



Boston's Labor Market: Measuring Post-Pandemic Wage Growth

*BPDA Research Division
November 2023*



**boston planning &
development agency**

Agenda

Let's Talk About Wages!

- 1) But first – employment, unemployment and job postings
- 2) Average nominal and real weekly wages nationally and locally
- 3) Two alternative (better?) measures of wage trends
- 4) What has this meant for Boston residents' economic well-being?

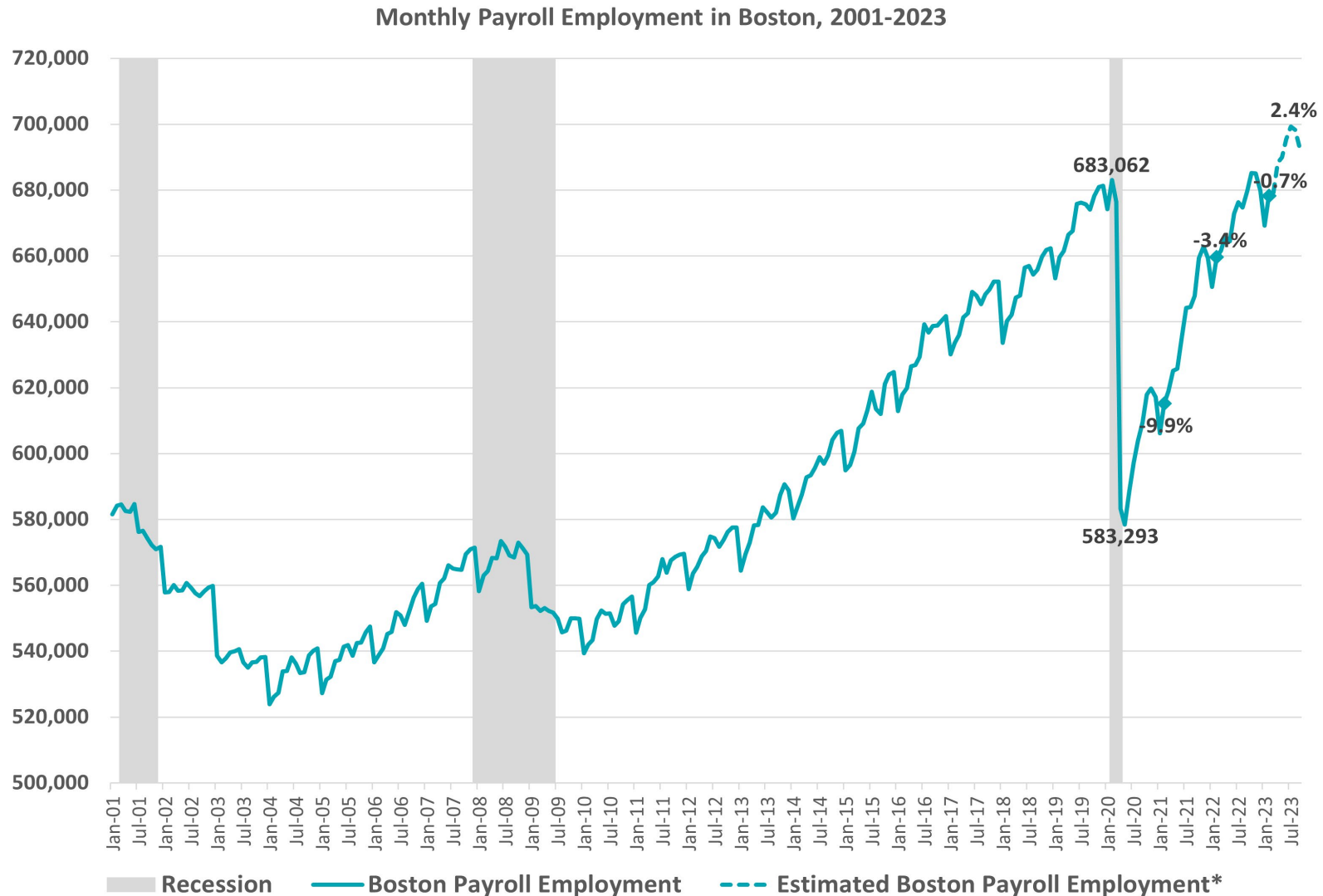
I.

Quick Labor Market Overview



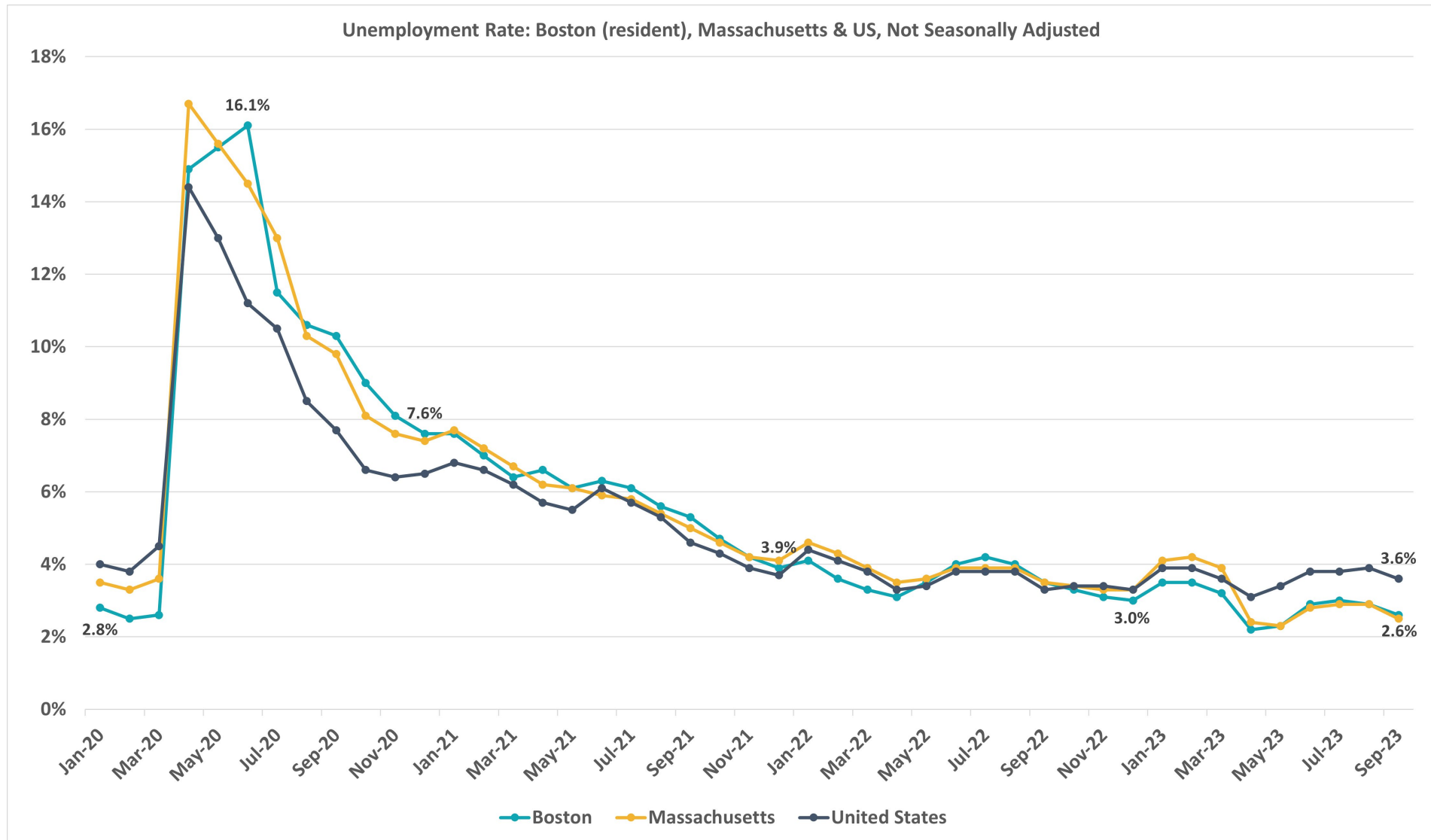
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Payroll Employment in Boston continues to grow (beyond Feb 2020!)



Source: Massachusetts Executive Office of Labor and Workforce Development (EOLWD), ES-202 and CES, BPDA Research Division Analysis.

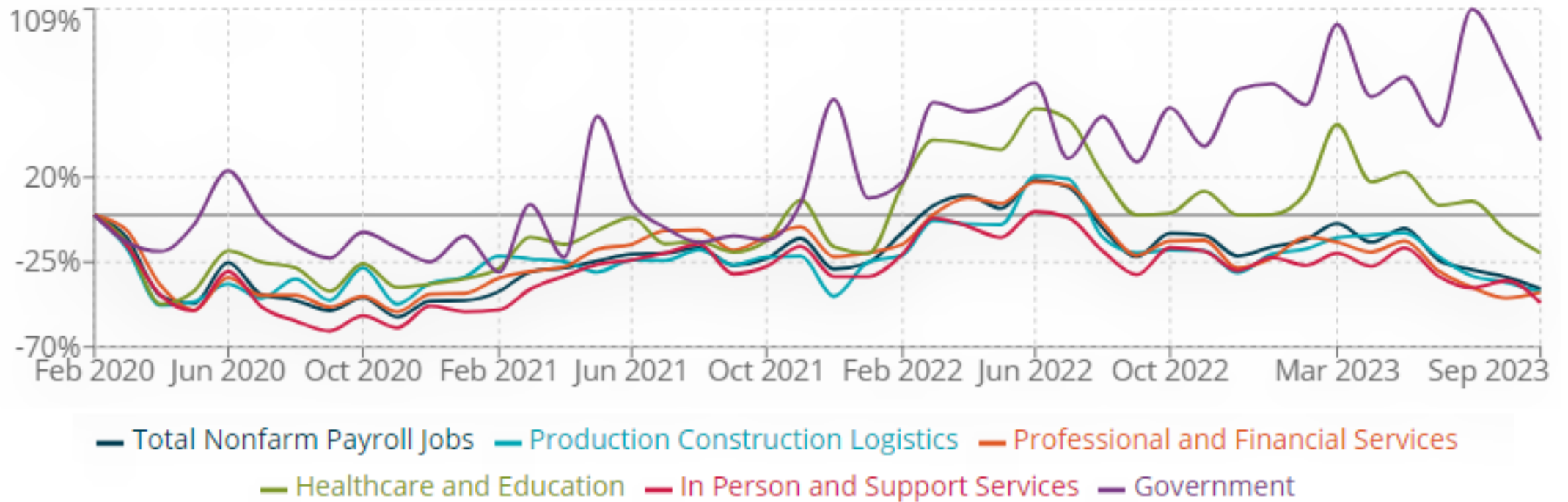
Unemployment remains very low, particularly locally



Source: Massachusetts Executive Office of Labor and Workforce Development (EOLWD), Labor Force and Unemployment Data

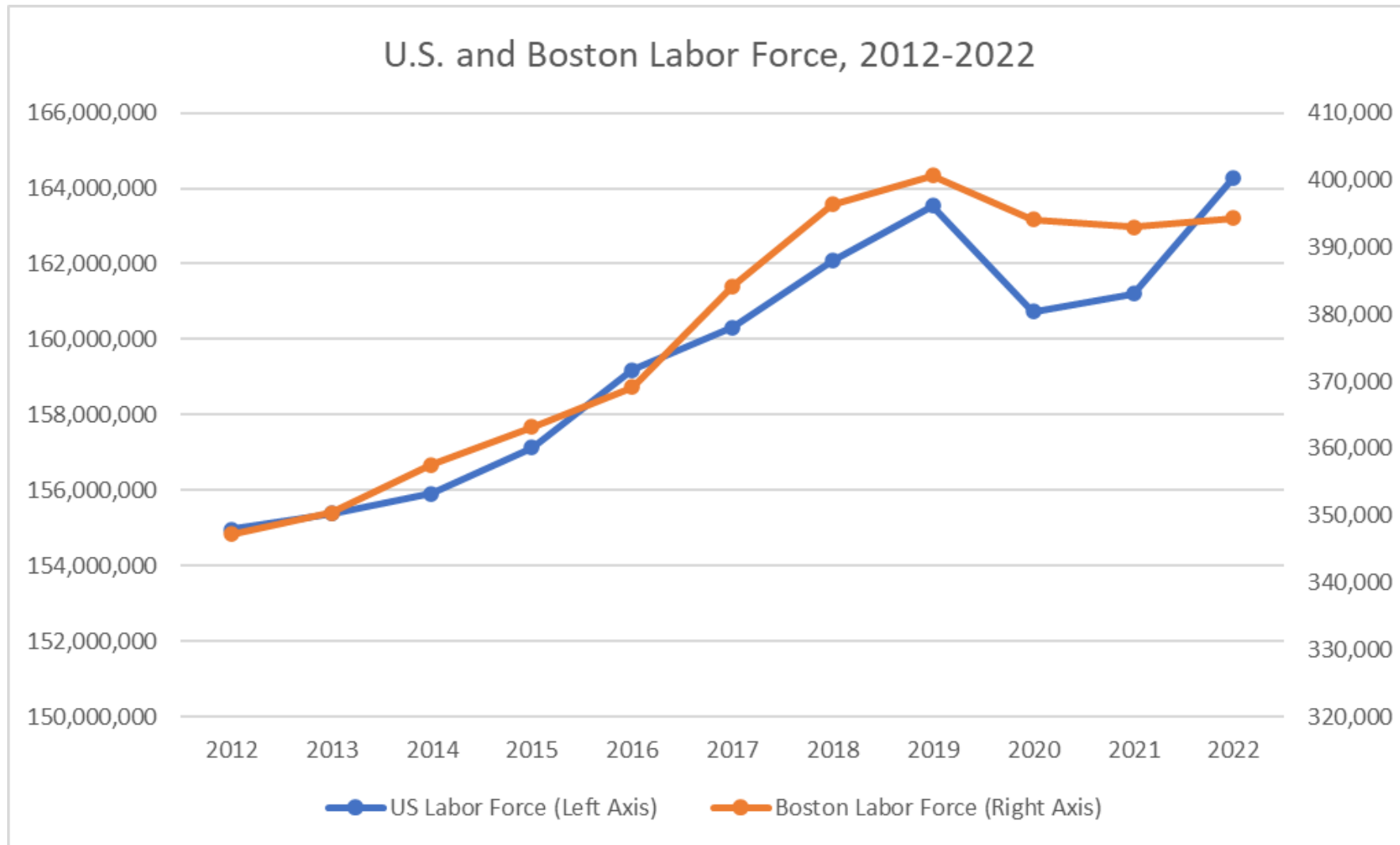
Job postings have slowed (except for government – we're hiring!)

Change in Job Postings in Boston from February 2020



Source: Burning Glass Technologies, Labor Insight

Labor supply fell during pandemic but has been recovering



Source: U.S. Bureau of Labor Statistics (BLS) and Massachusetts Executive Office of Labor and Workforce Development (EOLWD)

II.

What About Wages?



What have these trends meant for wages?

- Surging labor demand against backdrop of limited labor supply created strong upward pressure on wages
- But strong consumer demand & supply chain breakdowns also created strong price pressure
- Which won out? Is the (average? median?) person able to buy more with their wages than they were pre-pandemic?

Nominal Wages? Real Wages?

- Nominal wages are the wages you see on your paycheck, measured in dollars at the time you're paid
- Real wages measure the purchasing power of those wages – how much will those wages buy given the price level?

For this presentation we'll discuss both. For real wages I'll index them to the average price level (CPI-U) in the year 2022.

