

The Mismeasurement of America

Methodological Appendix

September 12, 2025

The purpose of this appendix is to describe the method and computation for the various analyses, case studies and examples featured in *The Mismeasurement of America: How Outdated Government Statistics Mask the Economic Struggle of Everyday America*. Specifically, this document focuses on the quantitative research conducted solely for the purposes of the book, at the time of writing. As a result, this appendix does not cover the methodology nor the data for LISEP's national metrics on unemployment (True Rate of Unemployment), earnings (True Weekly Earnings), cost of living (True Living Cost and Minimal Quality of Life) and income (Shared Economic Prosperity). These metrics are periodically updated on LISEP's website, where their methodologies and data can be publicly accessed.¹

Chapter 1: True Rate of Unemployment

Chapter 1 Erratum

Correction to endnote 29 (page 138): The original text states: "We use the 'whyptlw' (why part-time last week) variable to determine the 2023 percentages of part-time workers because of childcare obligations (3.48 percent) and because of childcare concerns (0.762 percent), or about 1.27 million workers."

This should be corrected to: "We use the 'whyptlw' (why part-time last week) variable to determine the 2023 percentages of part-time workers because of child care problems out of workers with part-time hours (3.51 percent) and out of all employed (0.743 percent), or about 1.23 million workers."

True Rate of Unemployment for Hispanic Women in Houston

The True Rate of Unemployment (TRU) calculations for the Hispanic women workforce in Houston case study follows the methodology used to compute the national TRU, applied to

¹ See <https://www.lisep.org/>.

a smaller geographic and demographic subset of the microdata.² The TRU measures the percent of workers in the labor force who are functionally unemployed. A worker is defined as functionally unemployed if they are unemployed, working part-time for economic reasons (meaning that they want to work full-time hours- at least 35 hours per week- but must settle for part-time hours), or earning poverty wages, defined as less than \$25,000 a year in January 2024 dollars.

LISEP uses publicly available microdata from the Current Population Survey's (CPS) Outgoing Rotation Group sample, which includes questions on pay and hours for wage and salaried workers, as well as the CPS Annual Social and Economic Sample (ASEC).³ The CPS Outgoing Rotation Group sample data is used to determine the functional unemployment status of wage and salaried workers as well as the proportion of self-employed workers in a given period. The CPS ASEC is used to determine the functional unemployment rate of self-employed workers in a given year. The CPS ASEC is conducted in March and released with an annual cadence, and the survey provides relevant supplemental data on employment and income referring to the preceding year.⁴ Workers' earnings are adjusted for inflation using the Consumer Price Index for All Urban Consumers.⁵

To identify workers in the Houston metropolitan statistical area in the CPS Outgoing Rotation Group sample, LISEP used the *gtcbasa* variable code 26420. It used the same code to identify self-employed workers in the Houston area for the ASEC sample sourced directly from the Census Bureau. For the ASEC sample sourced from IPUMS CPS, LISEP used the *metfips* variable with the code 26420 for the 2004-2017 period (or the 2005 ASEC through the 2018 ASEC) and the code 03360 for the 2000-2003 period (or the 2001 ASEC through the 2004 ASEC). Likewise, LISEP identified Hispanic female workers using the demographic variables for sex and Hispanic origin.

To determine whether a worker is earning a poverty wage, LISEP annualizes weekly earnings and adjusts them to January 2024 dollars. For self-employed workers reporting

² See the full methodology on <https://www.lisep.org/tru>.

³ Following the procedure for the national metric at the time of writing, CPS Outgoing Rotation Group data accessed from the Census Bureau was used for the entire period covered in this example (2000-2023). CPS ASEC data for 2000-2017 was accessed through IPUMS CPS and through the Census Bureau for 2018-2022. Sarah Flood et al., "Integrated Public Use Microdata Series, Current Population Survey: Version 11.0," 2023, accessed April 29, 2024, <https://doi.org/10.18128/D030.V11.0>.

⁴ See the technical documentation for the Annual Social and Economic Supplement (ASEC) for a given year on <https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.html>.

⁵ U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CPIAUCSL>, June 5, 2025.

how much they earned in the previous year in the ASEC sample, LISEP follows the procedure for the TRU and adjusts their earnings to January 2024 dollars using the CPI for June of the relevant year. This serves to determine whether a self-employed worker earned a poverty wage in the preceding year. Since LISEP calculates an annual average TRU in this case, the functional unemployment rate for self-employed workers reflects the entire year, rather than being tied to June as it is in the monthly national TRU release.⁶

To summarize, the TRU is computed as:

$$W - (SE \text{ ratio}) * (SE \text{ functional employment rate})$$

where

W = proportion of the labor force who is either self-employed or a functionally unemployed wage earner, computed from the outgoing rotation groups in the CPS Basic Monthly. Since functional unemployment for wage or salaried workers is determined using earner study questions, the proportion is computed using the person-level weight *earnwt*.

$SE \text{ ratio}$ = proportion of the labor force who is self-employed, computed using the final person-level weight *wtfintl*. LISEP uses *wtfintl* rather than *earnwt* to compute the proportion of the labor force that are self-employed since neither the class of worker nor the labor force status variables involve earner study variables.

$SE \text{ functional employment rate}$ = proportion of the self-employed workers who meet the stipulations for functional employment, calculated using the CPS ASEC supplement with the person-level weight *asecwt*.

Finally, since the TRU calculation for the Hispanic Women in Houston example was conducted in April 2024, before the release of the 2024 ASEC covering 2023 data, the functional unemployment rate for self-employed workers for 2023 was estimated as the same value as the 2022 rate. This follows the procedure LISEP employs for the national monthly TRU releases given the lag in publishing the ASEC sample. Including the 2023 ASEC data would have resulted in a 35.5% TRU for Hispanic Women in Houston and 23.2% for Houston overall rather than the 34.2% and 23.9% as published in the book.

⁶ See the “Linear Interpolation for Self-Employed” subsection under the TRU methodology for a discussion of this choice.

