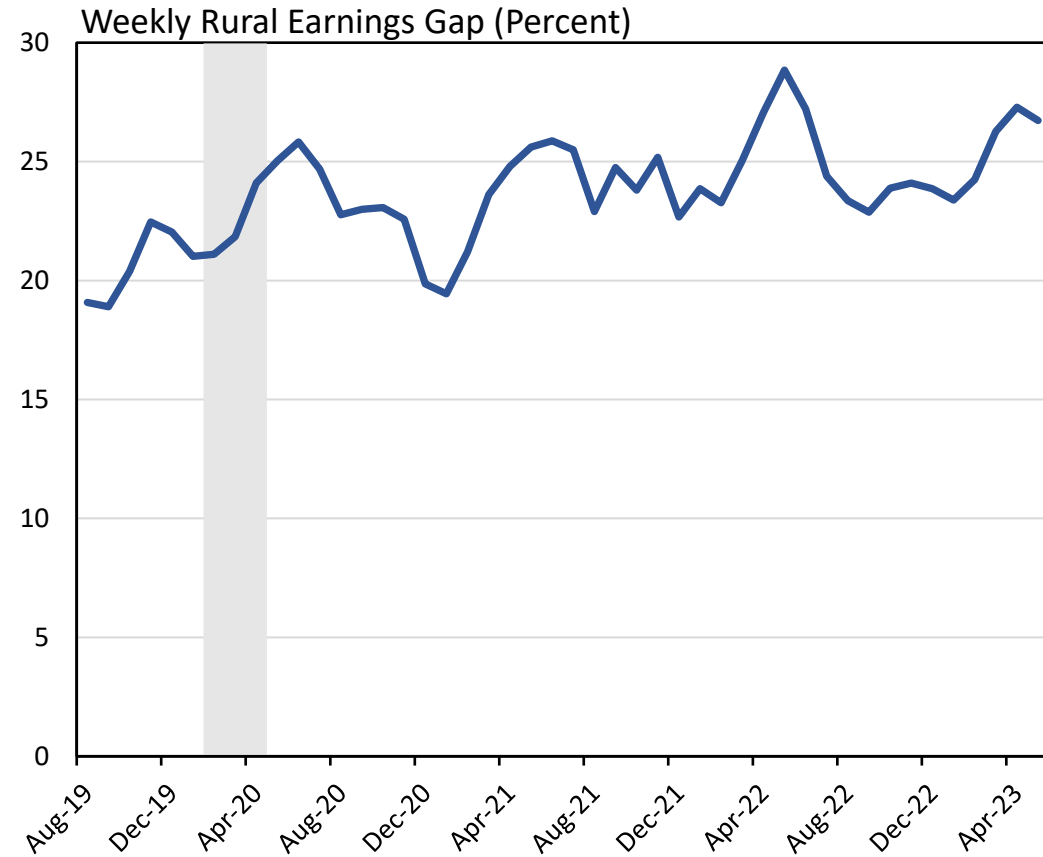
Real/Nominal Earnings by Race x Gender (Men)



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

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.

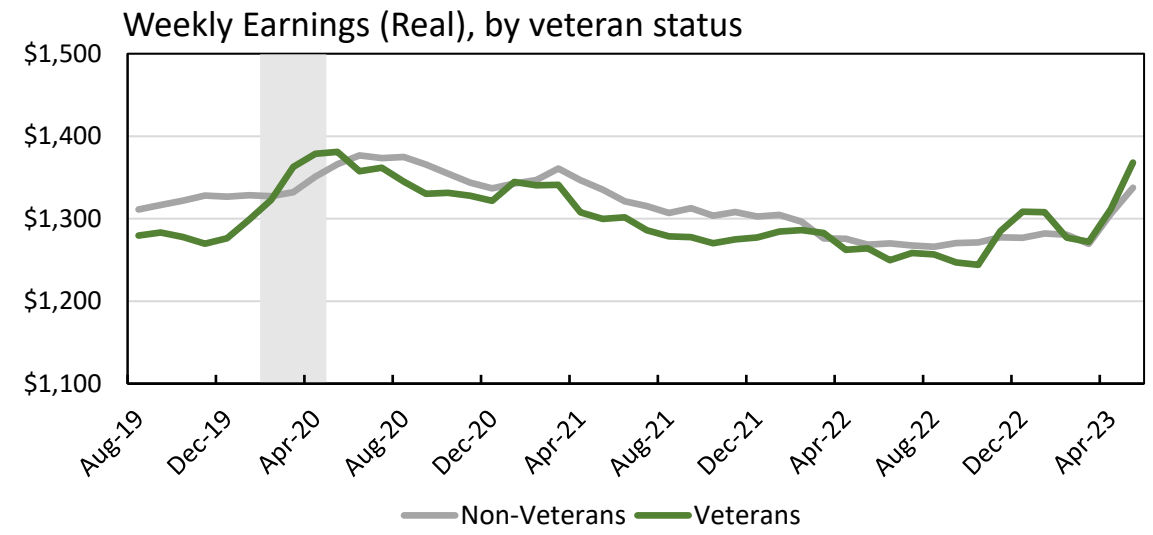
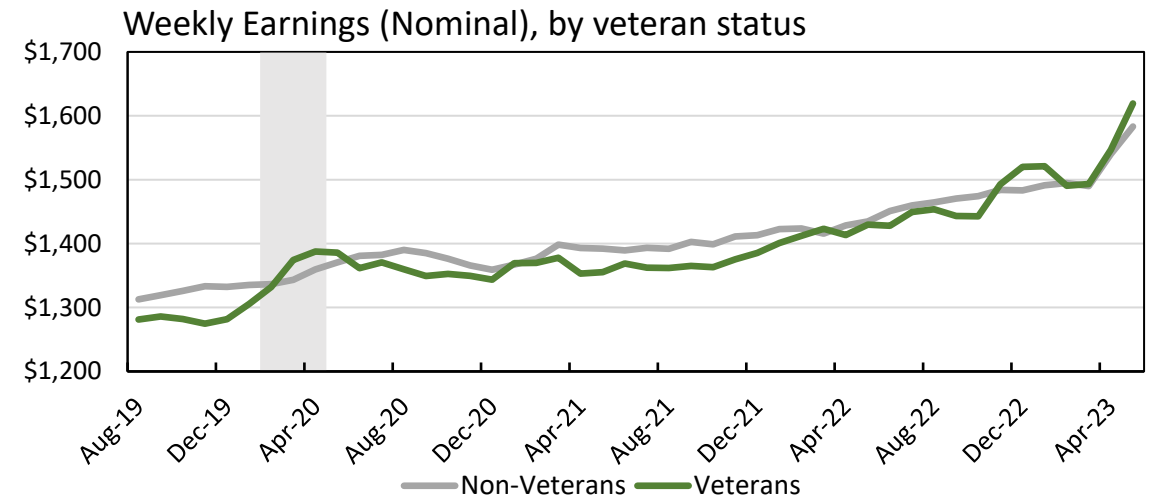
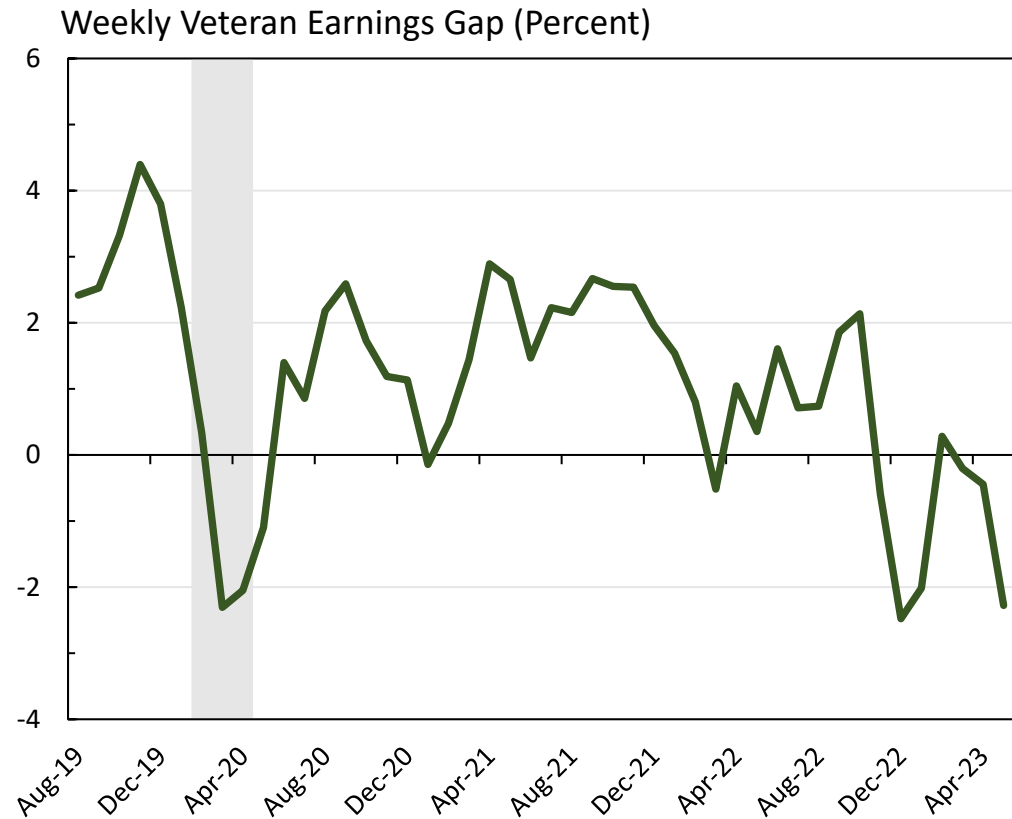
Real/Nominal Earnings by Urban Status



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

Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. Shaded region indicates the COVID-19 recession. The rural earnings gap is defined here as the percent less that an average rural resident earns on average relative to an urban resident. For instance, a gap of 20% implies that the average rural resident earns 80% of the average urban resident.

Real/Nominal Earnings by Veteran Status*



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

Notes: Real earnings uses corresponding demographic prices, indexed to June 2019. *The non-veteran sample is propensity reweighted toward non-veterans with similar demographic characteristics. Shaded region indicates the COVID-19 recession. The veteran gap is defined here as the percent less that veterans earn on average compared to non-veterans. For instance, a gap of 20% implies that the average veteran earns 80% of the average non-veteran.



EMPLOYMENT

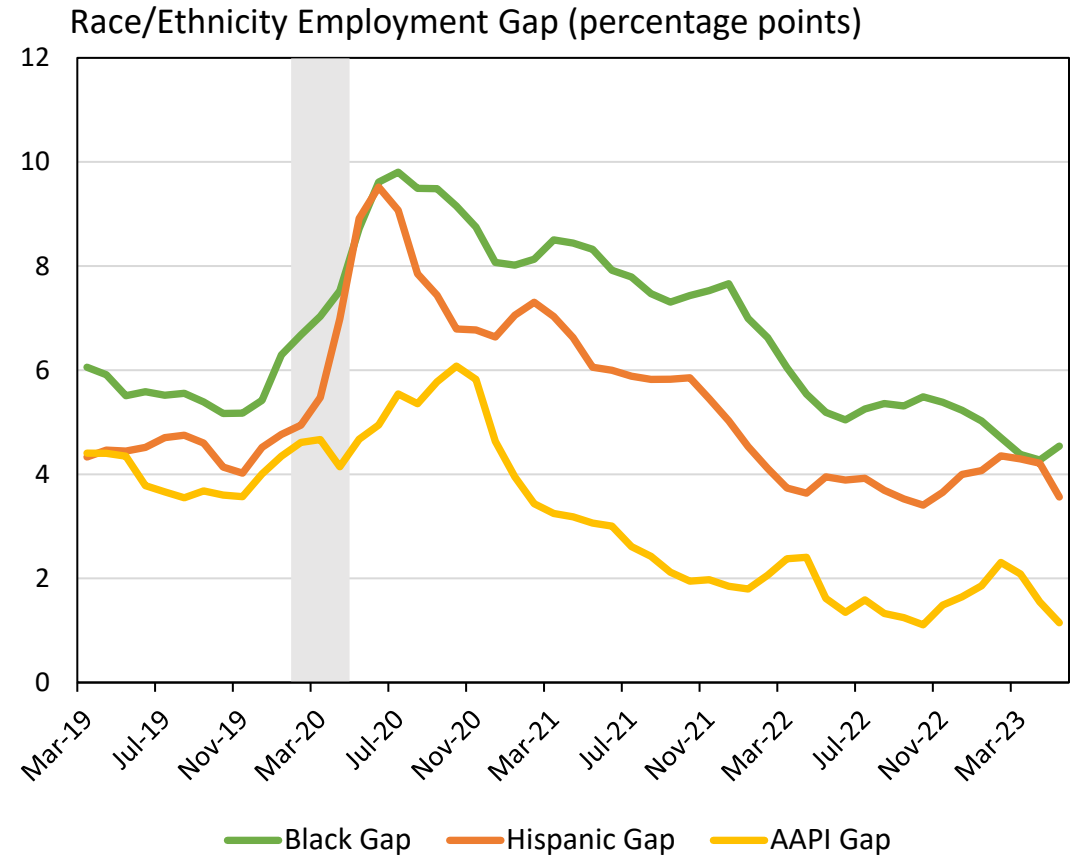
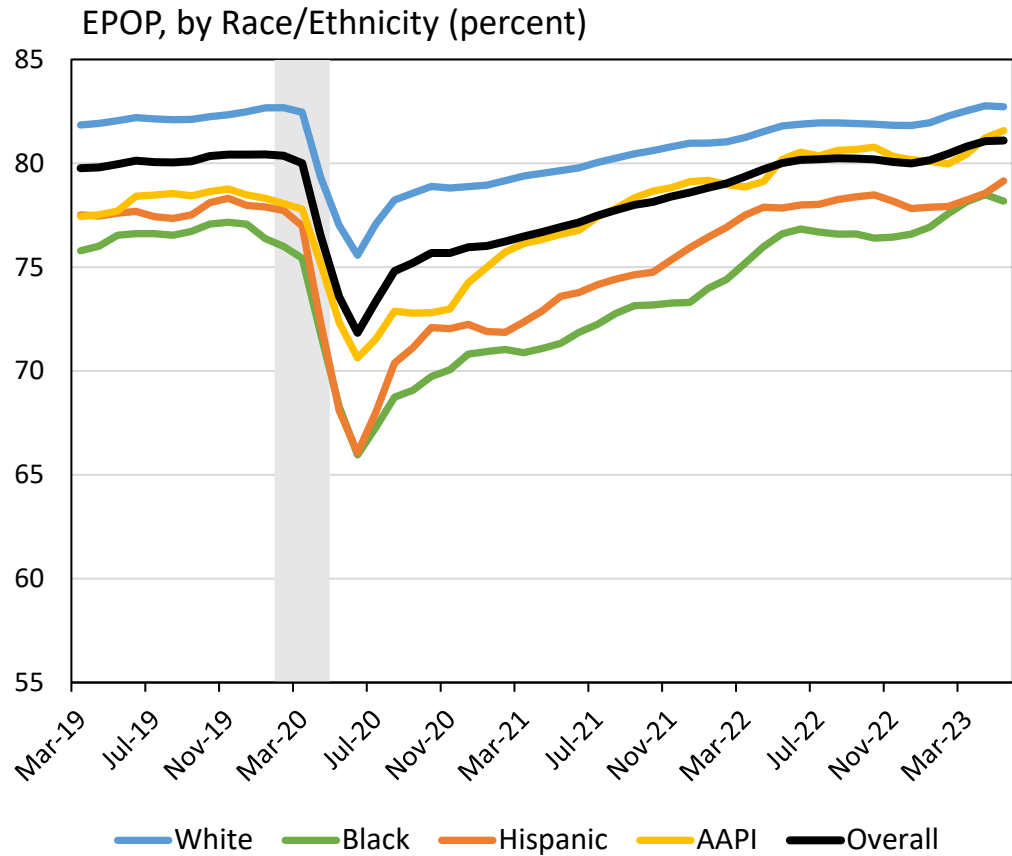
Employment-Population Ratio

Takeaways | EPOP

- Employment as a ratio to population (EPOP) for people aged 25 to 54 declined precipitously during the pandemic recession and rebounded quickly thereafter, returning to pre-pandemic levels in early 2022.
- EPOP decreased more than the U.S. average for Black people, Hispanics, women, the young, people in rural areas, and people without a college education during the pandemic.
- EPOP for Black people, Hispanics and Asians have been rising steadily post-pandemic, but have been roughly stable across age, education, and gender.
- The Black EPOP has equaled the Hispanic EPOP since February 2023, despite being perceptibly below the Hispanic EPOP before. Women's EPOP grew faster than that for men since January 2023.
- Black men and Hispanic and Asian women have EPOP ratios considerably below the national averages for their genders, a pattern driven almost entirely by their labor force participation.
- Veterans have systematically lower EPOP than comparable* nonveterans, mainly because they have lower labor force participation.

**Comparable nonveterans are male high school graduates reweighted by age, race and birthplace to match veterans.*

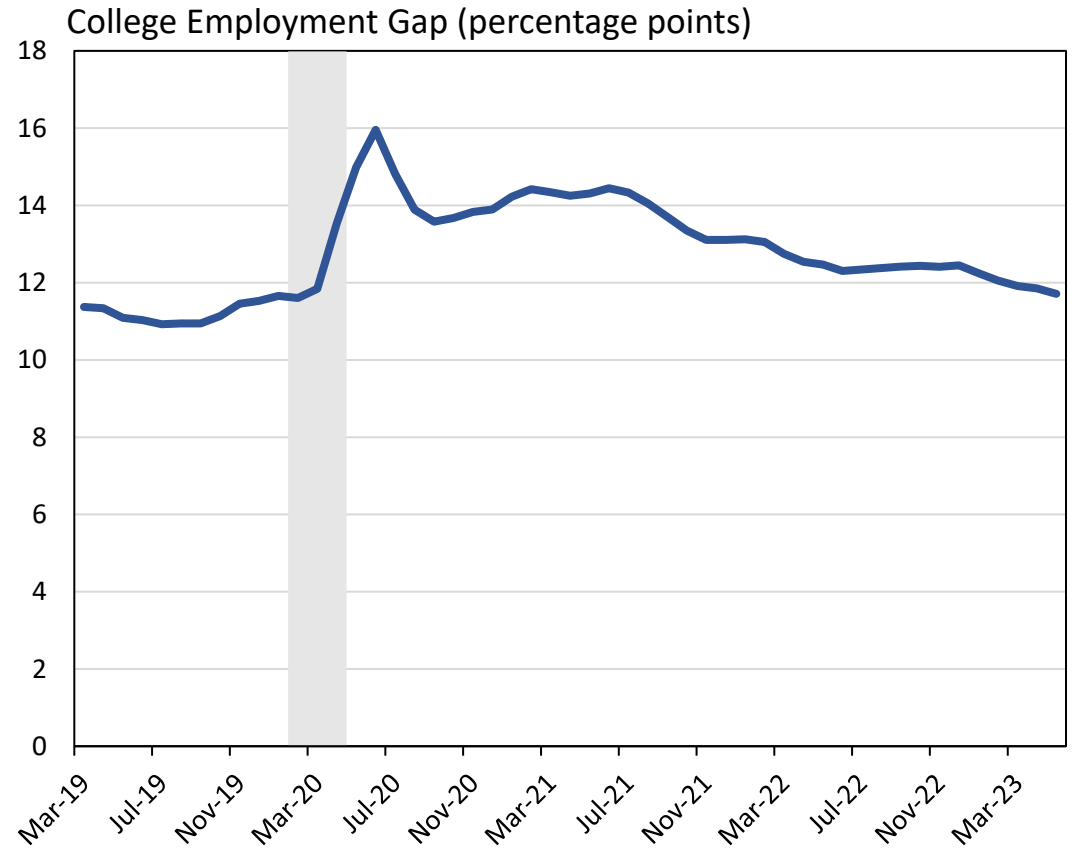
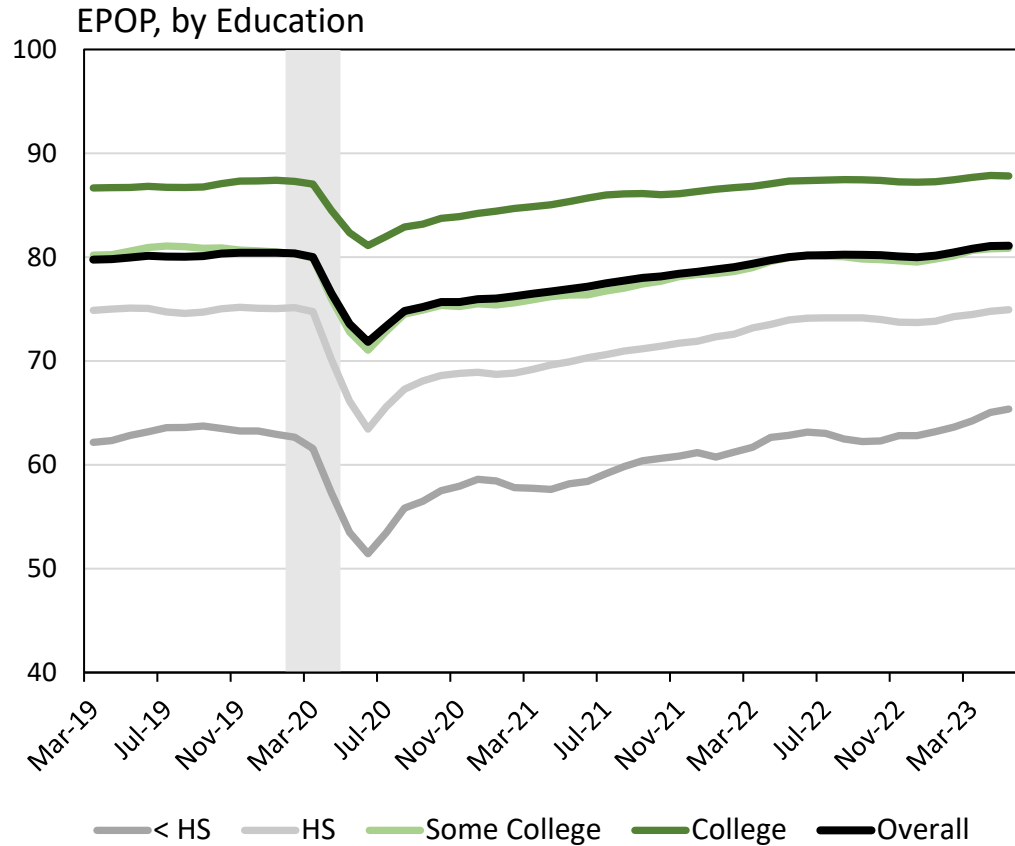
EPOP by Race/Ethnicity



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

Notes: Restricted to prime aged individuals (25-54). Shaded region indicates the COVID-19 recession.

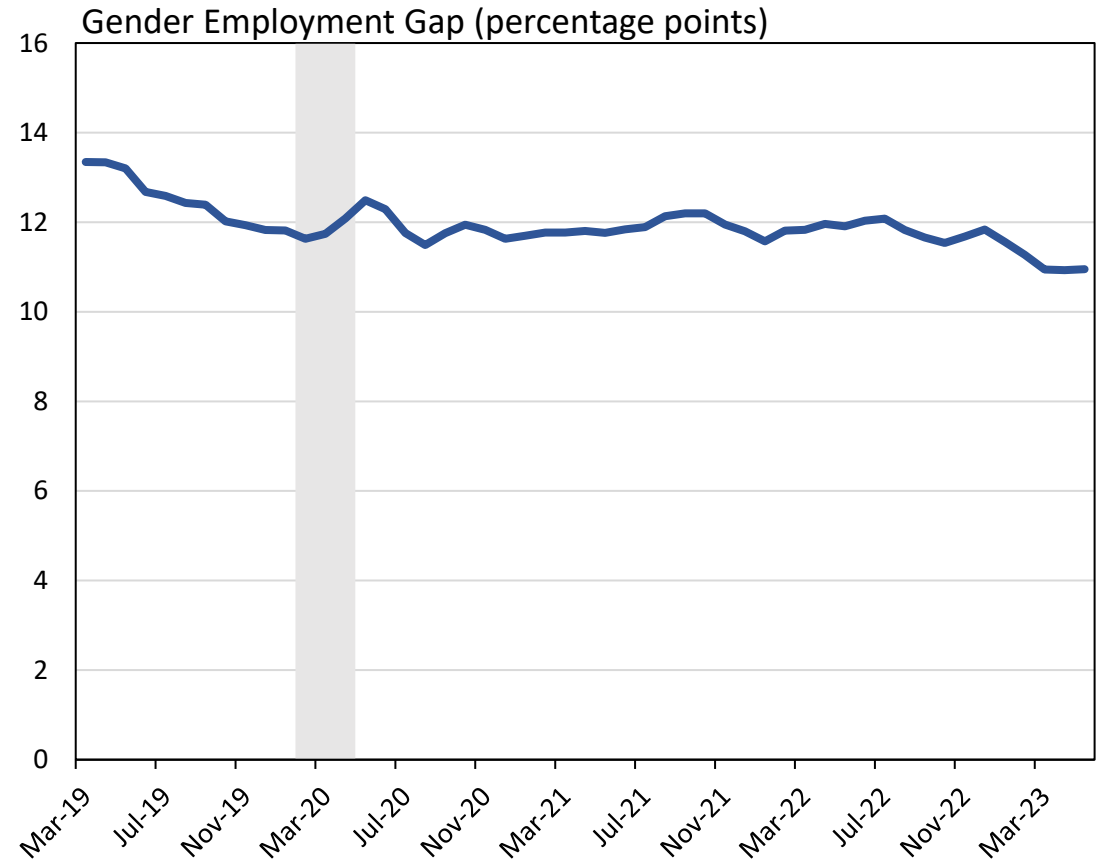
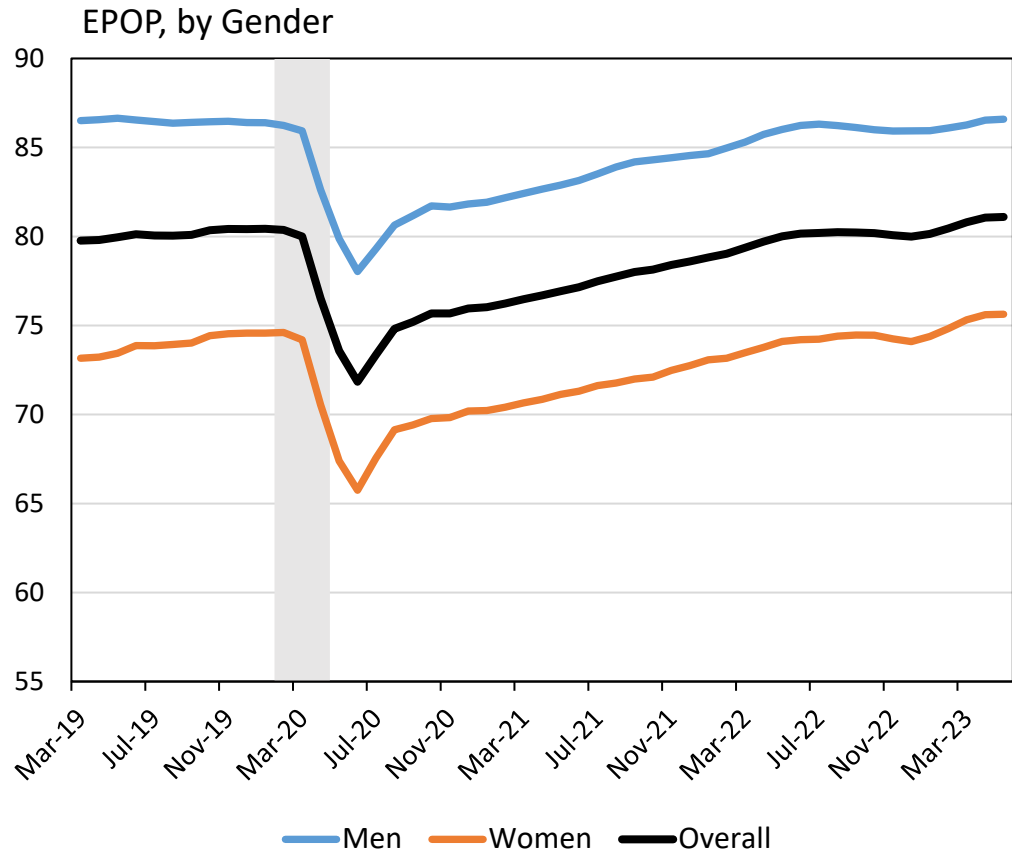
EPOP by Education



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

Notes: Restricted to prime aged individuals (25-54). Shaded region indicates the COVID-19 recession.

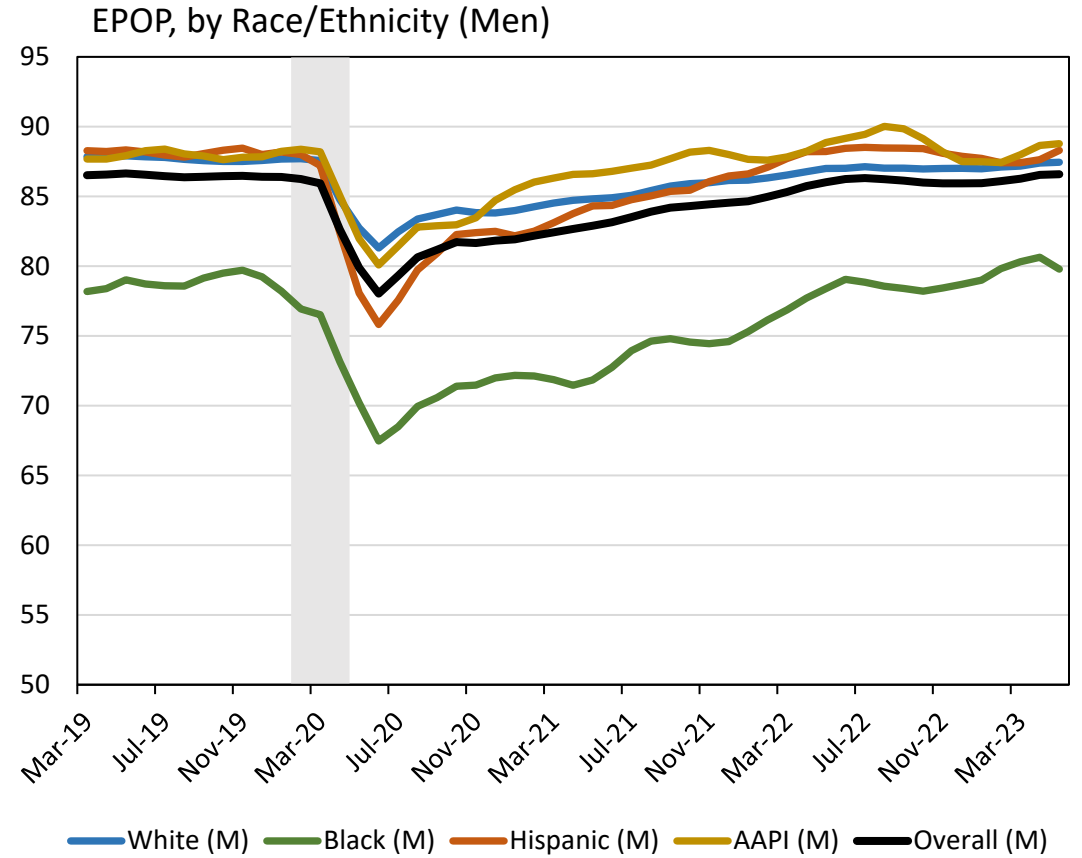
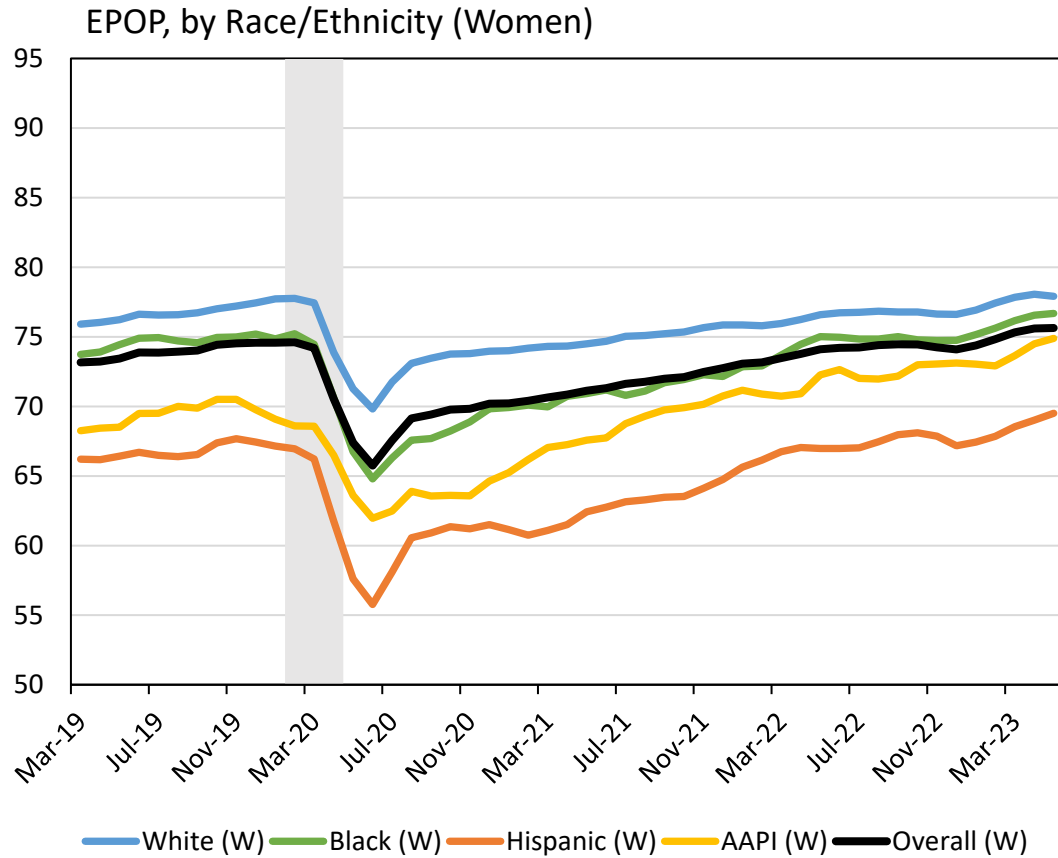
EPOP by Gender



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

Notes: Restricted to prime aged individuals (25-54). Shaded region indicates the COVID-19 recession.