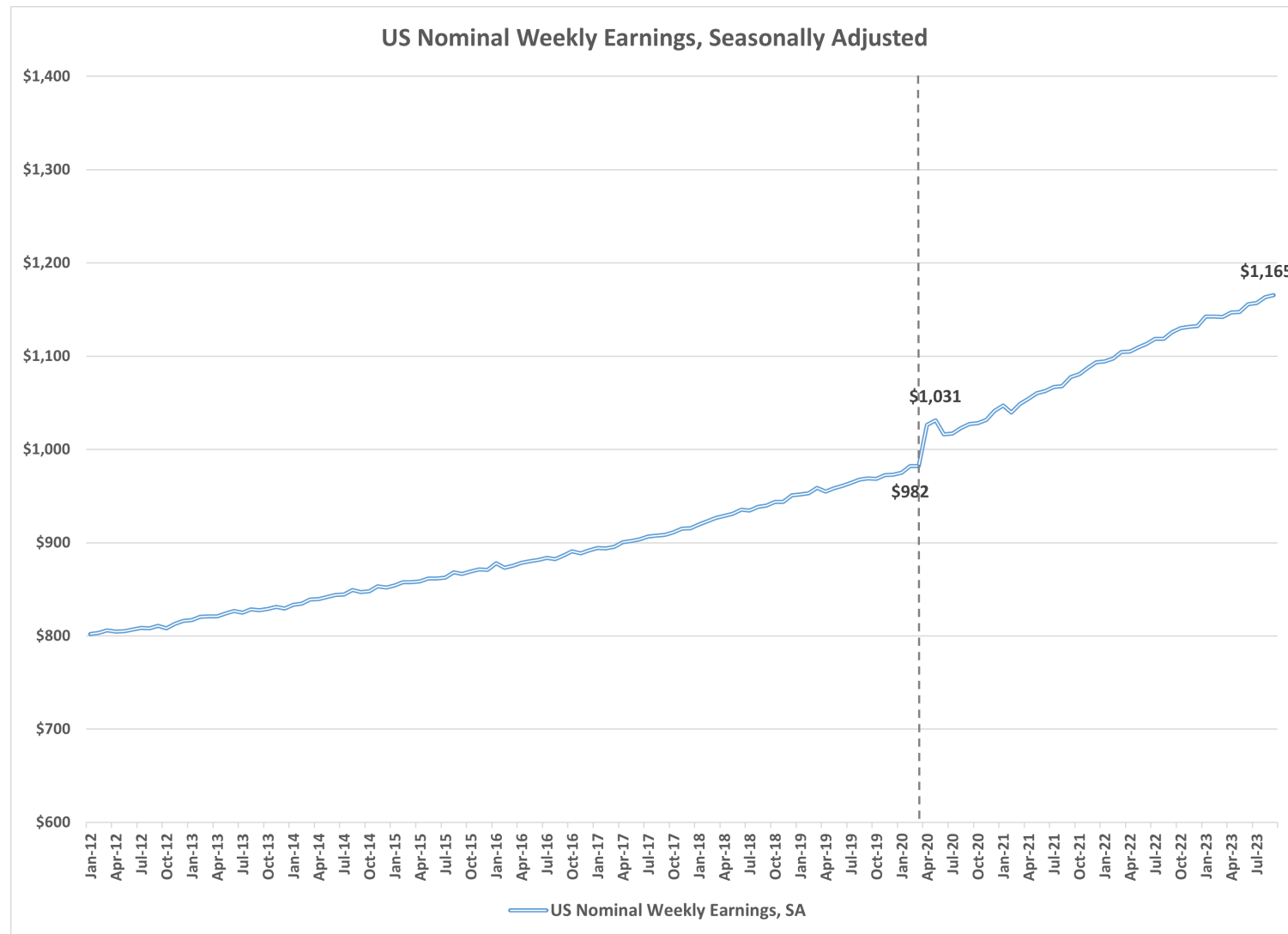
We'll be looking both at wage levels (usually weekly) as well as 12-month changes (how much have wages or prices grown in the prior year)

Over the last 10 years, in what month was the average weekly real wage of US workers the highest?

- a) November 2013
- b) December 2019
- c) May 2020
- d) June 2021
- e) September 2023

You'll find out in a few slides!

Nominal wages have risen over time – increased more quickly post-pandemic

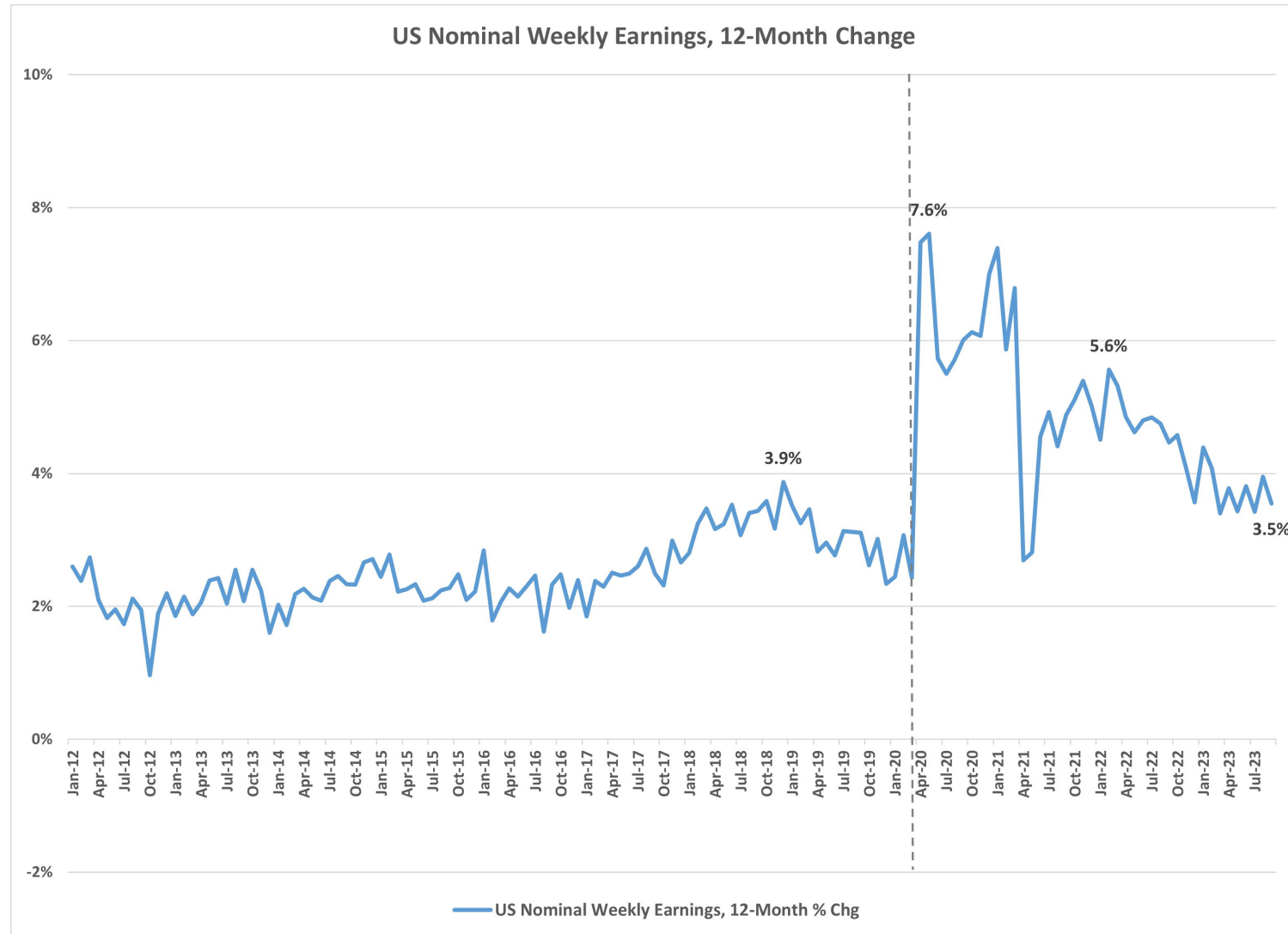


Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics; BPDA Research Division Analysis

The compositional challenge of post-pandemic wage data

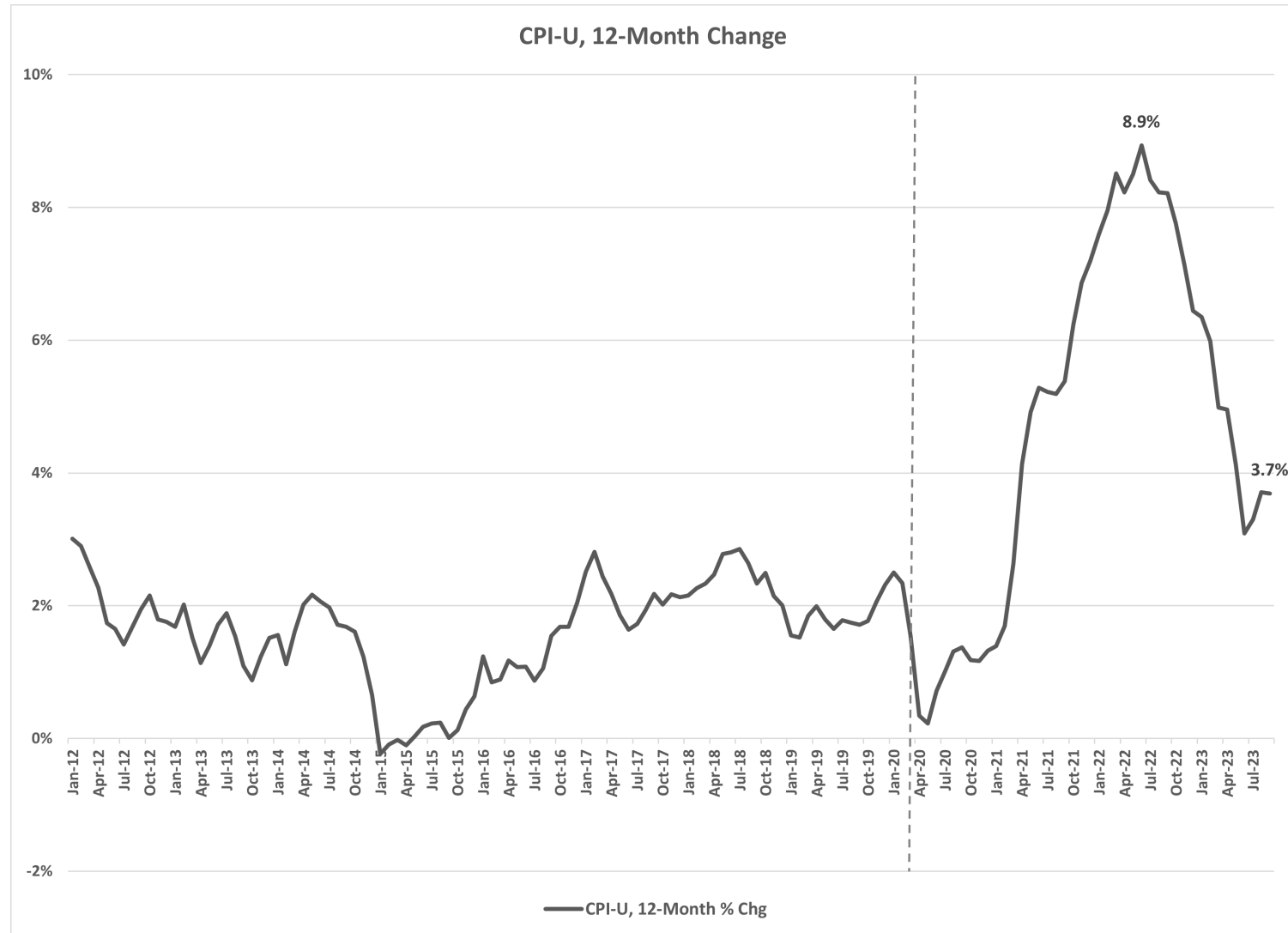
- The pandemic caused an unprecedented rapid fall in employment that was disproportionately felt by those in the lowest wage industries (in-person services)
- When we measure average wages of workers those who are not working drop out of the denominator – in the case of the pandemic, higher earners disproportionately remain in the data
- This problem is solvable in different ways, but plagues the datasets most commonly used for local labor market analysis (CES, QCEW)

Looking at 12-month changes allows us to see strong pace post-pandemic



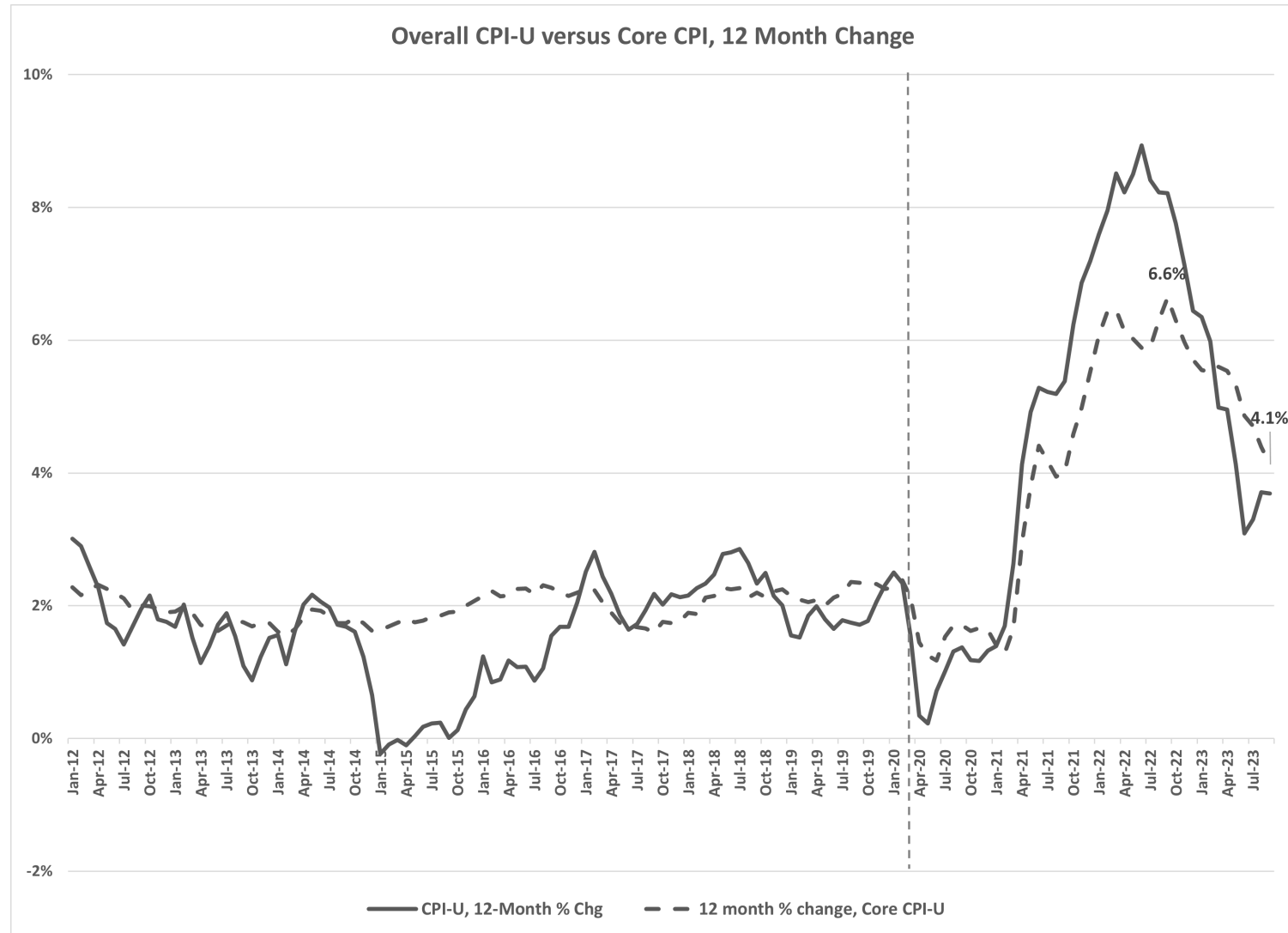
Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics; BPDA Research Division Analysis