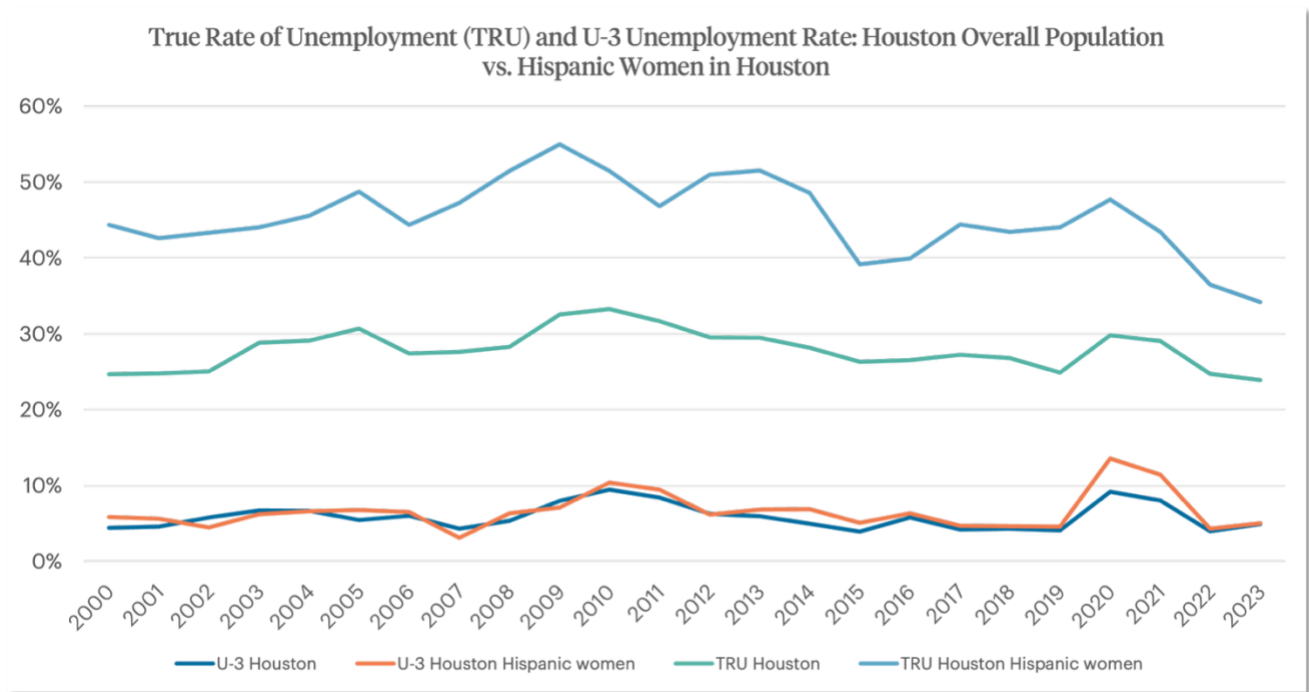


Figure 1: True Rate of Unemployment and U-3 Unemployment Rate: Houston Overall vs. Houston Hispanic Women

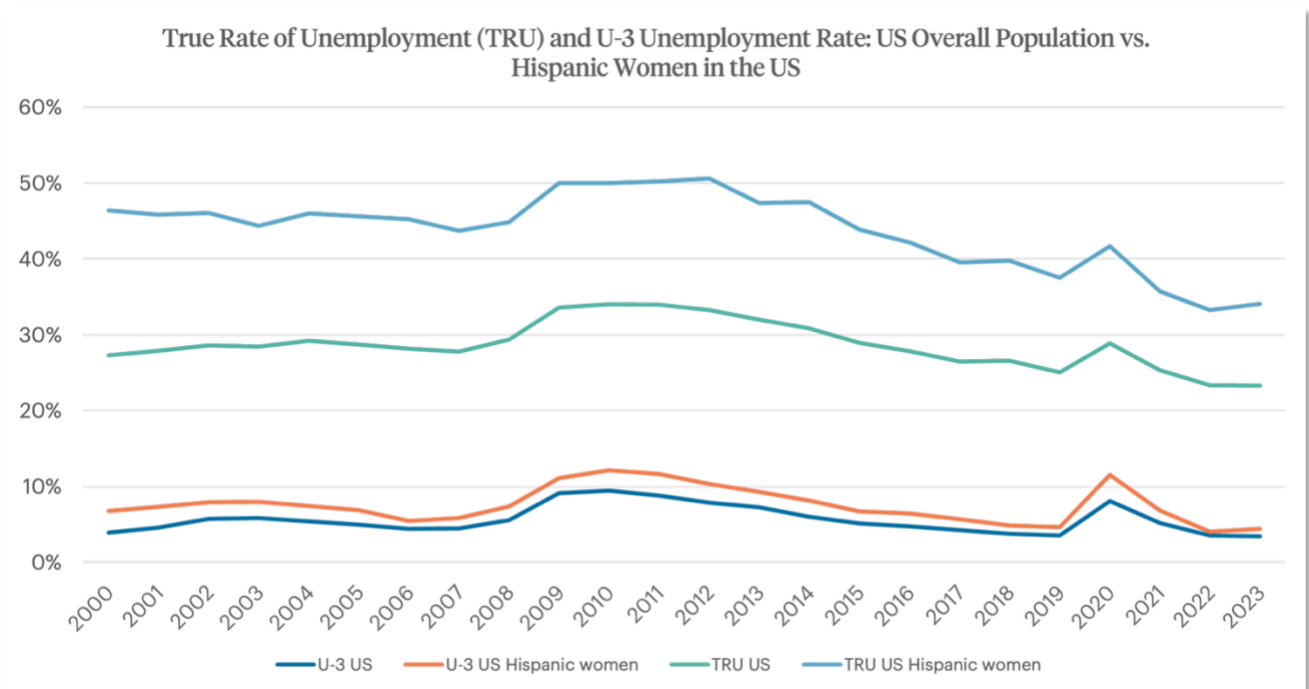


Figure 2: True Rate of Unemployment and U-3 Unemployment Rate: US Overall Population vs. US Hispanic Women