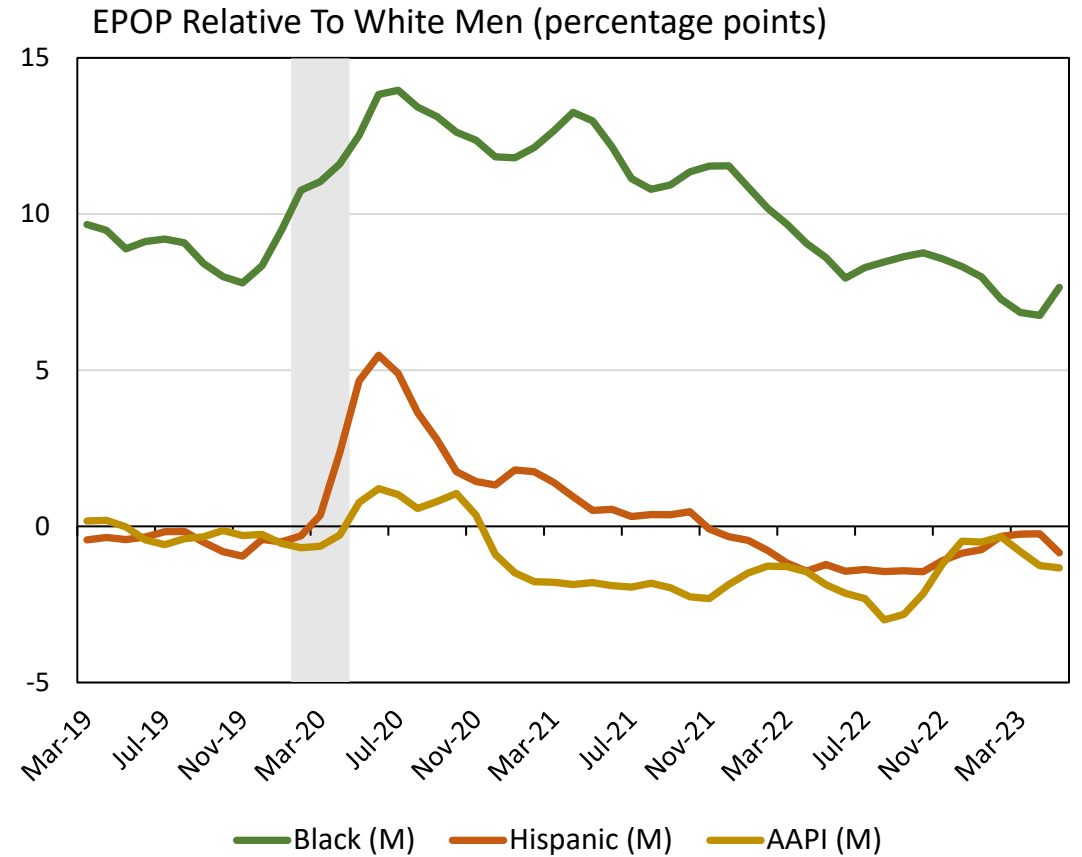
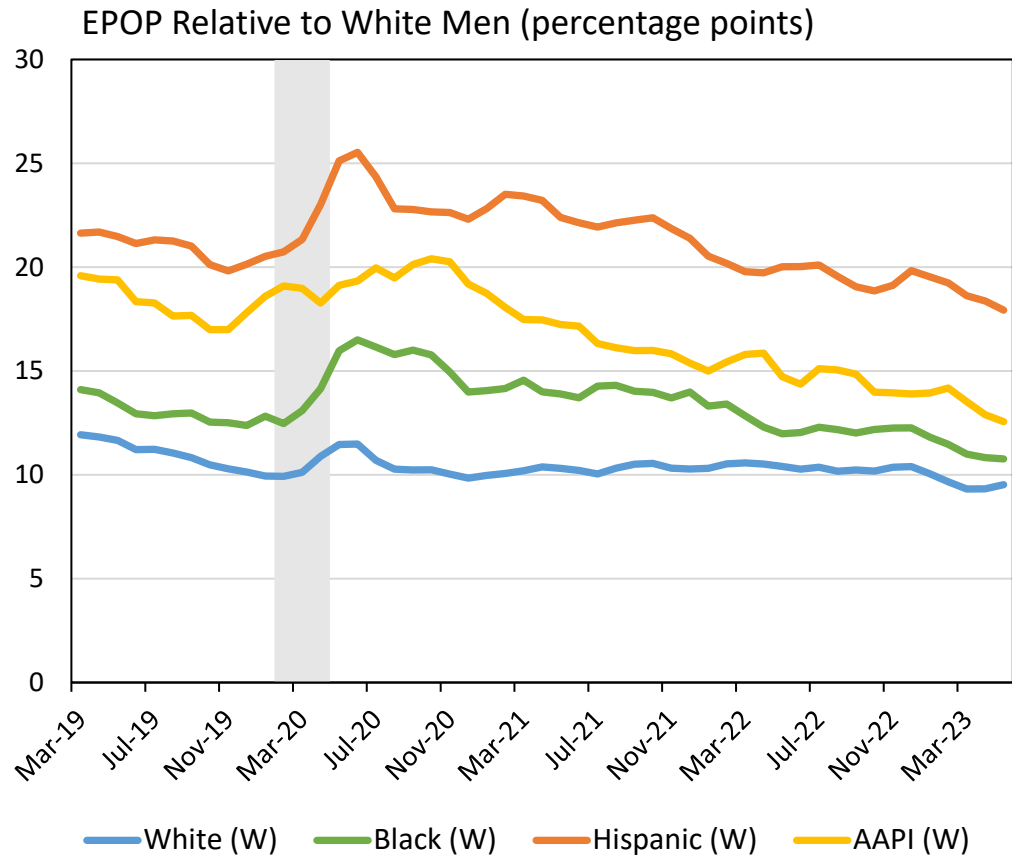
EPOP by Race x Gender



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

Notes: Restricted to prime aged individuals (25-54). Shaded region indicates the COVID-19 recession.

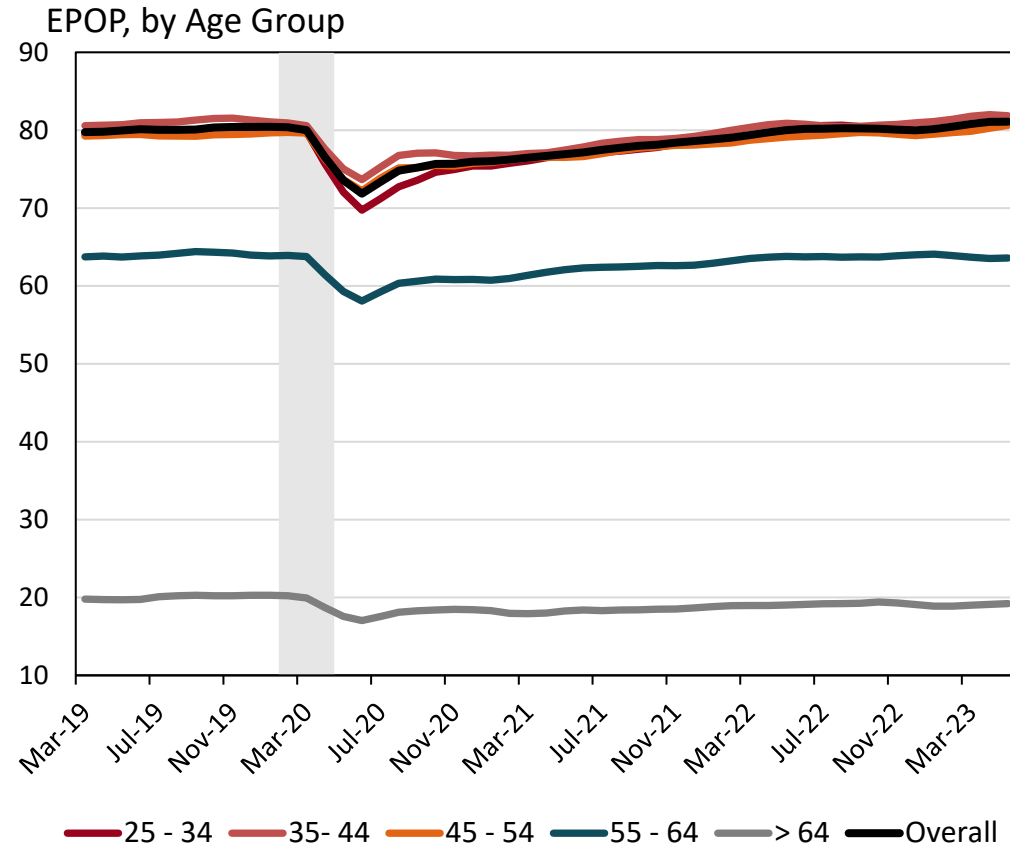
EPOP Gaps by Race x Gender



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

Notes: Restricted to prime aged individuals (25-54). Shaded region indicates the COVID-19 recession.

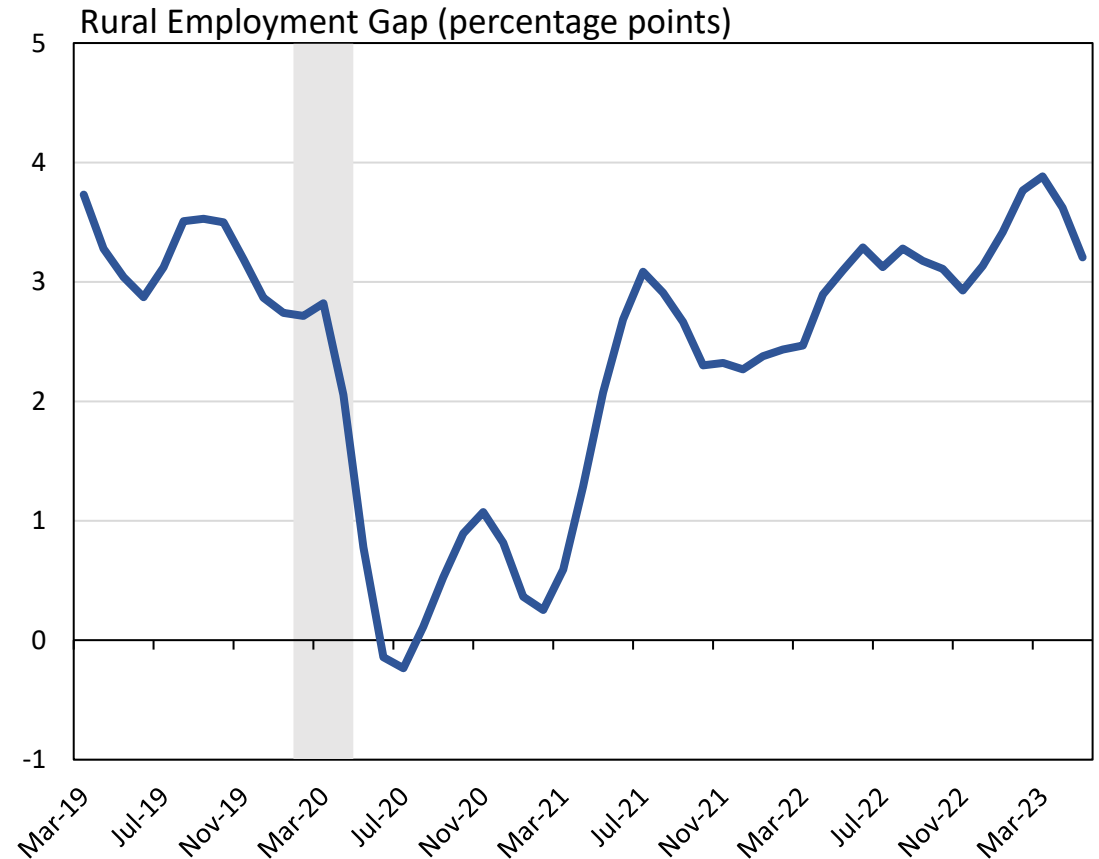
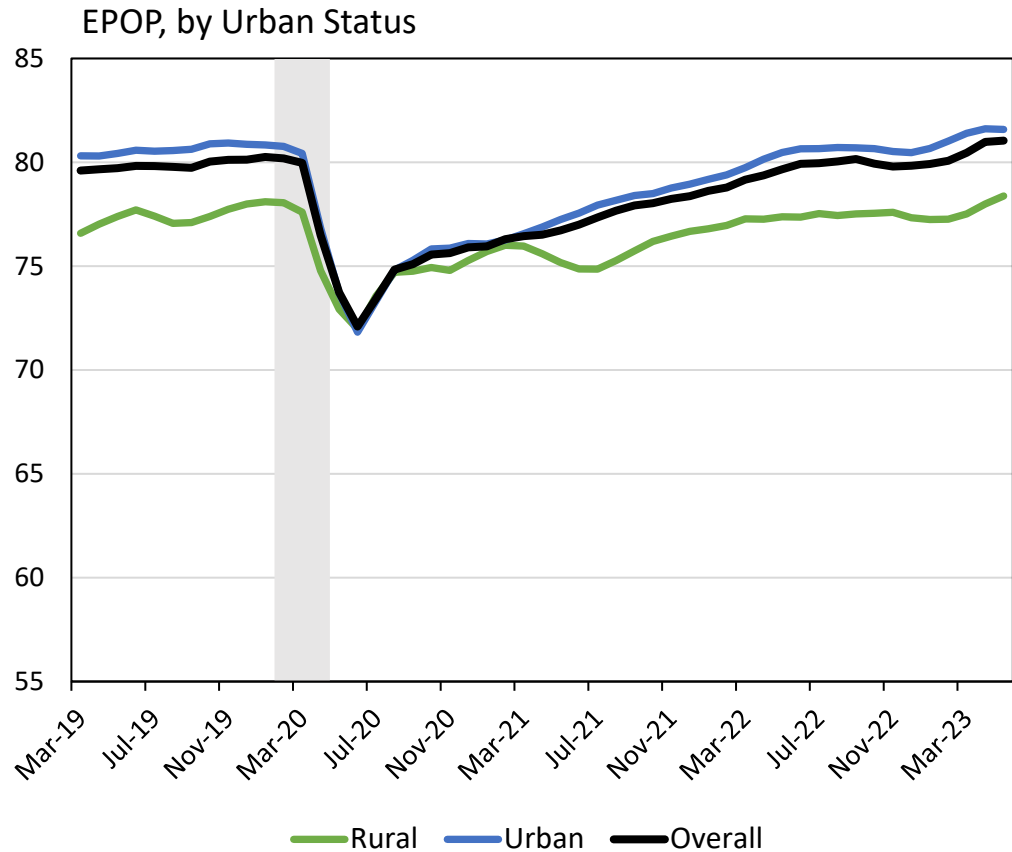
EPOP by Age



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

Notes: Overall line uses prime age (25-54) sample. Shaded region indicates the COVID-19 recession.

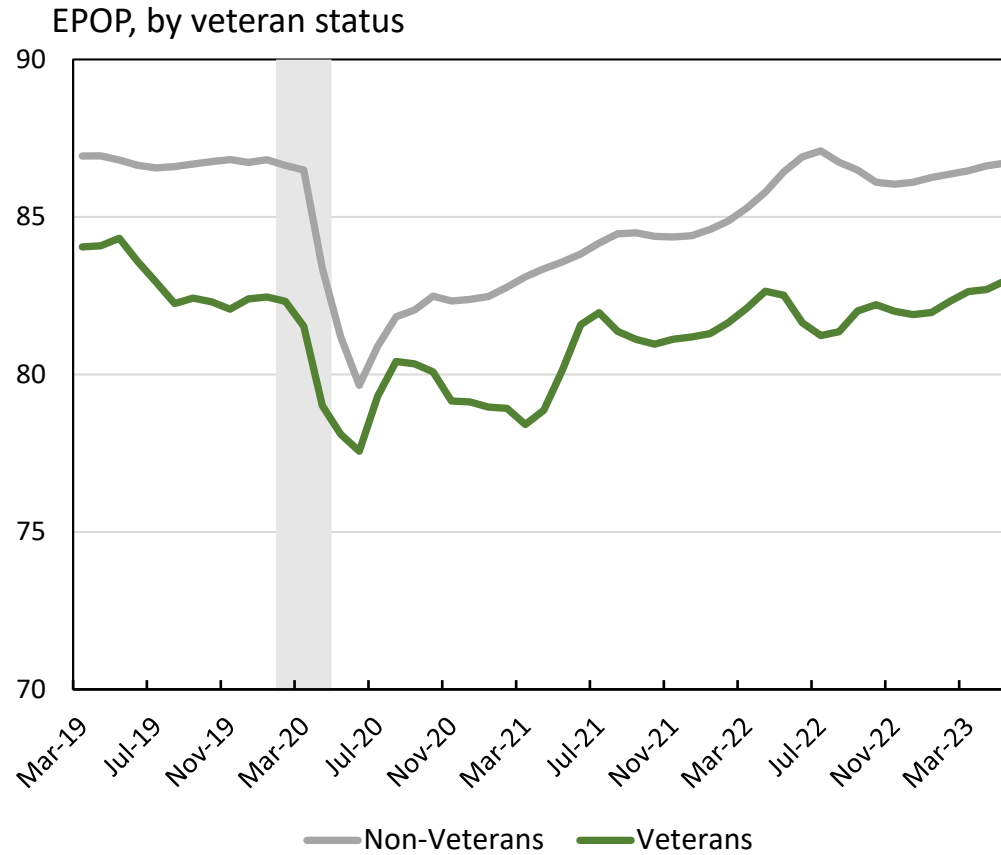
EPOP by Urban Status



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

Notes: Restricted to prime aged individuals (25-54). Shaded region indicates the COVID-19 recession.

EPOP by Veteran Status



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

Notes: Restricted to men, 25-55, with at least a high school diploma. Shaded region indicates the COVID-19 recession.



EMPLOYMENT

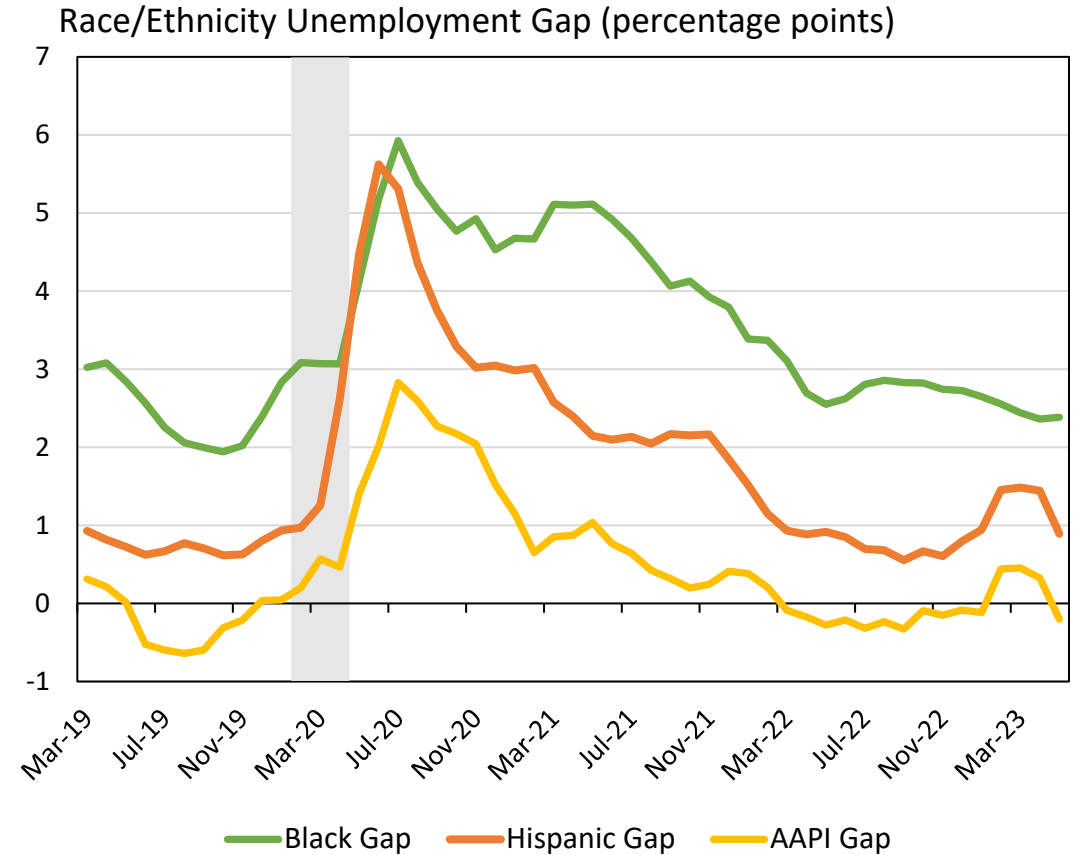
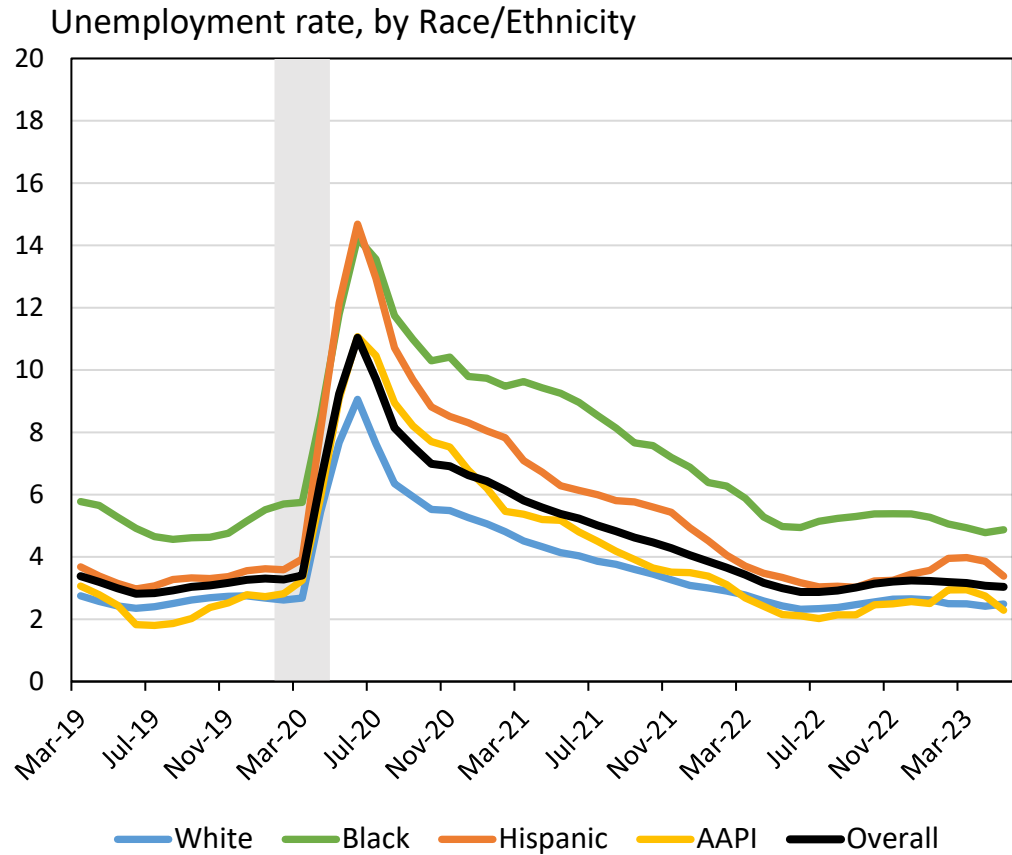
Unemployment Rate

Takeaways | Unemployment Rate

- We define unemployment rate as the fraction of unemployed in the labor force. The overall unemployment rate peaked at more than 11 percent during the pandemic but has since declined to pre-pandemic levels.
- Unemployment rate gaps increased during the pandemic but are now close to pre-pandemic levels.
- The unemployment rate gap for Hispanic workers declined in May 2023, retracing back some of the rise since the beginning of the year.
- Unemployment rate gaps are highest for the young, followed by Black workers, and by people without a college degree. While EPOP gaps for Black workers have been closing, unemployment rate gaps for Black workers have been declining much more gradually.
- Veterans and comparable* nonveterans have had essentially the same unemployment rate since the pandemic.

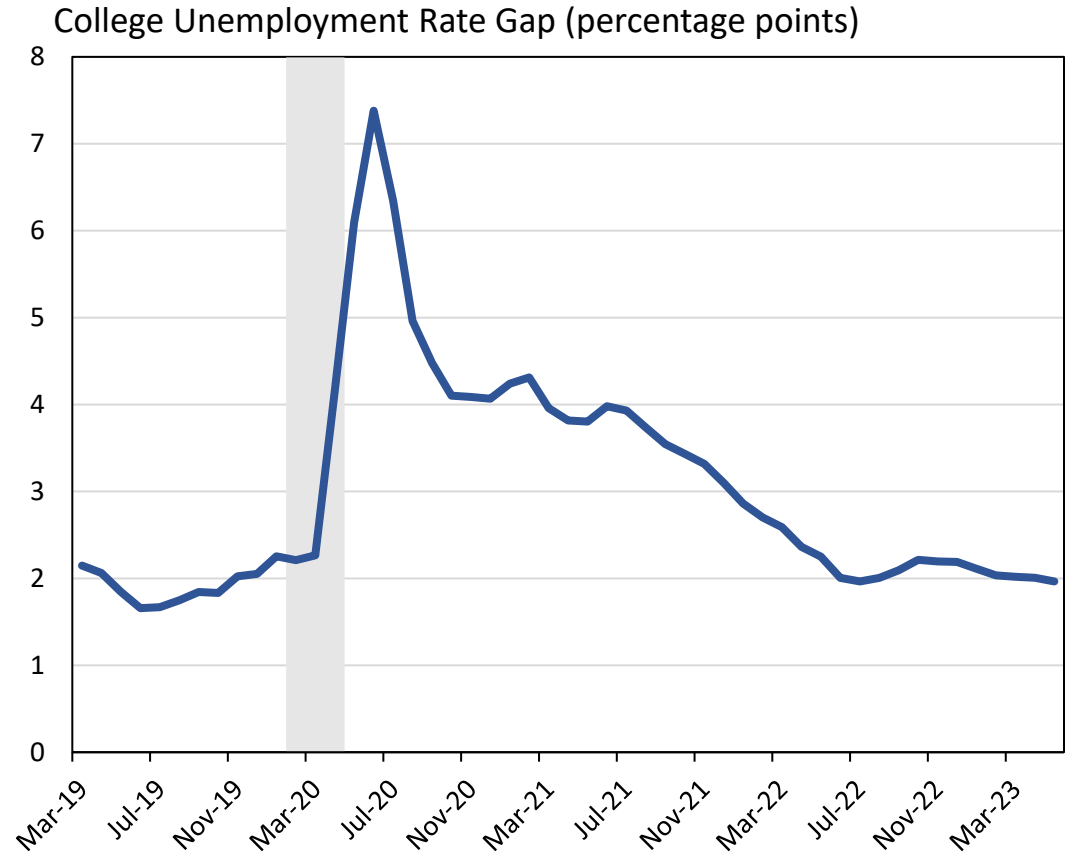
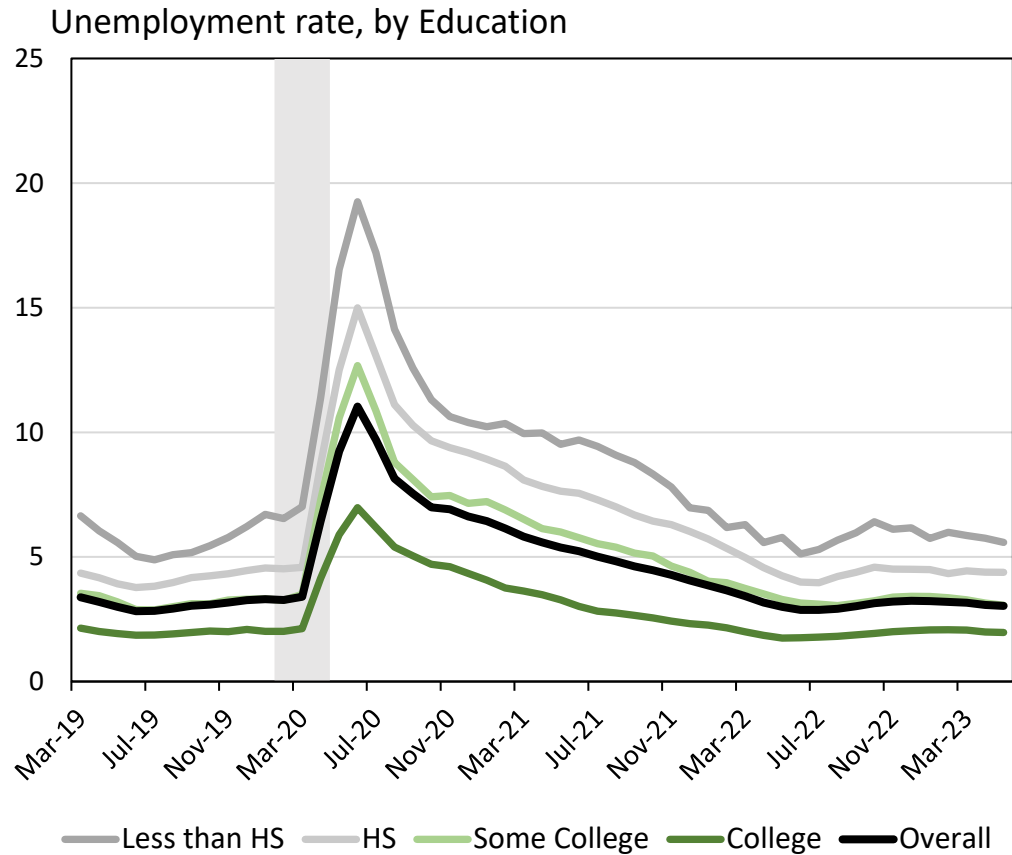
**Comparable nonveterans are male high school graduates reweighted by age, race and birthplace to match veterans.*

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-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

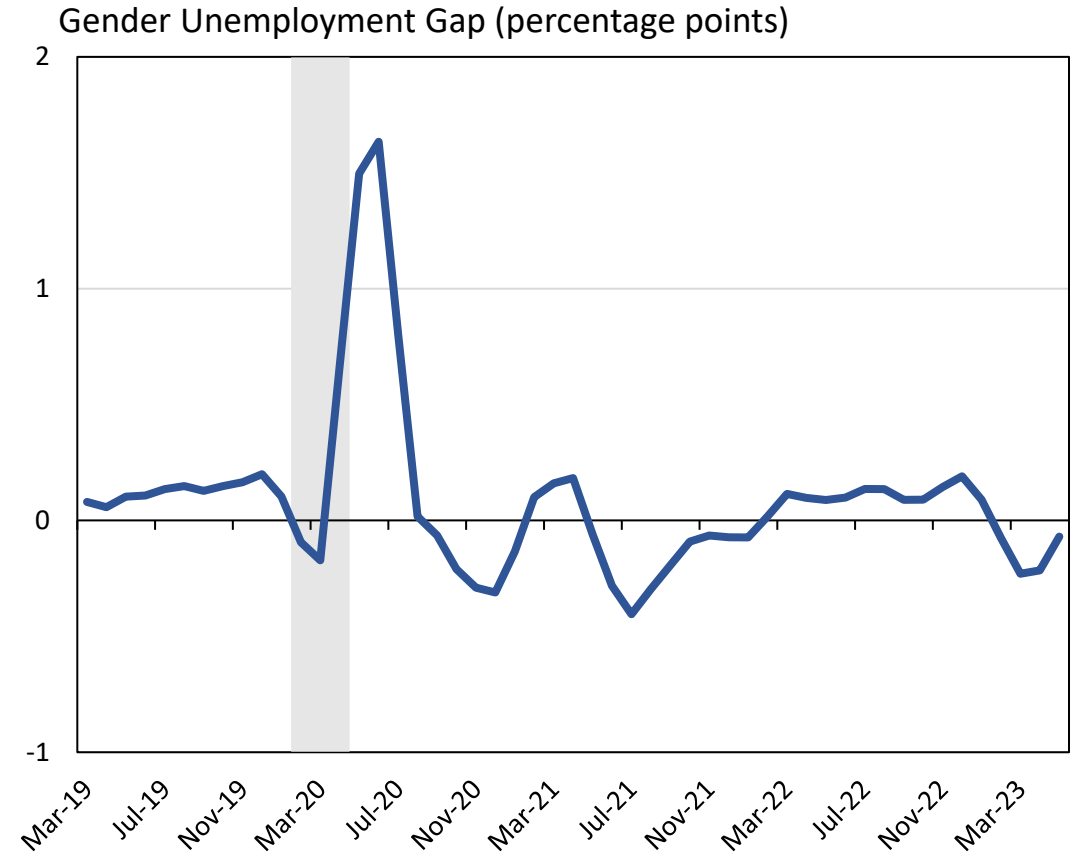
Unemployment Rate by Education



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

Notes: Restricted to prime aged individuals (25-54). Shaded region indicates the COVID-19 recession.