But prices were also rising rapidly post-pandemic



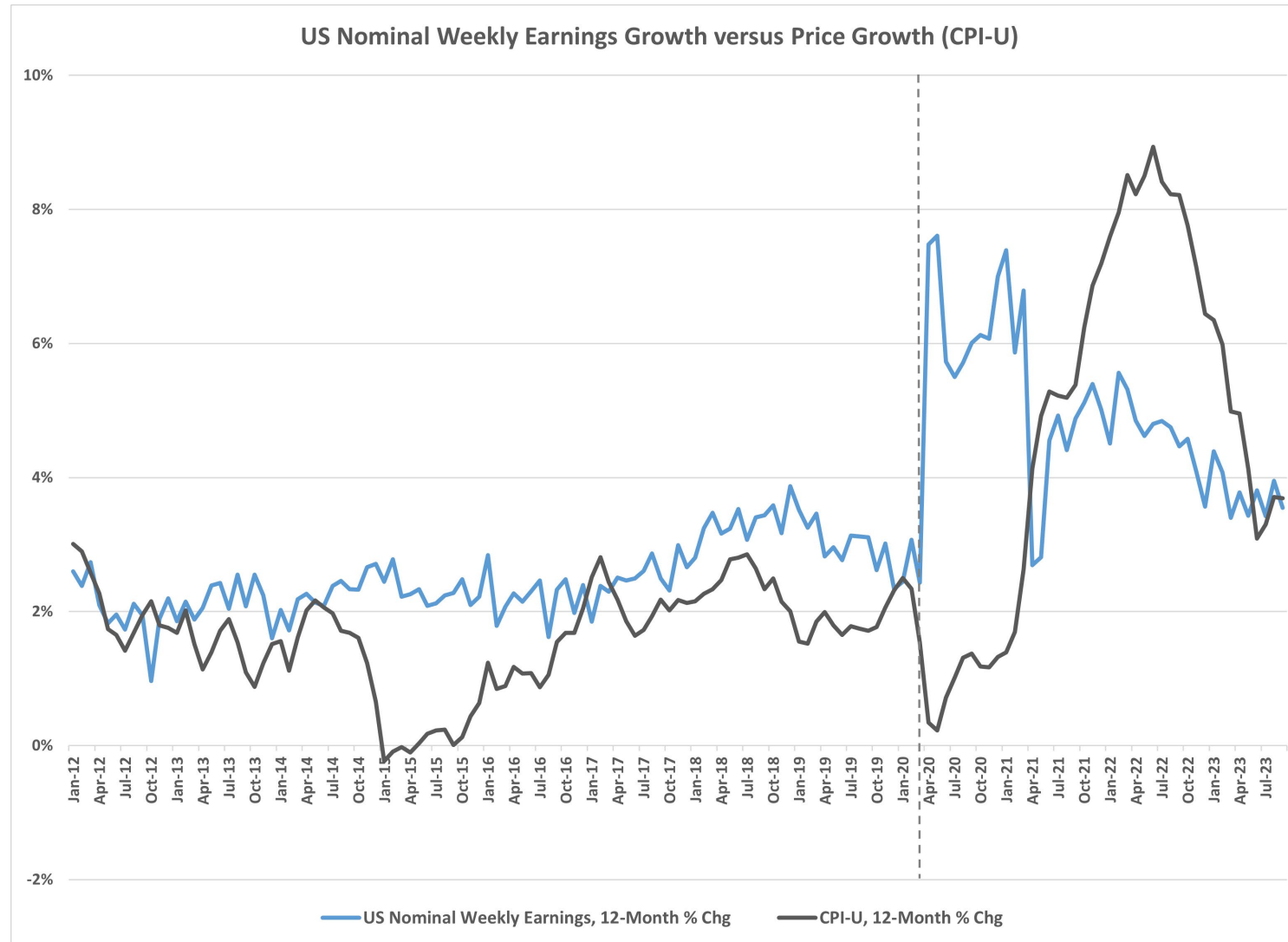
Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics; BPDA Research Division Analysis

The CPI-U we're using here is more volatile than “core” targeted by policy



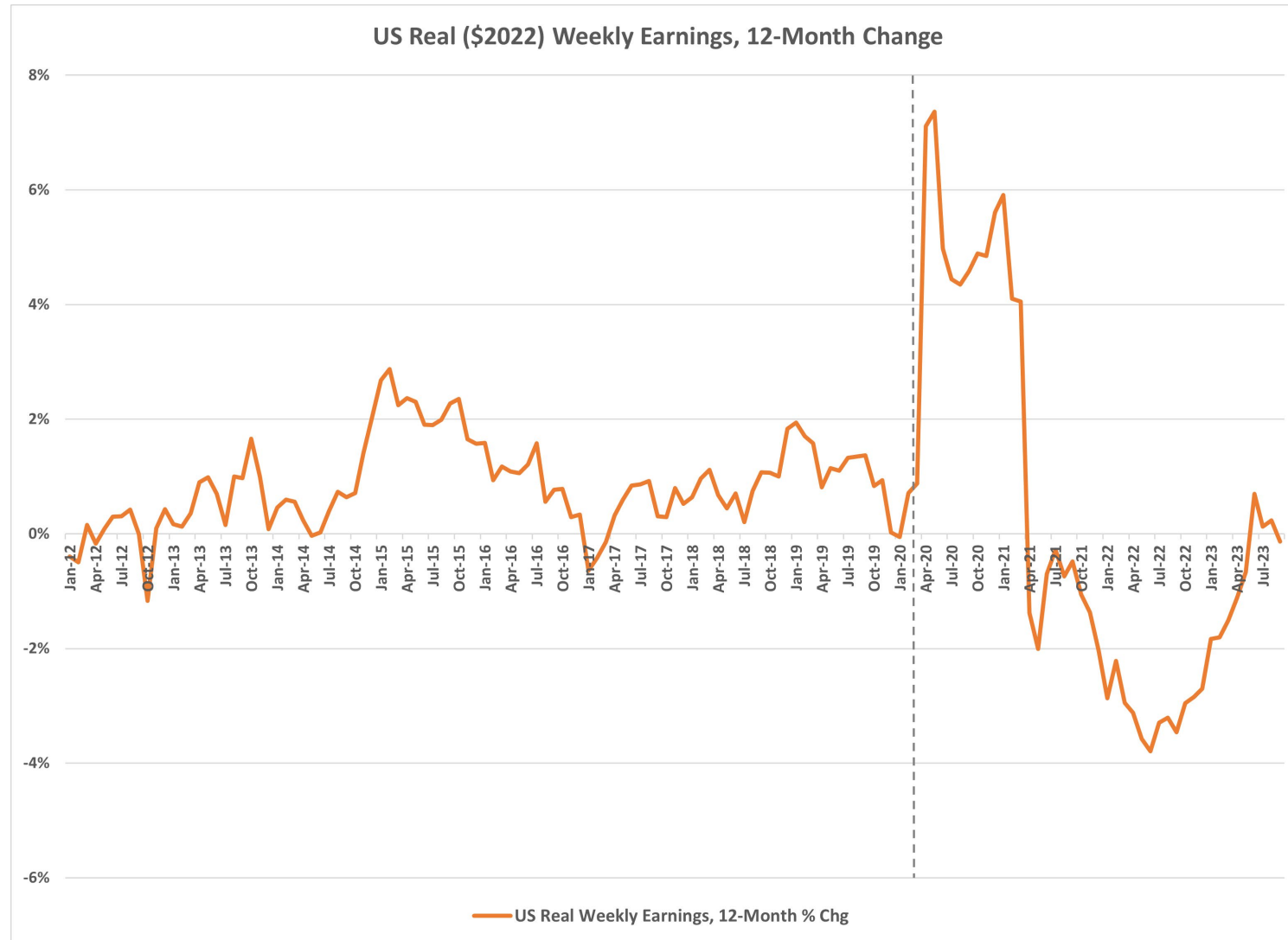
Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics; BPDA Research Division Analysis

The race between nominal wage and price growth:



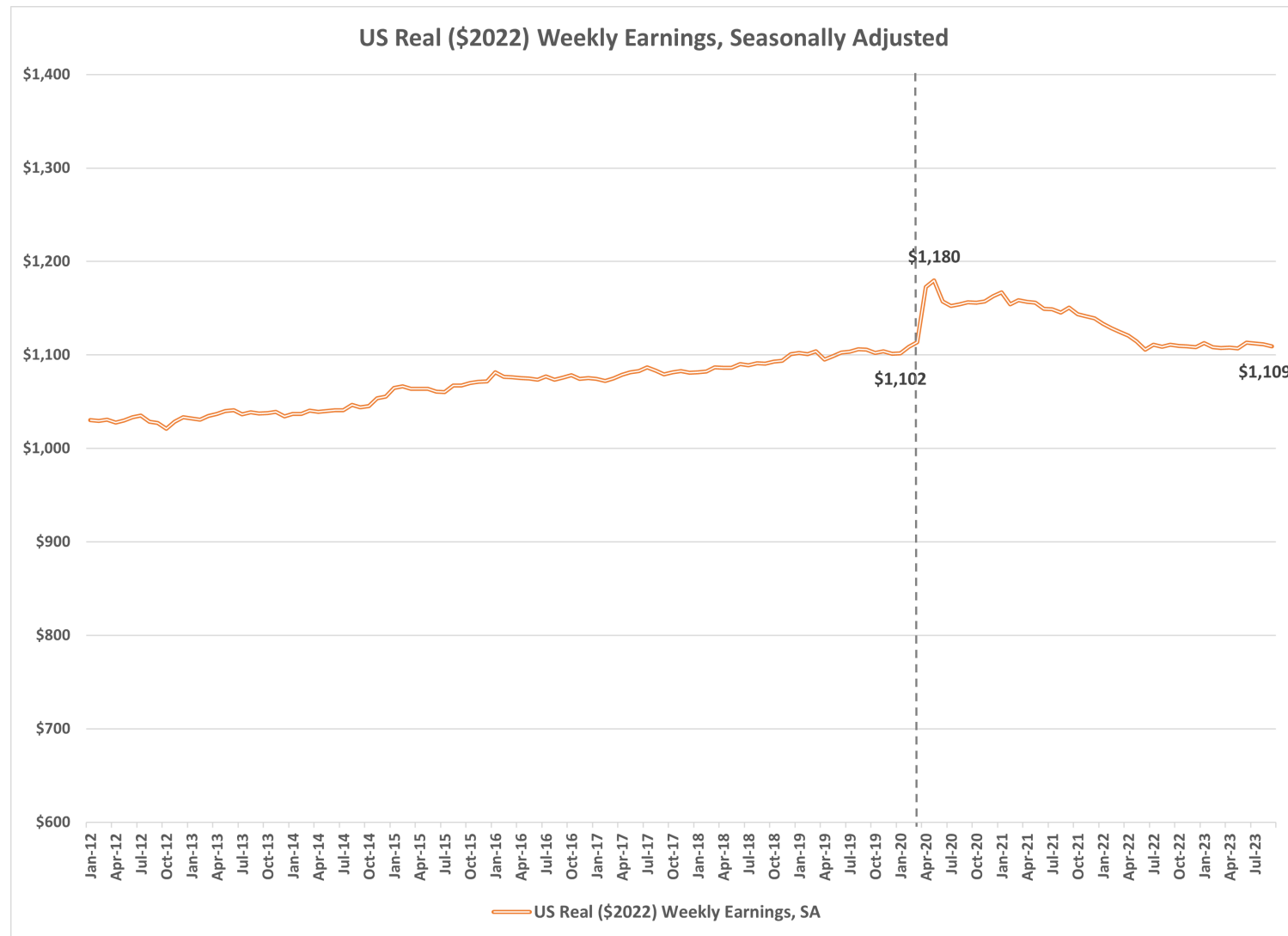
Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics; BPDA Research Division Analysis

Which together tell us the path of real wage growth:



Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics; BPDA Research Division Analysis

An answer to our question! When did real average weekly wages peak?

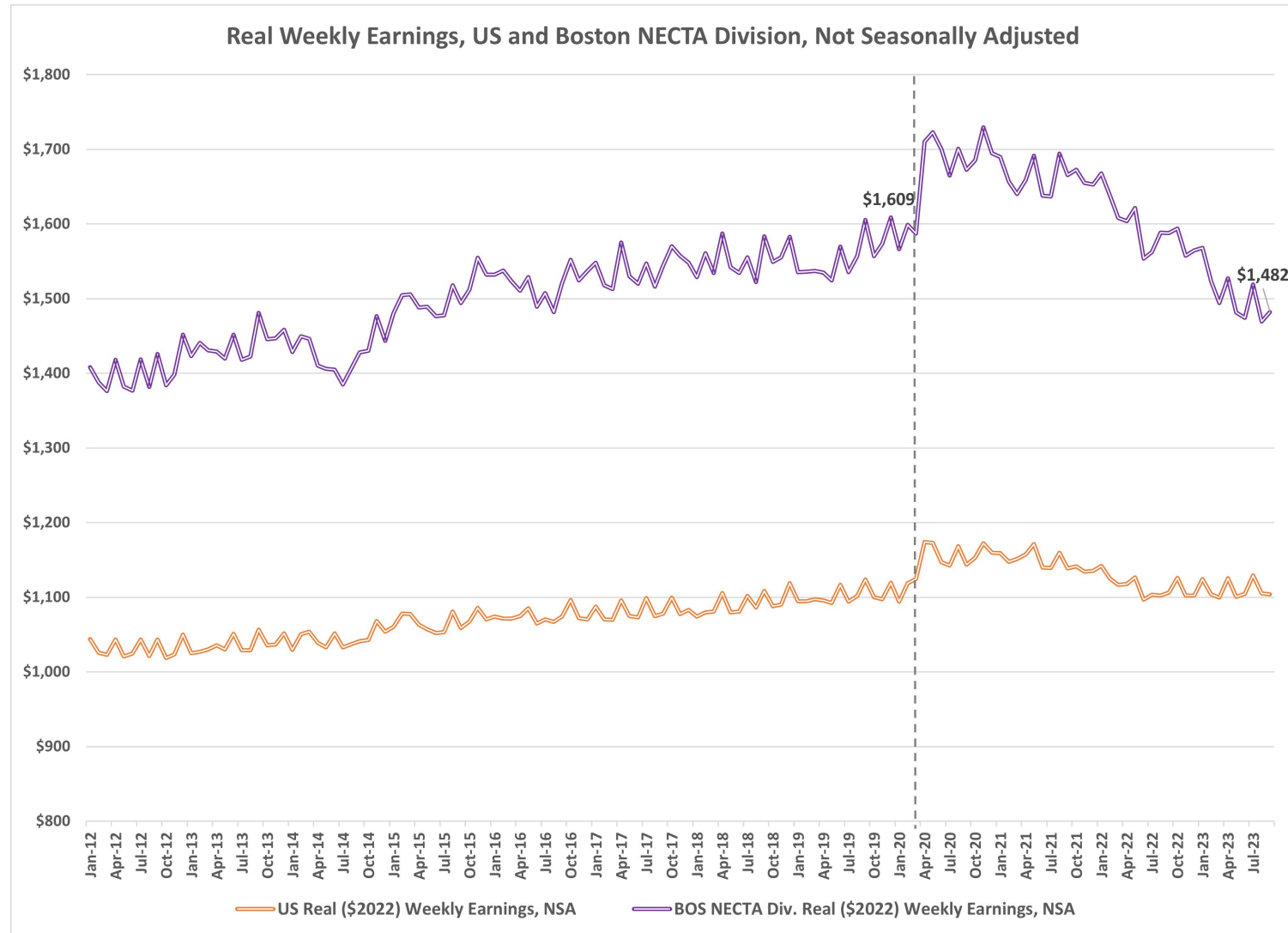


Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics; BPDA Research Division Analysis

What can we learn from average weekly real wage data?