| Year | U-3 Houston | U-3 Houston Hispanic Women | TRU Houston | TRU Houston Hispanic Women |
|------|-------------|----------------------------------|----------------|-------------------------------------|
| 2000 | 4.4% | 5.8% | 24.7% | 44.4% |
| 2001 | 4.6% | 5.6% | 24.8% | 42.6% |
| 2002 | 5.8% | 4.5% | 25.0% | 43.3% |
| 2003 | 6.7% | 6.2% | 28.9% | 44.0% |
| 2004 | 6.7% | 6.6% | 29.1% | 45.6% |
| 2005 | 5.5% | 6.8% | 30.7% | 48.8% |
| 2006 | 6.0% | 6.5% | 27.4% | 44.4% |
| 2007 | 4.3% | 3.1% | 27.6% | 47.3% |
| 2008 | 5.3% | 6.4% | 28.3% | 51.5% |
| 2009 | 8.0% | 7.1% | 32.6% | 55.0% |
| 2010 | 9.4% | 10.4% | 33.3% | 51.5% |
| 2011 | 8.4% | 9.4% | 31.7% | 46.8% |
| 2012 | 6.3% | 6.2% | 29.5% | 51.0% |
| 2013 | 6.0% | 6.8% | 29.5% | 51.5% |
| 2014 | 5.0% | 6.9% | 28.2% | 48.6% |
| 2015 | 3.9% | 5.1% | 26.3% | 39.2% |
| 2016 | 5.8% | 6.4% | 26.5% | 39.9% |
| 2017 | 4.2% | 4.7% | 27.3% | 44.4% |
| 2018 | 4.3% | 4.6% | 26.8% | 43.5% |
| 2019 | 4.1% | 4.6% | 24.9% | 44.0% |
| 2020 | 9.2% | 13.6% | 29.8% | 47.7% |
| 2021 | 8.0% | 11.4% | 29.0% | 43.5% |
| 2022 | 4.0% | 4.3% | 24.7% | 36.5% |
| 2023 | 4.9% | 5.0% | 23.9% | 34.2% |

Table 2: True Rate of Unemployment and U-3 Unemployment Rate: Houston Overall vs. Houston Hispanic Women

| Year | U-3 US | U-3 US Hispanic Women | TRU US | TRU US Hispanic Women |
|------|--------|-----------------------------|--------|-----------------------------|
| 2000 | 3.9% | 6.7% | 27.3% | 46.4% |
| 2001 | 4.6% | 7.3% | 27.9% | 45.9% |
| 2002 | 5.7% | 7.9% | 28.6% | 46.1% |
| 2003 | 5.8% | 8.0% | 28.5% | 44.4% |
| 2004 | 5.4% | 7.5% | 29.2% | 46.0% |
| 2005 | 4.9% | 6.9% | 28.7% | 45.6% |

| | | | | |
|------|------|-------|-------|-------|
| 2006 | 4.4% | 5.4% | 28.2% | 45.2% |
| 2007 | 4.5% | 5.9% | 27.8% | 43.7% |
| 2008 | 5.6% | 7.4% | 29.4% | 44.9% |
| 2009 | 9.1% | 11.1% | 33.6% | 50.0% |
| 2010 | 9.5% | 12.1% | 34.0% | 50.0% |
| 2011 | 8.8% | 11.6% | 34.0% | 50.2% |
| 2012 | 7.9% | 10.3% | 33.3% | 50.6% |
| 2013 | 7.2% | 9.3% | 32.0% | 47.4% |
| 2014 | 6.0% | 8.1% | 30.8% | 47.5% |
| 2015 | 5.1% | 6.7% | 29.0% | 43.9% |
| 2016 | 4.8% | 6.5% | 27.8% | 42.2% |
| 2017 | 4.2% | 5.7% | 26.5% | 39.6% |
| 2018 | 3.8% | 4.9% | 26.6% | 39.7% |
| 2019 | 3.5% | 4.6% | 25.0% | 37.5% |
| 2020 | 8.1% | 11.5% | 28.9% | 41.7% |
| 2021 | 5.2% | 6.8% | 25.3% | 35.7% |
| 2022 | 3.6% | 4.1% | 23.4% | 33.3% |
| 2023 | 3.5% | 4.4% | 23.3% | 34.1% |

Table 2: True Rate of Unemployment and U-3 Unemployment Rate: US Overall Population vs. US Hispanic Women

True Rate of Unemployment by Occupation

Chapter 1 makes references to the percent of workers functionally unemployed within specific occupations: “One-fifth of the nation’s teachers, librarians, office clerks, and health care support workers work either part-time involuntarily or in positions that compensate them with less pay than what is required to lift them above the poverty line.”⁷ LISEP calculates the functional unemployment rate within specific occupations using the Outgoing Rotation Group sample from the Current Population Survey (CPS), as published by the Census Bureau, and the Consumer Price Index for All Urban Consumers to normalize earnings to January 2024 dollars, in accordance with the TRU methodology. LISEP used the *prdtocc1* variable to assign workers to occupation groups based on their detailed primary occupation code at their primary job. A worker’s primary occupation can be thought of as the worker’s occupation at their main job. Specifically, it’s determined as the occupation of the job at which they worked the most hours in the preceding week for

⁷ *The Mismeasurement of America*, page 28.

employed respondents and the most recent occupation for the unemployed and those outside the labor force.⁸ Below is a table of the occupations as defined under the CPS:

| Occupation Code | Occupation Description |
|-----------------|--|
| 1 | Management occupations |
| 2 | Business and financial operations occupations |
| 3 | Computer and mathematical occupations |
| 4 | Architecture and engineering occupations |
| 5 | Life, physical, and social science occupations |
| 6 | Community and social service occupations |
| 7 | Legal occupations |
| 8 | Education instruction and library occupations |
| 9 | Arts, design, entertainment, sports, and media occupations |
| 10 | Healthcare practitioner and technical occupations |
| 11 | Healthcare support occupations |
| 12 | Protective service occupations |
| 13 | Food preparation and serving related occupations |
| 14 | Building and grounds cleaning and maintenance occupations |
| 15 | Personal care and service occupations |
| 16 | Sales and related occupations |
| 17 | Office and administrative support occupations |
| 18 | Farming, fishing, and forestry occupations |
| 19 | Construction and extraction occupations |
| 20 | Installation, maintenance, and repair occupations |
| 21 | Production occupations |
| 22 | Transportation and material moving occupations |
| 23 | Armed Forces |