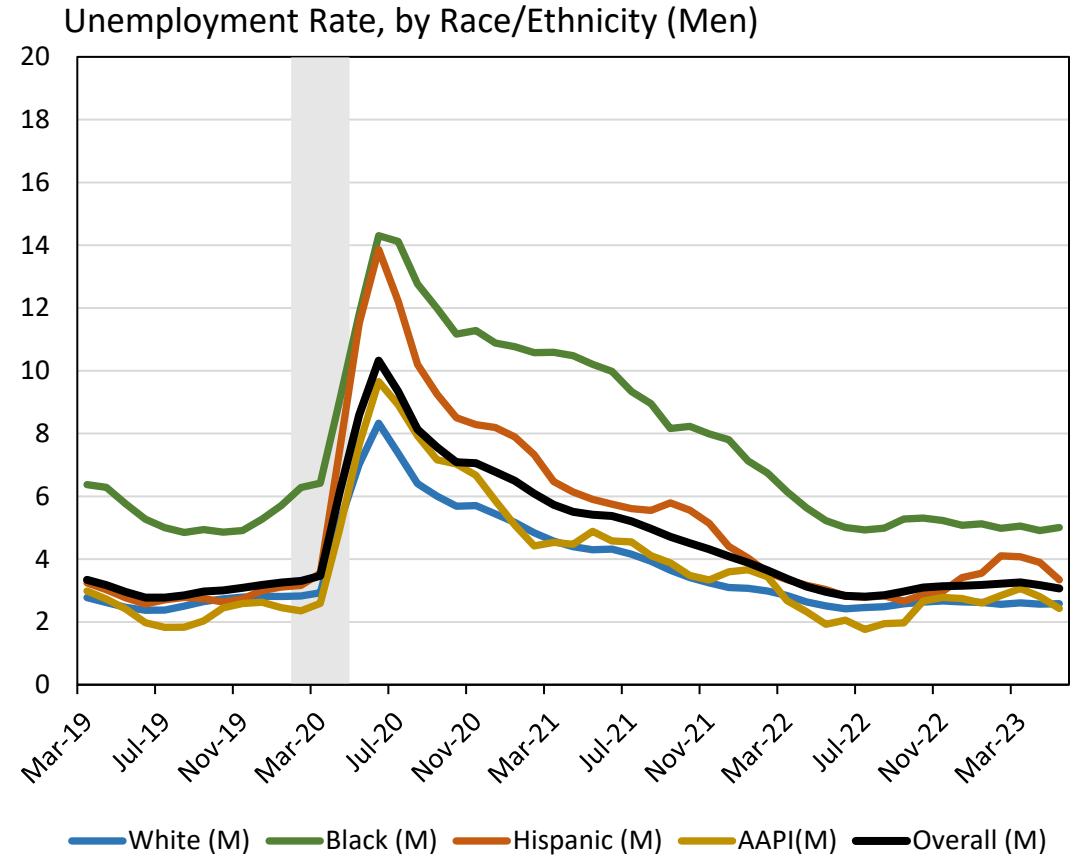
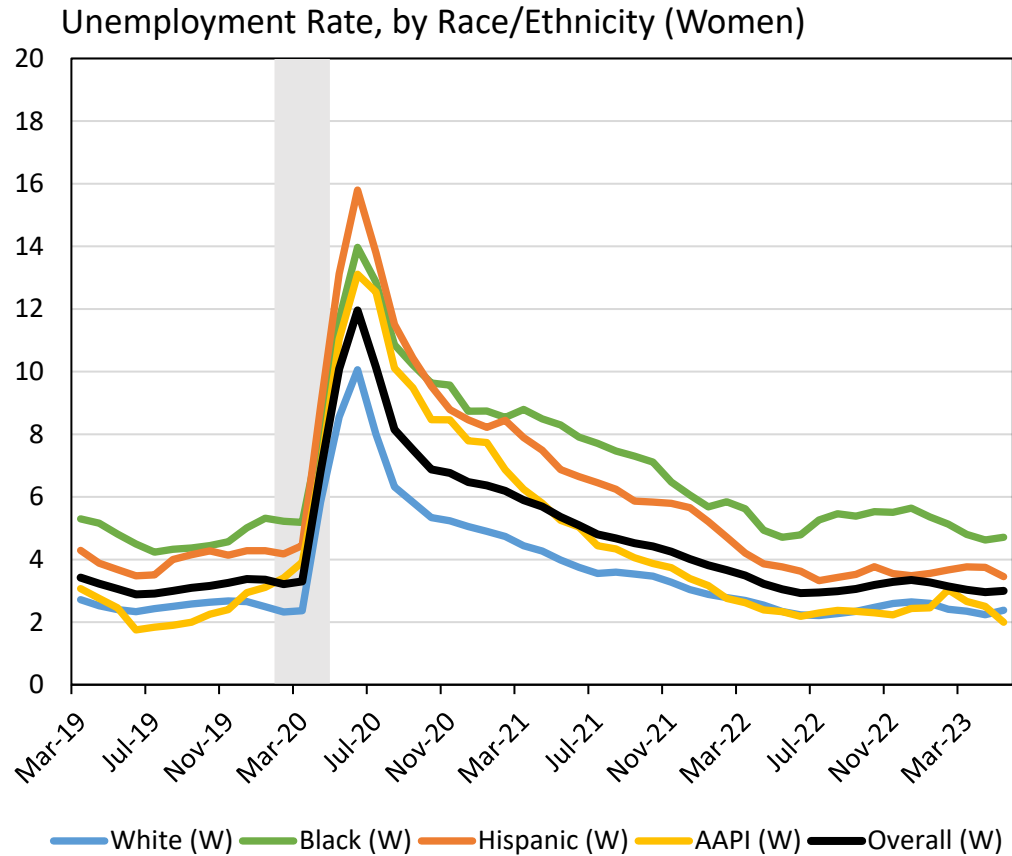
Unemployment Rate by Gender



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

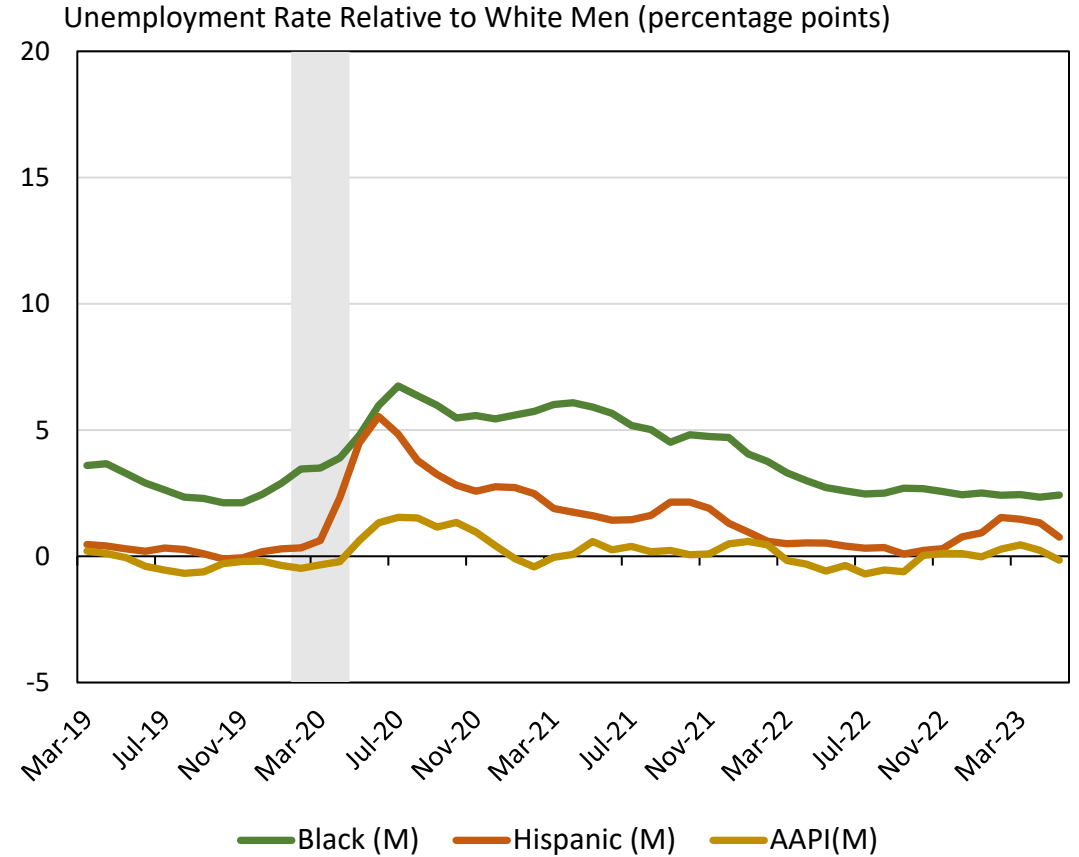
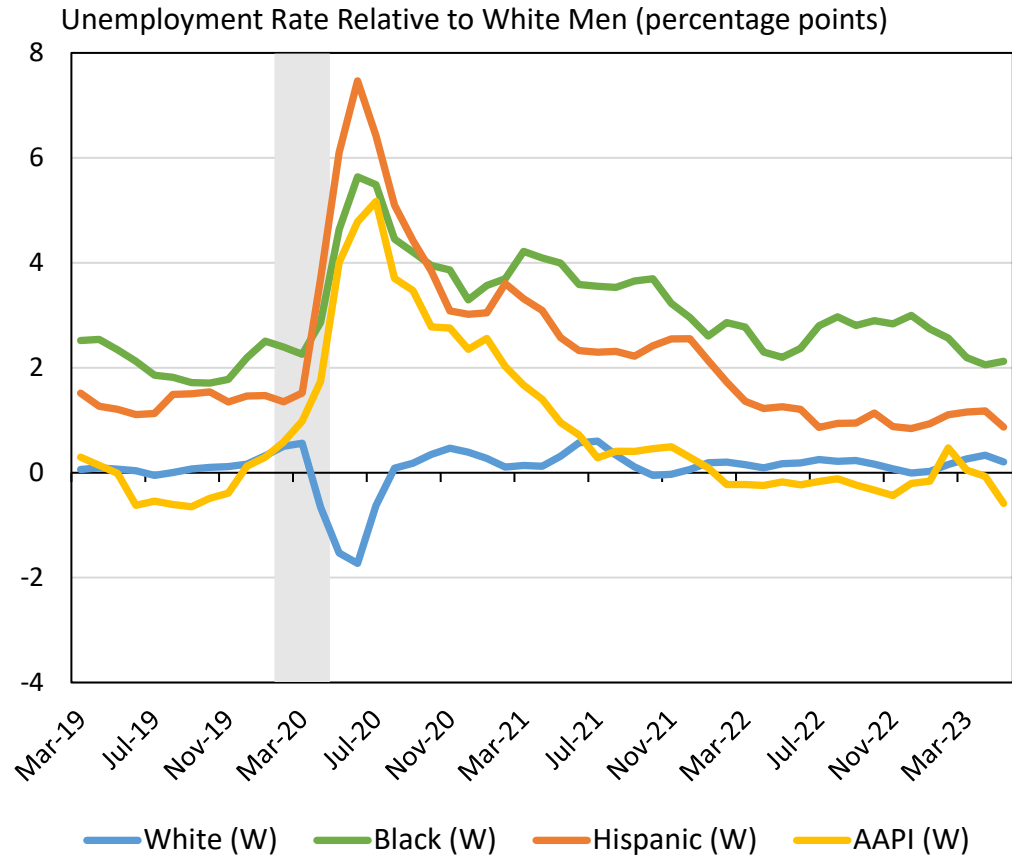
Unemployment Rate by Race x Gender



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

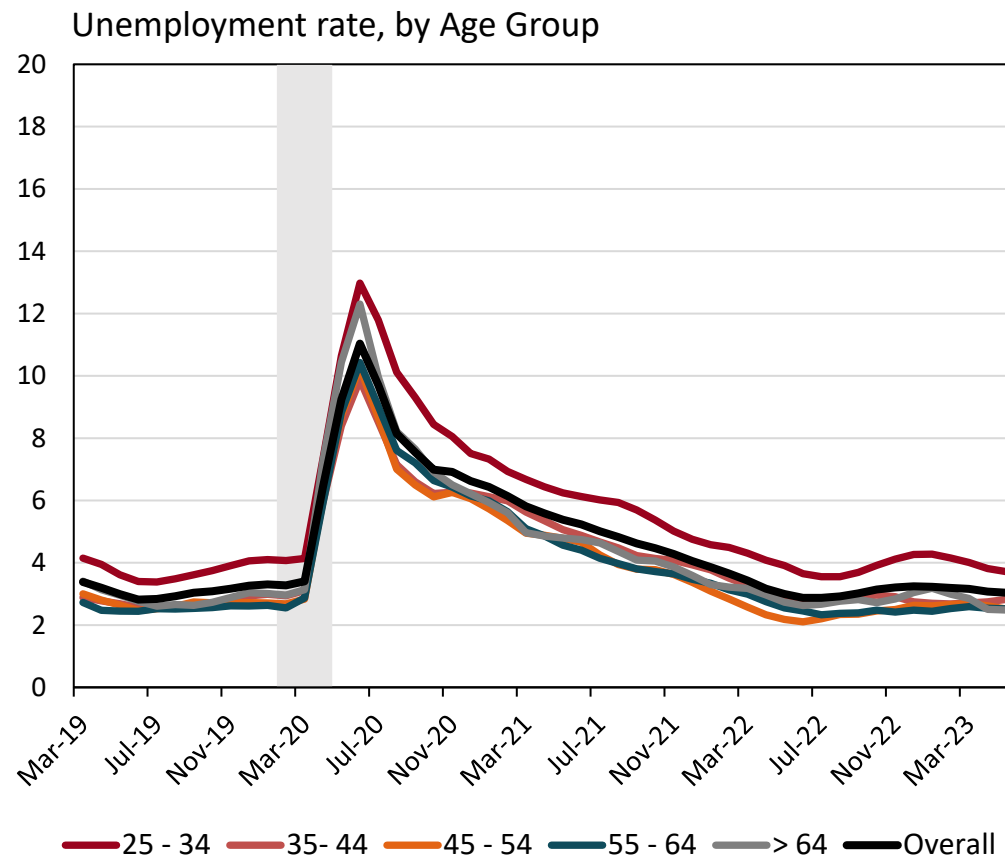
Unemployment Rate Gaps by Race x Gender



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

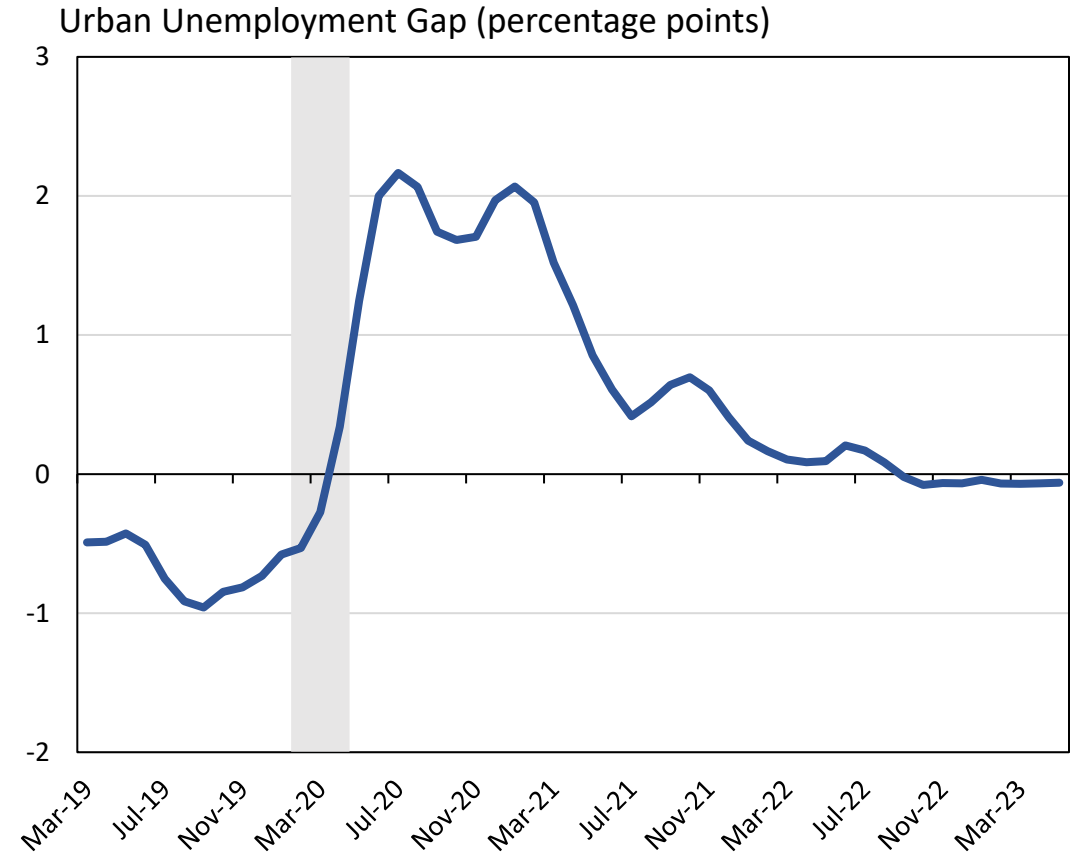
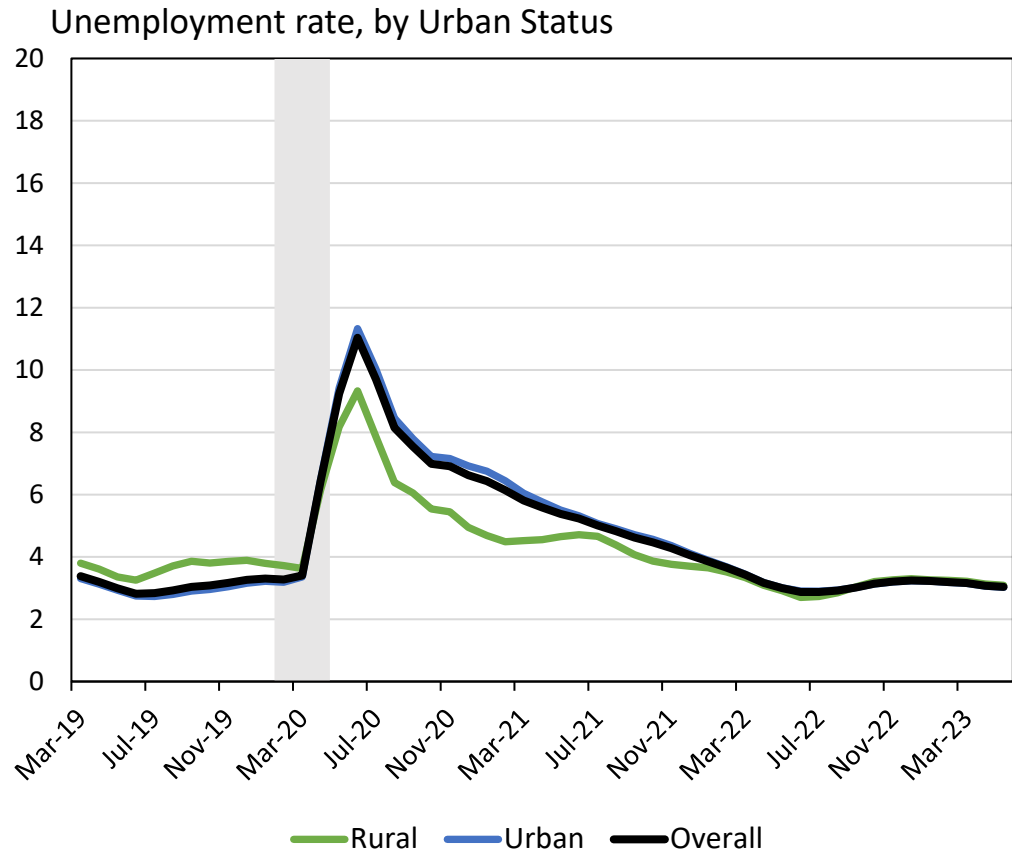
Unemployment Rate by Age



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

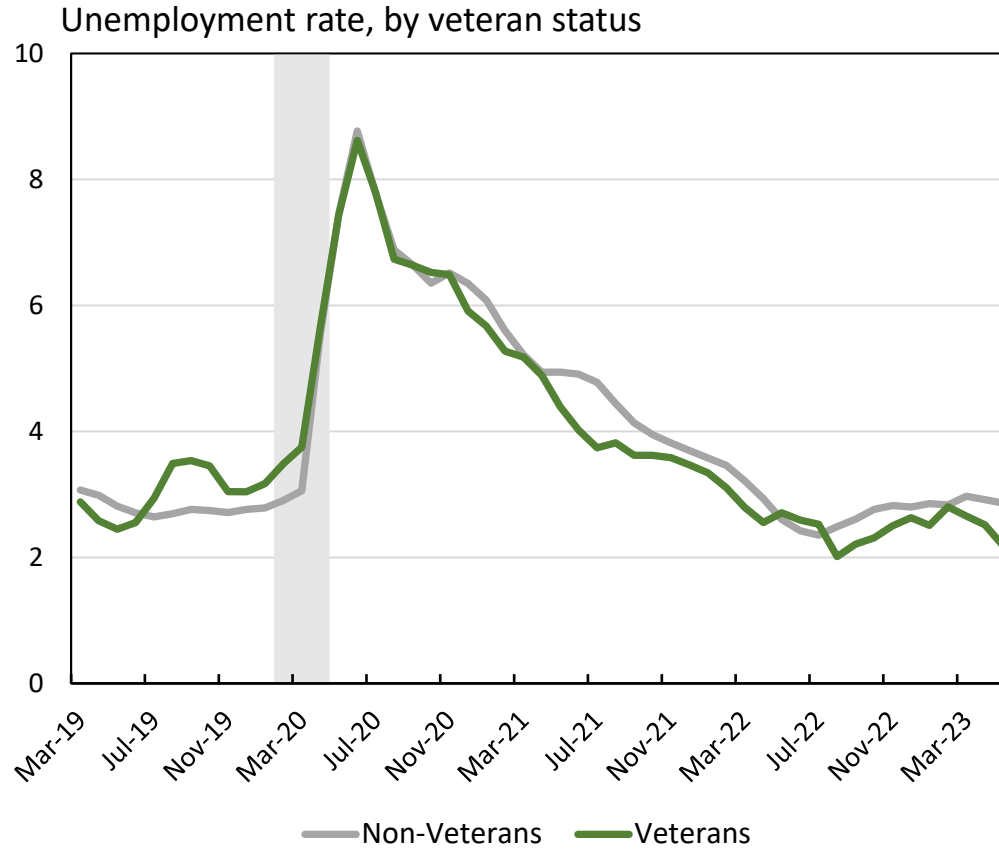
Notes: Overall line uses a prime-age (25-54) sample. Shaded region indicates the COVID-19 recession.

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-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

Unemployment Rate by Veteran Status



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

Notes: Restricted to men, 25-55, with at least a high school diploma. Shaded region indicates the COVID-19 recession.



EMPLOYMENT

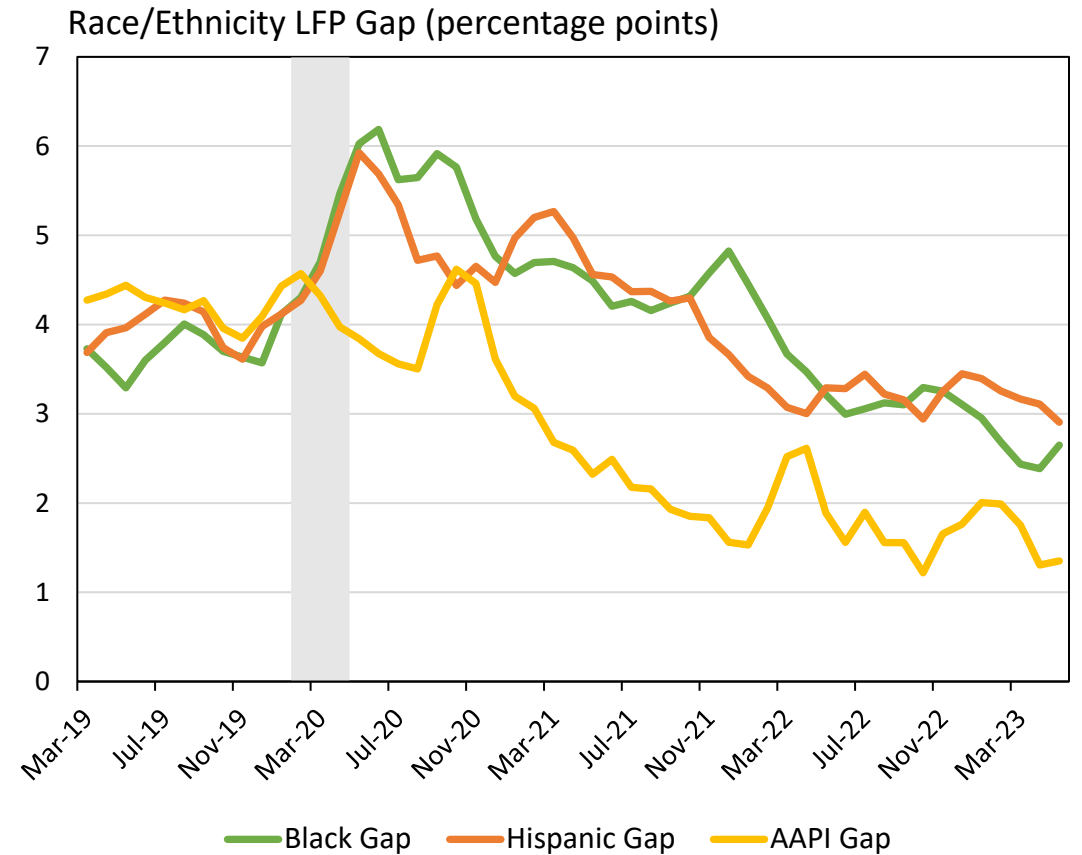
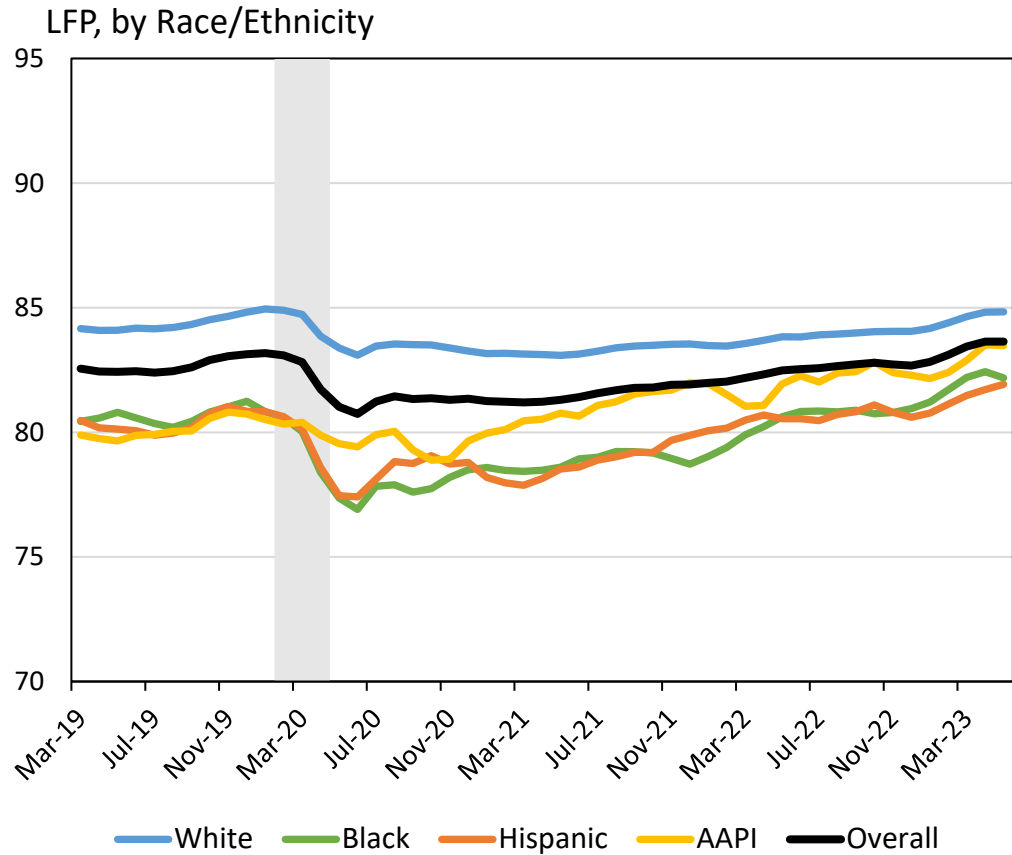
Labor Force Participation

Takeaways | Labor Force Participation

- Labor force participation rates (LFP) declined during the pandemic and are currently about half a percentage point above pre-pandemic levels.
- Black, Hispanic, and Asian workers have LFPs below the U.S. average. Asians' LFP was close to the LFP of Black workers and Hispanics in 2019, but it has risen to nearly the national average LFP.
- The LFP gender gap is large and the female LFP is almost 13 percentage points lower than the male LFP. The LFP gaps by age and education are larger.
- The LFP gender gap has been falling through the pandemic and the post-pandemic period.
- Veterans have lower LFP than comparable* nonveterans, and the gap has grown since 2019.

**Comparable nonveterans are male high school graduates reweighted by age, race and birthplace to match veterans.*

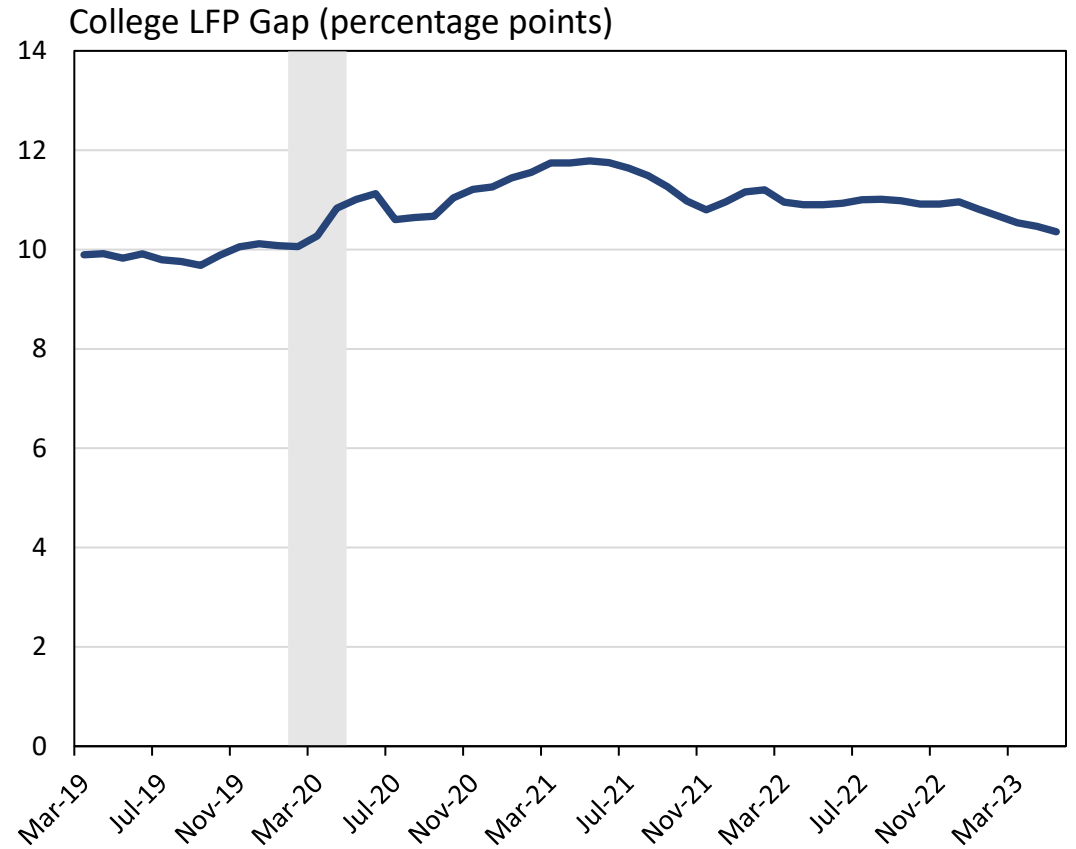
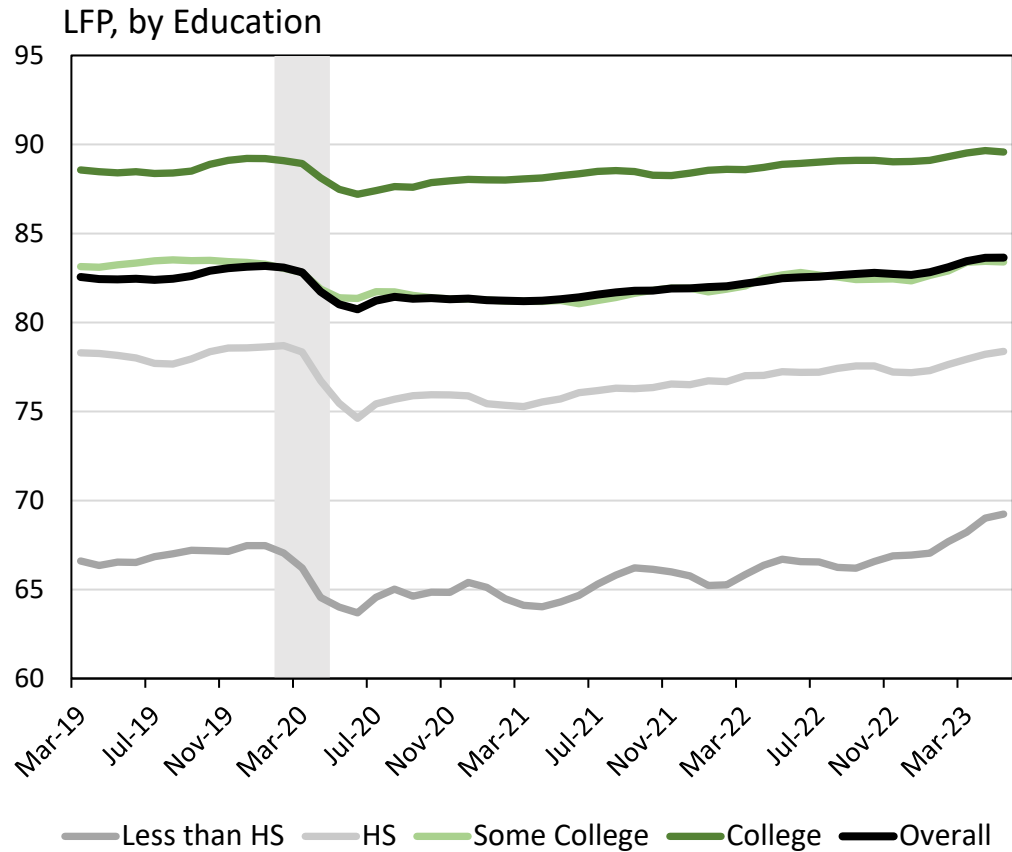
Labor Force Participation by Race/Ethnicity



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

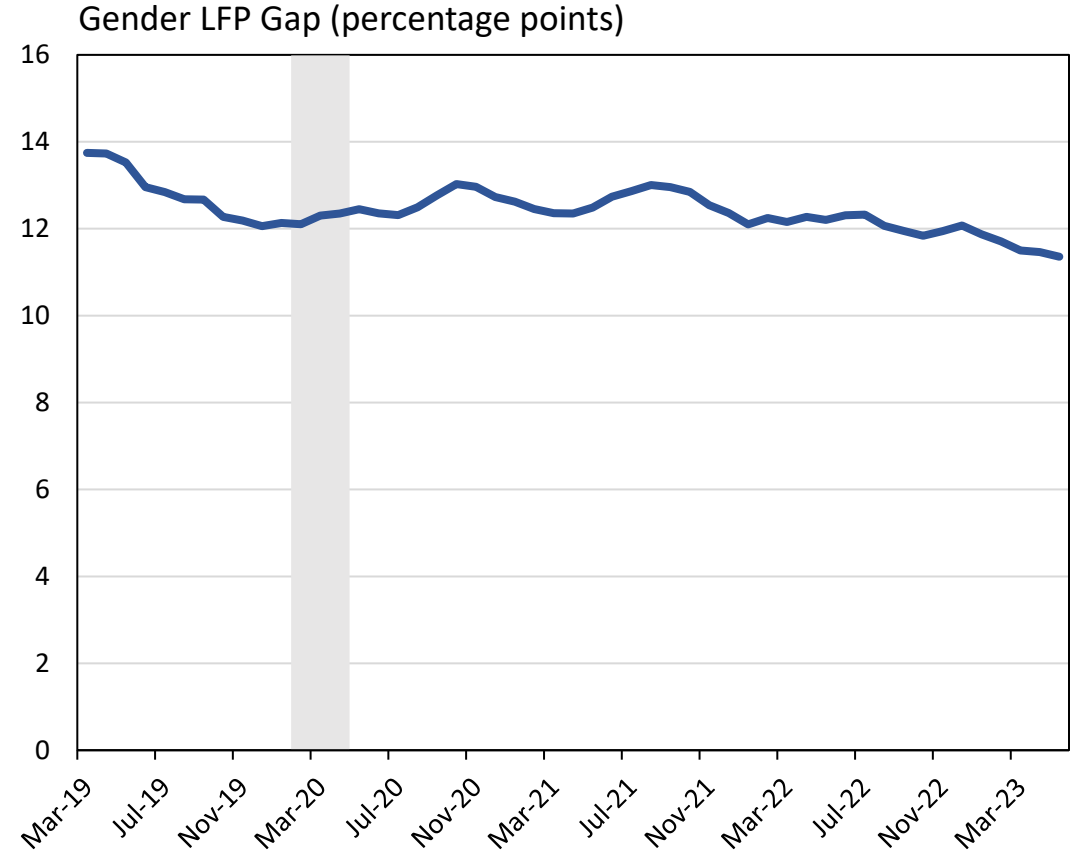
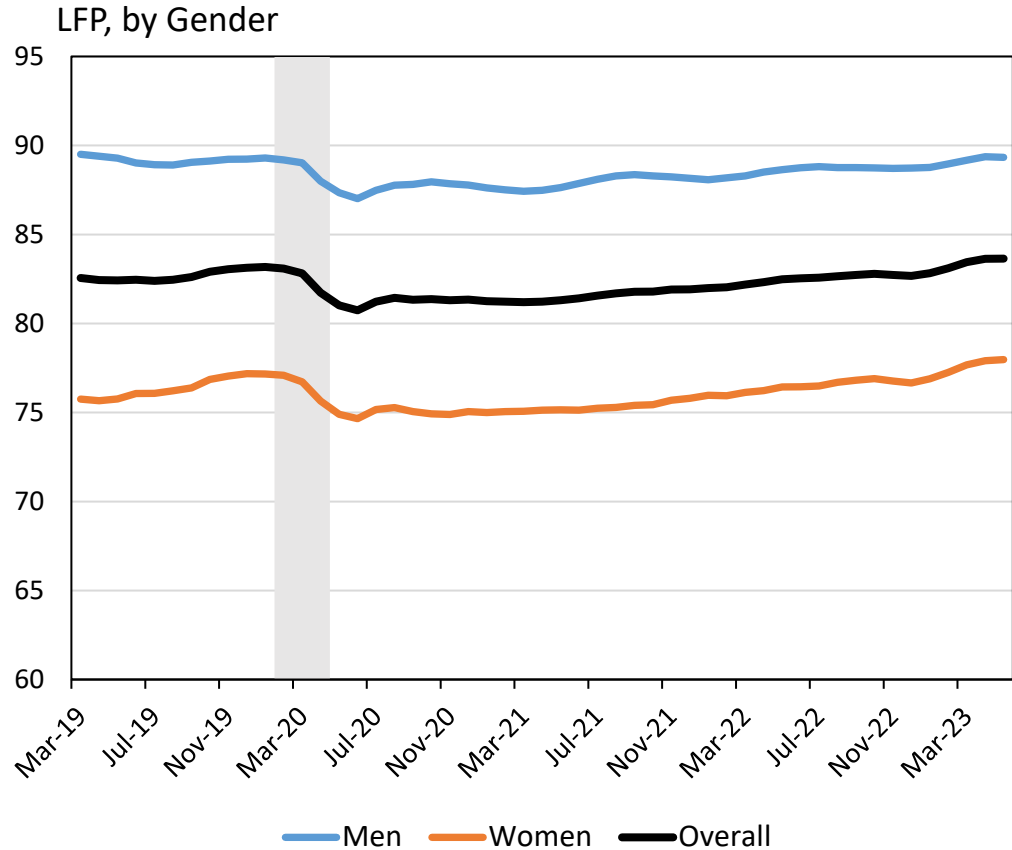
Labor Force Participation by Education