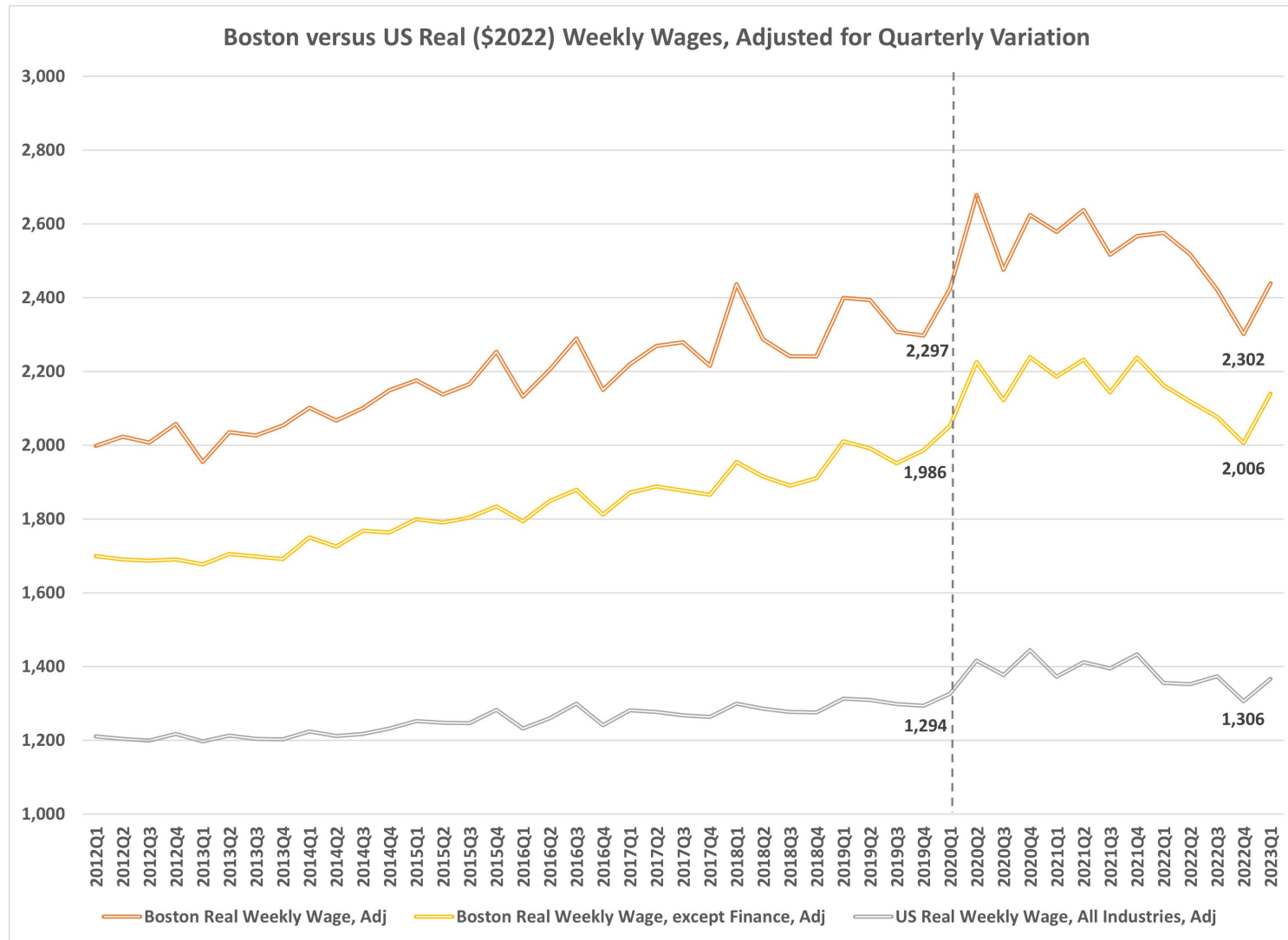
- The compositional challenge confounded short-run analysis of real weekly wages
- But as we saw at the beginning – full employment is back!
- So can have more confidence that September 2023 wage of \$1,109 reasonably comparable to \$1,102 of January 2020.

Boston NECTA Division has fallen a little below pre-pandemic level



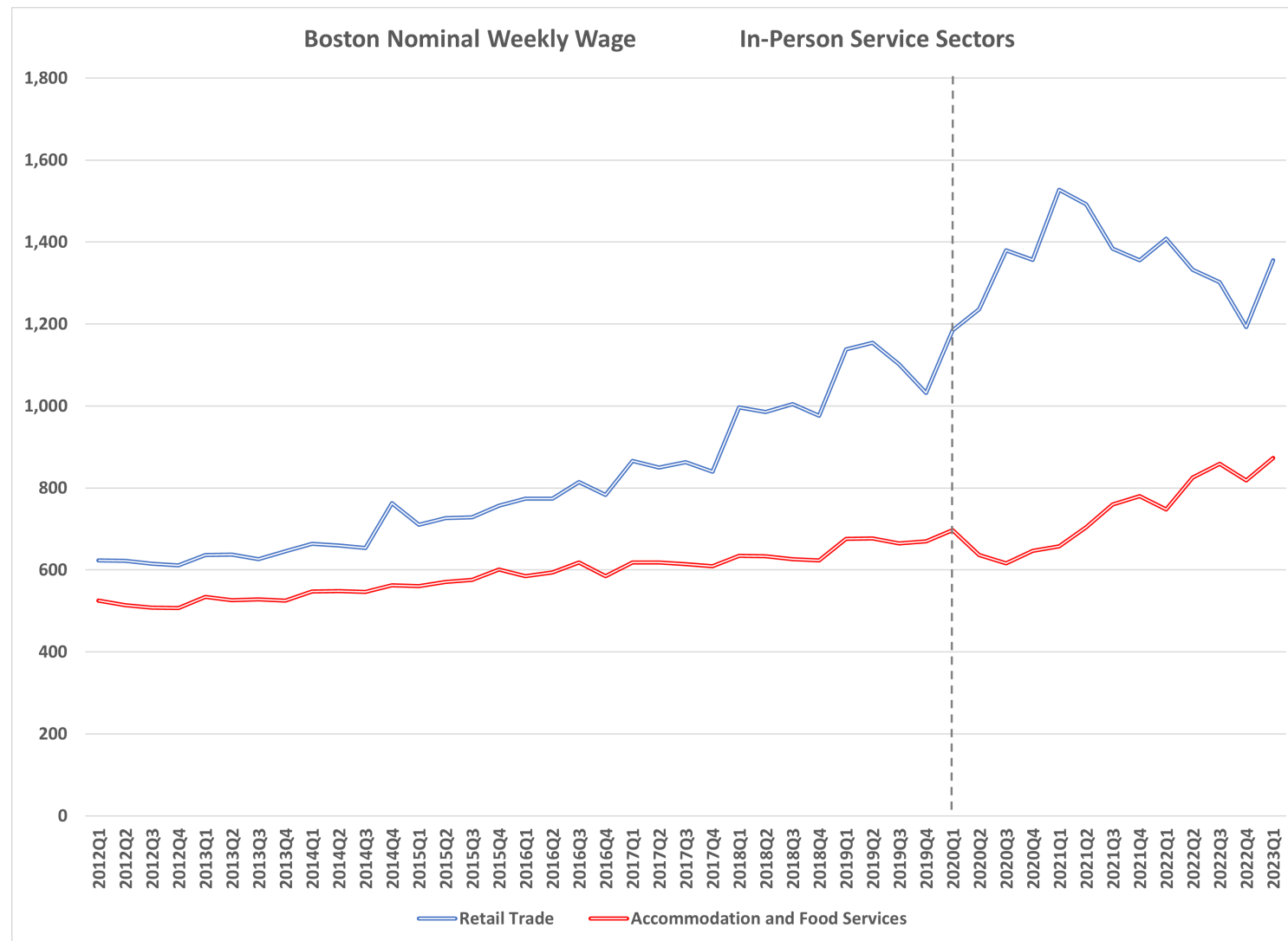
Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics; BPDA Research Division Analysis

Average real wages at jobs located in Boston roughly at pre-pandemic level

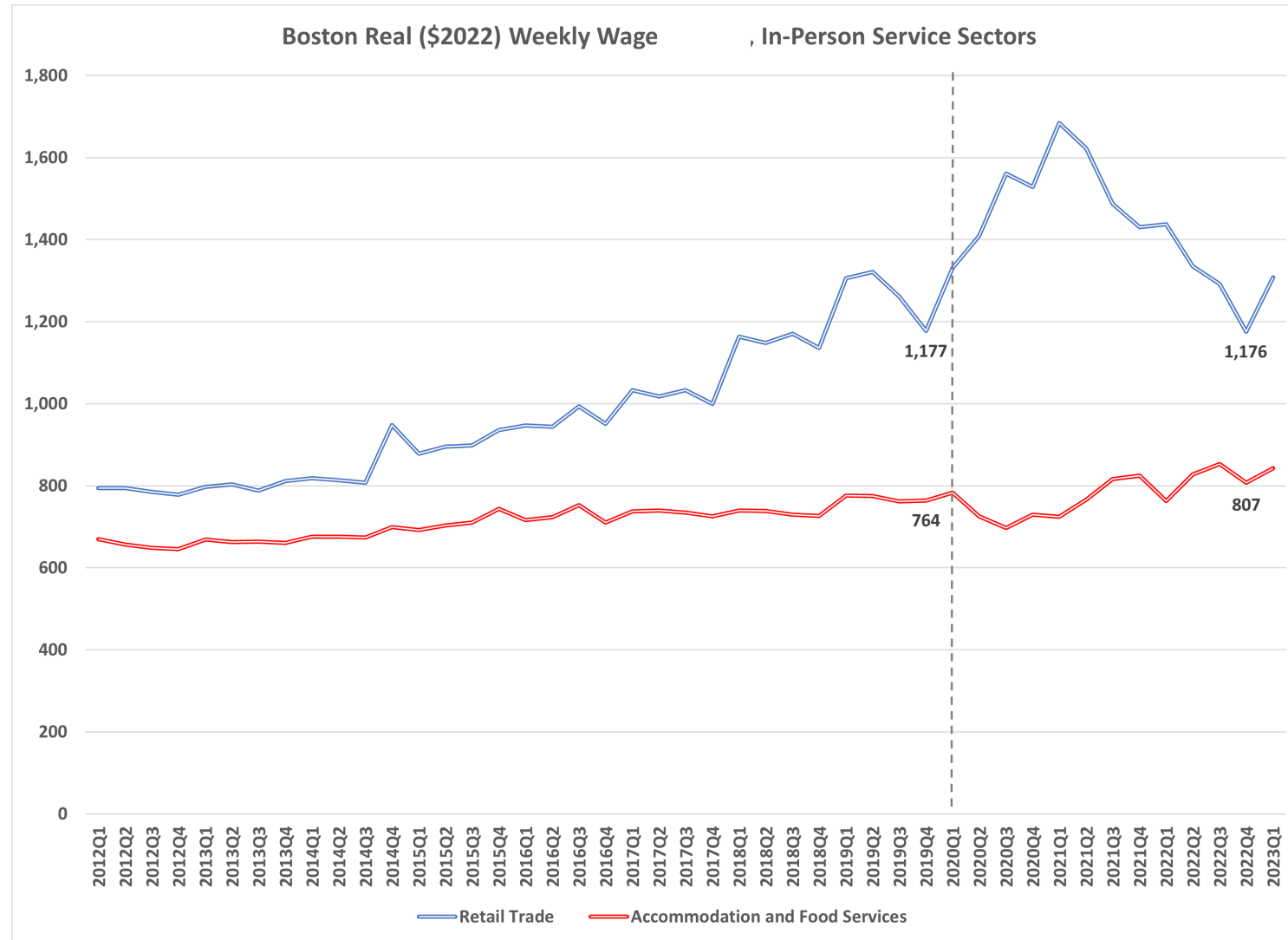


Source: Massachusetts Executive Office of Labor and Workforce Development (EOLWD), Quarterly Census of Employment and Wages (QCEW); BPDA Research Division Analysis

Nominal wages grew in in-person service sectors post-pandemic



Some evidence of real wage growth in accommodation and food services



Source: Massachusetts Executive Office of Labor and Workforce Development (EOLWD), Quarterly Census of Employment and Wages (QCEW); BPDA Research Division Analysis

III.

Alternative Measures of Wage Growth



Two measures to help overcome the compositional challenge

Employment Cost Index (ECI)

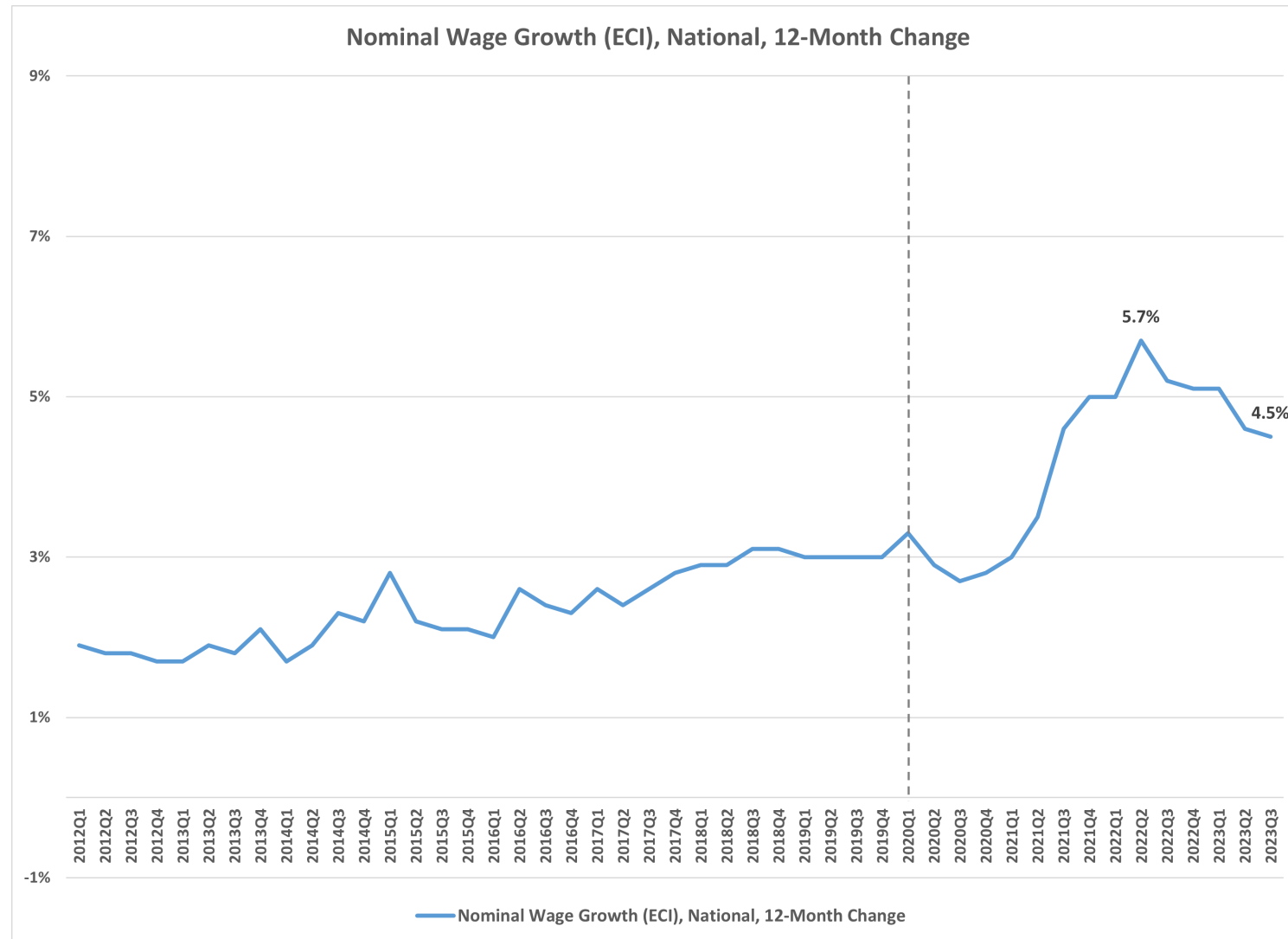
- National, survey-based measure that holds “basket of labor” fixed and asks how the cost of hiring changes over time
- Helpful for employers in wage-setting. Helpful for policymakers in understanding wage pressures.
- In evaluating real wage changes over longer time horizons you may or may not want to hold job composition of labor market fixed