Table 3: Occupations Category List

The references in Chapter 1 to the functional unemployment rates by occupation only considers wage and salaried workers that are employed at the time of the CPS survey. Consequently, unemployed and self-employed workers, as well as those outside of the labor force, are excluded from the sample. Estimates of the functional unemployment rate by occupation, considering the self-employed and unemployed, are also provided in the tables below. For the estimates including the self-employed, LISEP follows the TRU methodology by calculating the proportion of self-employed within each occupation and using the Annual Social and Economic Supplement to compute the functional

⁸ See https://cps.ipums.org/cps-action/variables/OCC#description_section.

unemployment rate for the self-employed.⁹ Below, Table 4 provides the functional unemployment rate by occupation for employed workers, with and without considering the self-employed. Table 5 provides the functional unemployment rate by occupation for all workers in the labor force, including the unemployed, with and without the self-employed. The occupations referenced in chapter 1 correspond to the following occupation classifications:

- “Teachers and librarians”: Education instruction and library occupations (8)
- “Office clerks”: Office and administrative support occupations (17)
- “Healthcare support workers”: Healthcare support occupations (11)

| Year | Detailed Occupation Recode Code (prdtocc1) | Occupation | TRU – Employed Wage & Salaried Workers | TRU – All Employed Workers |
|------|--|--|--|----------------------------|
| 2019 | 4 | Architecture and engineering occupations | 4.5% | 5.4% |
| 2020 | 4 | Architecture and engineering occupations | 4.6% | 5.5% |
| 2021 | 4 | Architecture and engineering occupations | 3.7% | 4.7% |
| 2022 | 4 | Architecture and engineering occupations | 3.6% | 4.4% |
| 2023 | 4 | Architecture and engineering occupations | 4.8% | 4.8% |
| 2024 | 4 | Architecture and engineering occupations | 4.8% | |
| 2019 | 9 | Arts, design, entertainment, sports, and media occupations | 22.5% | 28.6% |
| 2020 | 9 | Arts, design, entertainment, sports, and media occupations | 22.1% | 31.9% |
| 2021 | 9 | Arts, design, entertainment, sports, and media occupations | 21.5% | 30.2% |
| 2022 | 9 | Arts, design, entertainment, sports, and media occupations | 19.9% | 27.7% |
| 2023 | 9 | Arts, design, entertainment, sports, and media occupations | 19.5% | 29.0% |
| 2024 | 9 | Arts, design, entertainment, sports, and media occupations | 22.1% | |
| 2019 | 14 | Building and grounds cleaning and maintenance occupations | 38.7% | 39.3% |
| 2020 | 14 | Building and grounds cleaning and maintenance occupations | 38.4% | 40.1% |
| 2021 | 14 | Building and grounds cleaning and maintenance occupations | 37.1% | 38.5% |
| 2022 | 14 | Building and grounds cleaning and maintenance occupations | 35.2% | 37.3% |
| 2023 | 14 | Building and grounds cleaning and maintenance occupations | 35.3% | 36.6% |

⁹ The primary occupation of self-employed workers was determined using the *occup* variable, indicating the occupation for the longest job held by the worker in the previous year. The detailed occupation codes were harmonized to match the 23 detailed occupation recode codes based on Appendix B “Occupation Classification” of the ASEC’s technical documentation <https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar20.pdf>. Since the 2025 ASEC covering the year 2024 has not been published at the time of writing, estimates for the TRU by occupation including the self-employed are excluded for that year.

| | | | | |
|------|----|---|-------|-------|
| 2024 | 14 | Building and grounds cleaning and maintenance occupations | 35.0% | |
| 2019 | 2 | Business and financial operations occupations | 6.9% | 8.4% |
| 2020 | 2 | Business and financial operations occupations | 7.6% | 9.7% |
| 2021 | 2 | Business and financial operations occupations | 6.7% | 8.8% |
| 2022 | 2 | Business and financial operations occupations | 7.0% | 8.4% |
| 2023 | 2 | Business and financial operations occupations | 6.6% | 8.2% |
| 2024 | 2 | Business and financial operations occupations | 7.3% | |
| 2019 | 6 | Community and social service occupations | 15.0% | 15.3% |
| 2020 | 6 | Community and social service occupations | 14.7% | 15.8% |
| 2021 | 6 | Community and social service occupations | 12.7% | 13.4% |
| 2022 | 6 | Community and social service occupations | 13.6% | 14.7% |
| 2023 | 6 | Community and social service occupations | 14.6% | 14.9% |
| 2024 | 6 | Community and social service occupations | 14.3% | |
| 2019 | 3 | Computer and mathematical occupations | 4.4% | 5.0% |
| 2020 | 3 | Computer and mathematical occupations | 5.7% | 6.1% |
| 2021 | 3 | Computer and mathematical occupations | 4.3% | 4.7% |
| 2022 | 3 | Computer and mathematical occupations | 4.6% | 5.0% |
| 2023 | 3 | Computer and mathematical occupations | 4.2% | 4.9% |
| 2024 | 3 | Computer and mathematical occupations | 4.4% | |
| 2019 | 19 | Construction and extraction occupations | 12.2% | 15.2% |
| 2020 | 19 | Construction and extraction occupations | 14.5% | 19.0% |
| 2021 | 19 | Construction and extraction occupations | 11.5% | 15.5% |
| 2022 | 19 | Construction and extraction occupations | 11.8% | 15.1% |
| 2023 | 19 | Construction and extraction occupations | 11.8% | 15.7% |
| 2024 | 19 | Construction and extraction occupations | 12.8% | |
| 2019 | 8 | Education instruction and library occupations | 22.5% | 23.1% |
| 2020 | 8 | Education instruction and library occupations | 22.2% | 23.2% |
| 2021 | 8 | Education instruction and library occupations | 19.2% | 20.0% |
| 2022 | 8 | Education instruction and library occupations | 20.2% | 20.6% |
| 2023 | 8 | Education instruction and library occupations | 20.4% | 20.8% |
| 2024 | 8 | Education instruction and library occupations | 20.8% | |
| 2019 | 18 | Farming, fishing, and forestry occupations | 26.1% | 26.6% |
| 2020 | 18 | Farming, fishing, and forestry occupations | 31.6% | 32.8% |
| 2021 | 18 | Farming, fishing, and forestry occupations | 24.8% | 26.2% |
| 2022 | 18 | Farming, fishing, and forestry occupations | 29.1% | 29.5% |
| 2023 | 18 | Farming, fishing, and forestry occupations | 29.8% | 28.9% |
| 2024 | 18 | Farming, fishing, and forestry occupations | 28.3% | |
| 2019 | 13 | Food preparation and serving related occupations | 54.5% | 54.5% |
| 2020 | 13 | Food preparation and serving related occupations | 60.5% | 60.6% |
| 2021 | 13 | Food preparation and serving related occupations | 56.1% | 55.8% |