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

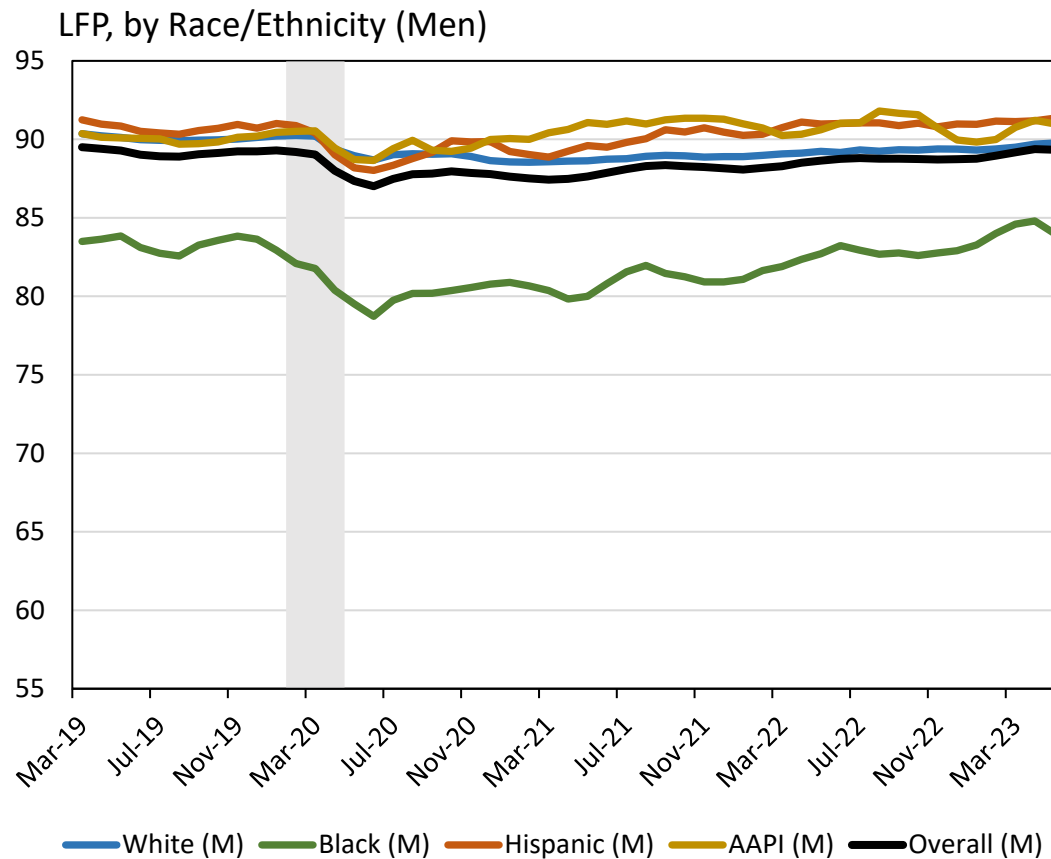
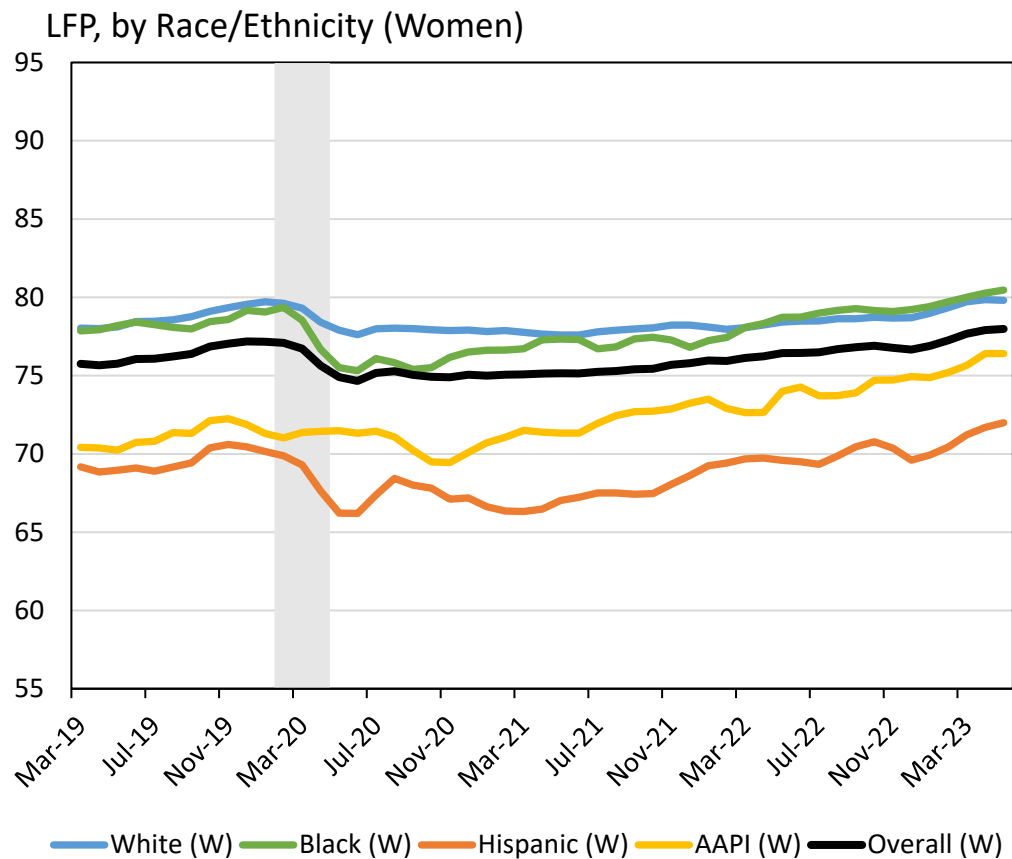
Labor Force Participation by Gender



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

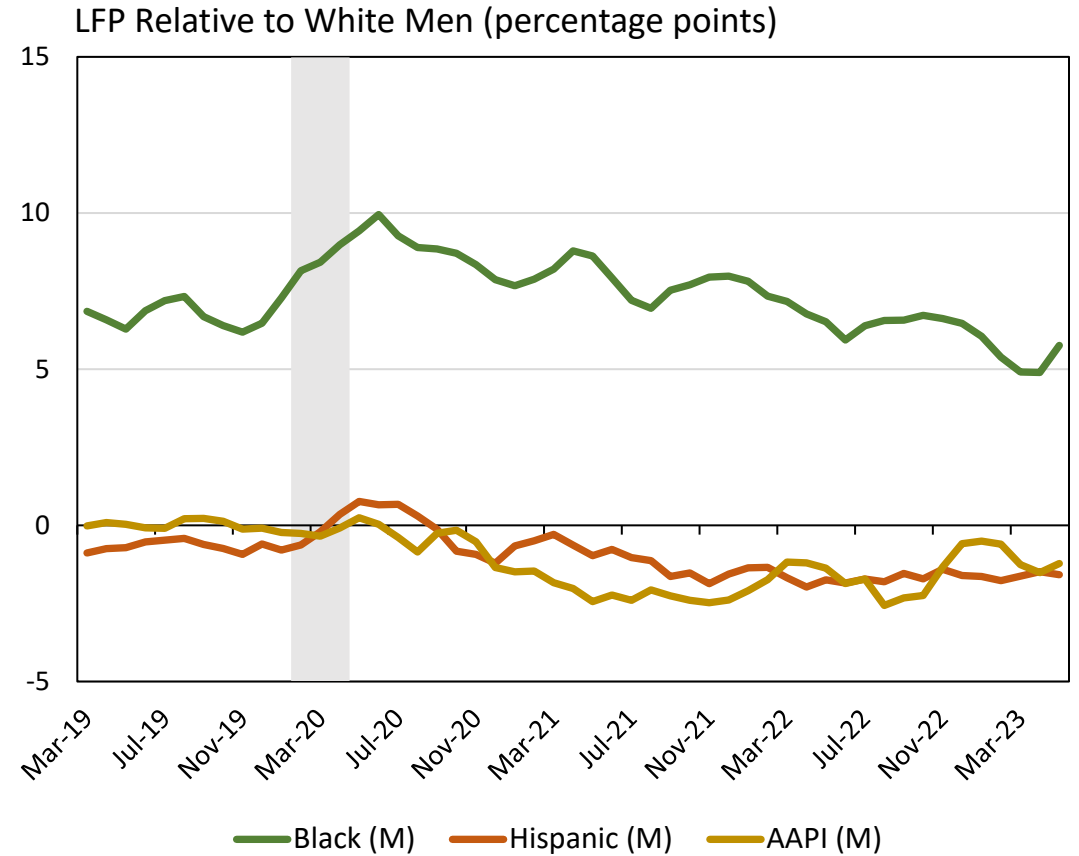
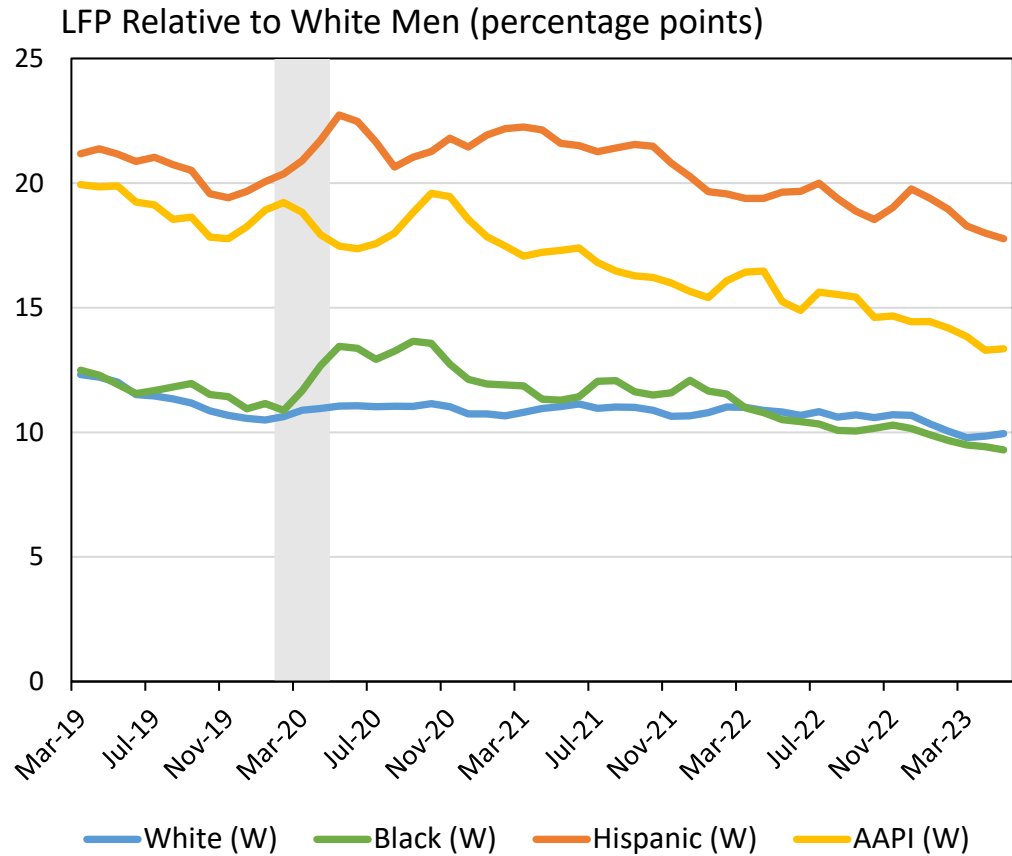
Labor Force Participation by Race x Gender



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

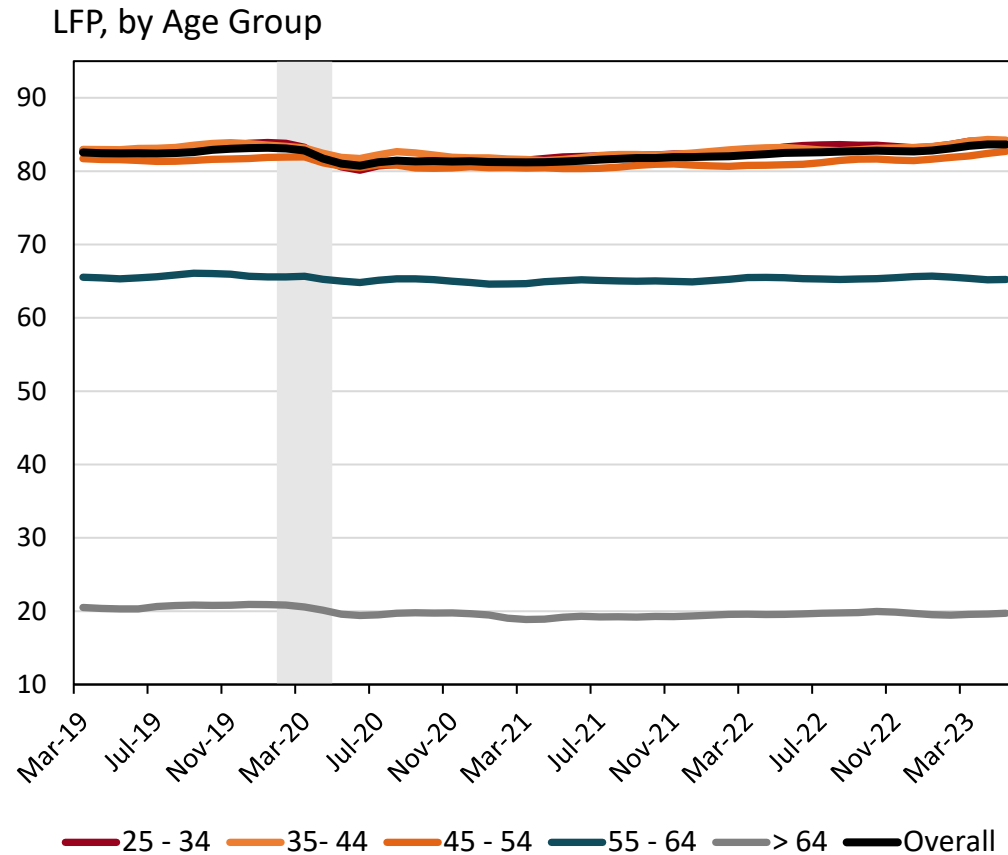
Labor Force Participation Gaps by Race x Gender



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

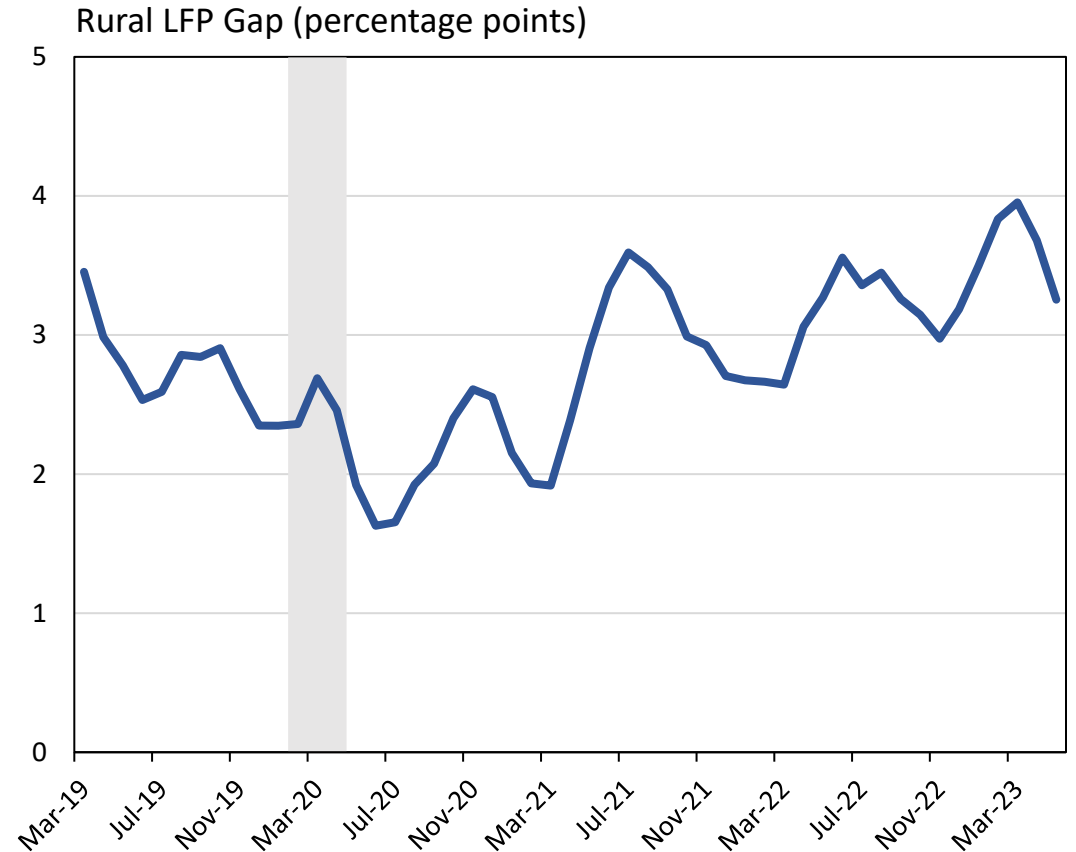
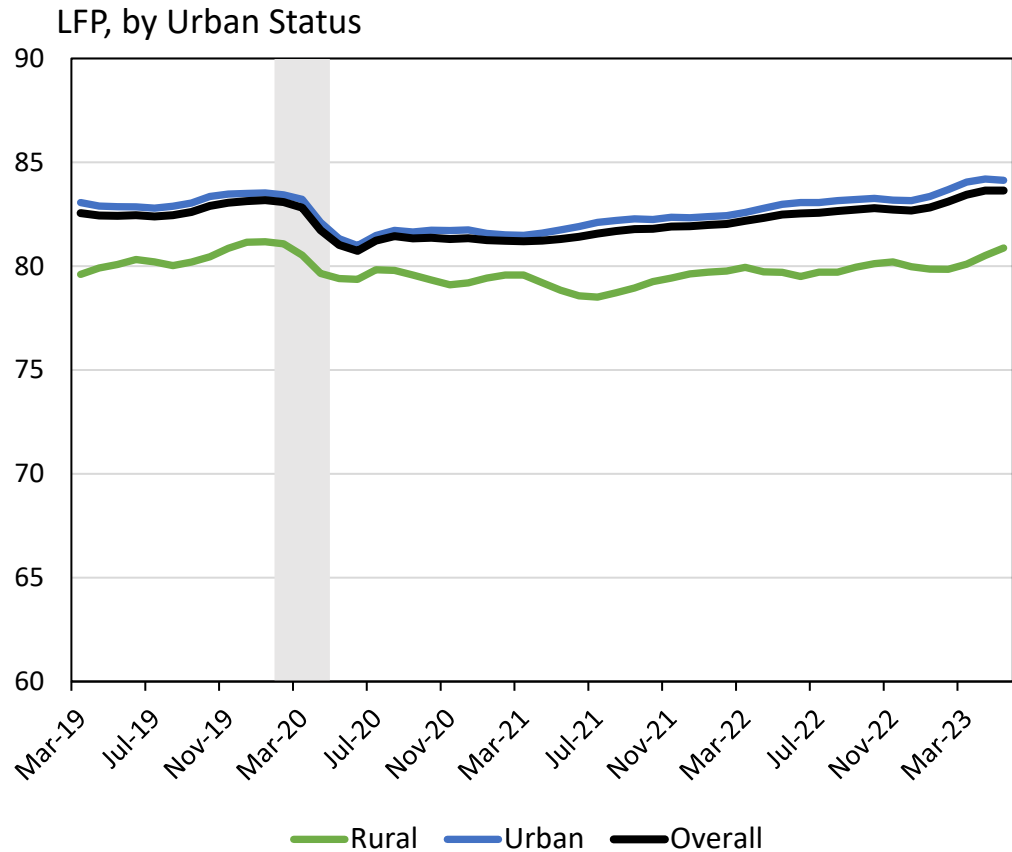
Labor Force Participation by Age



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

Notes: Overall line restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

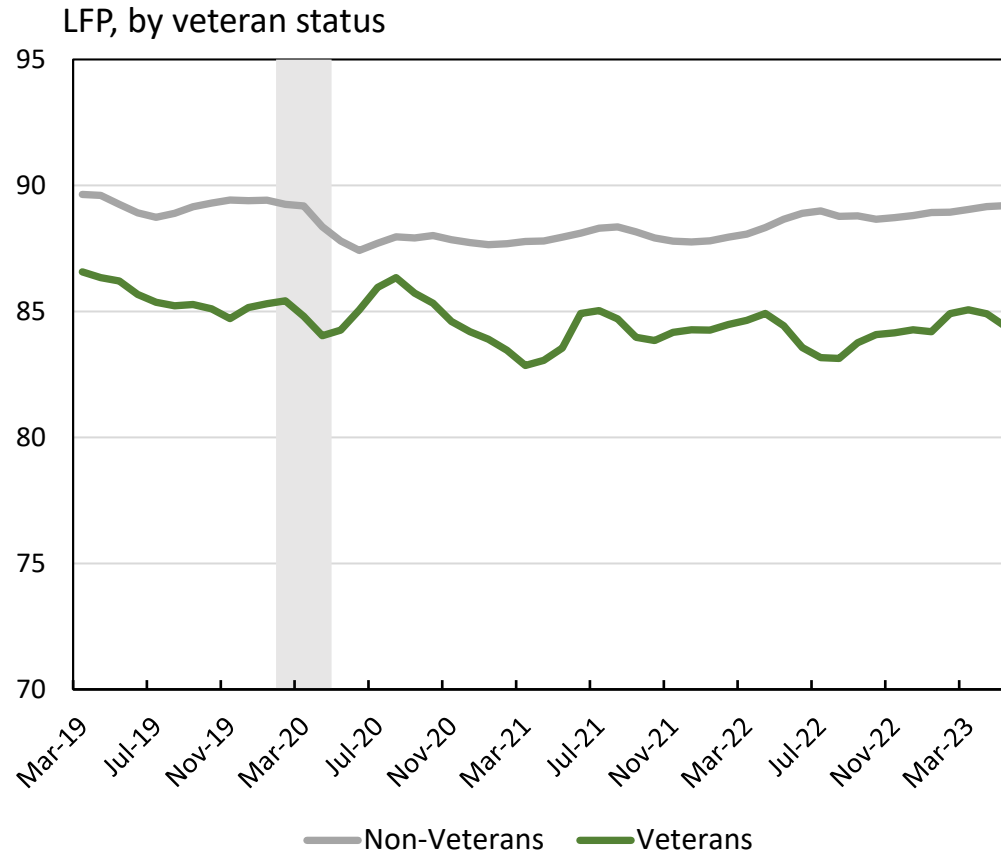
Labor Force Participation by Urban Status



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

Notes: Restricted to prime-aged individuals (25-54). Shaded region indicates the COVID-19 recession.

Labor Force Participation by Veteran Status



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

Notes: Restricted to men, 25-55, with at least a high school diploma. Shaded region indicates the COVID-19 recession

A photograph of a family at a checkout counter. A man is holding a young child with curly hair who is using a card reader. A woman is standing next to them, and another child is visible in the background. The image is overlaid with a dark blue filter and a white rectangular box containing the text 'CONSUMER SPENDING'.

CONSUMER SPENDING

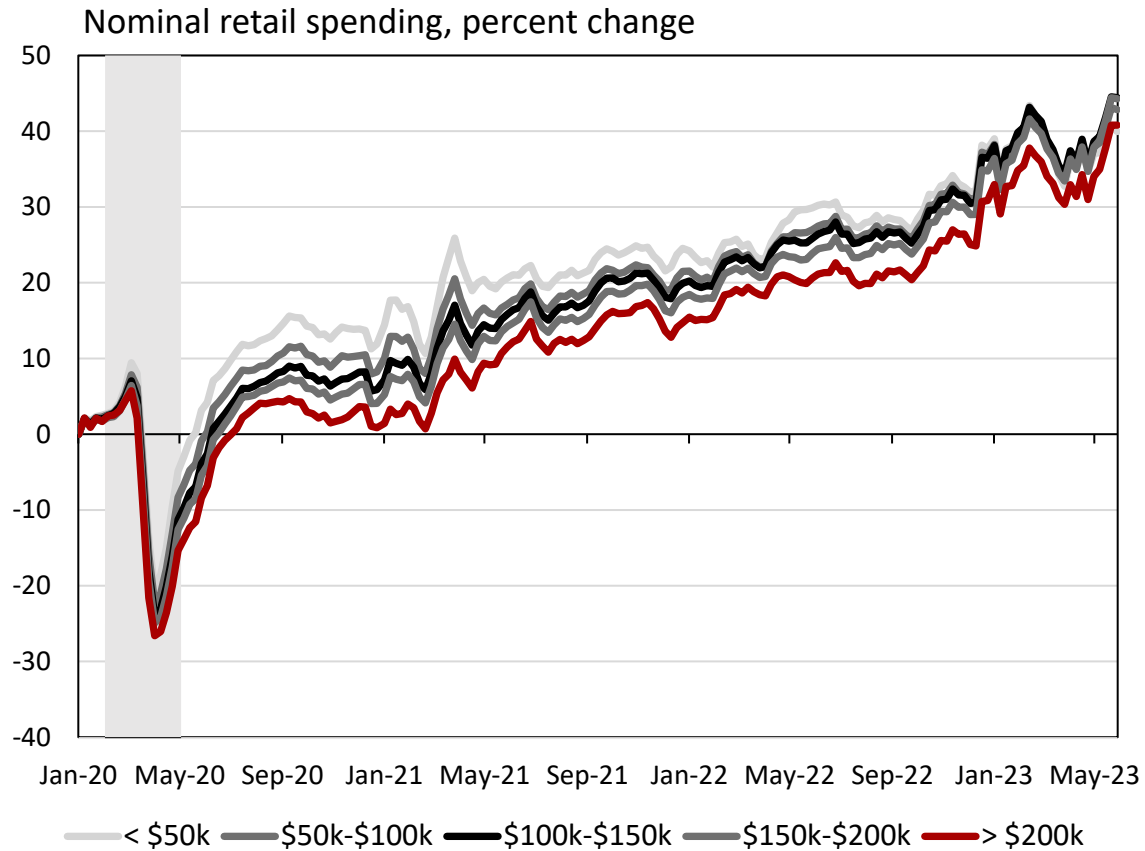
Takeaways | Consumer Spending

- The lower income, the less educated, and the young experienced a significantly faster recovery in spending since the pandemic. There are some signs, however, that the spending recovery among the young and less educated is weakening.
- Consumer spending recovery gaps are largest for age and smallest for income, with education gaps in the middle.
- Recovery gaps are slightly smaller for gas spending than for retail and restaurant spending but follow a similar pattern.
- Consumer spending rose in May 2023, reversing the decline in spending earlier this year, although spending by people aged 25-34 remains depressed with real consumption essentially at the same level as in April.

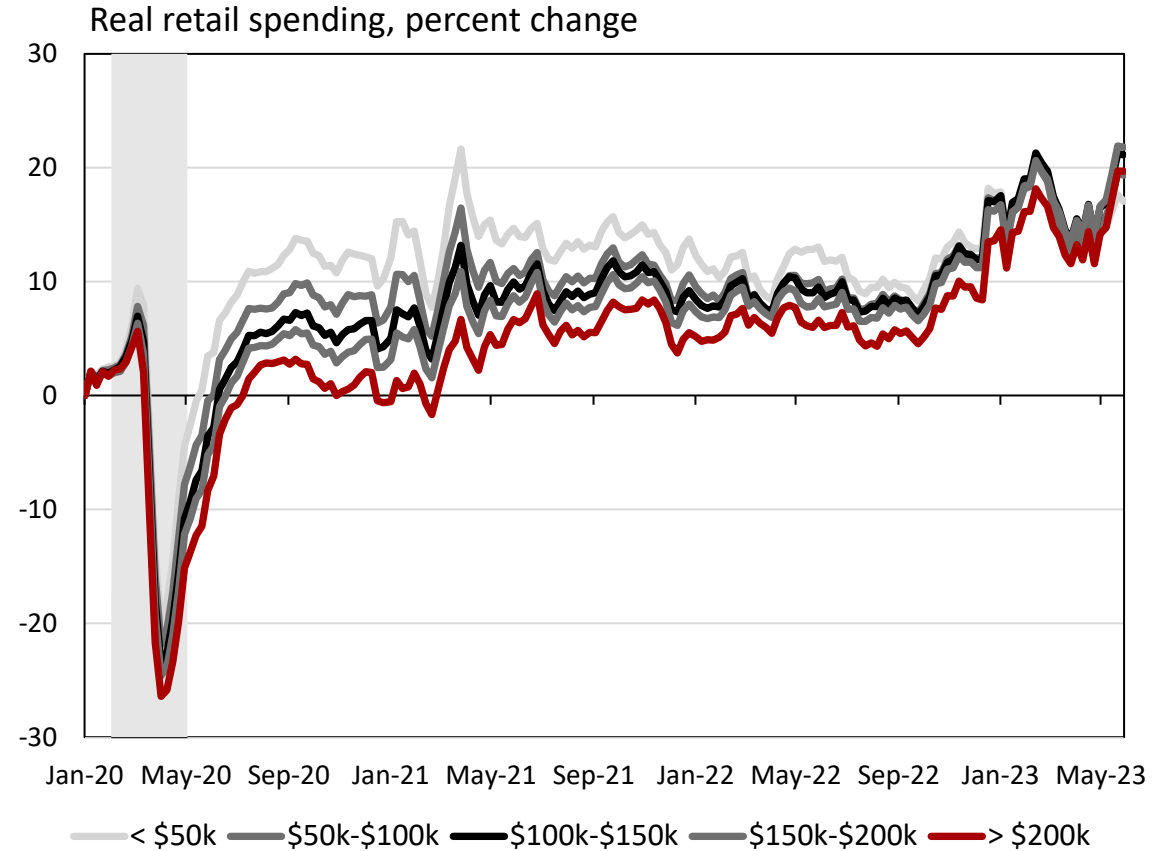
Data & Methods

- 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.

Retail Spending by Income

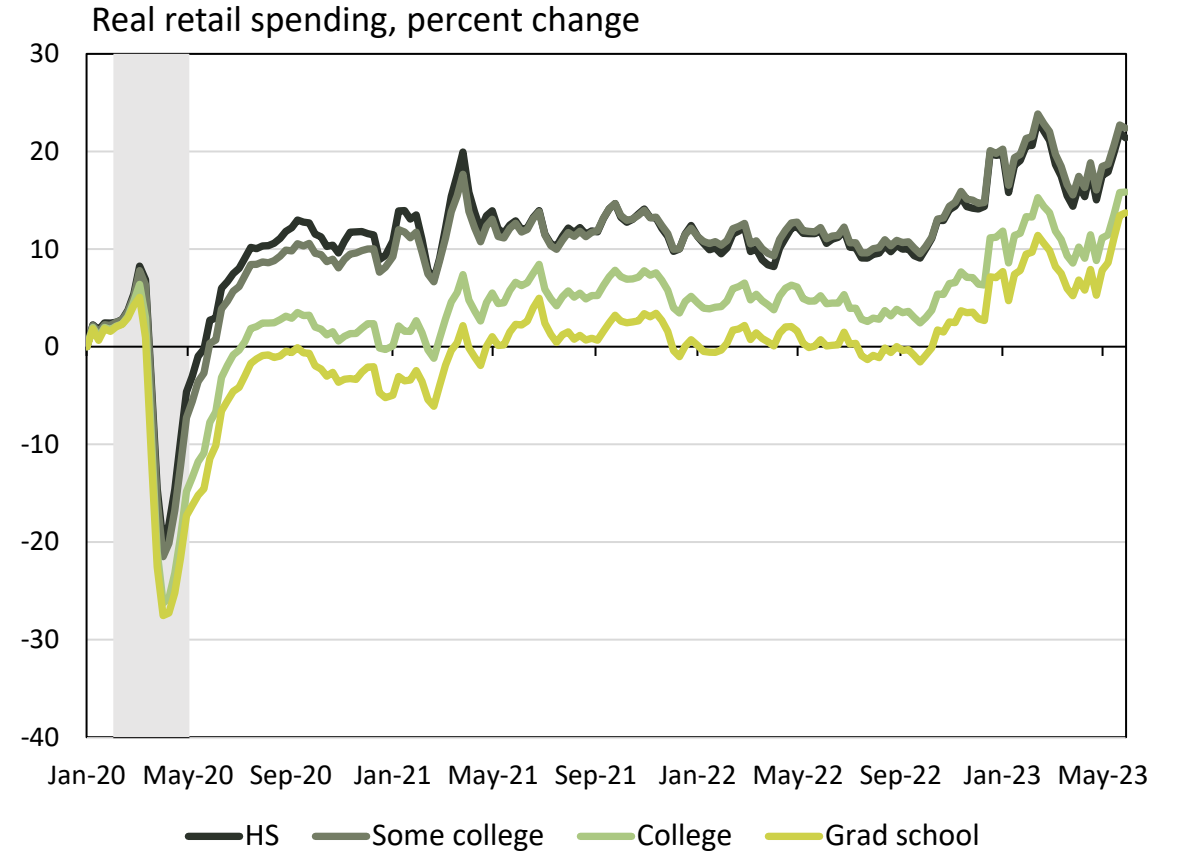
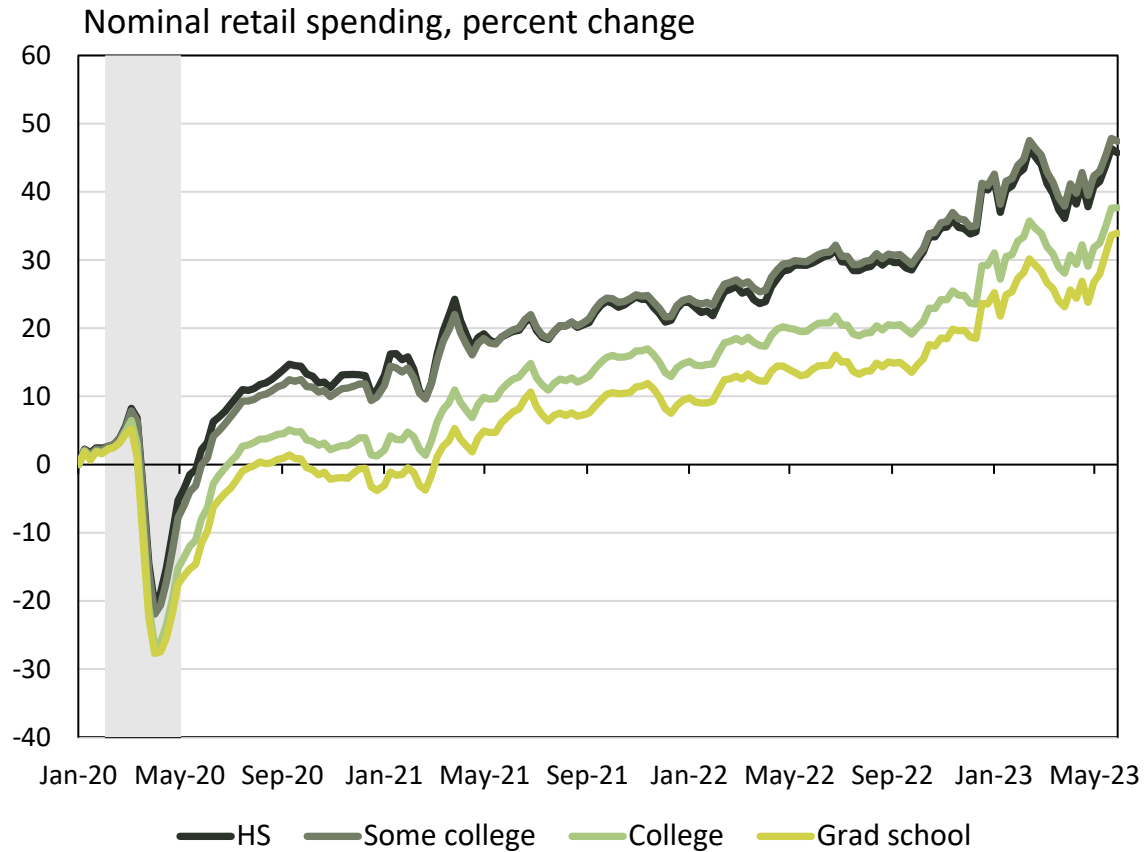


Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.



Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

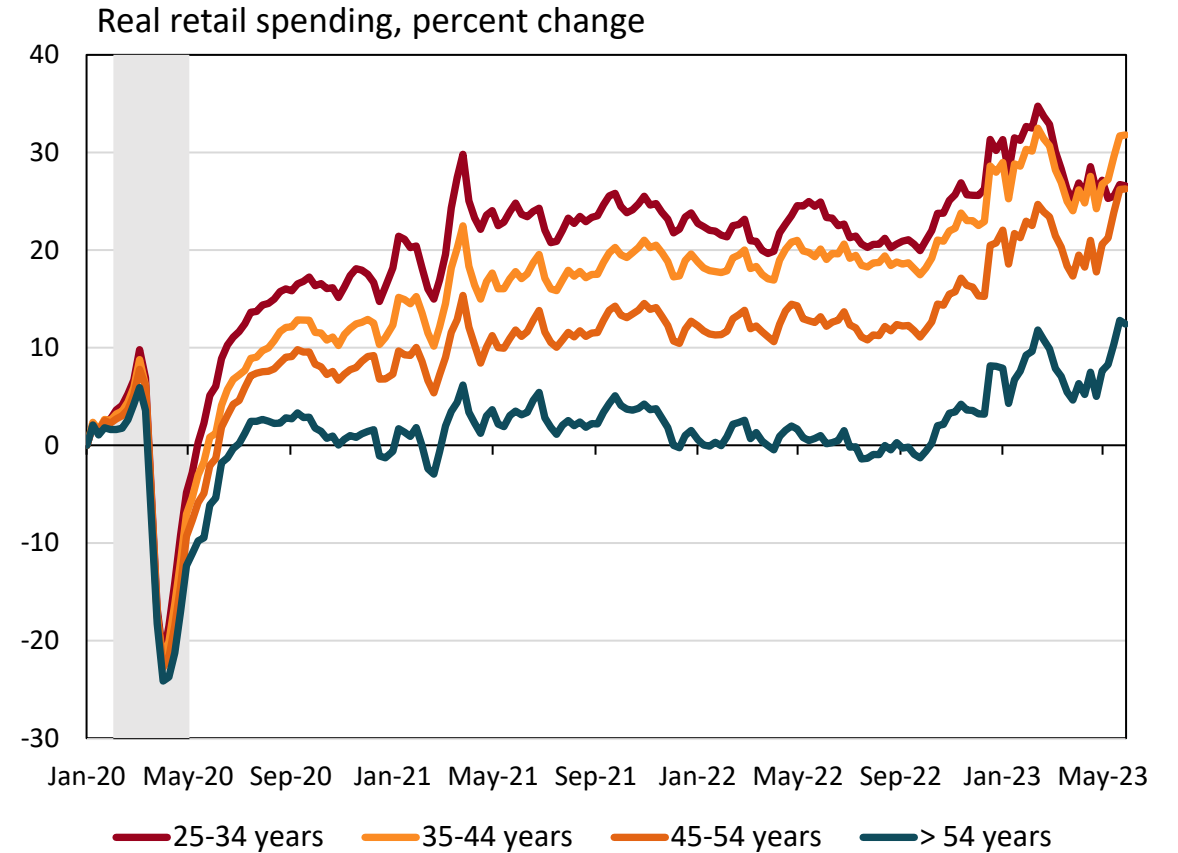
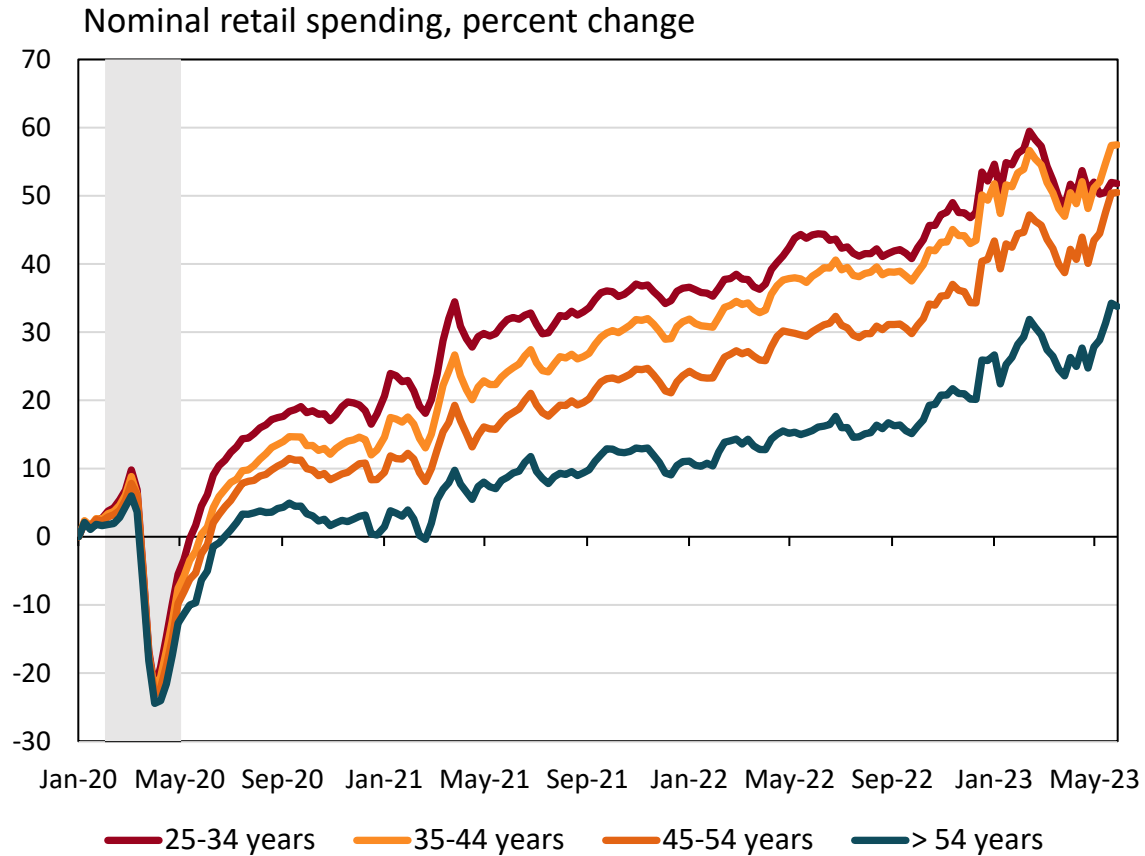
Retail Spending by Education



Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

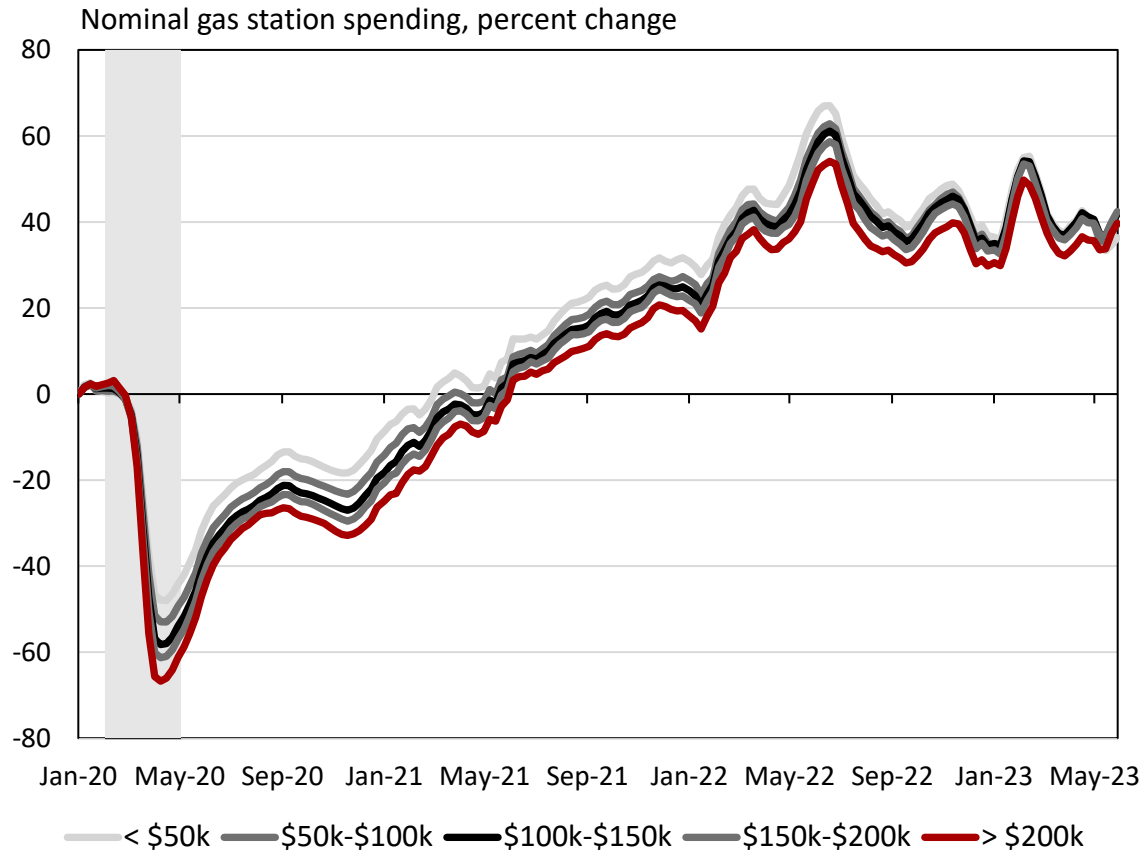
Retail Spending by Age



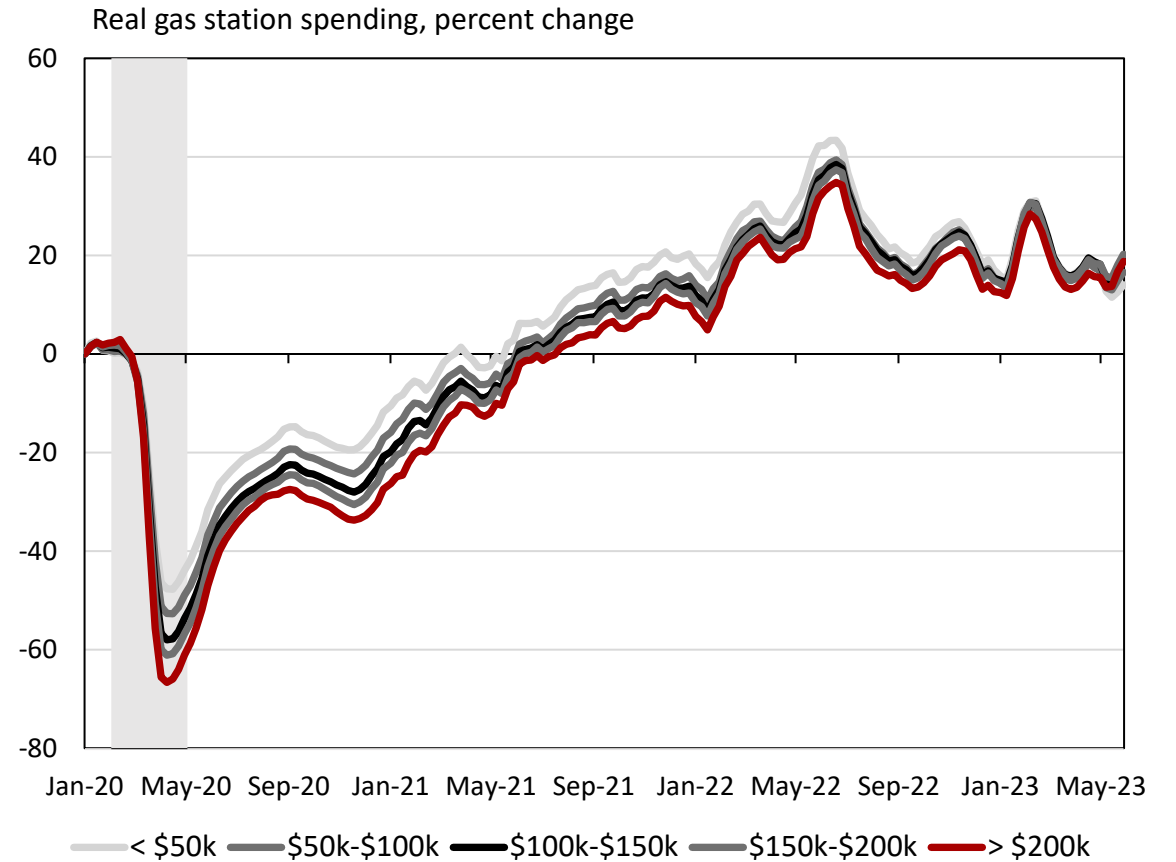
Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

Gas Station Spending by Income

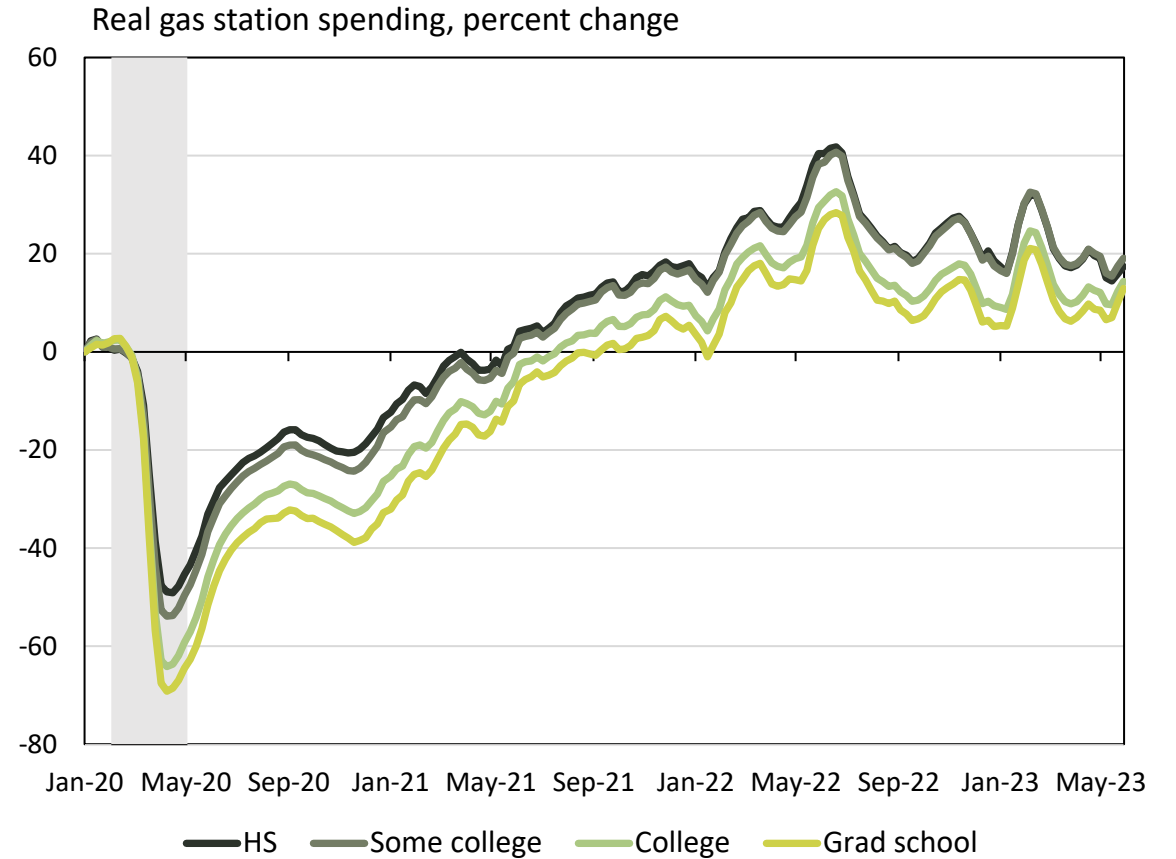
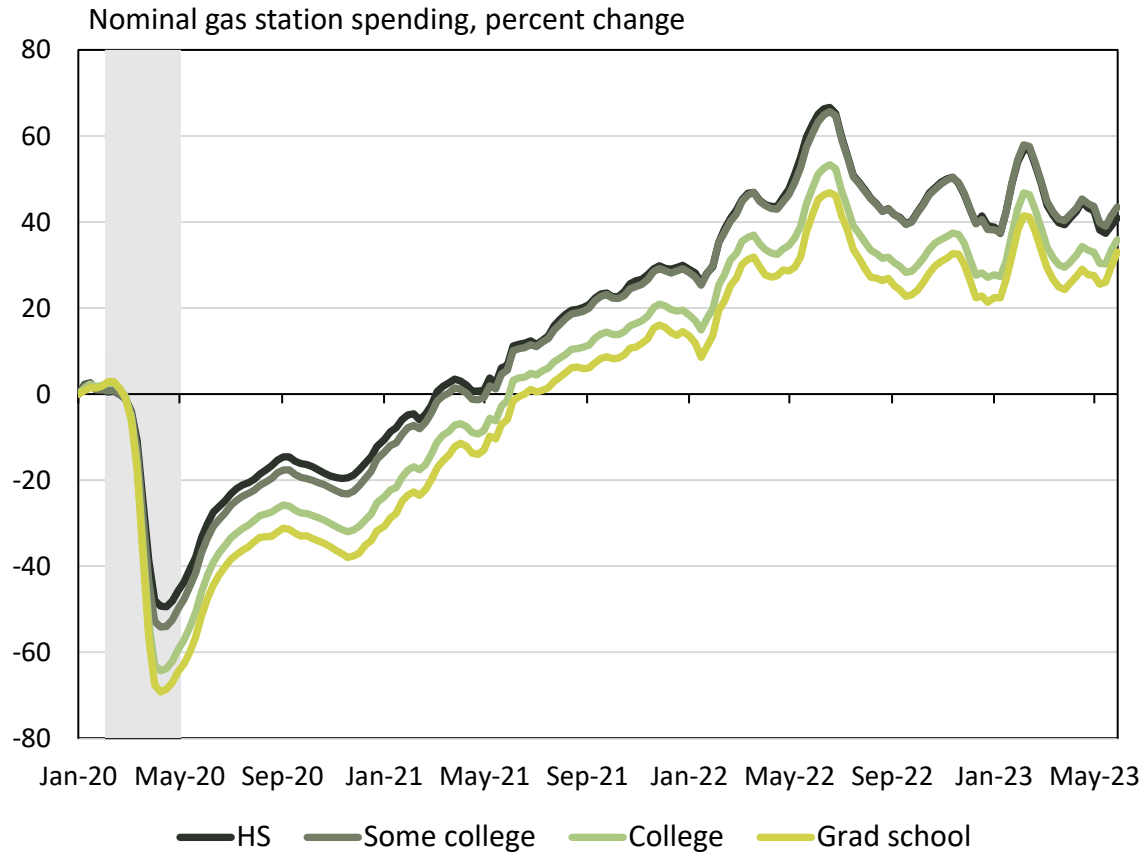


Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.



Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

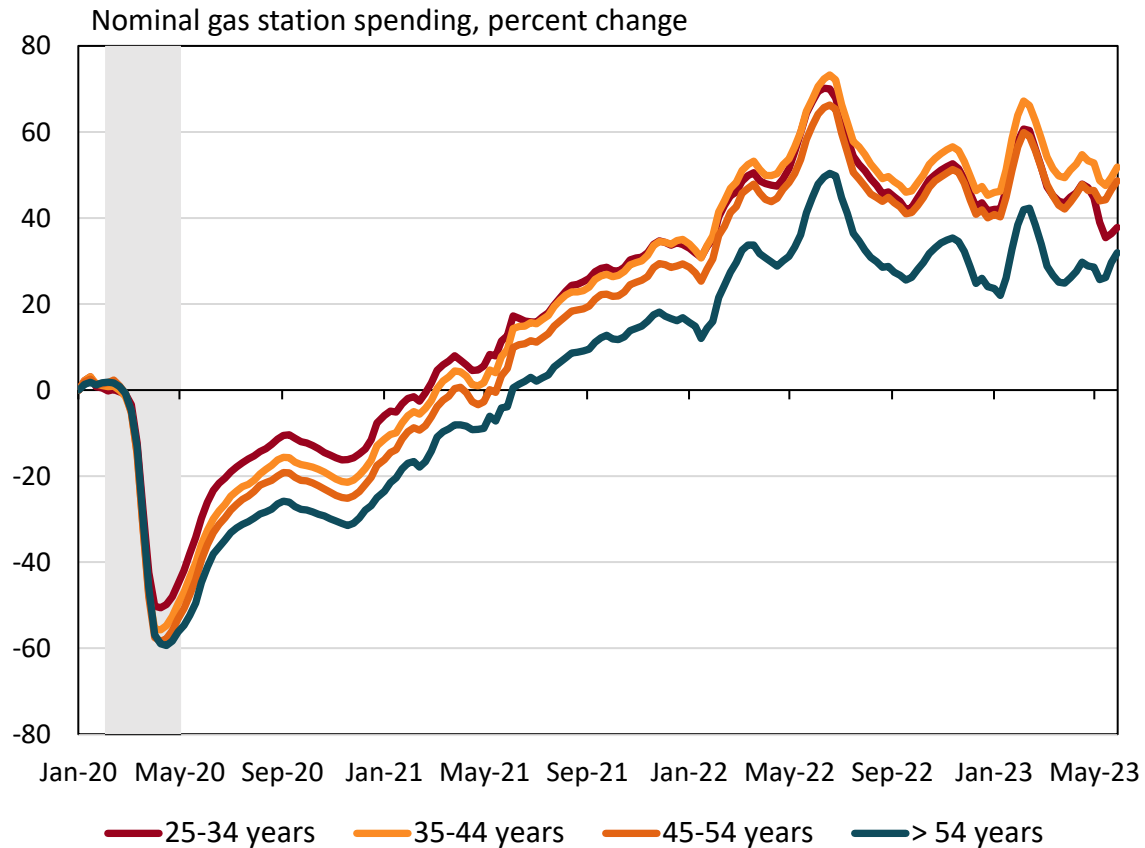
Gas Station Spending by Education



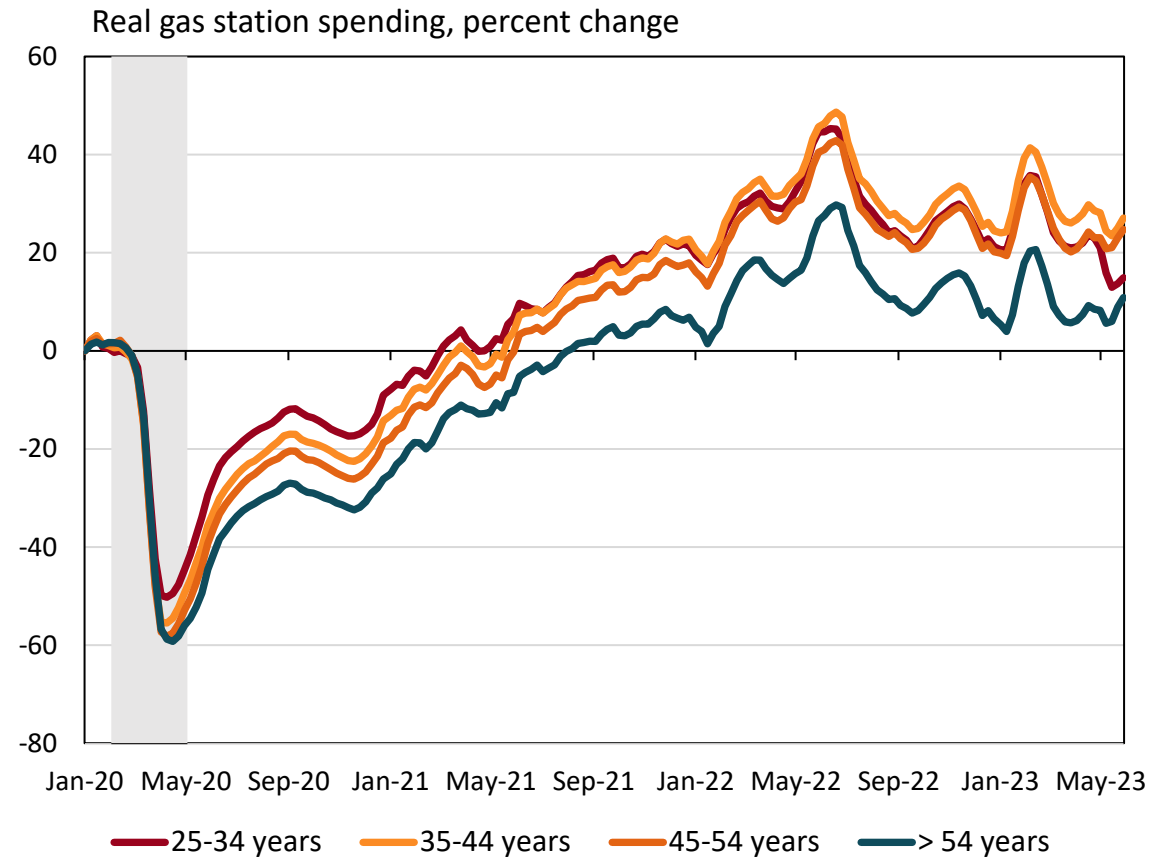
Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

Gas Station Spending by Age

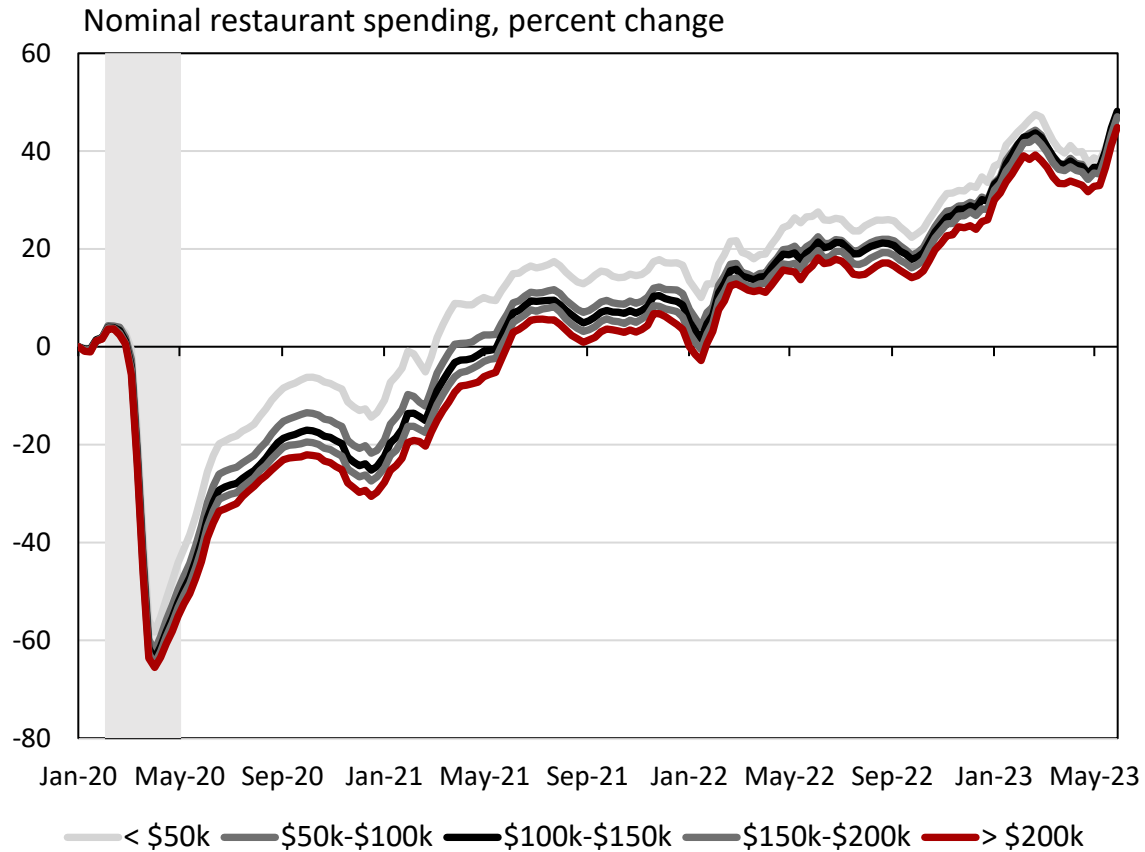


Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

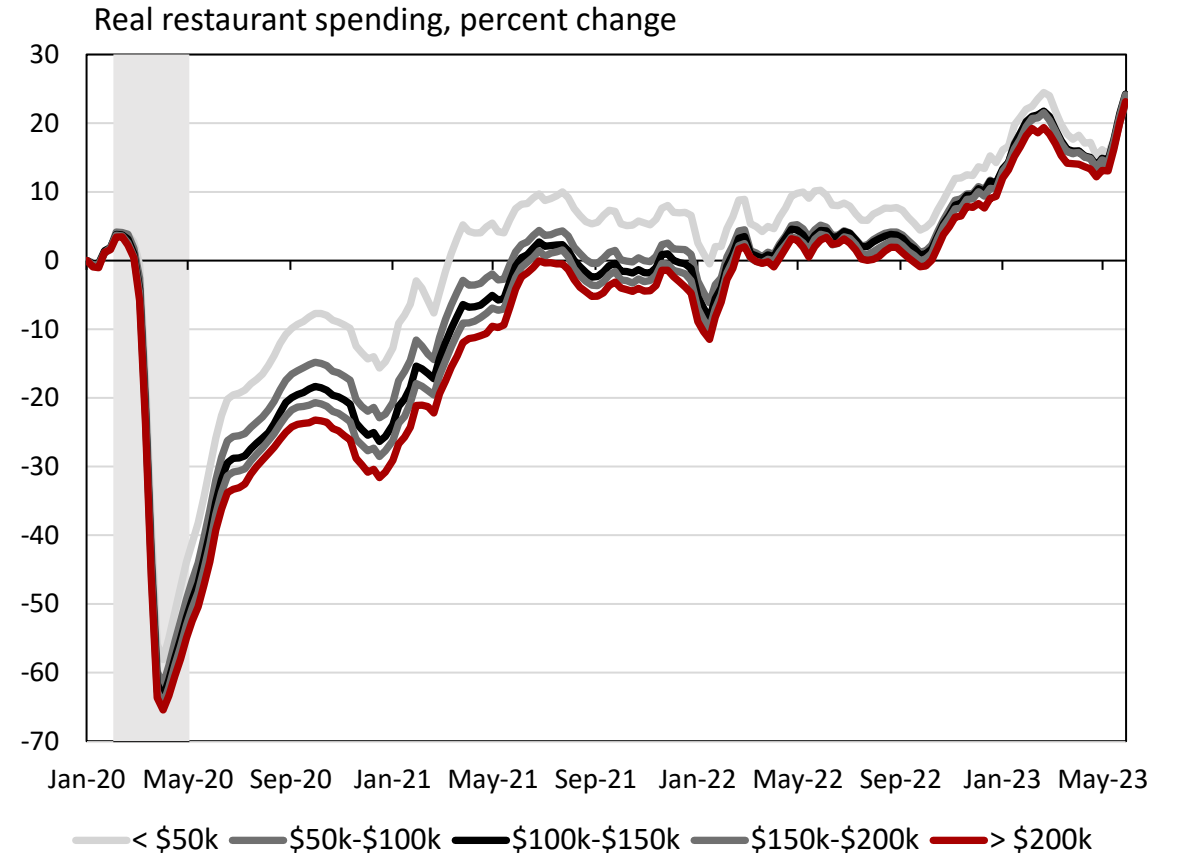


Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

Restaurant Spending by Income

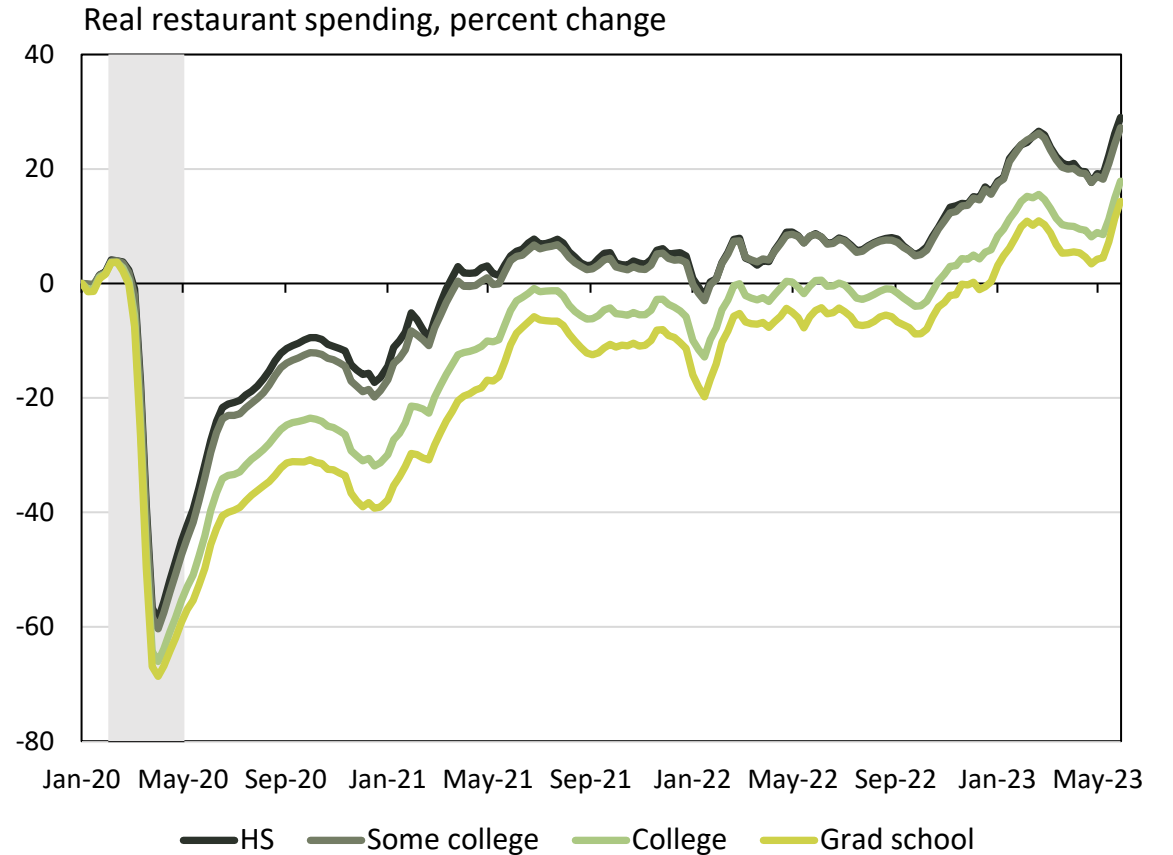
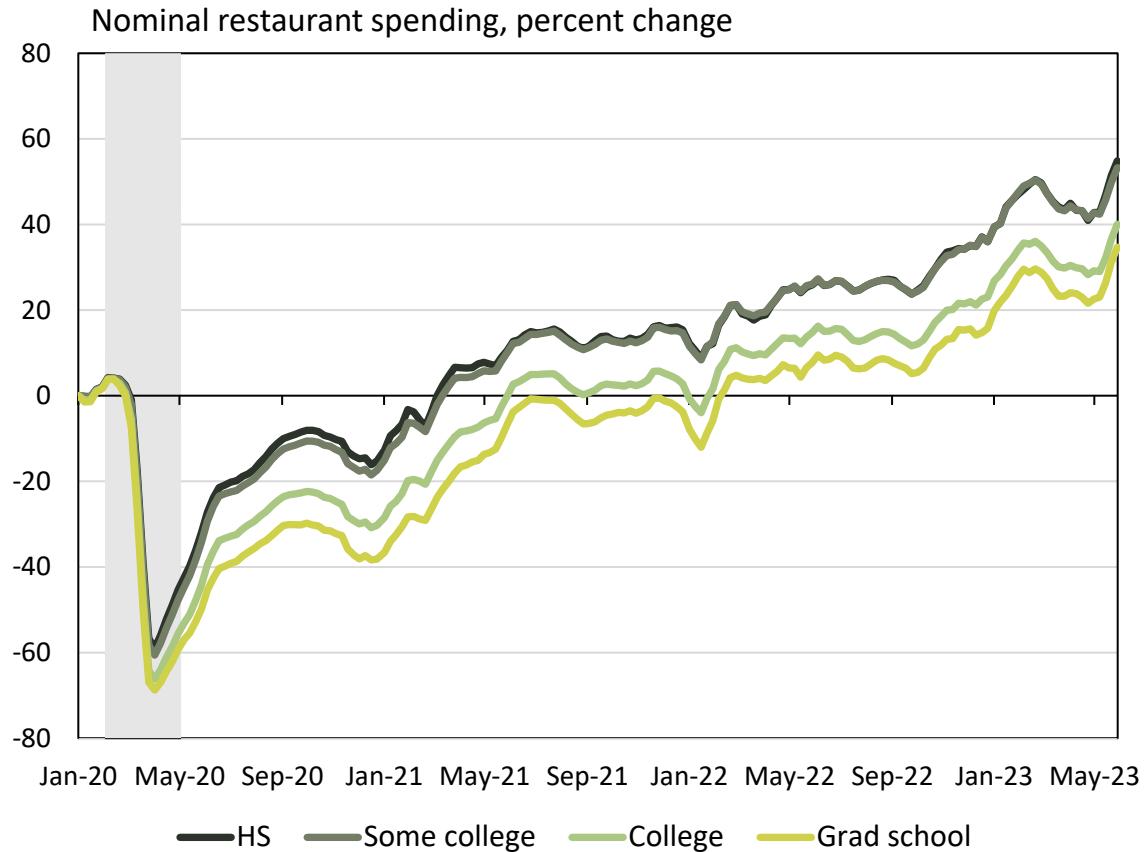


Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.



Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

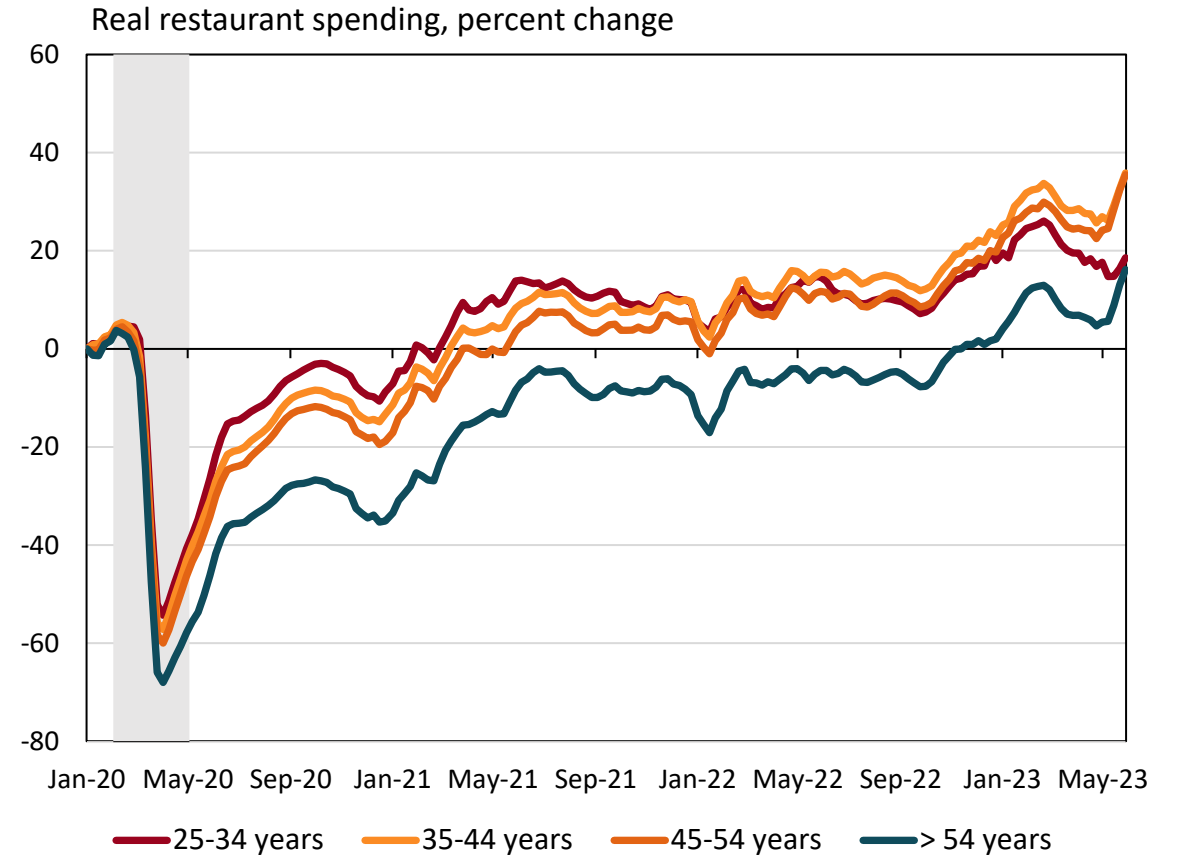
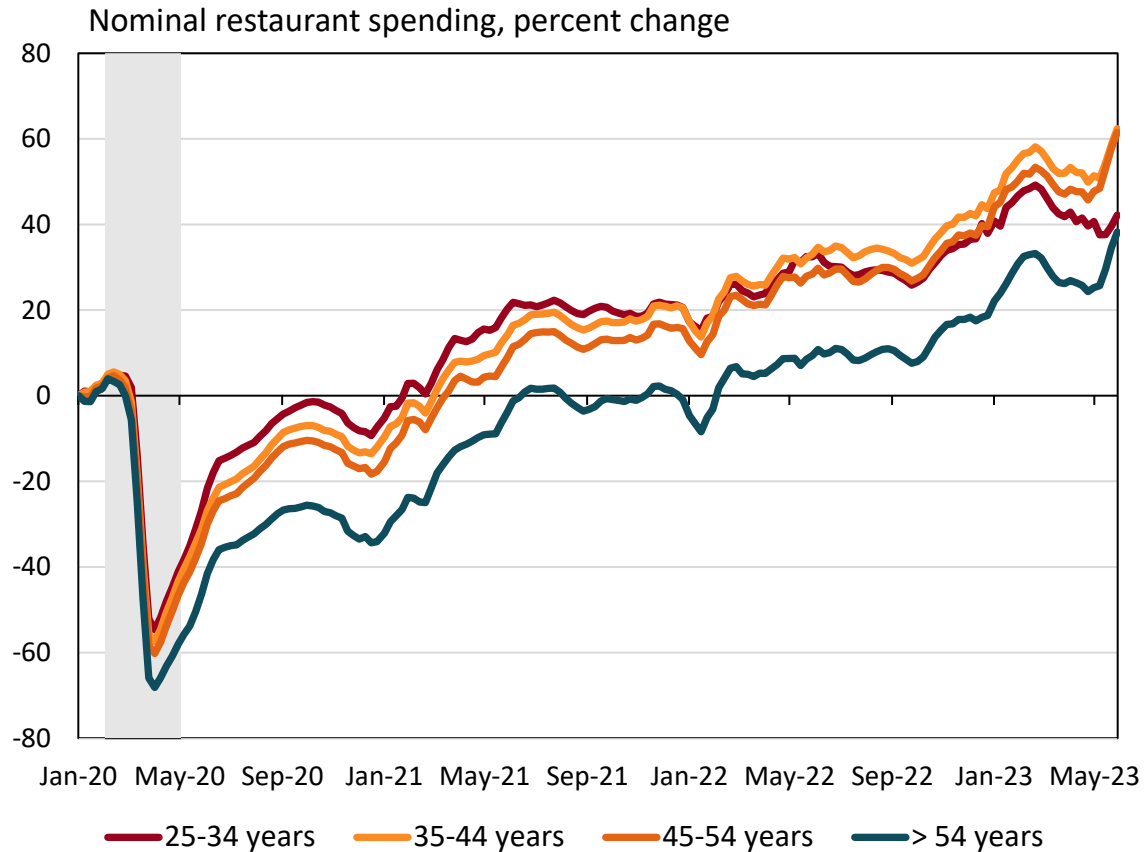
Restaurant Spending by Education



Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

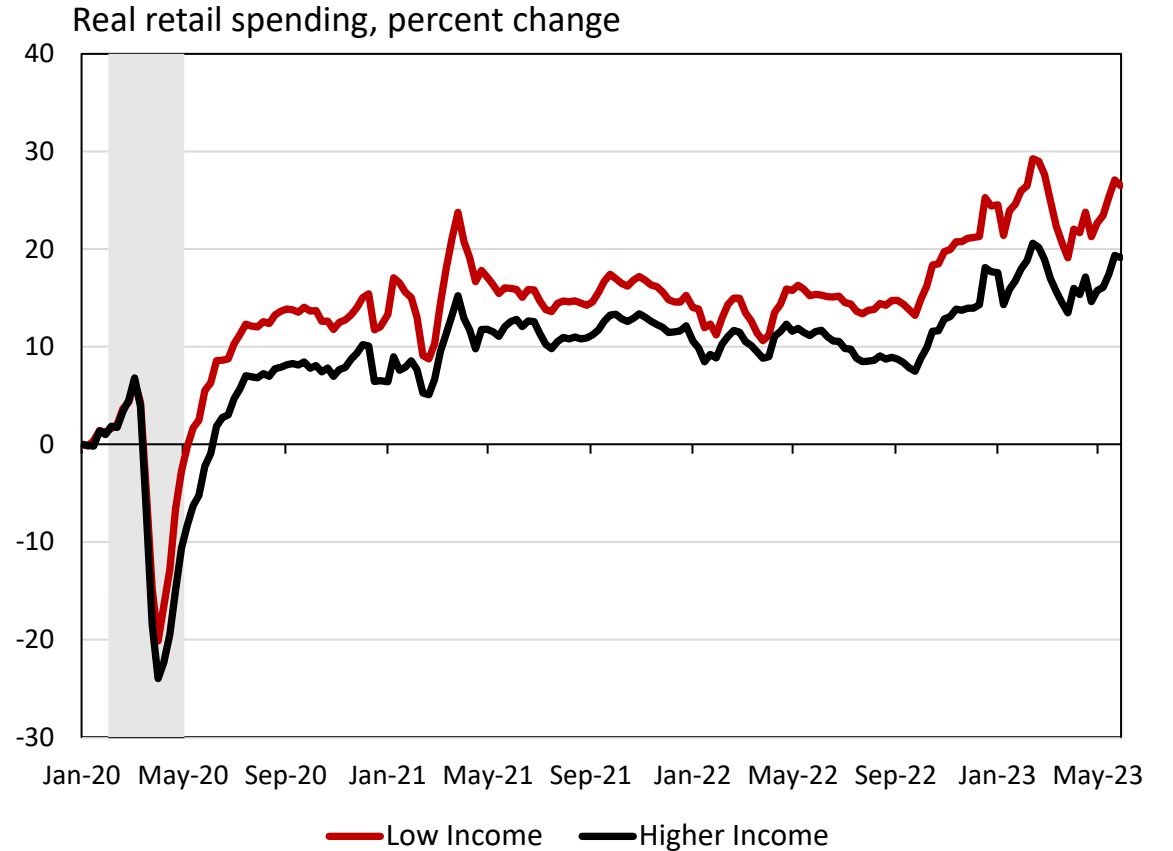
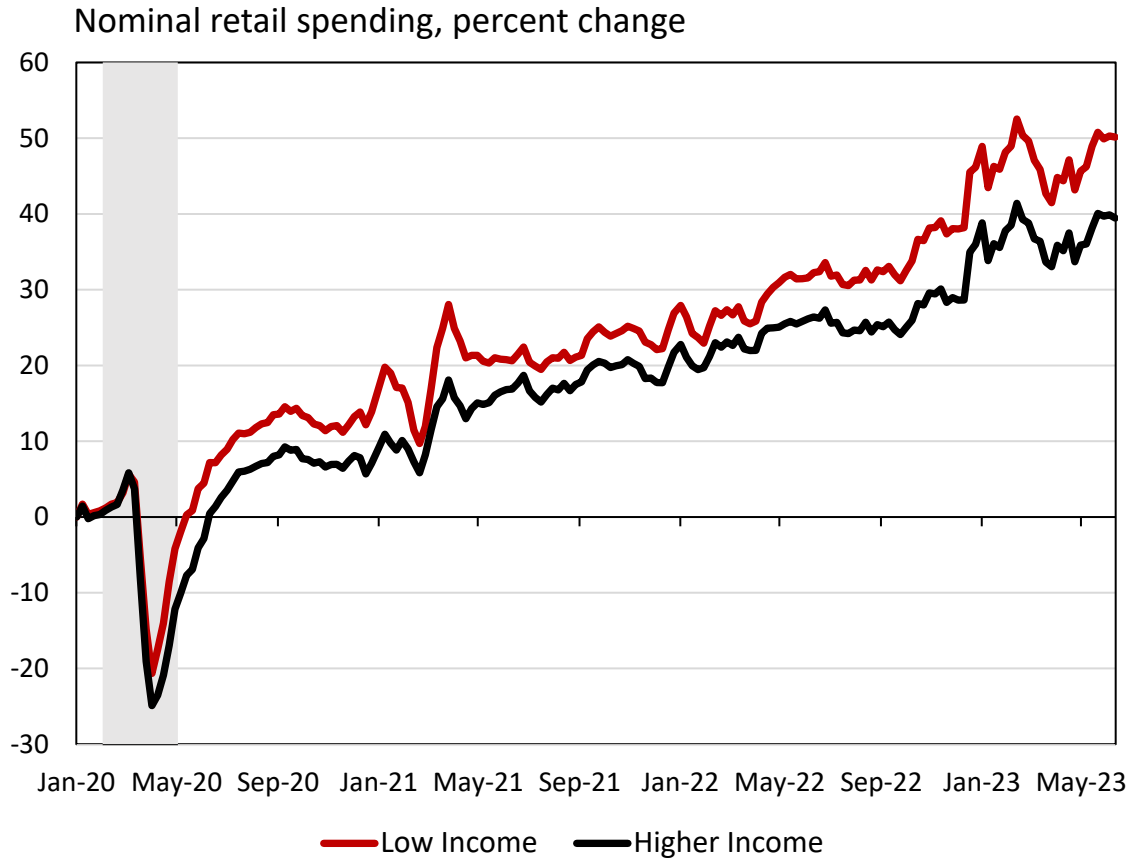
Restaurant Spending by Age



Source: Commerce Signals – 3-week moving averages.
 Notes: Real spending uses corresponding demographic prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

Nominal spending ranges from January 1, 2020, to June 6, 2023. Real spending ranges from January 1, 2020, to June 6, 2023.

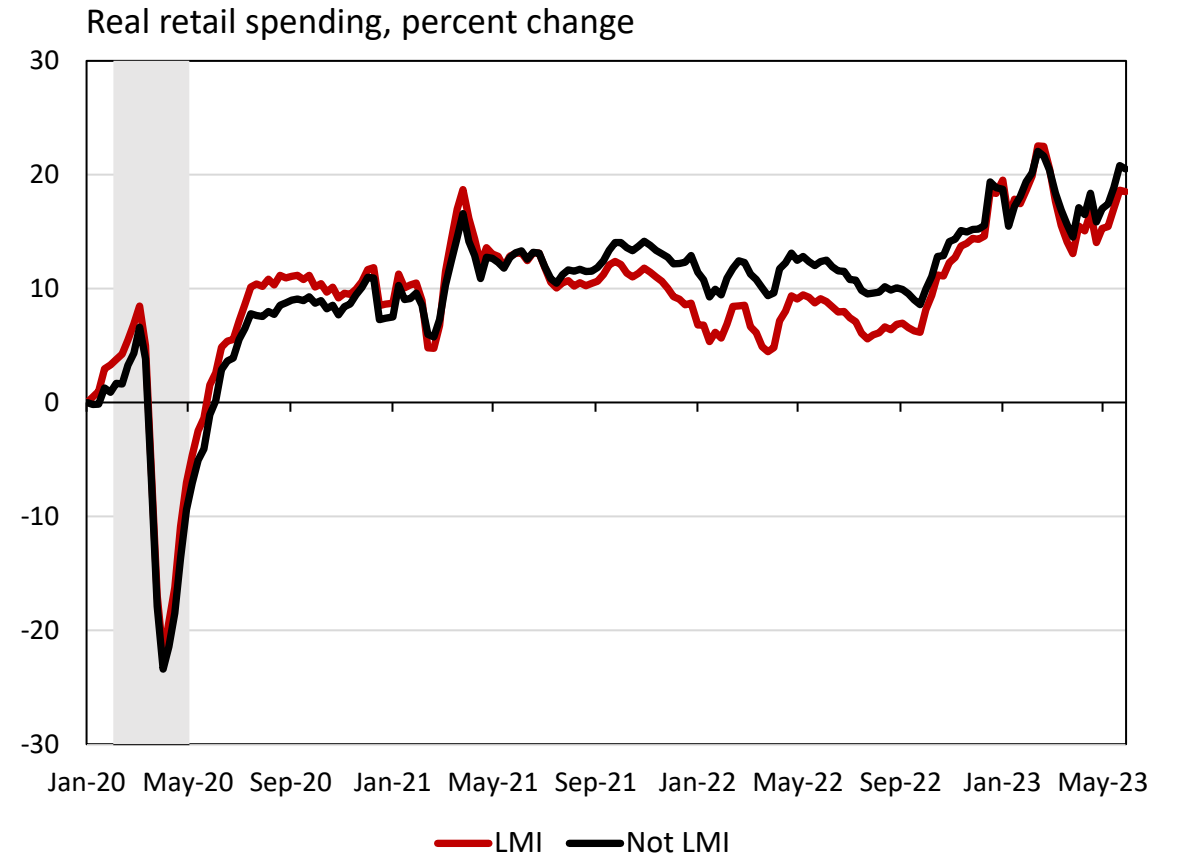
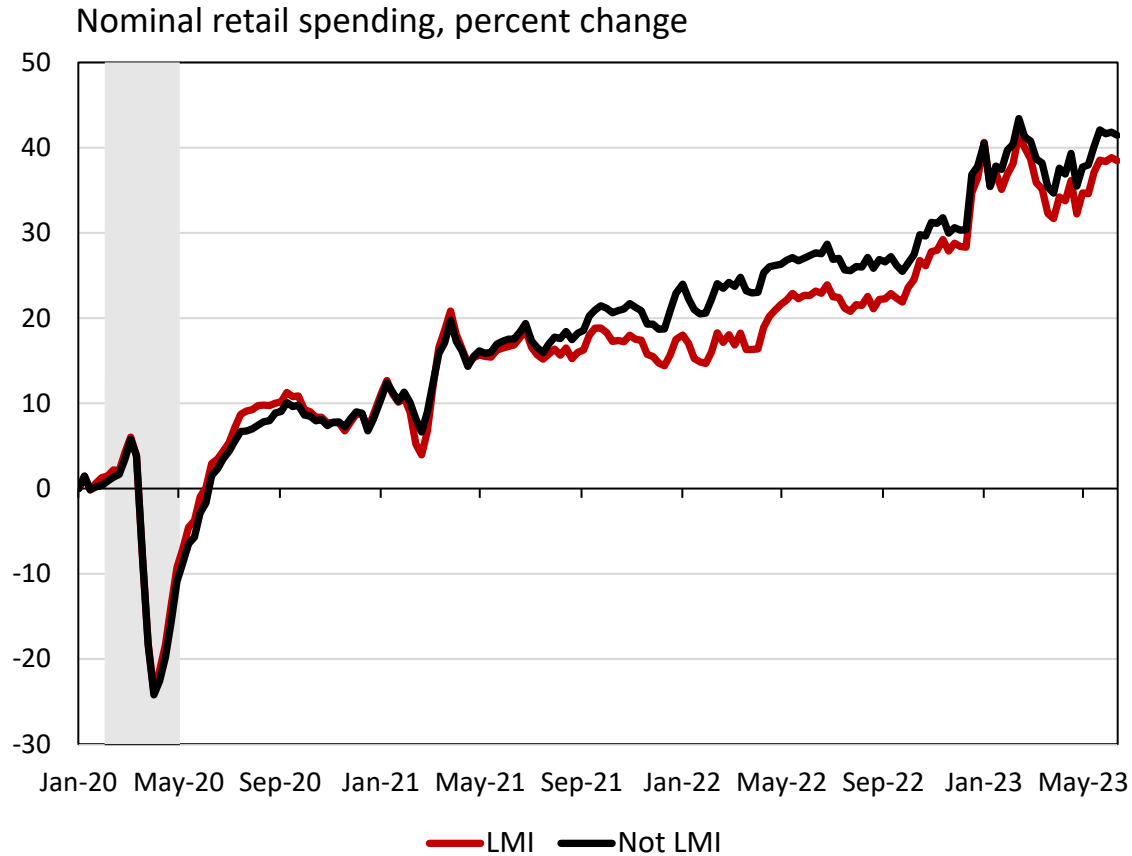
Retail Spending by County Household Income



Source: Commerce Signals – 3-week moving averages.
 Notes: Low-income counties are defined as those with household incomes below the 25th percentile of national household income. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

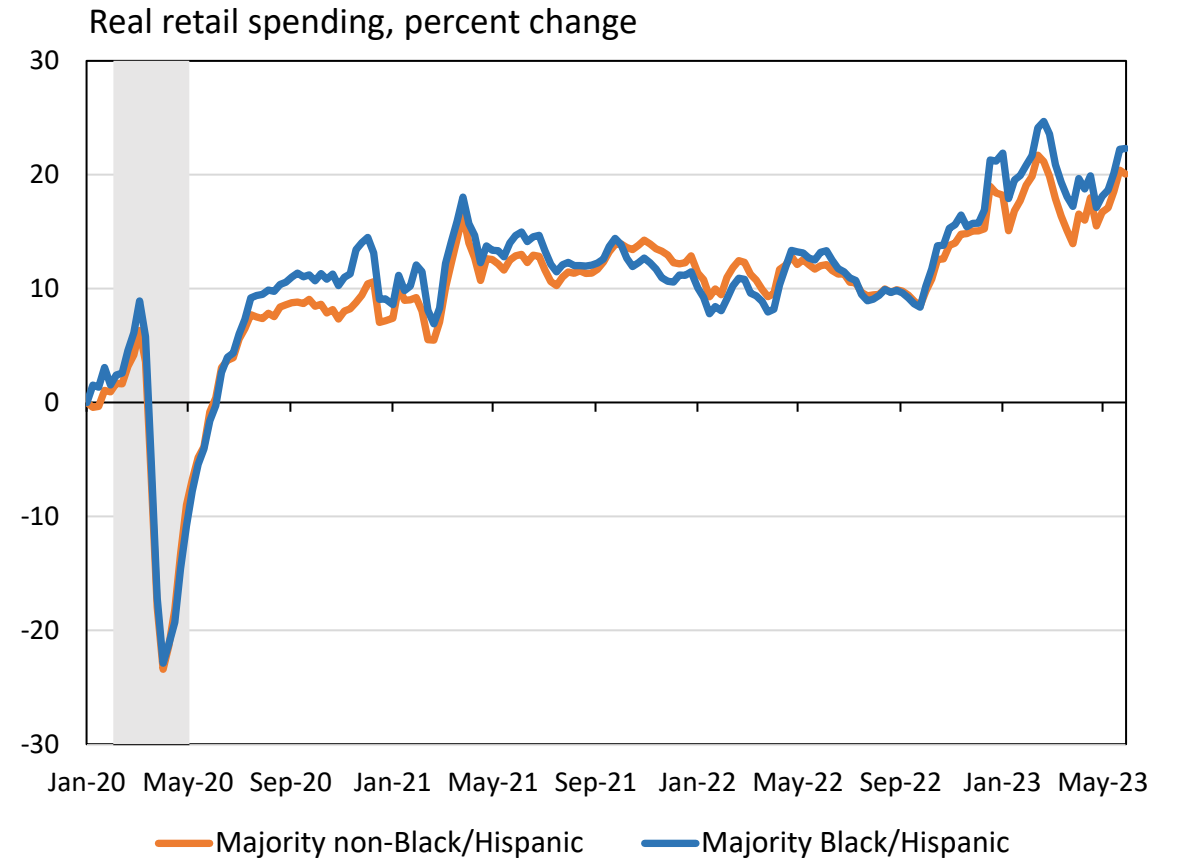
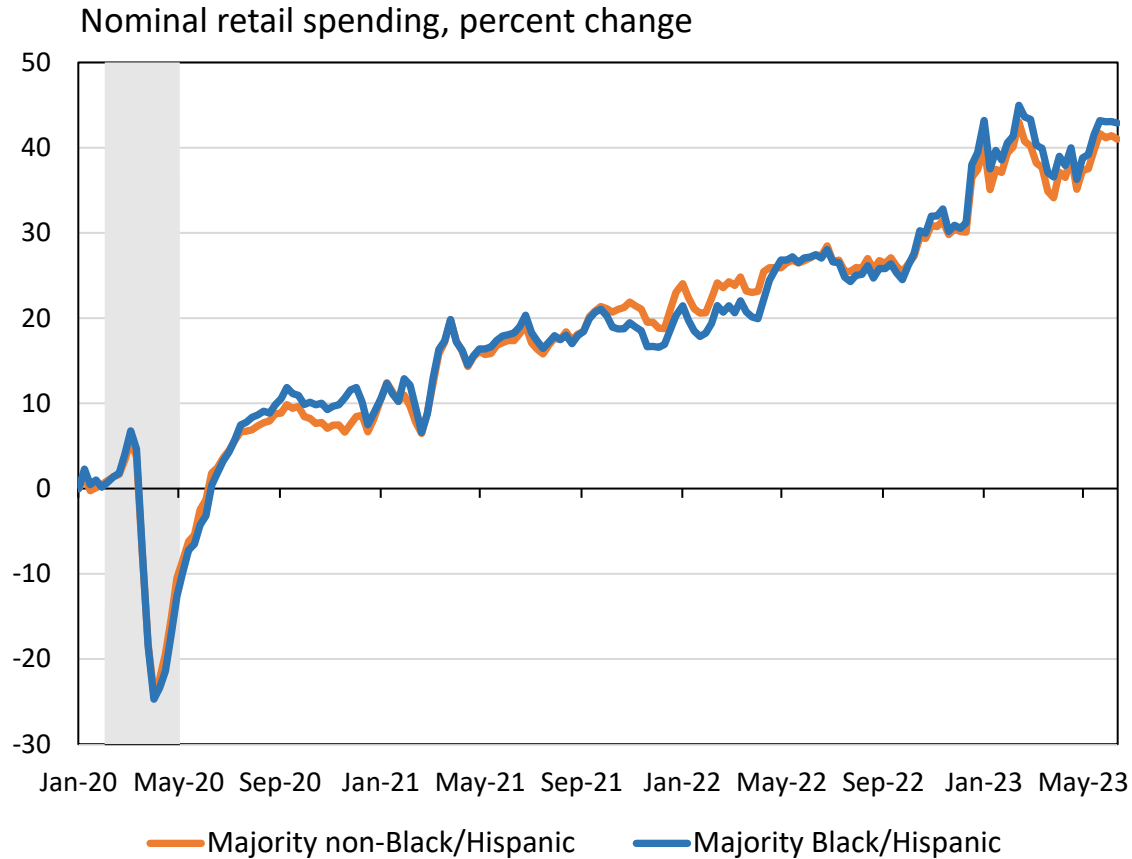
Retail Spending by Low to Moderate Income (LMI) Status



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

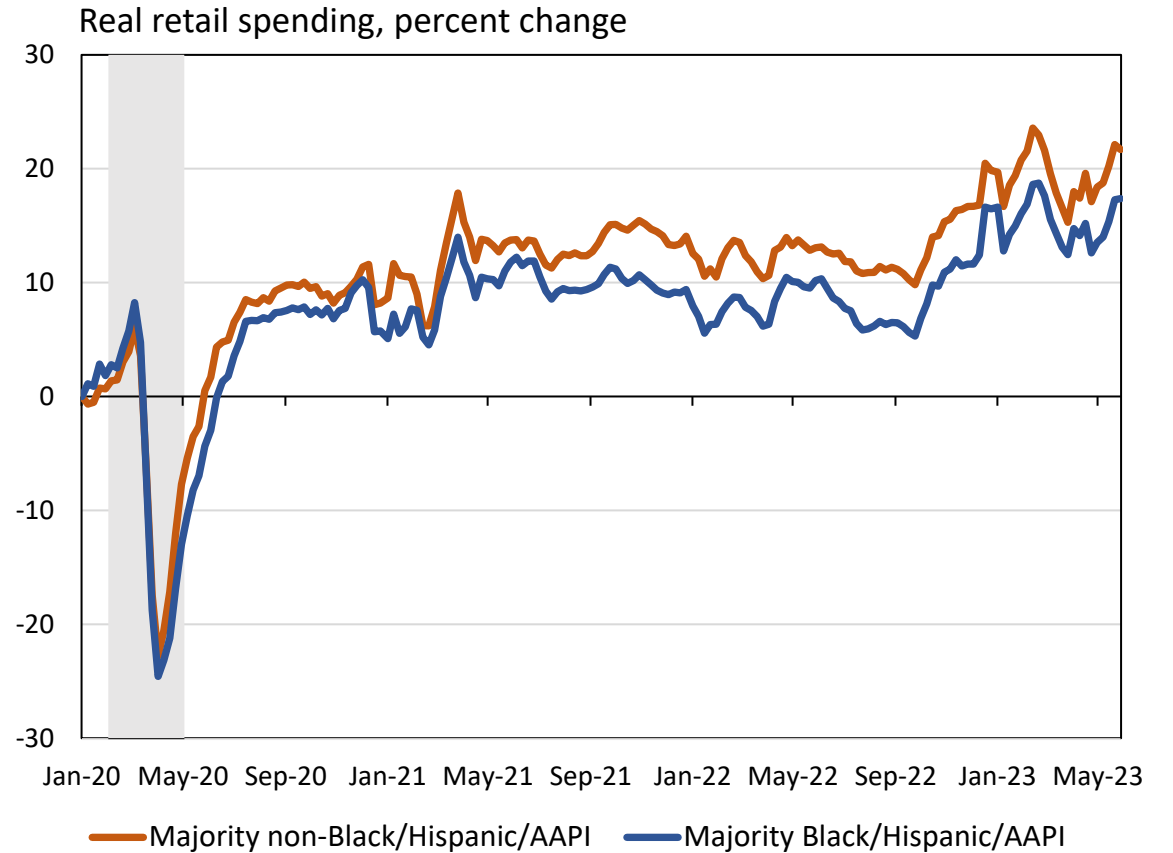
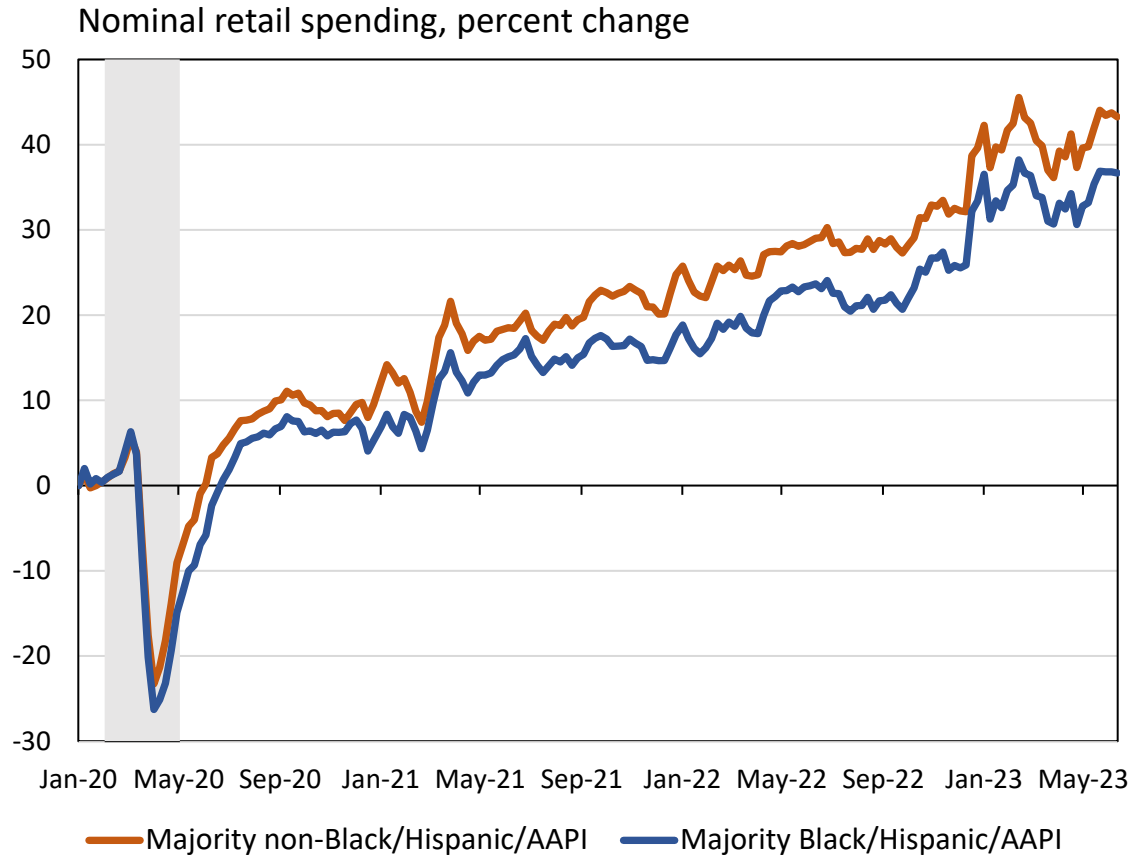
Retail Spending by County Demographics