Two measures to help overcome the compositional challenge

Atlanta Fed Wage Tracker

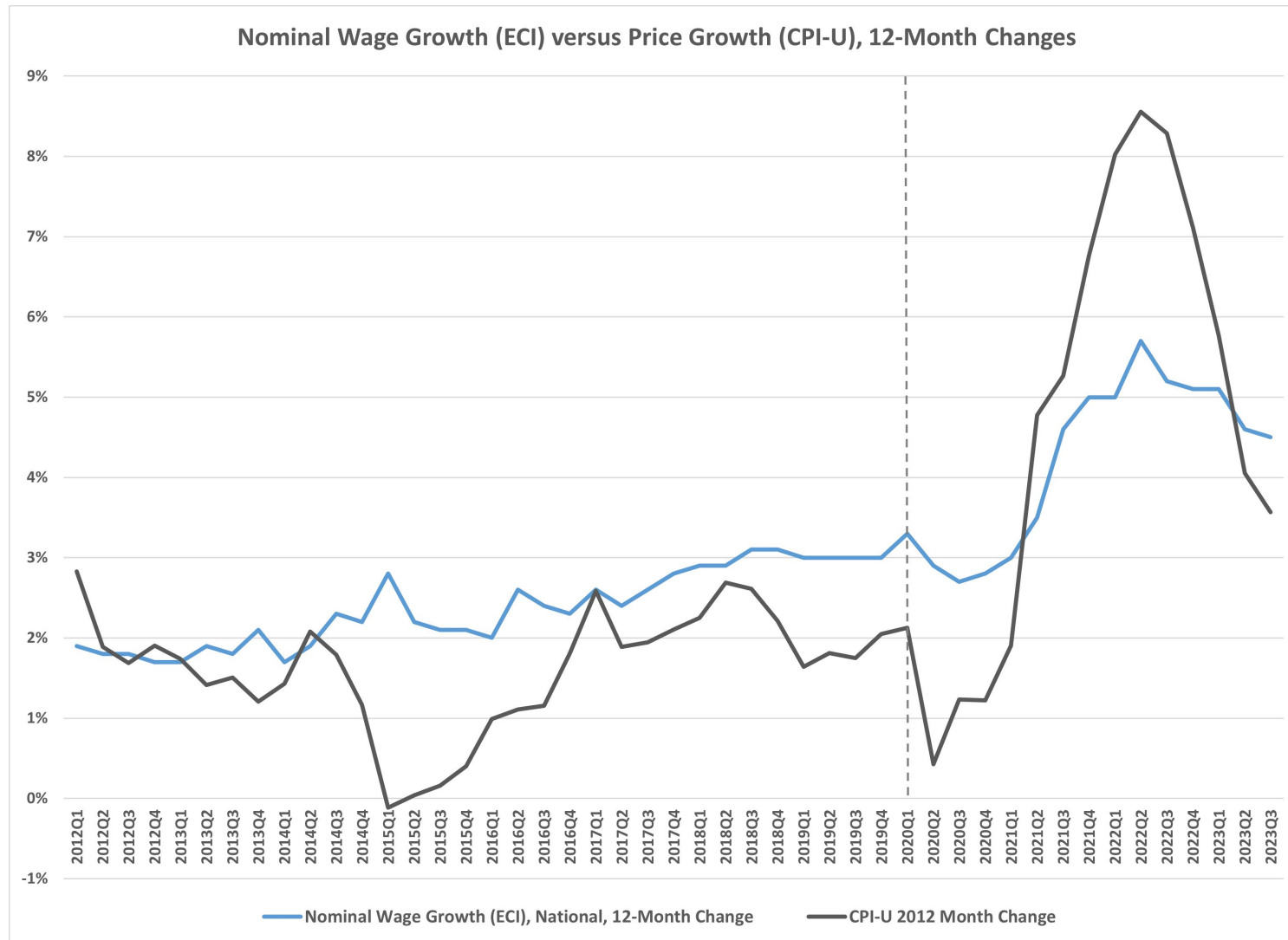
- Uses national Current Population Survey (CPS) to measure actual individual-level wage gains over prior 12-months
- Able to see distribution of wage gains and break down by demographics or job attributes
- Tracks wage gains of those in the labor market in both periods – large and important subset of the labor market, but misses some

Employment Cost Index (ECI) shows nominal wage growth peaked in 2022, but still high



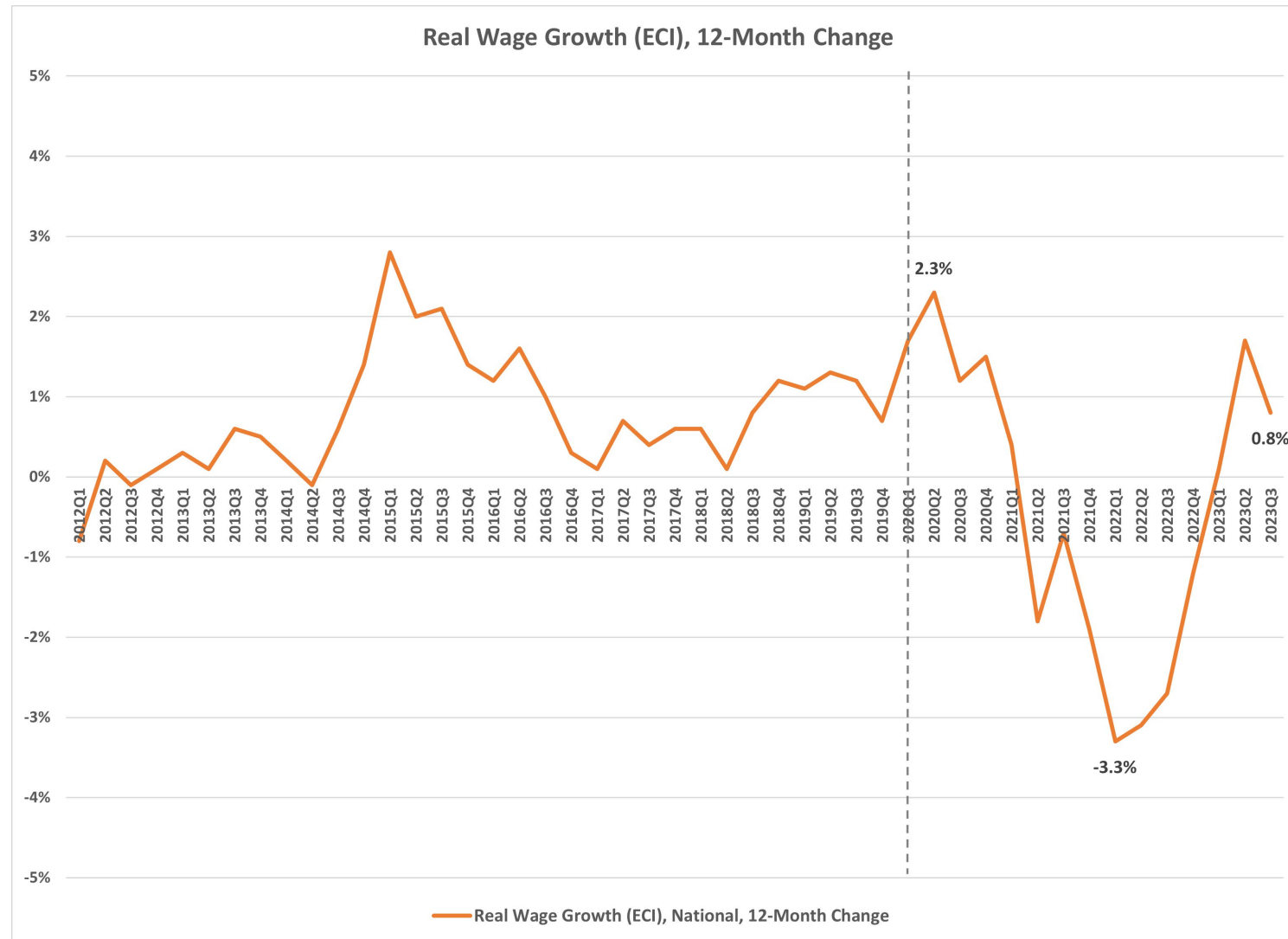
Source: U.S. Bureau of Labor Statistics, Employment Cost Index; BPDA Research Division Analysis

That peak coincided with even more rapid price growth



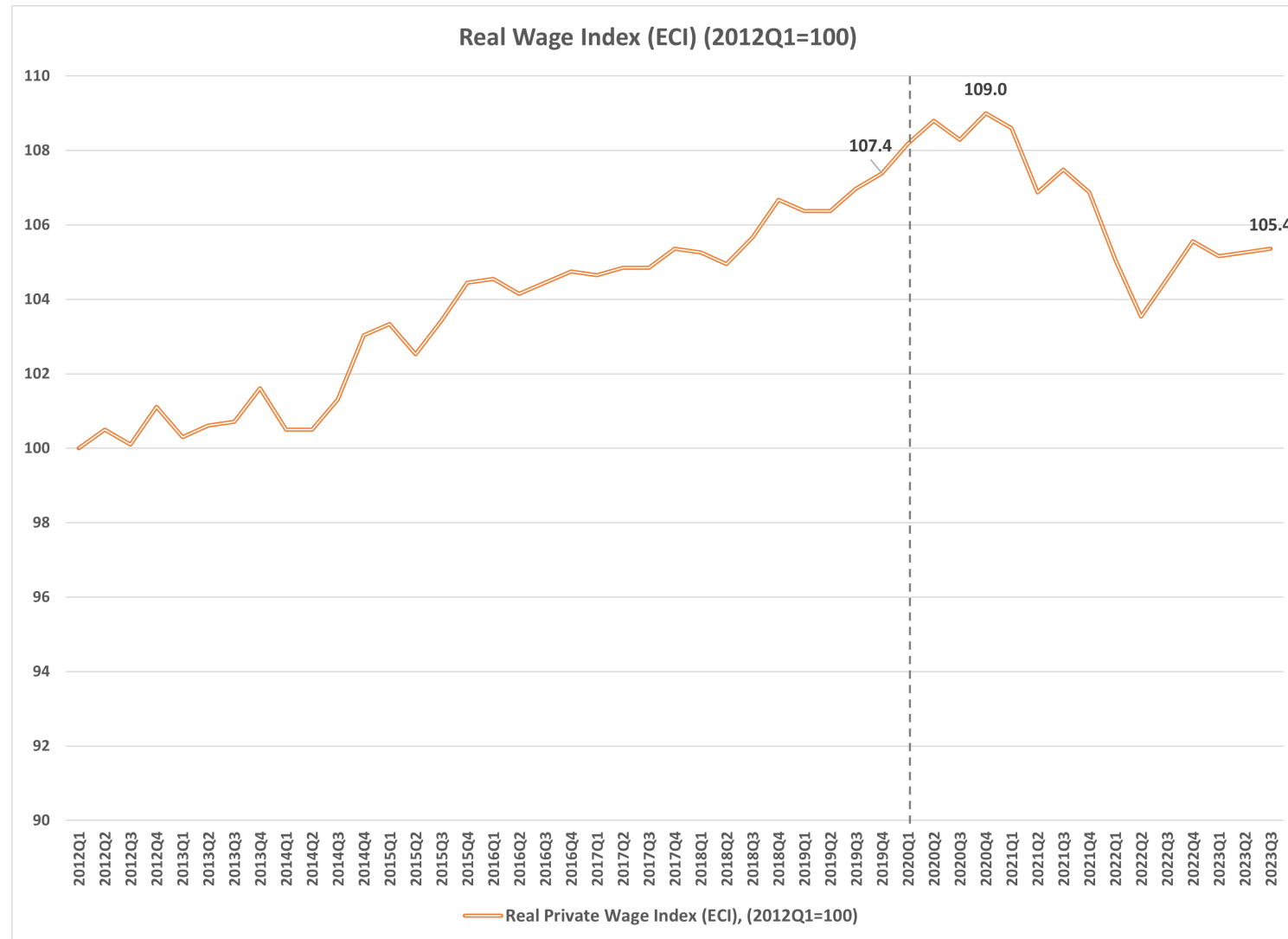
Source: U.S. Bureau of Labor Statistics, Employment Cost Index; BPDA Research Division Analysis

Which means real wages were shrinking during that time



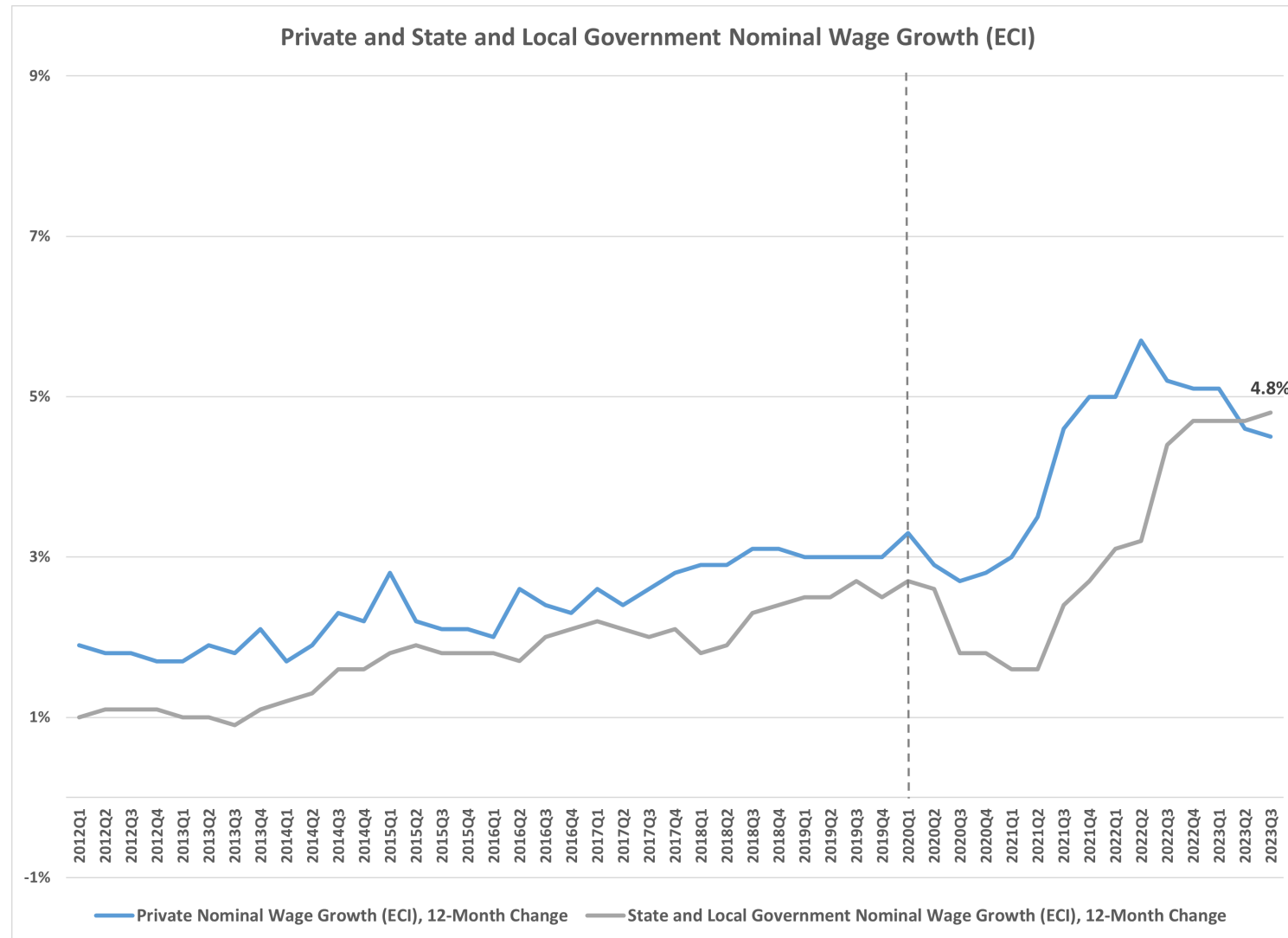
Source: U.S. Bureau of Labor Statistics, Employment Cost Index; BPDA Research Division Analysis