| | | | | |
|------|----|---|-------|-------|
| 2022 | 13 | Food preparation and serving related occupations | 53.9% | 53.8% |
| 2023 | 13 | Food preparation and serving related occupations | 52.4% | 52.2% |
| 2024 | 13 | Food preparation and serving related occupations | 52.6% | |
| 2019 | 10 | Healthcare practitioner and technical occupations | 15.2% | 15.0% |
| 2020 | 10 | Healthcare practitioner and technical occupations | 16.1% | 16.3% |
| 2021 | 10 | Healthcare practitioner and technical occupations | 14.5% | 14.5% |
| 2022 | 10 | Healthcare practitioner and technical occupations | 14.8% | 14.9% |
| 2023 | 10 | Healthcare practitioner and technical occupations | 14.6% | 14.9% |
| 2024 | 10 | Healthcare practitioner and technical occupations | 15.5% | |
| 2019 | 11 | Healthcare support occupations | 33.8% | 34.7% |
| 2020 | 11 | Healthcare support occupations | 39.0% | 39.6% |
| 2021 | 11 | Healthcare support occupations | 35.7% | 36.6% |
| 2022 | 11 | Healthcare support occupations | 34.9% | 35.5% |
| 2023 | 11 | Healthcare support occupations | 33.2% | 33.4% |
| 2024 | 11 | Healthcare support occupations | 33.9% | |
| 2019 | 20 | Installation, maintenance, and repair occupations | 8.6% | 10.1% |
| 2020 | 20 | Installation, maintenance, and repair occupations | 9.6% | 11.2% |
| 2021 | 20 | Installation, maintenance, and repair occupations | 8.0% | 9.7% |
| 2022 | 20 | Installation, maintenance, and repair occupations | 7.8% | 9.4% |
| 2023 | 20 | Installation, maintenance, and repair occupations | 7.7% | 9.3% |
| 2024 | 20 | Installation, maintenance, and repair occupations | 8.8% | |
| 2019 | 7 | Legal occupations | 6.4% | 7.3% |
| 2020 | 7 | Legal occupations | 8.9% | 10.3% |
| 2021 | 7 | Legal occupations | 8.3% | 9.0% |
| 2022 | 7 | Legal occupations | 7.6% | 8.3% |
| 2023 | 7 | Legal occupations | 6.2% | 8.0% |
| 2024 | 7 | Legal occupations | 7.0% | |
| 2019 | 5 | Life, physical, and social science occupations | 10.2% | 13.2% |
| 2020 | 5 | Life, physical, and social science occupations | 10.1% | 10.5% |
| 2021 | 5 | Life, physical, and social science occupations | 8.9% | 9.9% |
| 2022 | 5 | Life, physical, and social science occupations | 10.1% | 10.9% |
| 2023 | 5 | Life, physical, and social science occupations | 9.1% | 10.0% |
| 2024 | 5 | Life, physical, and social science occupations | 10.5% | |
| 2019 | 1 | Management occupations | 6.3% | 8.9% |
| 2020 | 1 | Management occupations | 7.8% | 11.5% |
| 2021 | 1 | Management occupations | 6.4% | 10.0% |
| 2022 | 1 | Management occupations | 5.6% | 9.1% |
| 2023 | 1 | Management occupations | 6.1% | 8.8% |
| 2024 | 1 | Management occupations | 6.3% | |
| 2019 | 17 | Office and administrative support occupations | 22.9% | 23.4% |

| | | | | |
|------|----|--|-------|-------|
| 2020 | 17 | Office and administrative support occupations | 21.4% | 22.4% |
| 2021 | 17 | Office and administrative support occupations | 20.0% | 20.9% |
| 2022 | 17 | Office and administrative support occupations | 20.0% | 20.7% |
| 2023 | 17 | Office and administrative support occupations | 21.5% | 22.3% |
| 2024 | 17 | Office and administrative support occupations | 21.3% | |
| 2019 | 15 | Personal care and service occupations | 50.3% | 49.1% |
| 2020 | 15 | Personal care and service occupations | 49.4% | 52.3% |
| 2021 | 15 | Personal care and service occupations | 47.5% | 47.7% |
| 2022 | 15 | Personal care and service occupations | 45.8% | 46.9% |
| 2023 | 15 | Personal care and service occupations | 44.2% | 44.9% |
| 2024 | 15 | Personal care and service occupations | 46.5% | |
| 2019 | 21 | Production occupations | 13.1% | 13.6% |
| 2020 | 21 | Production occupations | 13.6% | 14.5% |
| 2021 | 21 | Production occupations | 12.6% | 13.5% |
| 2022 | 21 | Production occupations | 11.4% | 12.4% |
| 2023 | 21 | Production occupations | 12.0% | 13.1% |
| 2024 | 21 | Production occupations | 12.7% | |
| 2019 | 12 | Protective service occupations | 16.0% | 16.0% |
| 2020 | 12 | Protective service occupations | 15.6% | 15.7% |
| 2021 | 12 | Protective service occupations | 16.5% | 16.6% |
| 2022 | 12 | Protective service occupations | 15.1% | 15.1% |
| 2023 | 12 | Protective service occupations | 15.7% | 15.8% |
| 2024 | 12 | Protective service occupations | 18.6% | |
| 2019 | 16 | Sales and related occupations | 32.8% | 31.7% |
| 2020 | 16 | Sales and related occupations | 32.3% | 32.0% |
| 2021 | 16 | Sales and related occupations | 31.5% | 31.5% |
| 2022 | 16 | Sales and related occupations | 30.1% | 29.9% |
| 2023 | 16 | Sales and related occupations | 29.4% | 29.4% |
| 2024 | 16 | Sales and related occupations | 29.7% | |
| 2019 | 22 | Transportation and material moving occupations | 26.1% | 26.2% |
| 2020 | 22 | Transportation and material moving occupations | 27.6% | 28.1% |
| 2021 | 22 | Transportation and material moving occupations | 25.6% | 25.8% |
| 2022 | 22 | Transportation and material moving occupations | 24.2% | 24.2% |
| 2023 | 22 | Transportation and material moving occupations | 25.2% | 25.7% |
| 2024 | 22 | Transportation and material moving occupations | 26.3% | |