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

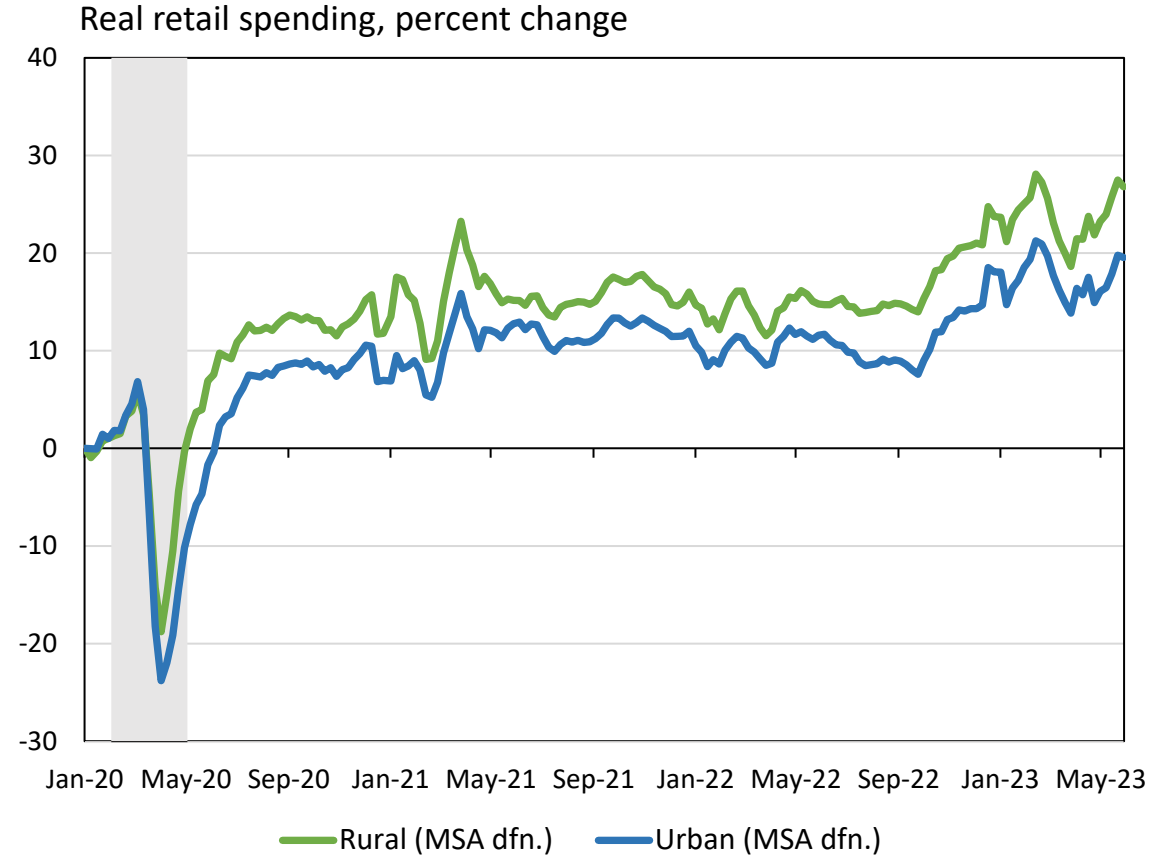
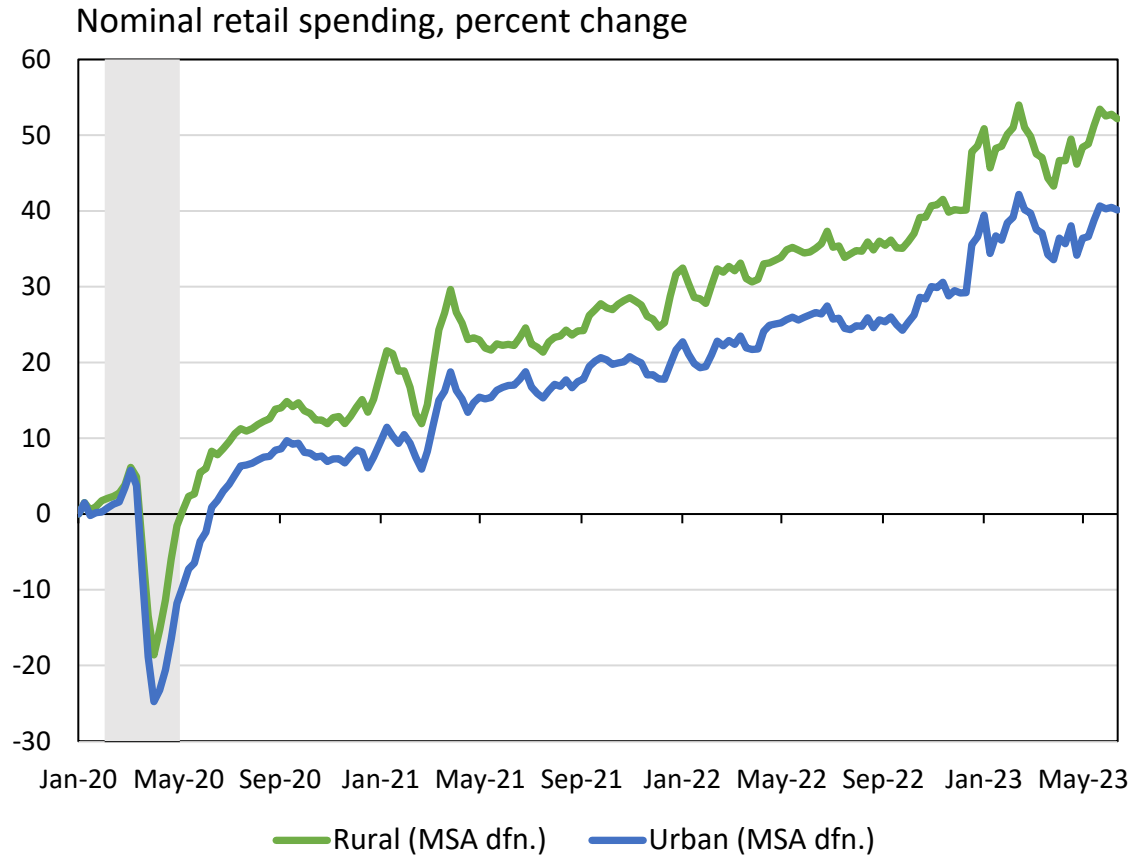
Retail Spending by County Demographics



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

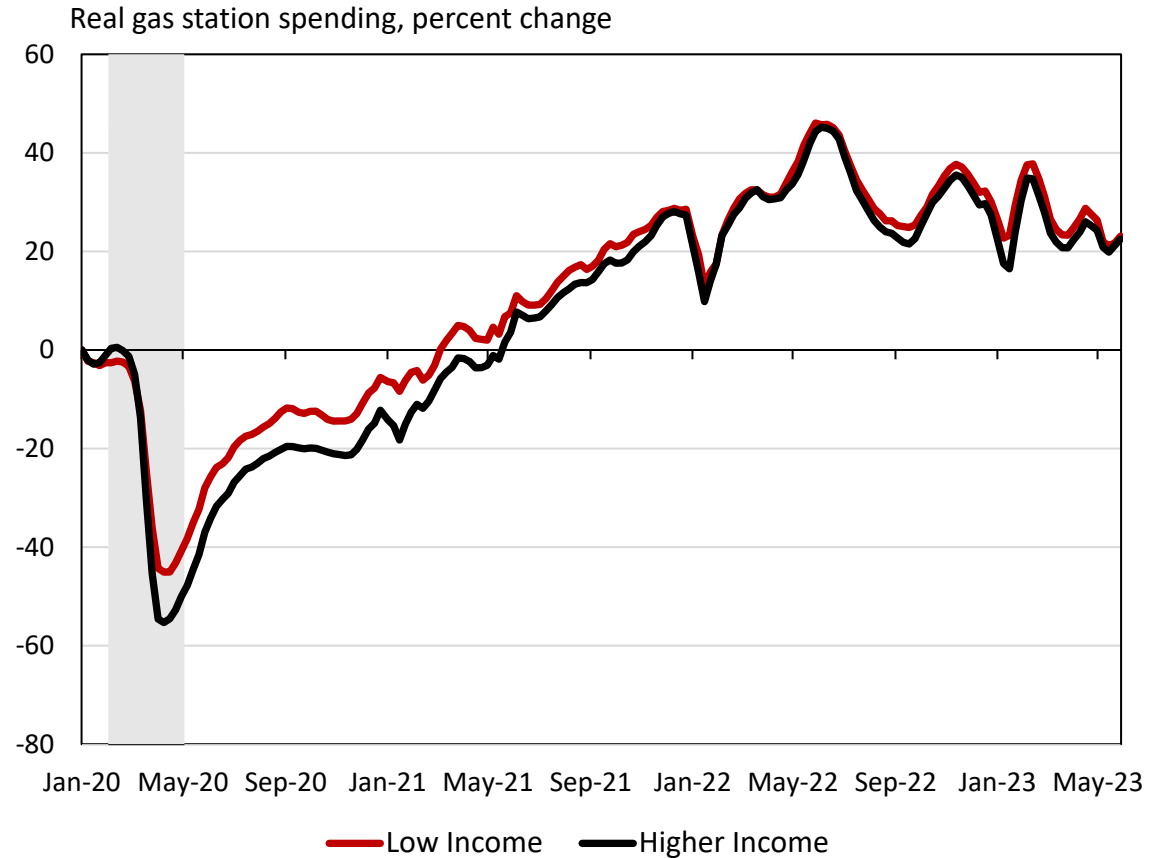
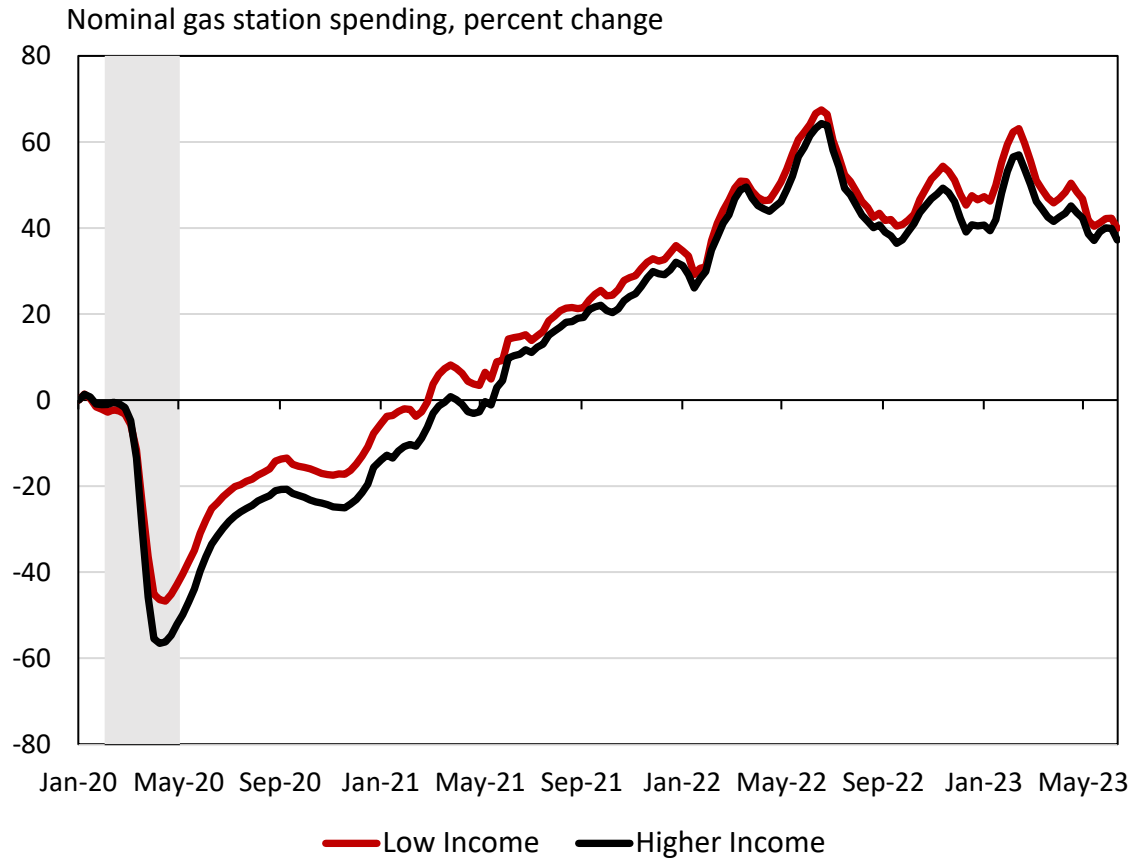
Retail Spending by County Urban/Rural Status



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

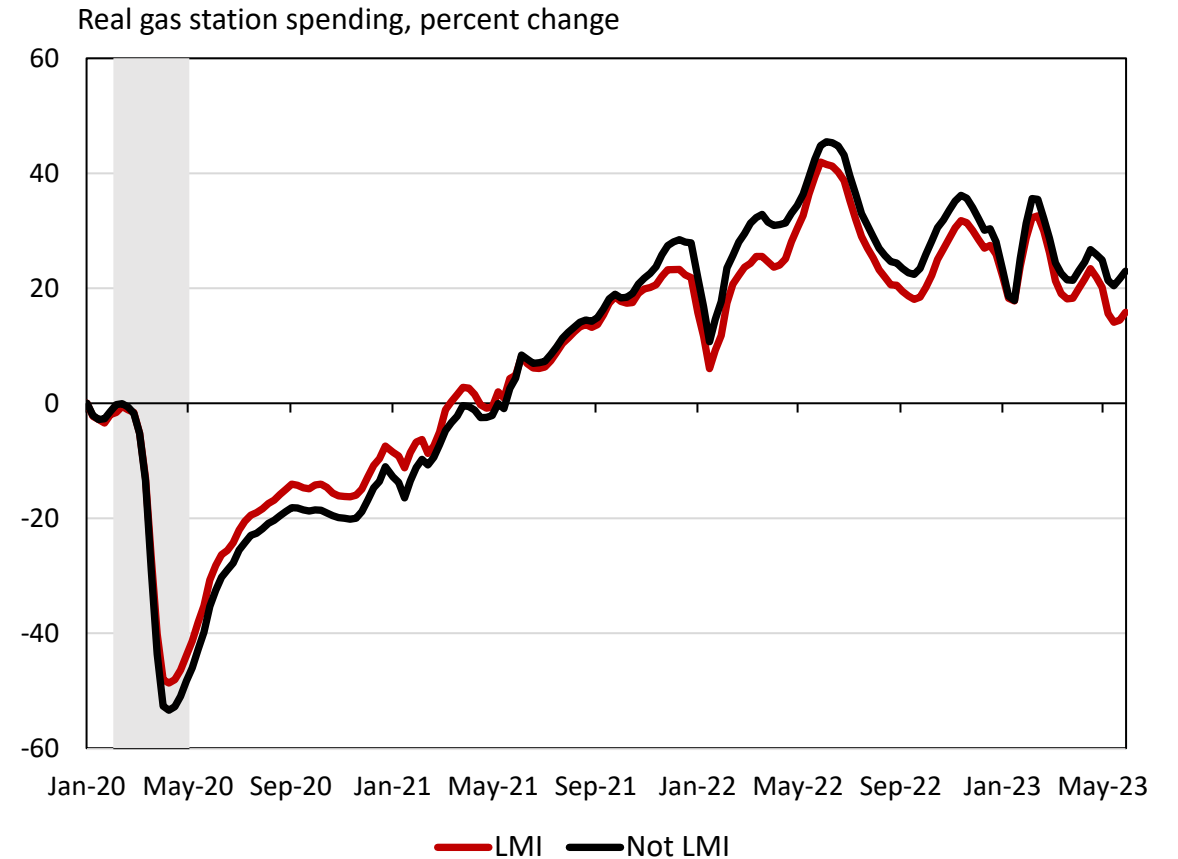
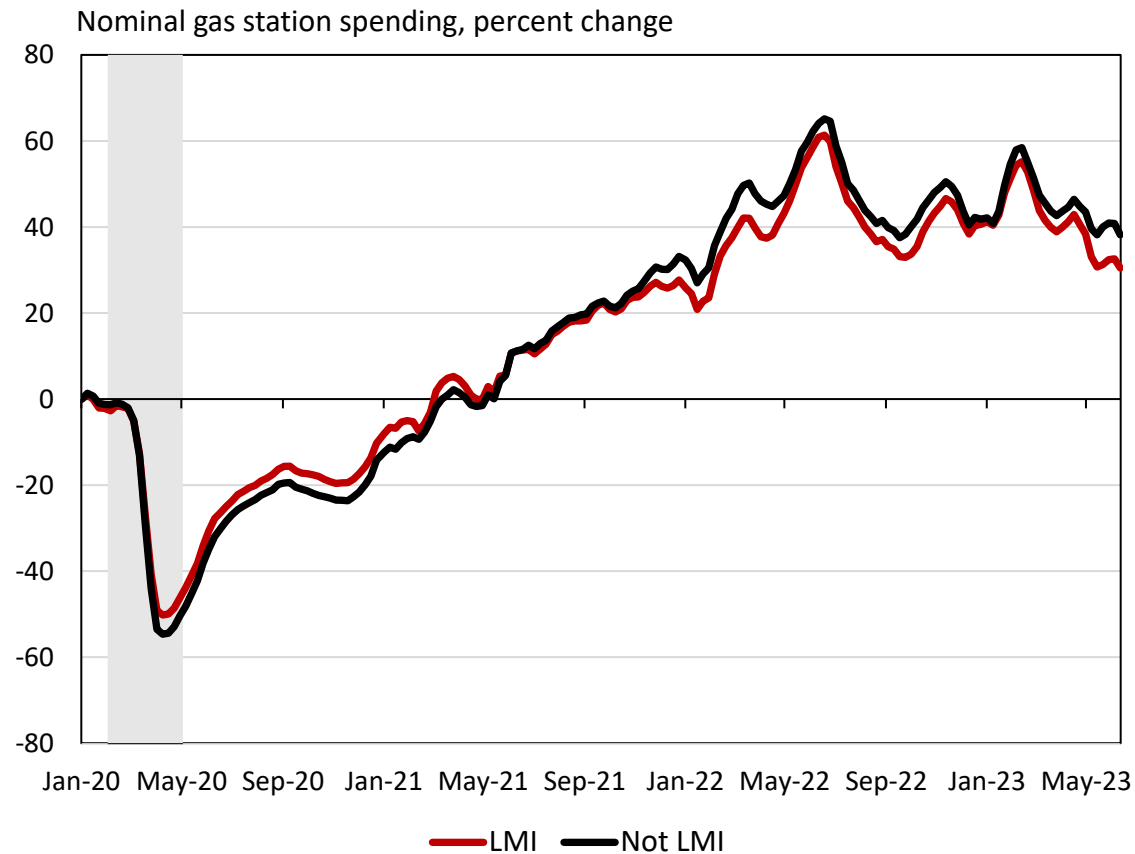
Gas Station Spending by County Household Income



Source: Commerce Signals – 3-week moving averages.
 Notes: Low-income counties are defined as those with household incomes below the 25th percentile of national household income. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

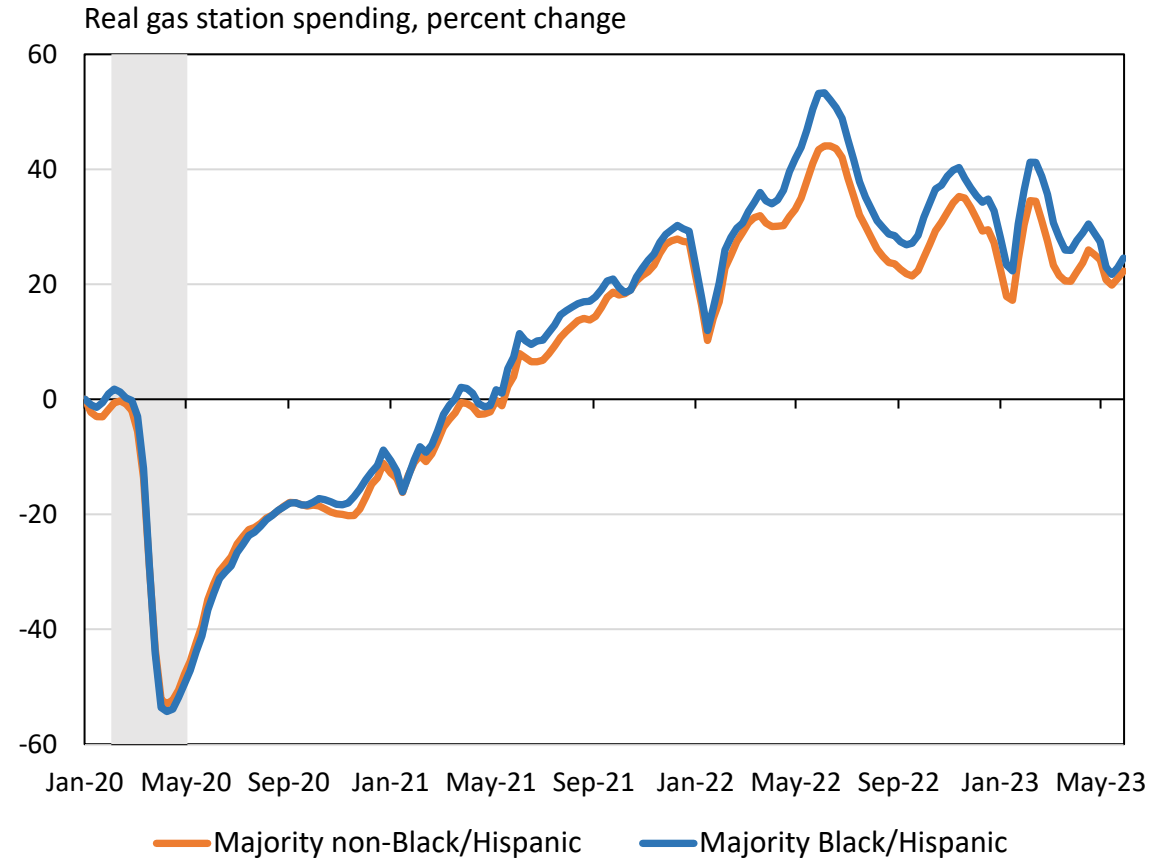
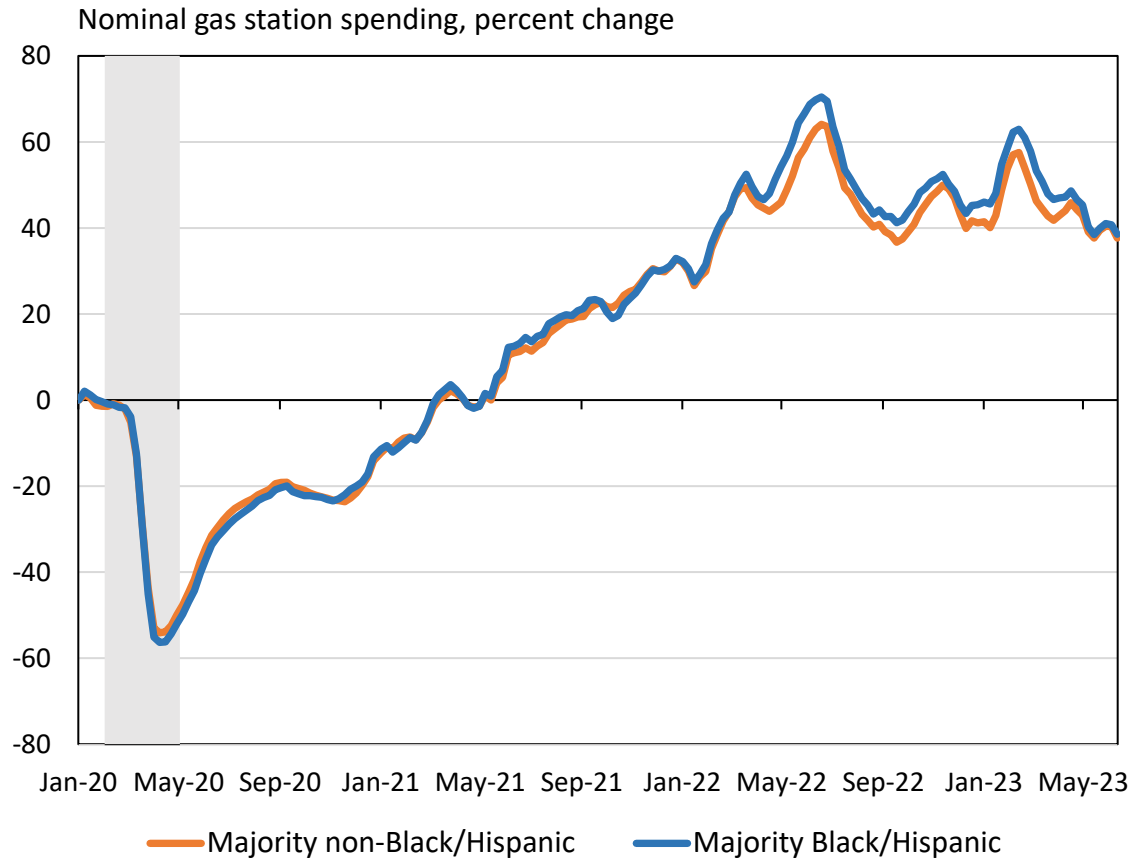
Gas Station Spending by Low to Moderate Income (LMI) Status



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

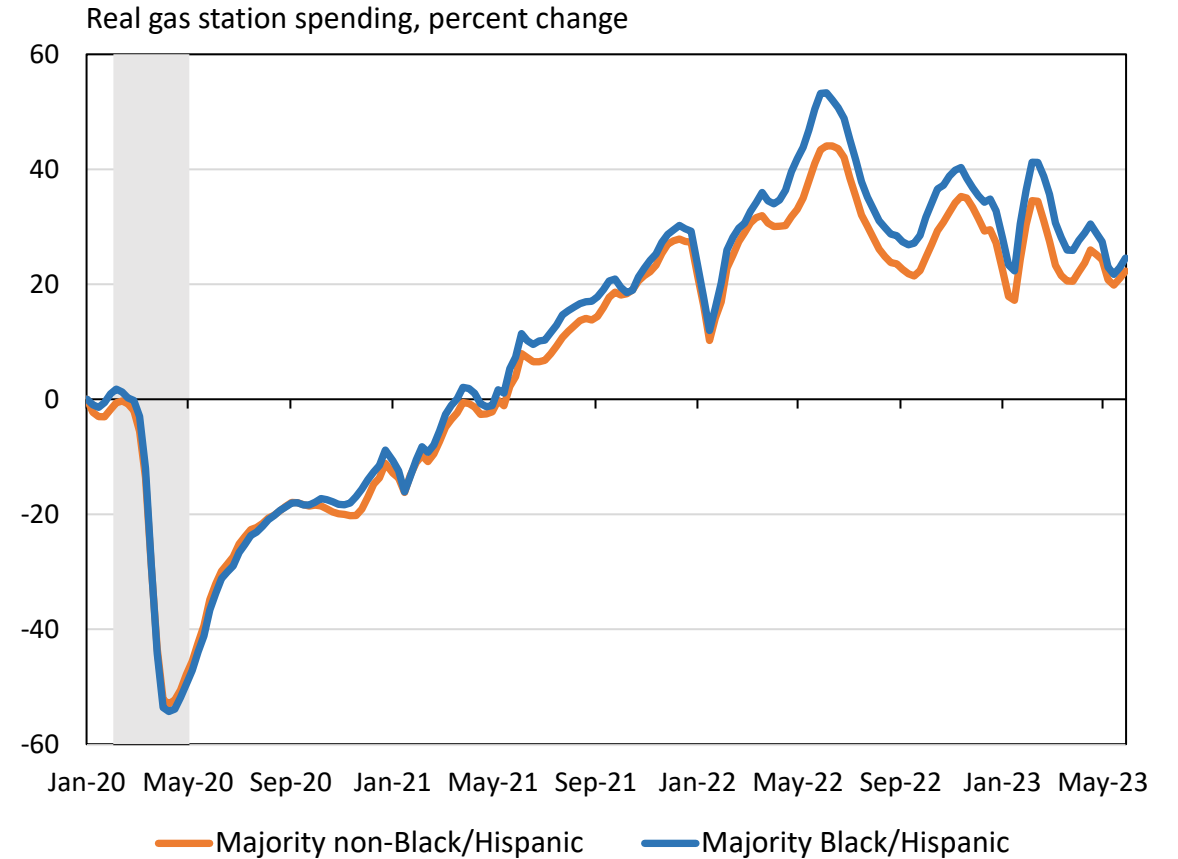
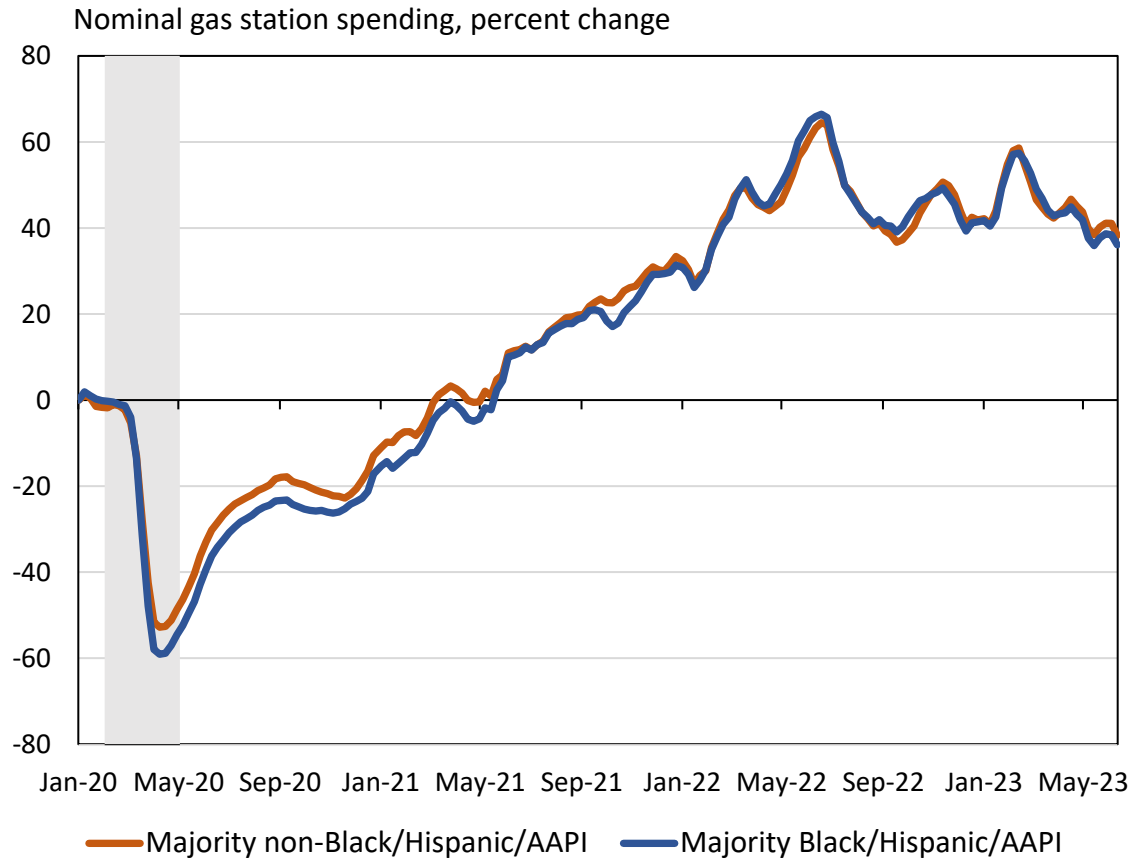
Gas Station Spending by County Demographics