ECI shows real wages a little below pre-pandemic level



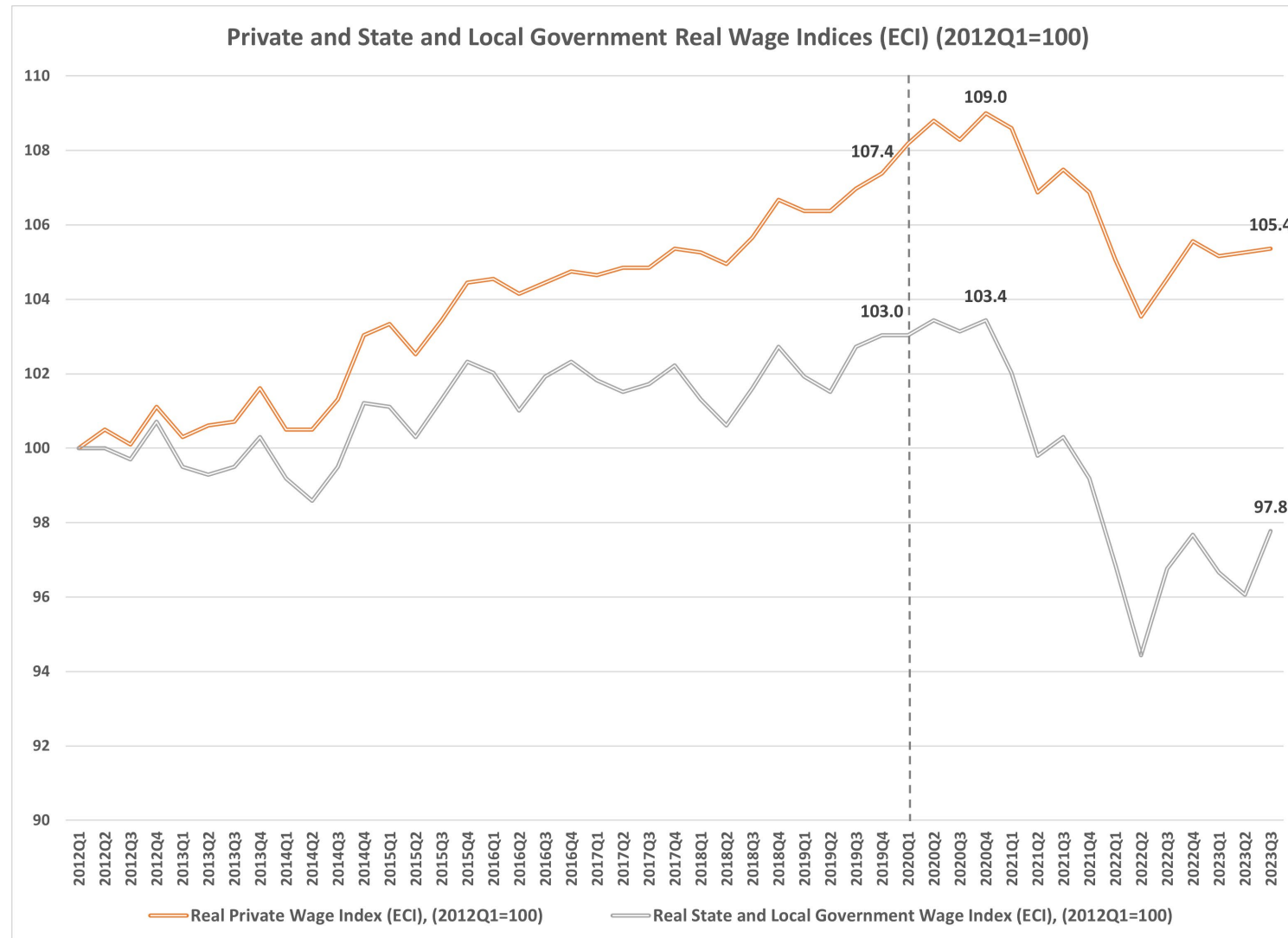
Source: U.S. Bureau of Labor Statistics, Employment Cost Index; BPDA Research Division Analysis

Government workers saw fewer wage gains early in pandemic



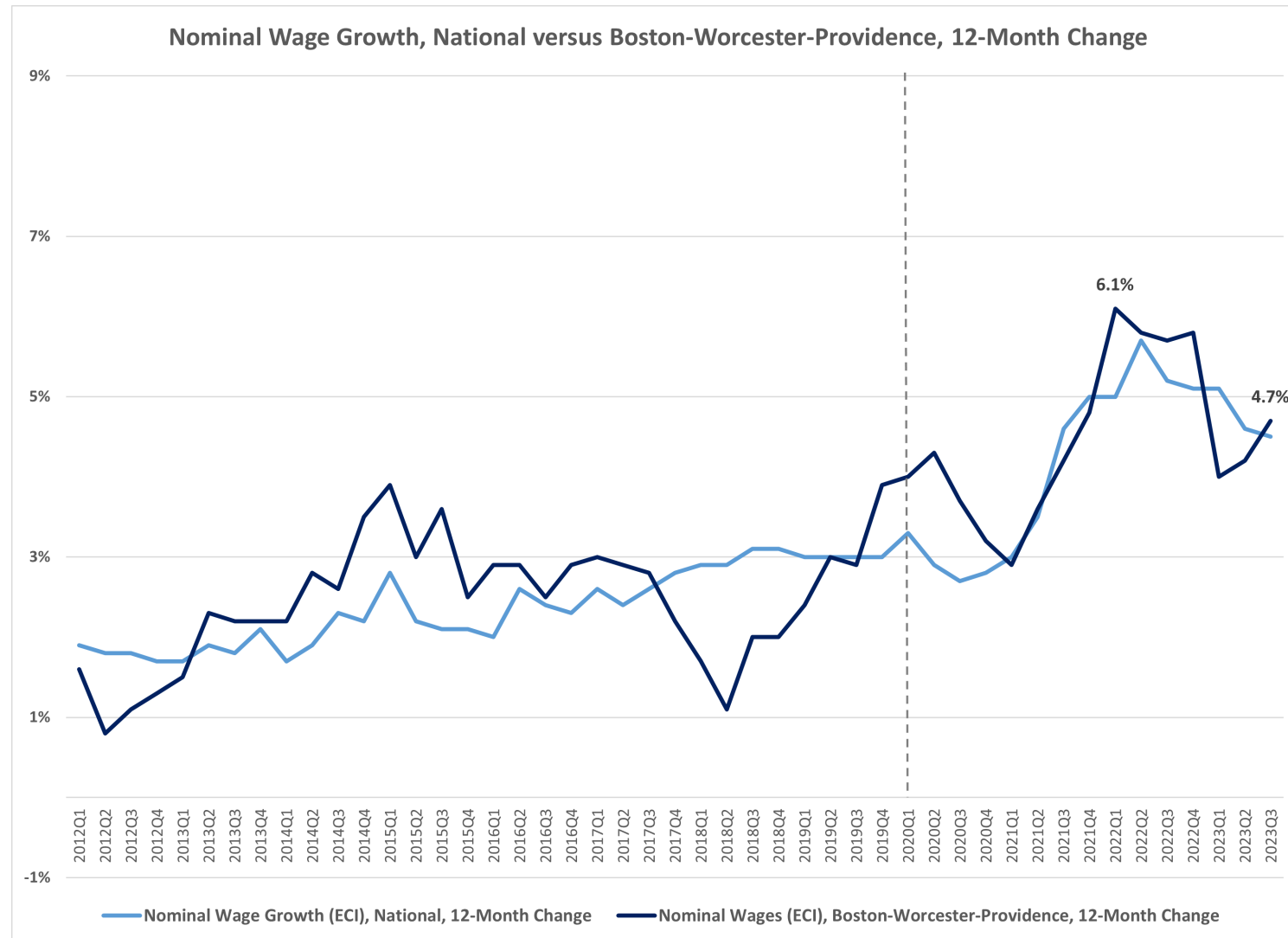
Source: U.S. Bureau of Labor Statistics, Employment Cost Index; BPDA Research Division Analysis

Government wages now have lower buying power than 2012



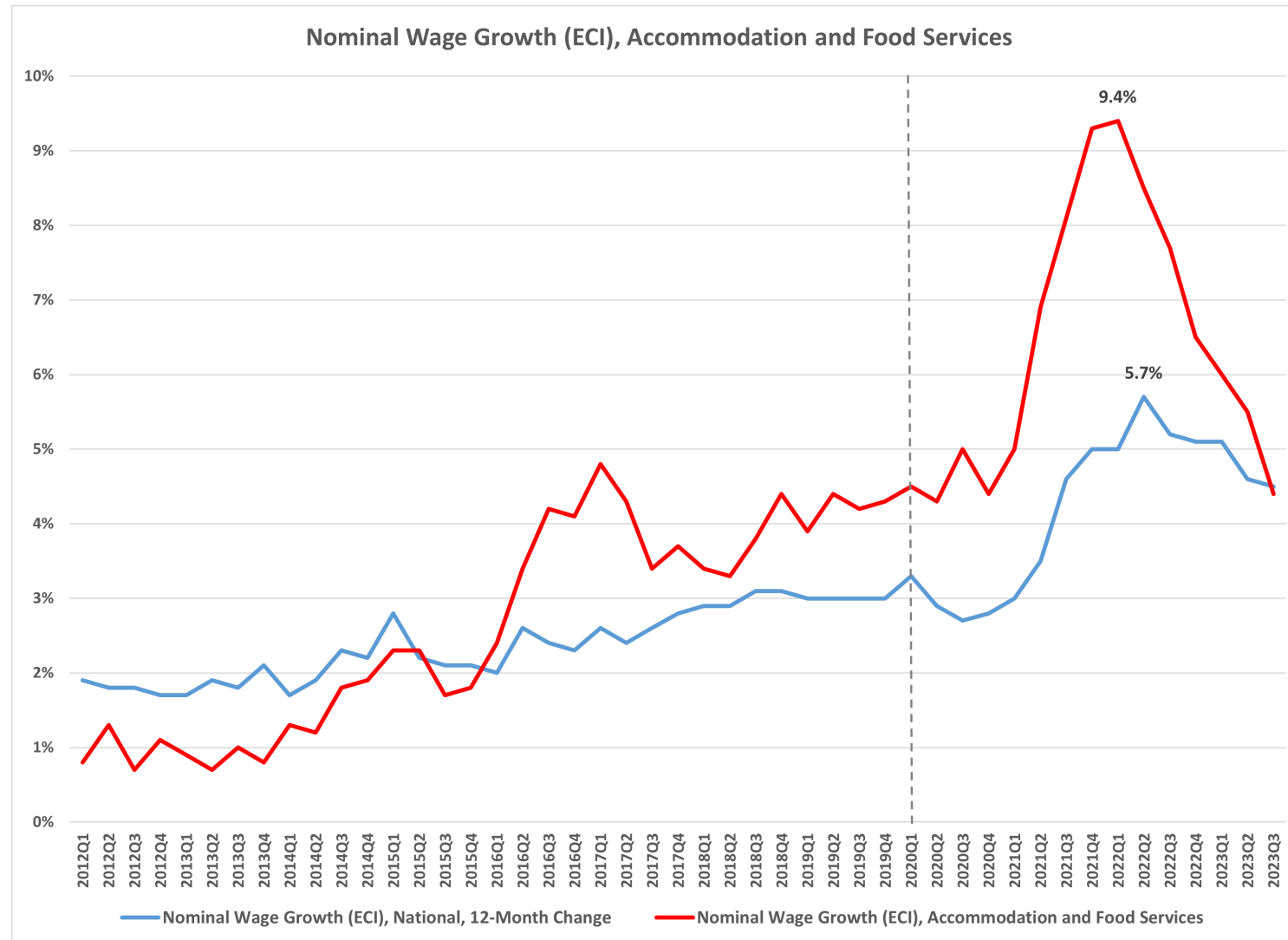
Source: U.S. Bureau of Labor Statistics, Employment Cost Index; BPDA Research Division Analysis

ECI wage growth similar nationally and regionally



Source: U.S. Bureau of Labor Statistics, Employment Cost Index; BPDA Research Division Analysis

Particularly rapid nominal growth in accommodation and food services



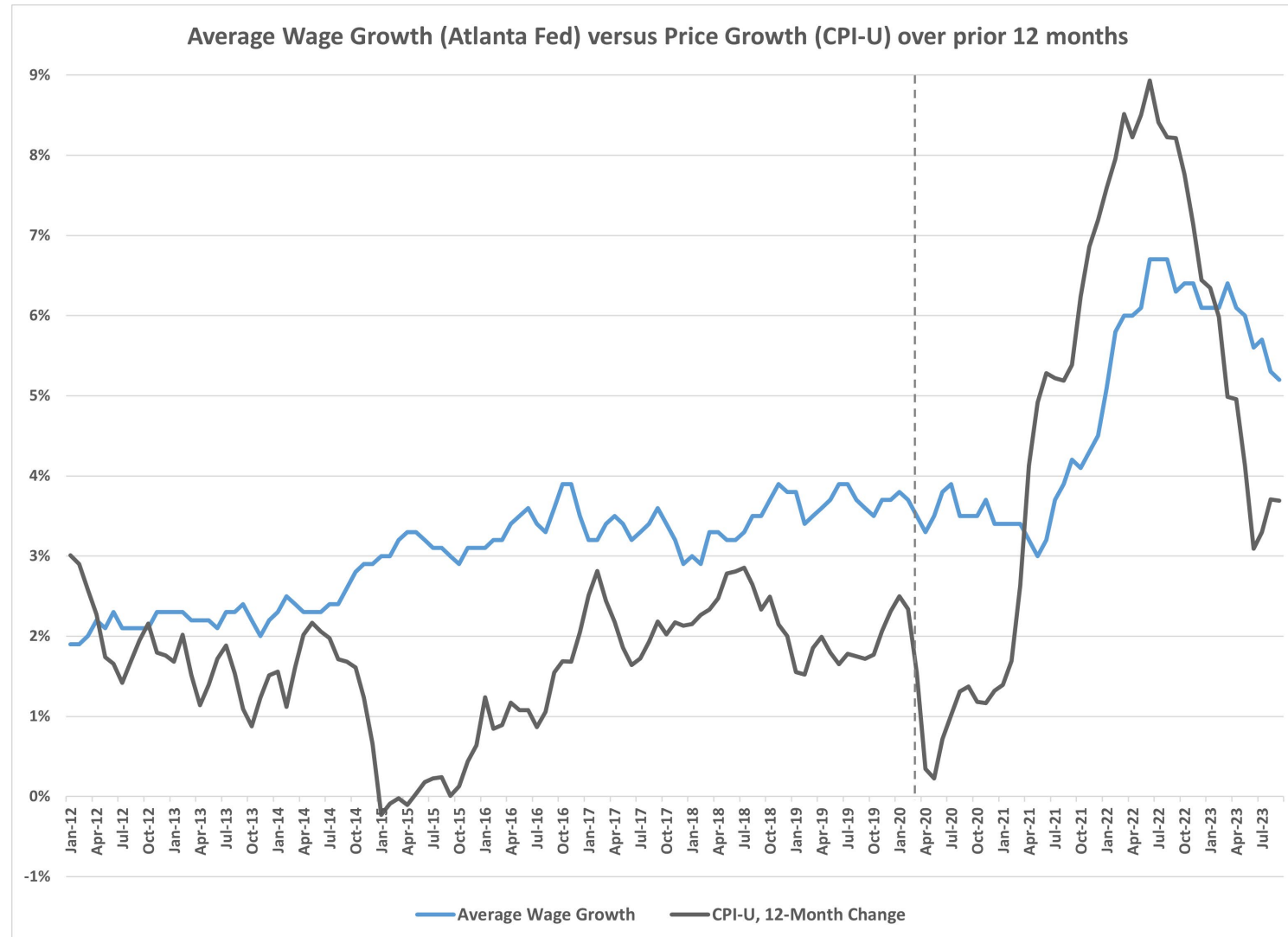
Source: U.S. Bureau of Labor Statistics, Employment Cost Index; BPDA Research Division Analysis