Table 4: True Rate of Unemployment by Occupation — Only Employed

| Year | Detailed Occupation Recode Code (prdtocc1) | Occupation | TRU – All Wage & Salaried Workers (including Unemployed) | TRU – All Workers in Labor Force |
|------|--|--|--|----------------------------------|
| 2019 | 4 | Architecture and engineering occupations | 6.1% | 7.0% |
| 2020 | 4 | Architecture and engineering occupations | 8.1% | 9.0% |
| 2021 | 4 | Architecture and engineering occupations | 6.1% | 6.9% |
| 2022 | 4 | Architecture and engineering occupations | 5.0% | 5.8% |
| 2023 | 4 | Architecture and engineering occupations | 6.3% | 6.3% |
| 2024 | 4 | Architecture and engineering occupations | 6.4% | |
| 2019 | 9 | Arts, design, entertainment, sports, and media occupations | 25.5% | 30.7% |
| 2020 | 9 | Arts, design, entertainment, sports, and media occupations | 31.1% | 38.0% |
| 2021 | 9 | Arts, design, entertainment, sports, and media occupations | 26.8% | 33.7% |
| 2022 | 9 | Arts, design, entertainment, sports, and media occupations | 23.3% | 29.9% |
| 2023 | 9 | Arts, design, entertainment, sports, and media occupations | 23.1% | 31.3% |
| 2024 | 9 | Arts, design, entertainment, sports, and media occupations | 26.3% | |
| 2019 | 14 | Building and grounds cleaning and maintenance occupations | 41.7% | 42.0% |
| 2020 | 14 | Building and grounds cleaning and maintenance occupations | 46.0% | 46.3% |
| 2021 | 14 | Building and grounds cleaning and maintenance occupations | 42.3% | 42.7% |
| 2022 | 14 | Building and grounds cleaning and maintenance occupations | 38.9% | 40.3% |
| 2023 | 14 | Building and grounds cleaning and maintenance occupations | 39.2% | 39.8% |
| 2024 | 14 | Building and grounds cleaning and maintenance occupations | 38.2% | |
| 2019 | 2 | Business and financial operations occupations | 9.0% | 10.3% |
| 2020 | 2 | Business and financial operations occupations | 12.0% | 13.7% |
| 2021 | 2 | Business and financial operations occupations | 9.5% | 11.3% |
| 2022 | 2 | Business and financial operations occupations | 8.9% | 10.2% |
| 2023 | 2 | Business and financial operations occupations | 9.0% | 10.4% |
| 2024 | 2 | Business and financial operations occupations | 9.7% | |
| 2019 | 6 | Community and social service occupations | 16.5% | 16.8% |
| 2020 | 6 | Community and social service occupations | 17.7% | 18.6% |
| 2021 | 6 | Community and social service occupations | 14.7% | 15.3% |
| 2022 | 6 | Community and social service occupations | 14.9% | 15.9% |
| 2023 | 6 | Community and social service occupations | 16.2% | 16.4% |
| 2024 | 6 | Community and social service occupations | 16.6% | |
| 2019 | 3 | Computer and mathematical occupations | 6.5% | 7.0% |
| 2020 | 3 | Computer and mathematical occupations | 9.0% | 9.3% |
| 2021 | 3 | Computer and mathematical occupations | 6.5% | 6.8% |

| | | | | |
|------|----|---|-------|-------|
| 2022 | 3 | Computer and mathematical occupations | 6.6% | 6.9% |
| 2023 | 3 | Computer and mathematical occupations | 6.0% | 6.7% |
| 2024 | 3 | Computer and mathematical occupations | 7.1% | |
| 2019 | 19 | Construction and extraction occupations | 17.1% | 19.3% |
| 2020 | 19 | Construction and extraction occupations | 23.7% | 26.3% |
| 2021 | 19 | Construction and extraction occupations | 18.6% | 21.3% |
| 2022 | 19 | Construction and extraction occupations | 17.0% | 19.2% |
| 2023 | 19 | Construction and extraction occupations | 16.7% | 19.6% |
| 2024 | 19 | Construction and extraction occupations | 17.6% | |
| 2019 | 8 | Education instruction and library occupations | 24.7% | 25.3% |
| 2020 | 8 | Education instruction and library occupations | 27.3% | 28.2% |
| 2021 | 8 | Education instruction and library occupations | 21.9% | 22.7% |
| 2022 | 8 | Education instruction and library occupations | 22.5% | 22.9% |
| 2023 | 8 | Education instruction and library occupations | 22.5% | 22.9% |
| 2024 | 8 | Education instruction and library occupations | 22.9% | |
| 2019 | 18 | Farming, fishing, and forestry occupations | 33.7% | 33.8% |
| 2020 | 18 | Farming, fishing, and forestry occupations | 40.0% | 40.2% |
| 2021 | 18 | Farming, fishing, and forestry occupations | 32.6% | 33.2% |
| 2022 | 18 | Farming, fishing, and forestry occupations | 33.1% | 33.1% |
| 2023 | 18 | Farming, fishing, and forestry occupations | 35.4% | 33.9% |
| 2024 | 18 | Farming, fishing, and forestry occupations | 34.8% | |
| 2019 | 13 | Food preparation and serving related occupations | 57.0% | 56.9% |
| 2020 | 13 | Food preparation and serving related occupations | 68.0% | 68.0% |
| 2021 | 13 | Food preparation and serving related occupations | 60.8% | 60.4% |
| 2022 | 13 | Food preparation and serving related occupations | 56.6% | 56.5% |
| 2023 | 13 | Food preparation and serving related occupations | 55.1% | 54.8% |
| 2024 | 13 | Food preparation and serving related occupations | 55.6% | |
| 2019 | 10 | Healthcare practitioner and technical occupations | 16.5% | 16.2% |
| 2020 | 10 | Healthcare practitioner and technical occupations | 18.6% | 18.7% |
| 2021 | 10 | Healthcare practitioner and technical occupations | 15.9% | 15.9% |
| 2022 | 10 | Healthcare practitioner and technical occupations | 15.9% | 15.9% |
| 2023 | 10 | Healthcare practitioner and technical occupations | 15.6% | 15.8% |
| 2024 | 10 | Healthcare practitioner and technical occupations | 16.8% | |
| 2019 | 11 | Healthcare support occupations | 35.8% | 36.6% |
| 2020 | 11 | Healthcare support occupations | 43.8% | 44.2% |
| 2021 | 11 | Healthcare support occupations | 39.5% | 40.2% |
| 2022 | 11 | Healthcare support occupations | 37.5% | 37.9% |
| 2023 | 11 | Healthcare support occupations | 35.6% | 35.7% |
| 2024 | 11 | Healthcare support occupations | 36.0% | |
| 2019 | 20 | Installation, maintenance, and repair occupations | 11.0% | 12.3% |