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

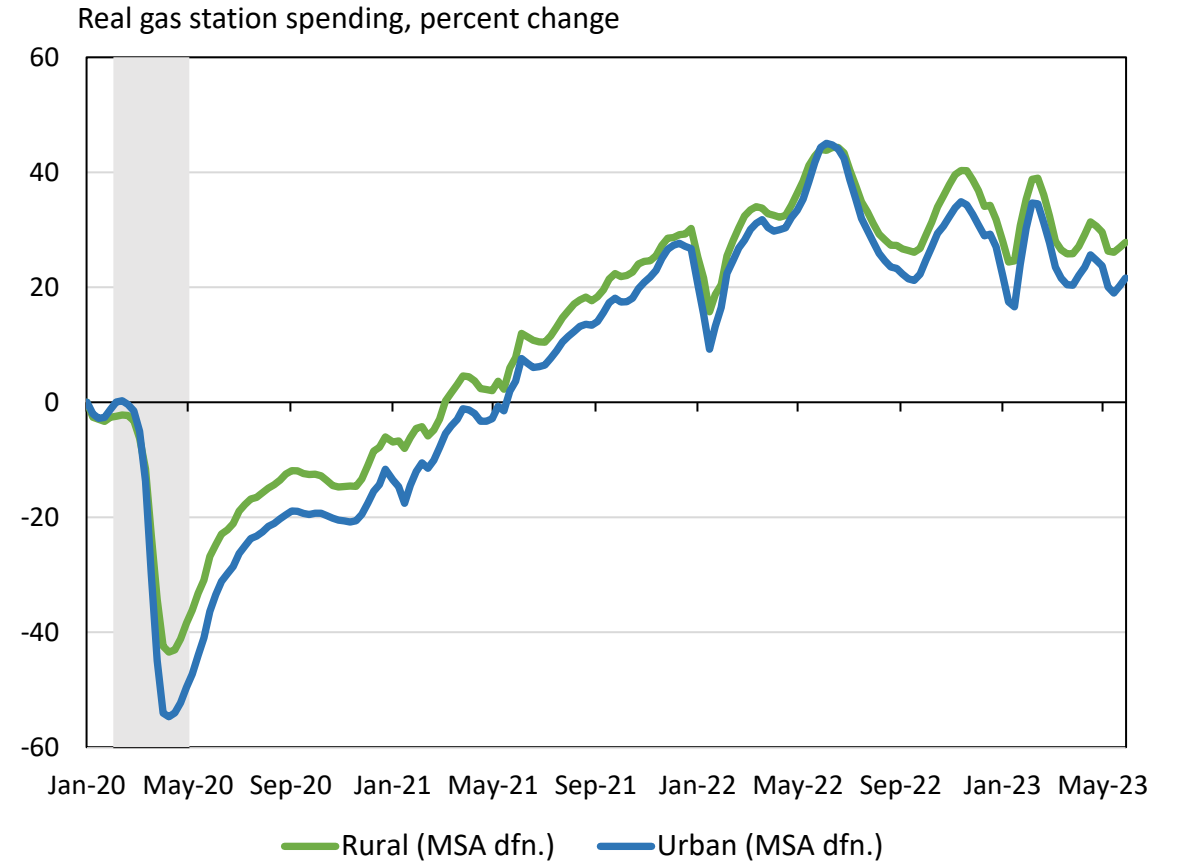
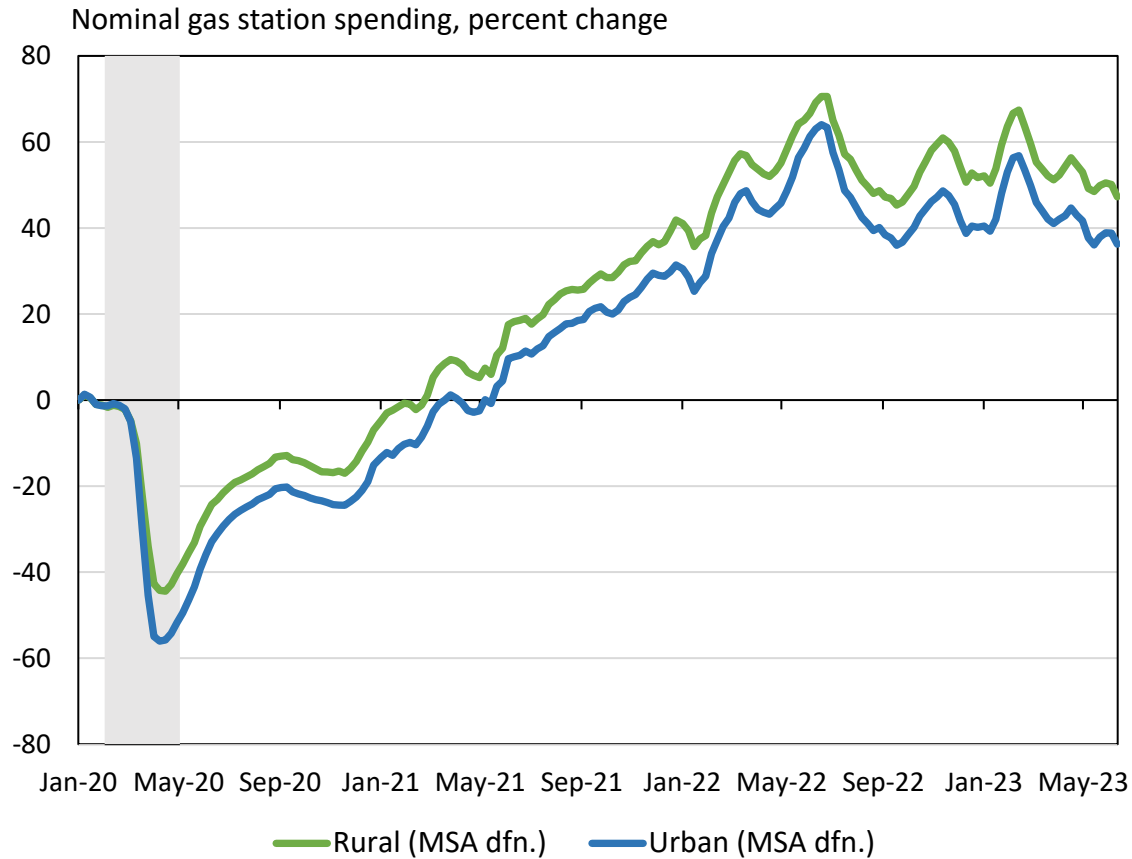
Gas Station Spending by County Demographics



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

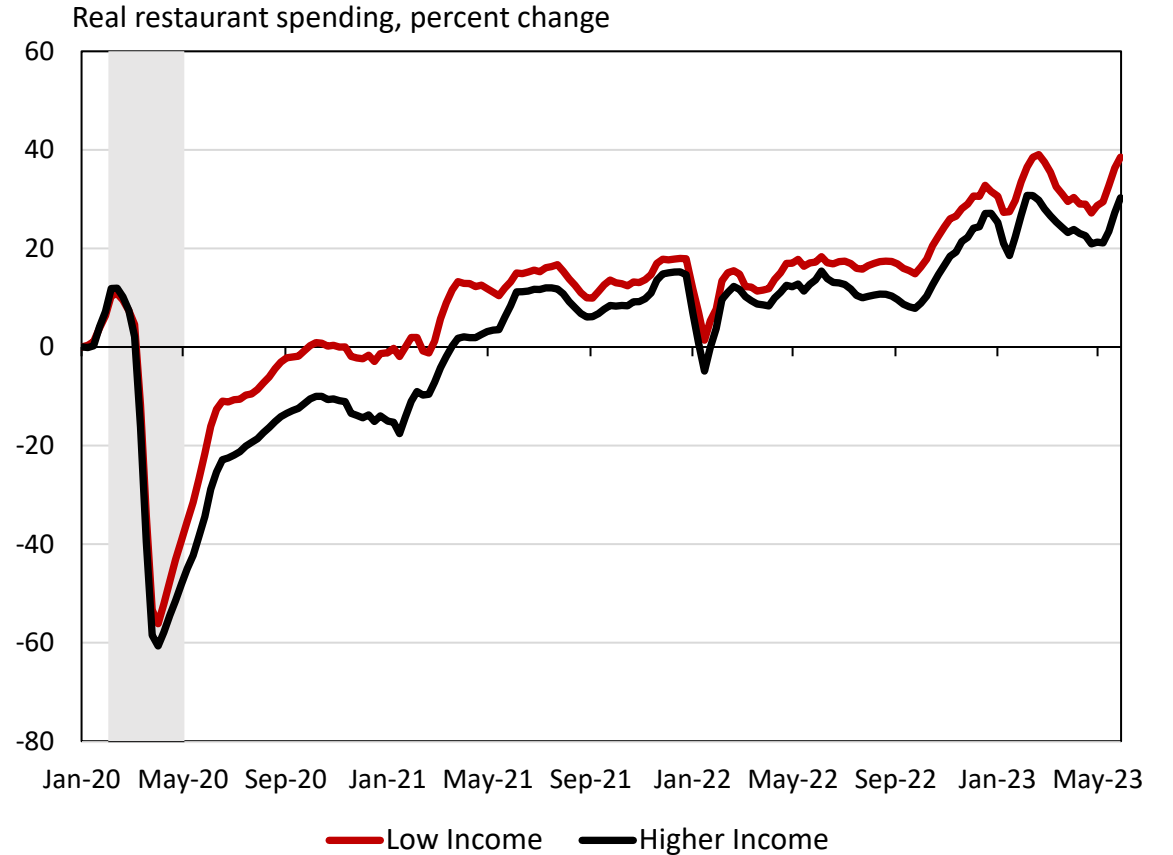
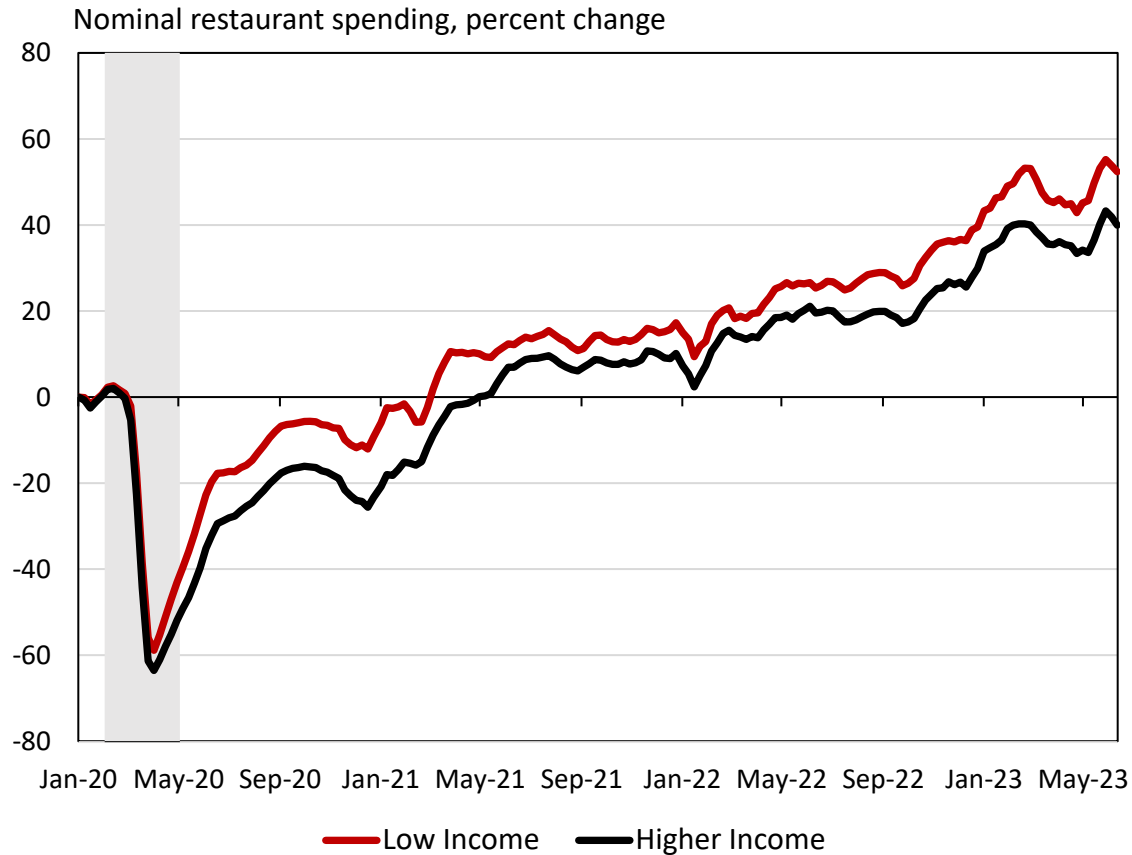
Gas Station Spending by County Urban/Rural Status



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

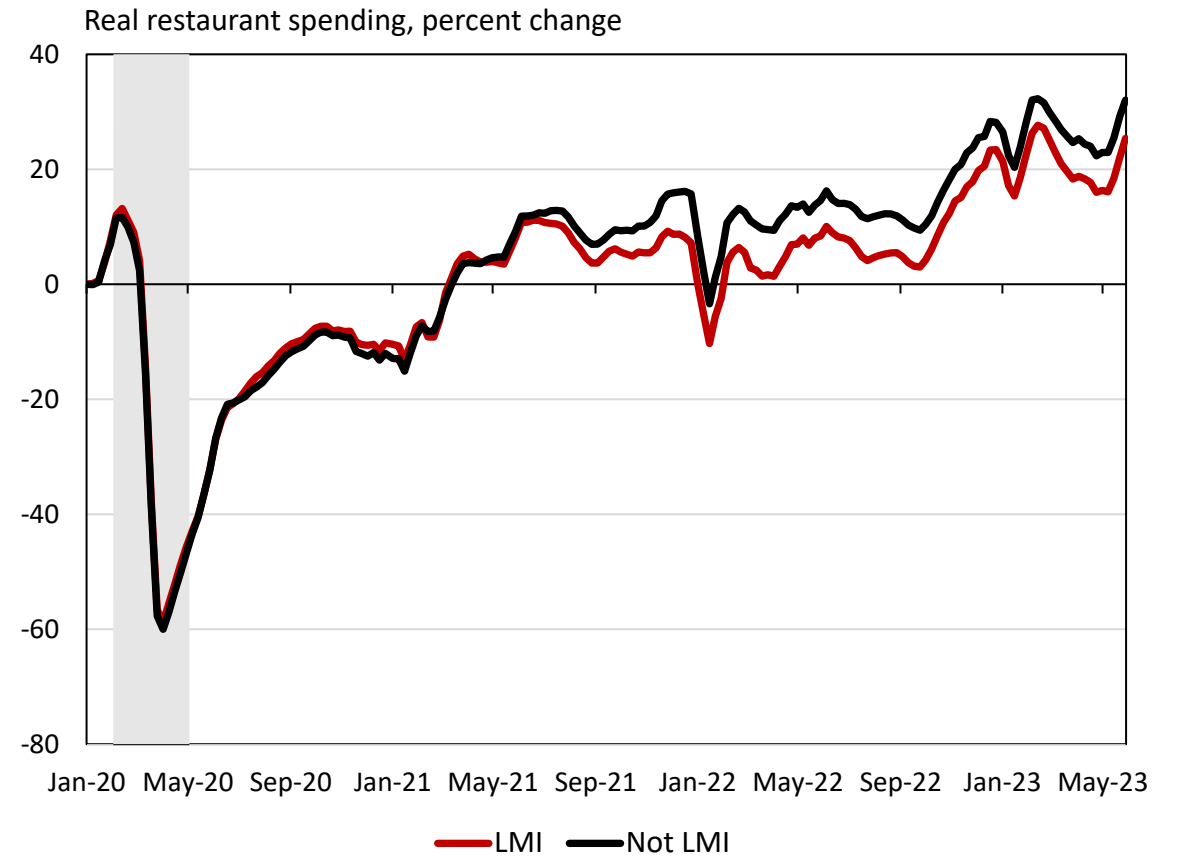
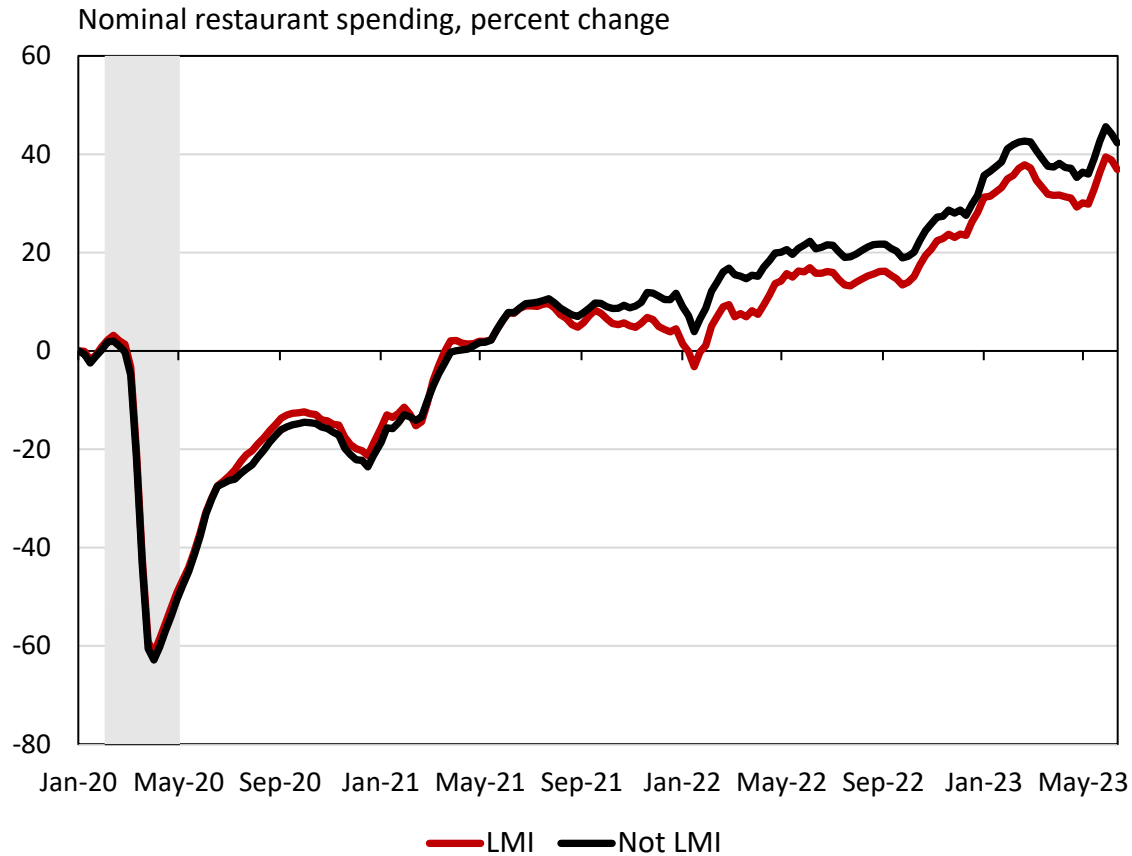
Restaurant Spending by County Household Income



Source: Commerce Signals – 3 Week Moving Averages.
 Notes: Low-income counties are defined as those with household incomes below the 25th percentile of national household income. Real spending uses corresponding regional prices, indexed to January 2020. Shaded region indicates the COVID-19 recession.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

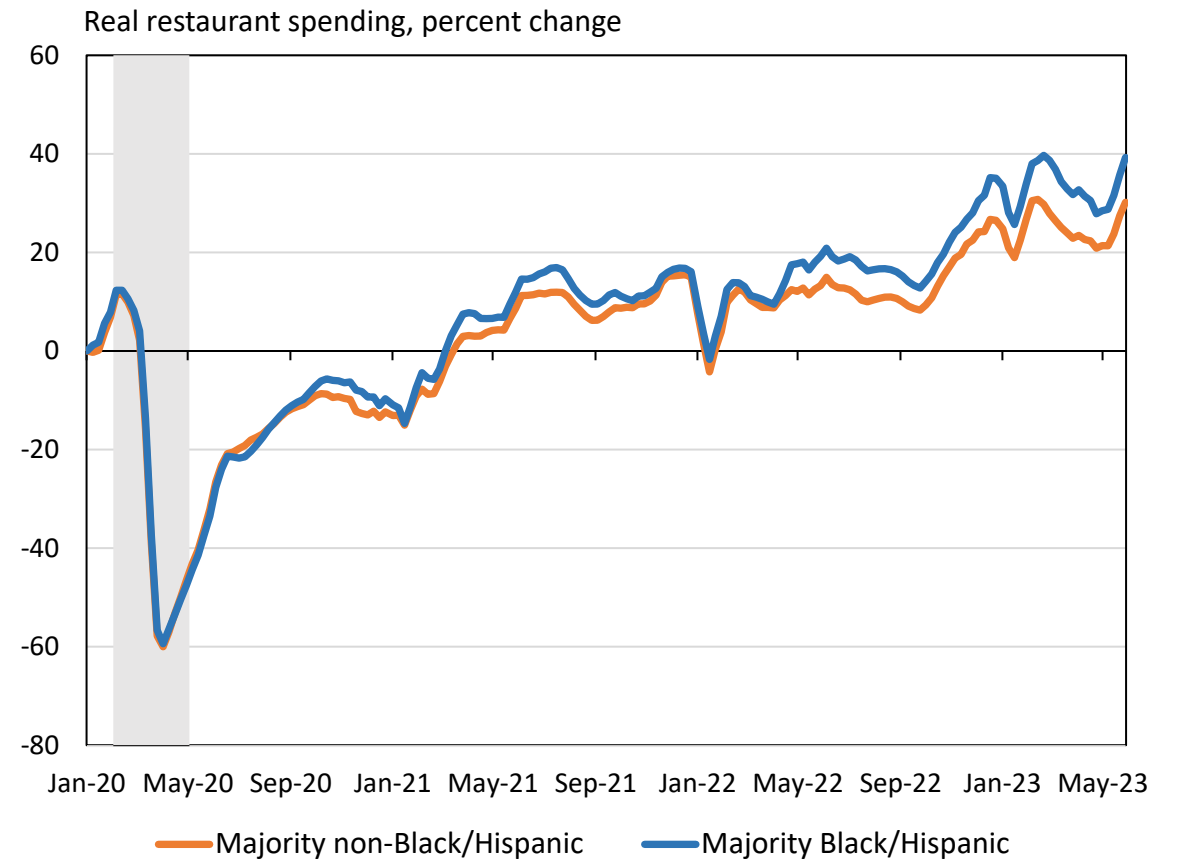
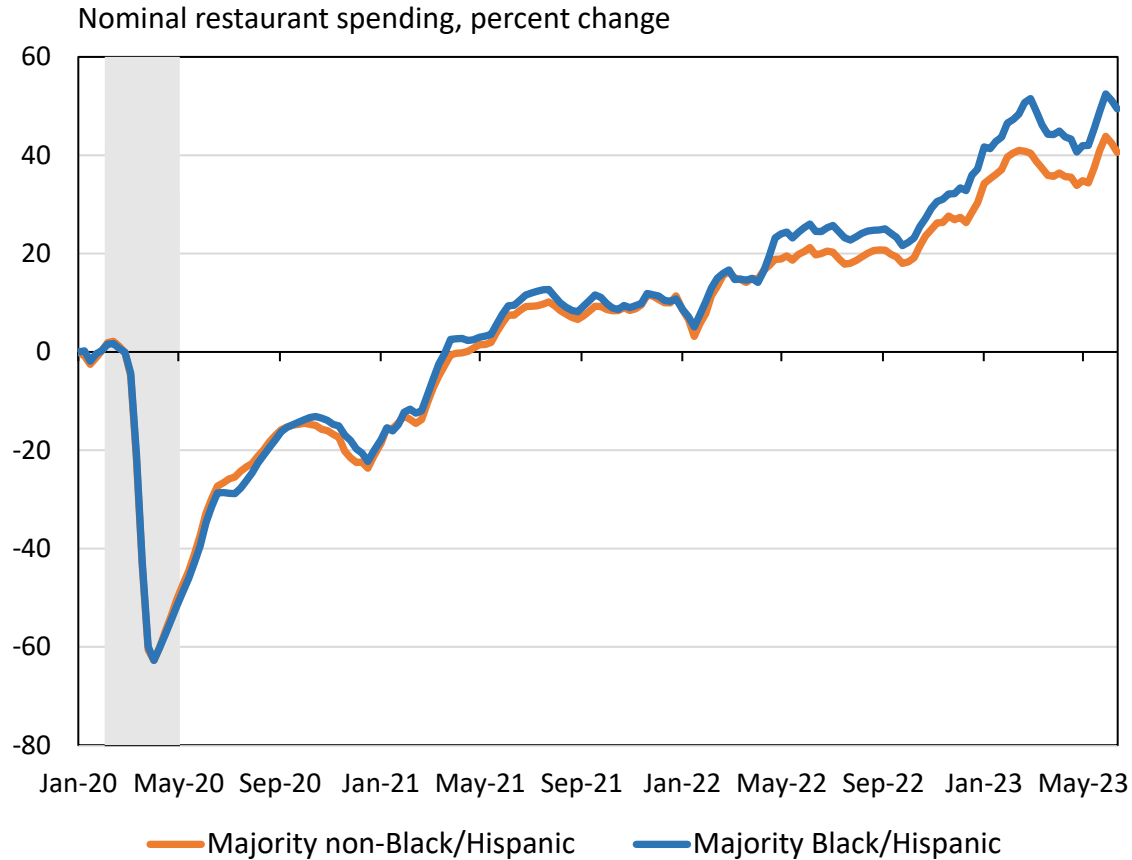
Restaurant Spending by Low to Moderate Income (LMI) Status



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

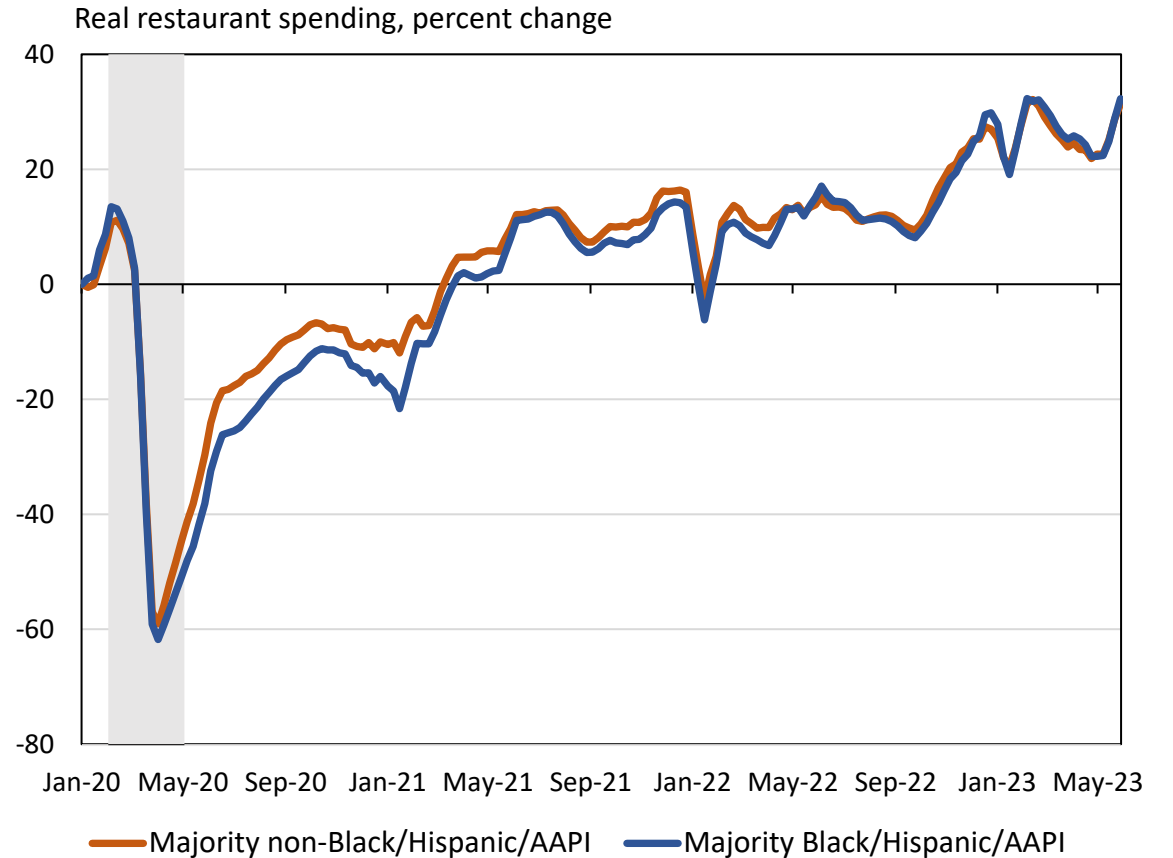
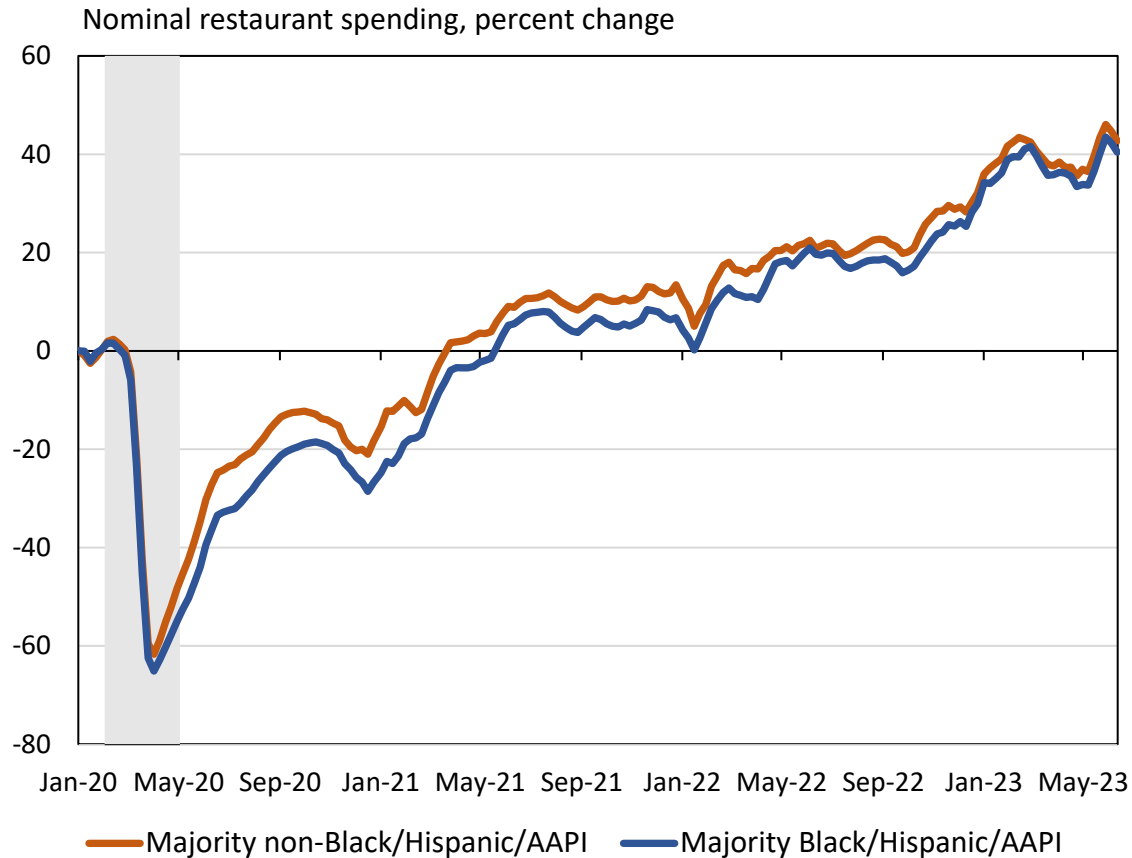
Restaurant Spending by County Demographics



Source: Commerce Signals – 3-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

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

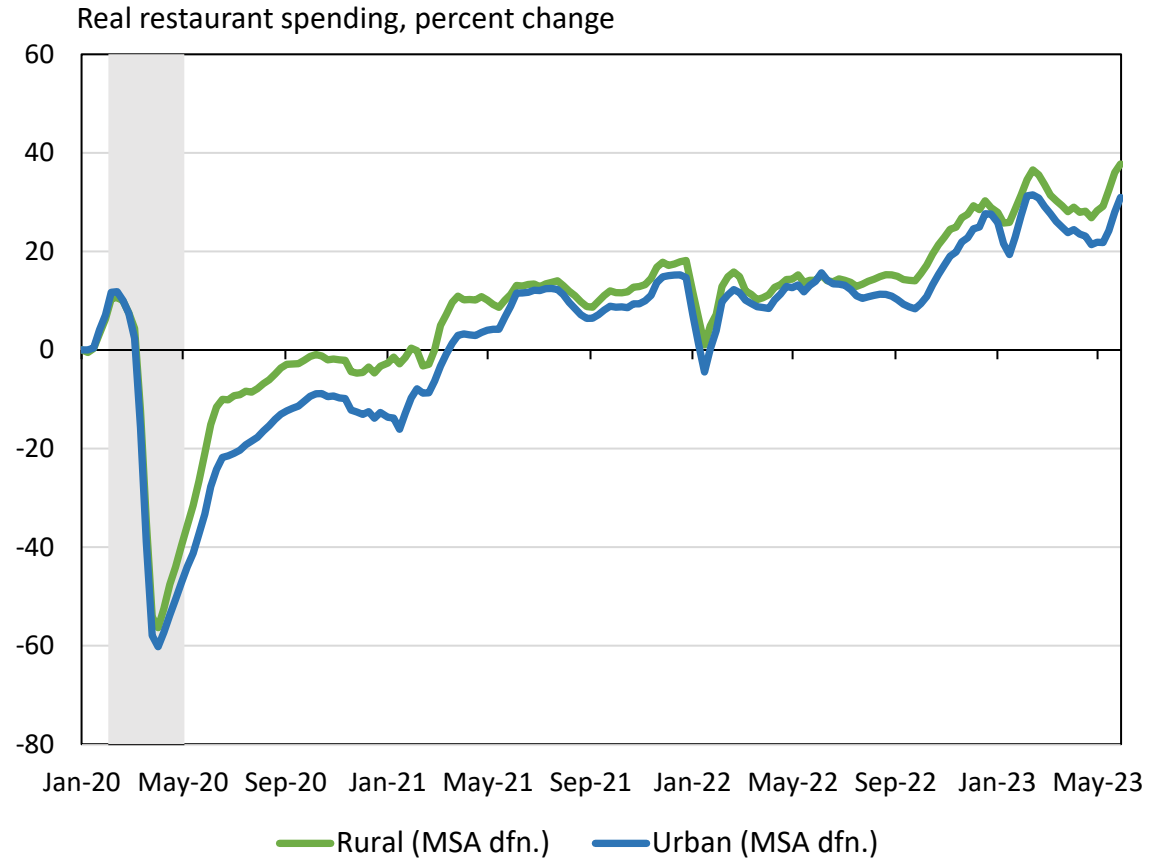
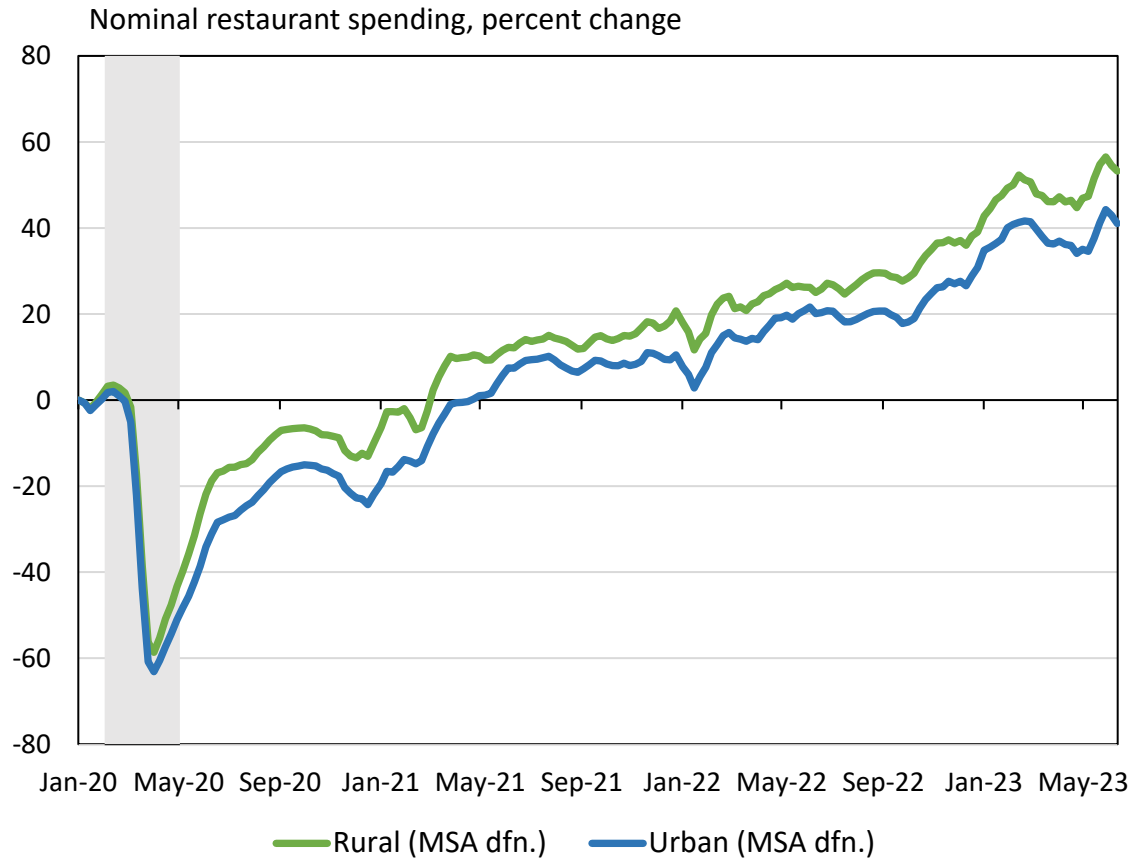
Restaurant Spending by County Demographics



Source: Commerce Signals – 3-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

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.

Restaurant Spending by County Urban/Rural Status



Source: Commerce Signals – 3-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.

Nominal spending ranges from January 1, 2020, to June 17, 2023. Real spending ranges from January 1, 2020, to June 3, 2023.