Atlanta Fed Wage Growth Tracker – similar nominal growth pattern to ECI



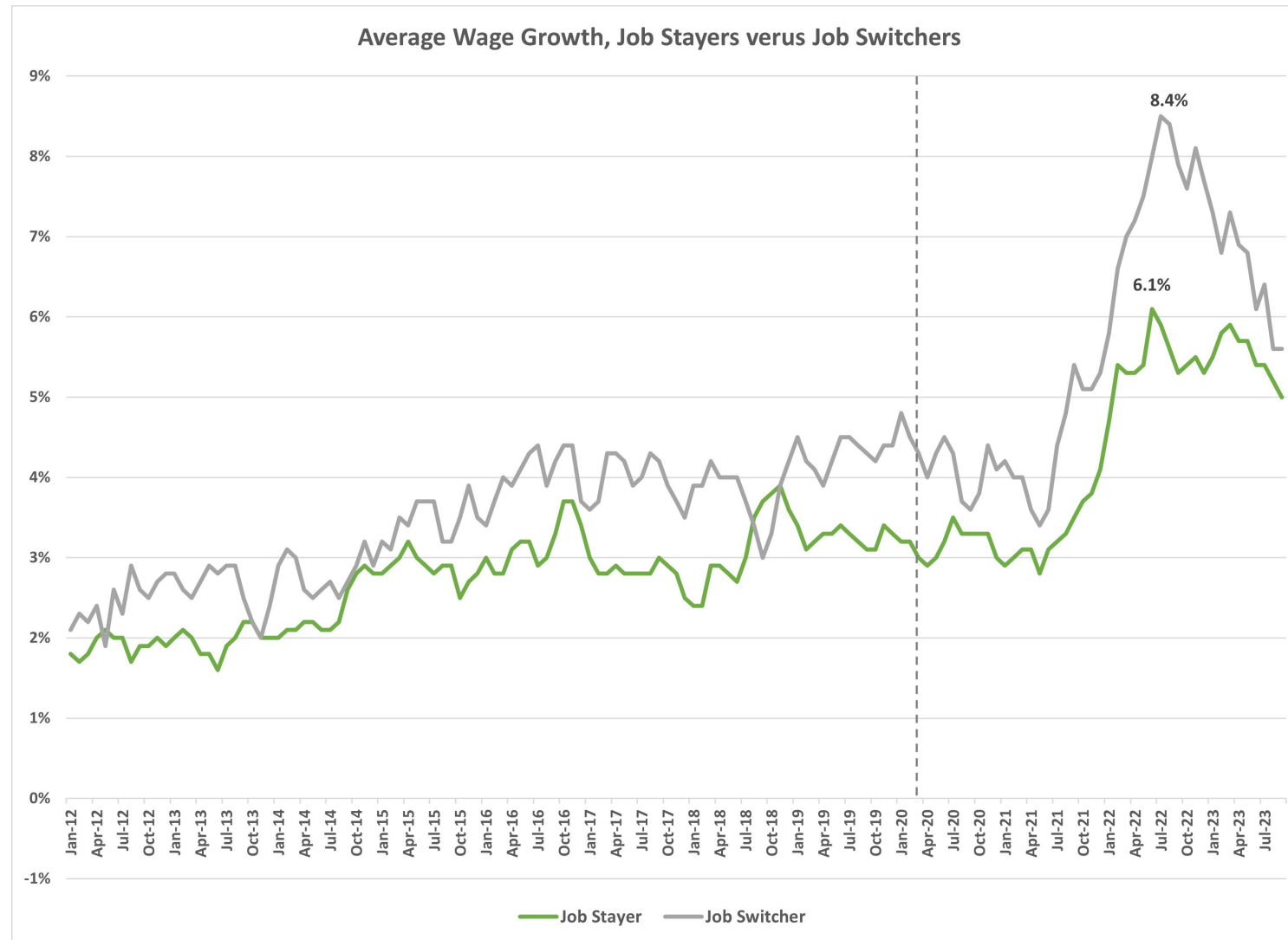
Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker: <https://www.atlantafed.org/chcs/wage-growth-tracker>

Inflation was winning in 2021 and 2022 – but better news in 2023



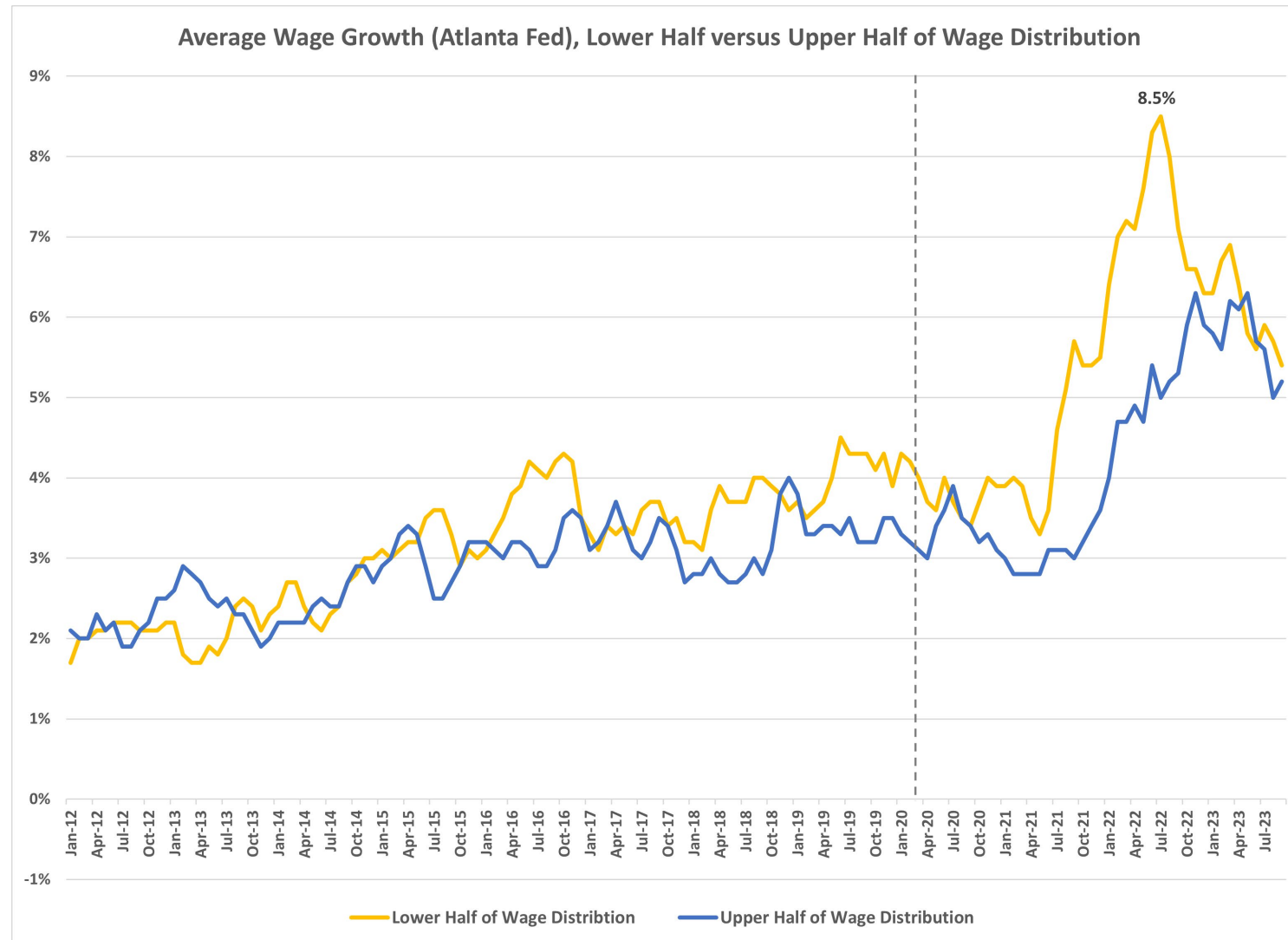
Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker: <https://www.atlantafed.org/chcs/wage-growth-tracker>

Particularly large gains for job switchers



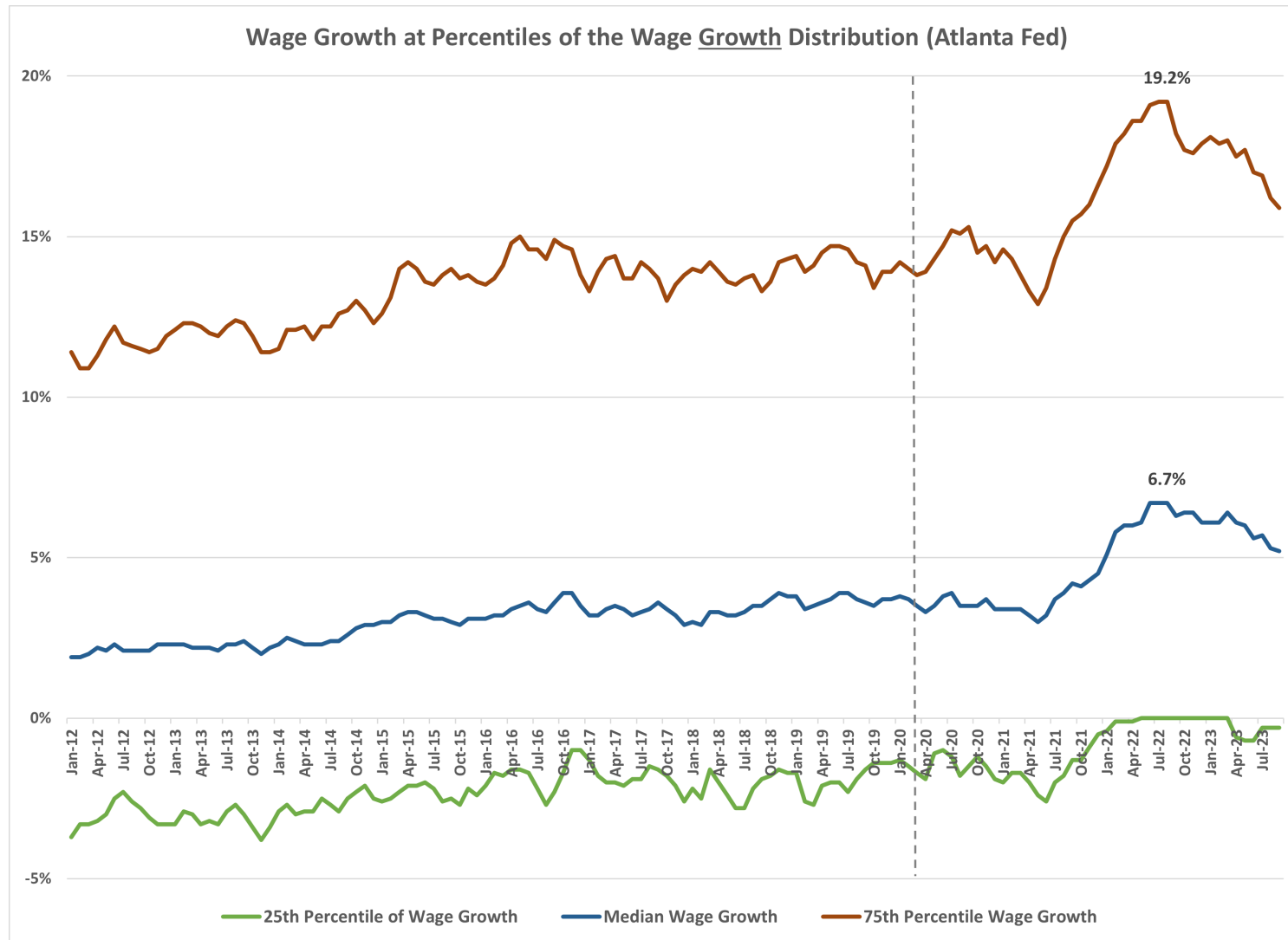
Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker: <https://www.atlantafed.org/chcs/wage-growth-tracker>

Stronger growth for bottom half of the wage distribution



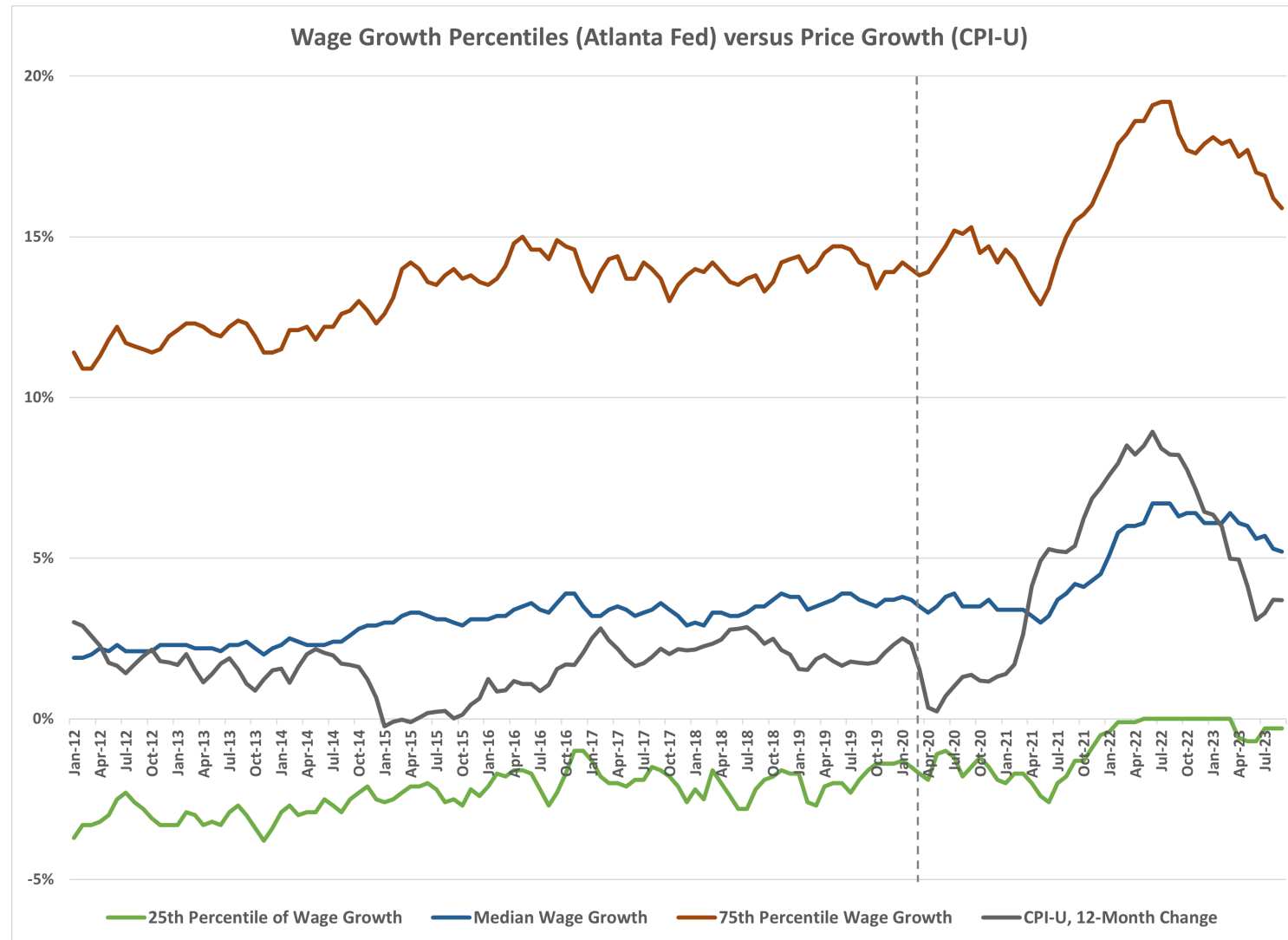
Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker: <https://www.atlantafed.org/chcs/wage-growth-tracker>

25% of workers saw wage increase of at least 19.2% between August 2021 and 2022!



Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker: <https://www.atlantafed.org/chcs/wage-growth-tracker>

Inflation eclipsed median wage growth throughout 2021 & 2022



Source: Federal Reserve Bank of Atlanta, Wage Growth Tracker: <https://www.atlantafed.org/chcs/wage-growth-tracker>

What have we learned?