| | | | | |
|------|----|---|-------|-------|
| 2020 | 20 | Installation, maintenance, and repair occupations | 15.5% | 16.6% |
| 2021 | 20 | Installation, maintenance, and repair occupations | 11.4% | 12.8% |
| 2022 | 20 | Installation, maintenance, and repair occupations | 9.7% | 11.2% |
| 2023 | 20 | Installation, maintenance, and repair occupations | 9.9% | 11.3% |
| 2024 | 20 | Installation, maintenance, and repair occupations | 11.3% | |
| 2019 | 7 | Legal occupations | 7.9% | 8.6% |
| 2020 | 7 | Legal occupations | 11.4% | 12.4% |
| 2021 | 7 | Legal occupations | 10.3% | 10.7% |
| 2022 | 7 | Legal occupations | 9.2% | 9.6% |
| 2023 | 7 | Legal occupations | 6.8% | 8.5% |
| 2024 | 7 | Legal occupations | 8.5% | |
| 2019 | 5 | Life, physical, and social science occupations | 12.0% | 14.8% |
| 2020 | 5 | Life, physical, and social science occupations | 13.9% | 14.0% |
| 2021 | 5 | Life, physical, and social science occupations | 11.5% | 12.3% |
| 2022 | 5 | Life, physical, and social science occupations | 11.6% | 12.2% |
| 2023 | 5 | Life, physical, and social science occupations | 10.3% | 11.2% |
| 2024 | 5 | Life, physical, and social science occupations | 12.6% | |
| 2019 | 1 | Management occupations | 8.1% | 10.3% |
| 2020 | 1 | Management occupations | 11.8% | 14.6% |
| 2021 | 1 | Management occupations | 9.4% | 12.3% |
| 2022 | 1 | Management occupations | 7.5% | 10.6% |
| 2023 | 1 | Management occupations | 8.0% | 10.3% |
| 2024 | 1 | Management occupations | 8.4% | |
| 2019 | 17 | Office and administrative support occupations | 25.7% | 26.1% |
| 2020 | 17 | Office and administrative support occupations | 27.3% | 28.1% |
| 2021 | 17 | Office and administrative support occupations | 24.0% | 24.7% |
| 2022 | 17 | Office and administrative support occupations | 23.0% | 23.5% |
| 2023 | 17 | Office and administrative support occupations | 24.1% | 24.8% |
| 2024 | 17 | Office and administrative support occupations | 24.3% | |
| 2019 | 15 | Personal care and service occupations | 52.5% | 50.7% |
| 2020 | 15 | Personal care and service occupations | 58.9% | 58.7% |
| 2021 | 15 | Personal care and service occupations | 52.3% | 51.0% |
| 2022 | 15 | Personal care and service occupations | 48.1% | 48.6% |
| 2023 | 15 | Personal care and service occupations | 46.5% | 46.5% |
| 2024 | 15 | Personal care and service occupations | 49.4% | |
| 2019 | 21 | Production occupations | 16.4% | 16.8% |
| 2020 | 21 | Production occupations | 21.1% | 21.7% |
| 2021 | 21 | Production occupations | 17.5% | 18.2% |
| 2022 | 21 | Production occupations | 14.8% | 15.7% |
| 2023 | 21 | Production occupations | 15.5% | 16.4% |

| | | | | |
|------|----|--|-------|-------|
| 2024 | 21 | Production occupations | 16.6% | |
| 2019 | 12 | Protective service occupations | 18.8% | 18.8% |
| 2020 | 12 | Protective service occupations | 20.1% | 20.1% |
| 2021 | 12 | Protective service occupations | 20.2% | 20.3% |
| 2022 | 12 | Protective service occupations | 17.5% | 17.5% |
| 2023 | 12 | Protective service occupations | 18.0% | 18.1% |
| 2024 | 12 | Protective service occupations | 21.4% | |
| 2019 | 16 | Sales and related occupations | 35.6% | 34.2% |
| 2020 | 16 | Sales and related occupations | 38.5% | 37.3% |
| 2021 | 16 | Sales and related occupations | 35.5% | 34.9% |
| 2022 | 16 | Sales and related occupations | 33.2% | 32.5% |
| 2023 | 16 | Sales and related occupations | 32.4% | 31.9% |
| 2024 | 16 | Sales and related occupations | 33.2% | |
| 2019 | 22 | Transportation and material moving occupations | 29.3% | 29.2% |
| 2020 | 22 | Transportation and material moving occupations | 35.8% | 35.9% |
| 2021 | 22 | Transportation and material moving occupations | 31.6% | 31.4% |
| 2022 | 22 | Transportation and material moving occupations | 28.5% | 28.2% |
| 2023 | 22 | Transportation and material moving occupations | 29.4% | 29.6% |
| 2024 | 22 | Transportation and material moving occupations | 30.6% | |