- ECI and Atlanta Fed measures show rapid nominal wage growth in 2021 and 2022, but eclipsed by CPI growth
- May 2020 no longer looks like the best month on record
- Atlanta Fed Tracker highlights heterogeneity – even if average real wage roughly the same as pre-pandemic many for whom it is much higher or lower
- As we move away from the immediate pandemic compositional challenge our interest turns back towards real wage data that allows employment patterns to evolve over time

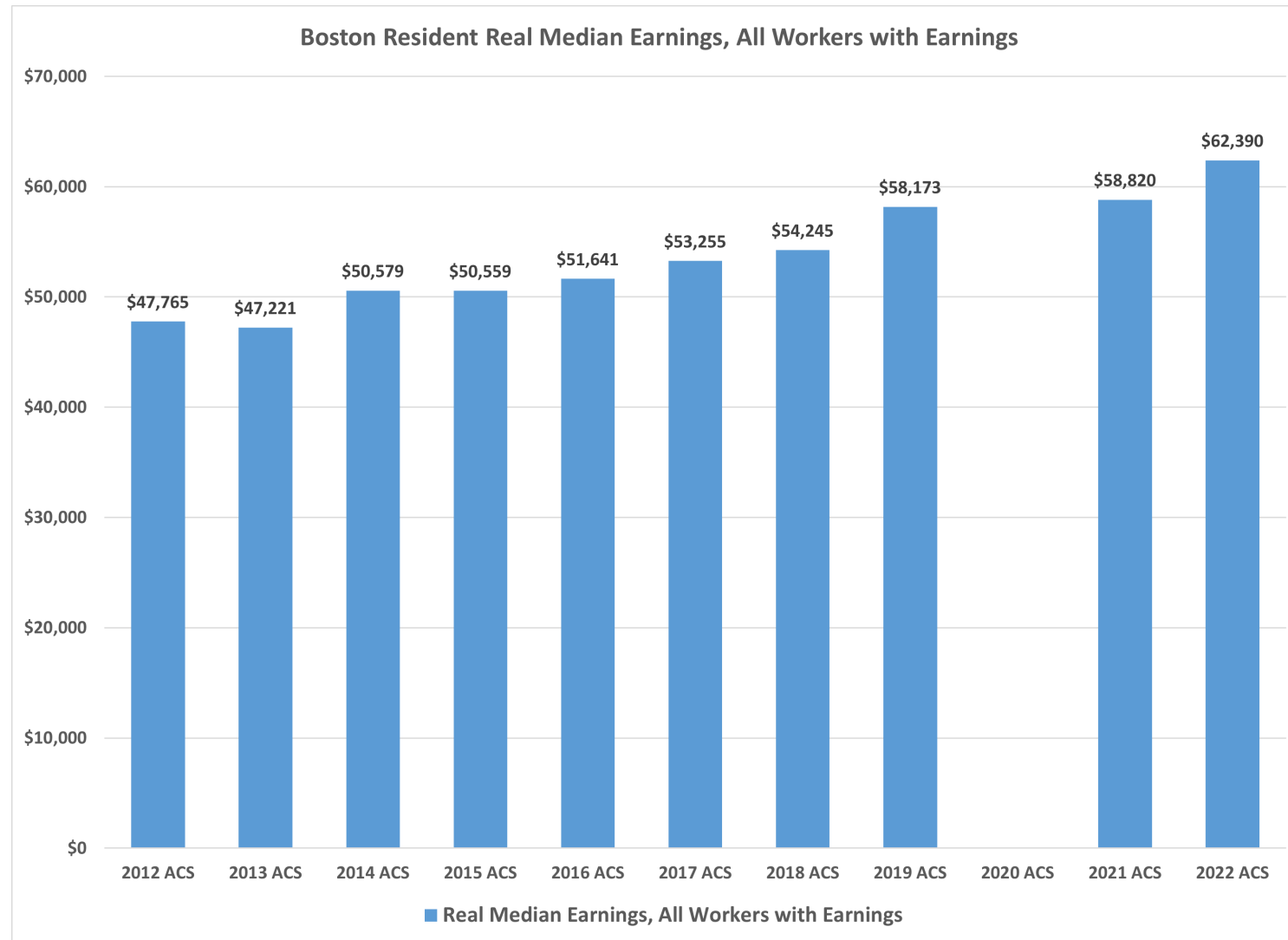
IV.

Boston Resident Economic Well-Being



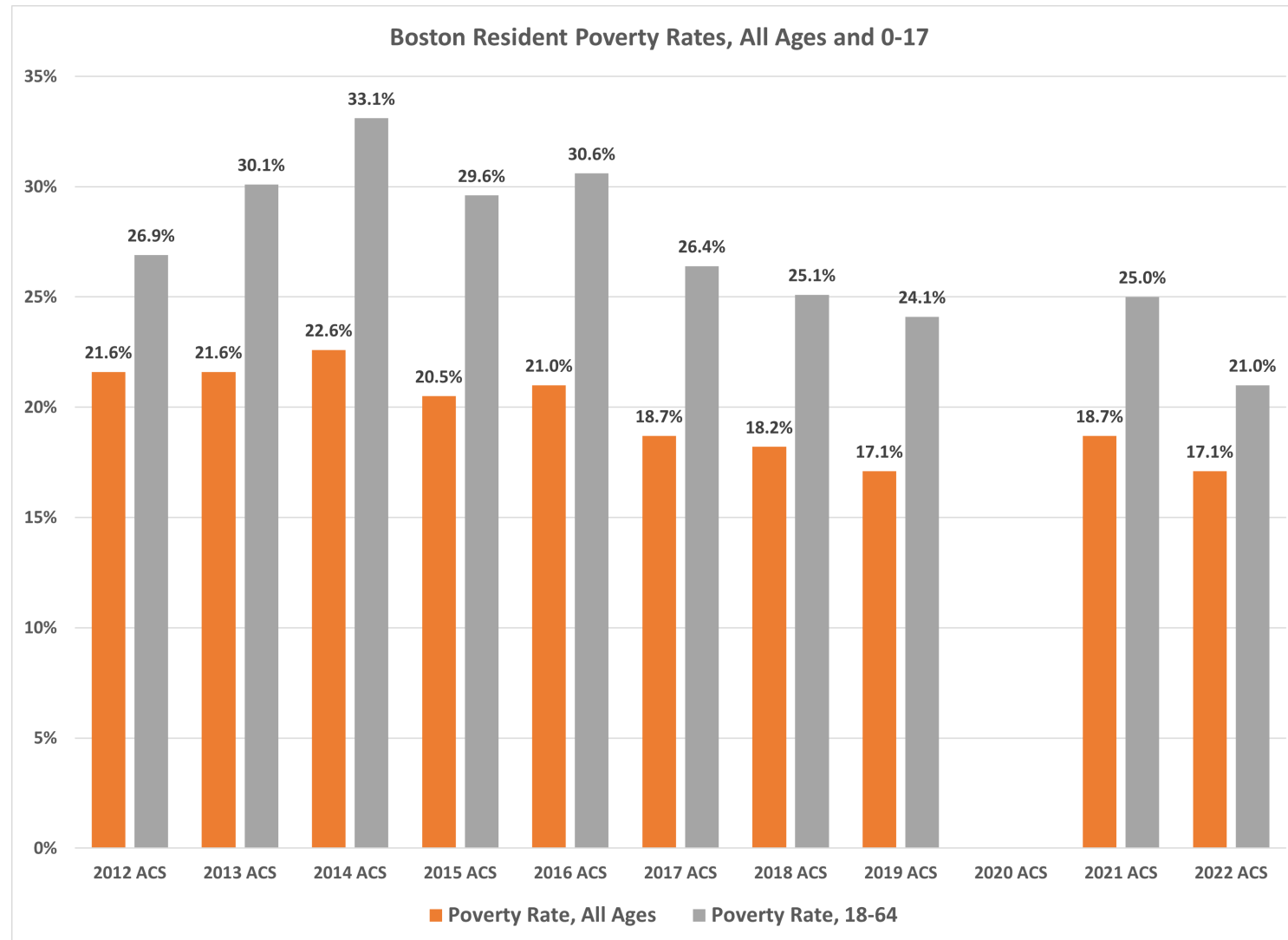
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Growth in average real earnings for residents looks strong in post-pandemic data so far



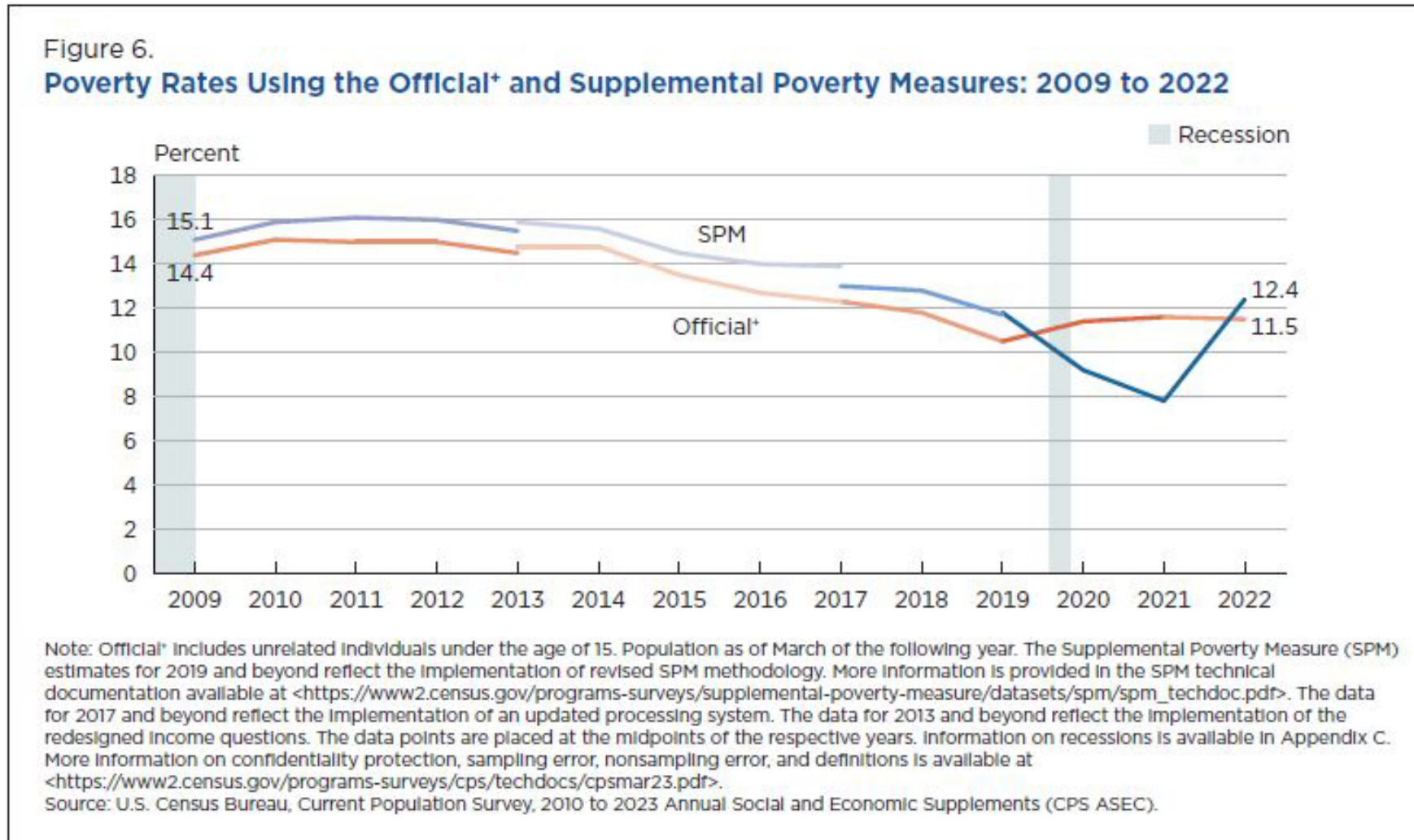
Source: U.S. Census Bureau, 2012-2022 1-year American Community Surveys; BPDA Research Division Analysis

2022 American Community Survey shows drops in poverty



Source: U.S. Census Bureau, 2012-2022 1-year American Community Surveys; BPDA Research Division Analysis

But the biggest impact on true resource poverty came from the government

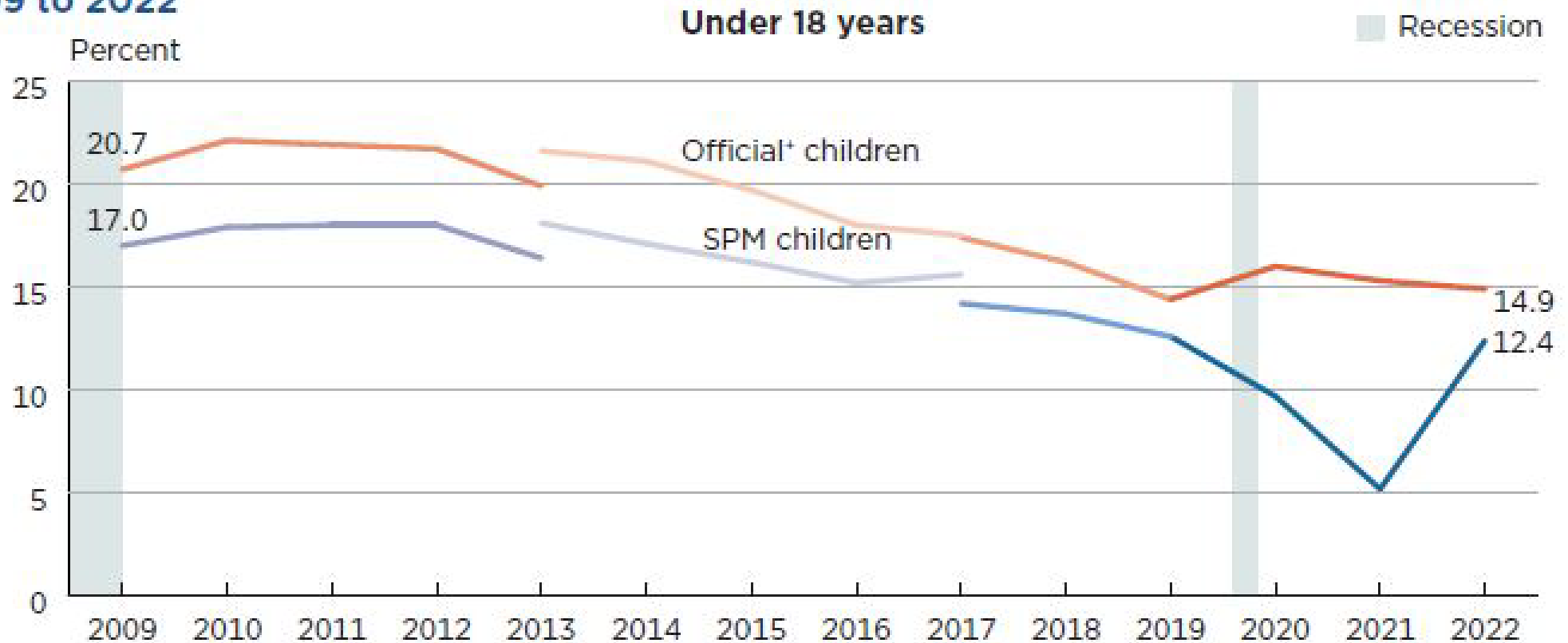


Source: Emily Shrider and John Creamer (U.S. Census Bureau), Poverty in the United States: 2022.
<https://www.census.gov/content/dam/Census/library/publications/2023/demo/p60-280.pdf>

Child tax credit cut (true) child poverty to 5% (nationally) – poverty rose after expiration

Figure 8.

**Poverty Rates Using the Official* and Supplemental Poverty Measures by Age Group:
2009 to 2022**



Source: Emily Shrider and John Creamer (U.S. Census Bureau), Poverty in the United States: 2022.
<https://www.census.gov/content/dam/Census/library/publications/2023/demo/p60-280.pdf>

A few takeaways

- A lot of volatility of wages and prices over the past 3-plus years
- In the end, *on average*, buying power looks to be about where it was at the end of 2019
- Wage growth probably a little stronger towards the bottom of the income distribution – labor market tightness important for this group
- Macroeconomic policy continues to offer complex tradeoffs
- Real wages only one piece of economic well-being – other policies (like child tax credit!) have had important impacts post-pandemic