Table 5: True Rate of Unemployment by Occupation — All in Labor Force

Part-Time Workers Due to Childcare Problems

LISEP calculates the proportion of workers who are part-time due to childcare problems using the Basic Monthly CPS microdata accessed through the IPUMS database¹⁰: “By 2022, a greater proportion of American workers were being compelled to take part-time work due to childcare concerns than at any other time in recent history. That number was then surpassed in 2023.”¹¹ The microdata covers the period from 1995 to 2023. The sample of workers consists of all employed people, including wage and salaried workers, self-employed workers and unpaid family workers, consistent with the BLS definition of employment.¹² Employment was determined using the *empstat* variable, identifying employed people with the codes 10 (“At work”) or 12 (“Has job, not at work last week”).¹³ To follow, LISEP identified workers who were part-time due to childcare problems using the

¹⁰ Sarah Flood et al. “Integrated Public Use Microdata Series, Current Population Survey: Version 11.0,” accessed April 29, 2024, <https://doi.org/10.18128/D030.V11.0>.

¹¹ *The Mismeasurement of America*, page 30.

¹² <https://www.bls.gov/cps/definitions.htm#employed>.

¹³ https://cps.ipums.org/cps-action/variables/EMPSTAT#description_section.

whyptlwk variable (code 121) that details the reason for which a respondent worked part-time during the previous week, defined as “a total of less than 35 hours combined for all jobs”) regardless of whether they usually worked full-time or part-time.¹⁴ Finally, LISEP calculated two annual proportions:¹⁵

- 1) the percent of workers who worked part-time due to childcare problems in the previous week out of all employed workers, and
- 2) the percent of workers who worked part-time due to childcare problems in the previous week out of all workers who worked part-time in the previous week.

As depicted in the figure and table below, both proportions reached their highest level since 1995 in 2023, with workers who worked part-time due to childcare problems reaching 1.2 million in 2023.

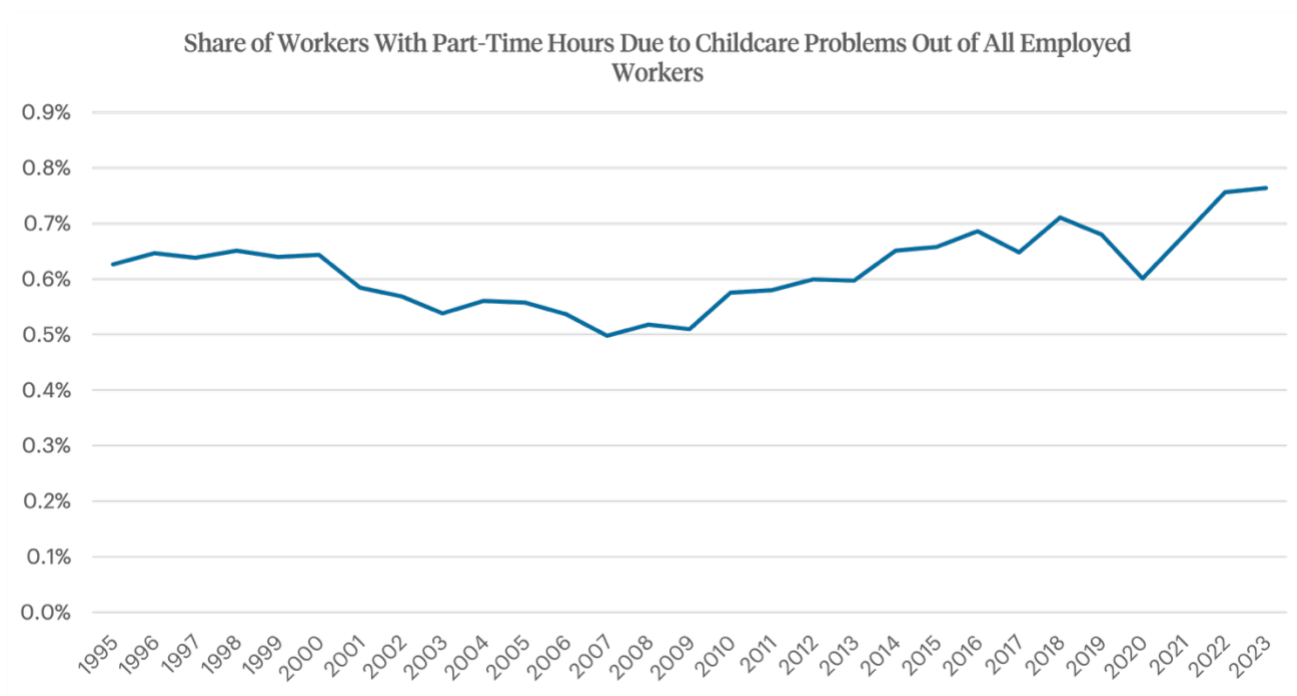


Figure 3: Share of Workers with Part-Time Hours due to Childcare Problems Out of All Employed Workers

¹⁴ https://cps.ipums.org/cps-action/variables/WHYPTLWK#description_section.

¹⁵ Annual proportions were weighted using the final person-level weight *wtfinl*. https://cps.ipums.org/cps-action/variables/WTFINL#description_section.

| Year | Share of Workers with Part-Time Hours due to Childcare Problems out of Employed | Share of Workers with Part-Time Hours due to Childcare Problems out of Workers with Part-Time Hours | Employment Level (in thousands) ¹⁶ | Est. Workers with Part-Time Hours Due to Childcare Problems (in thousands) (Share*Employment Level) |
|------|---|---|---|---|
| 1995 | 0.63% | 2.55% | 124,900 | 782 |
| 1996 | 0.65% | 2.64% | 126,708 | 819 |
| 1997 | 0.64% | 2.69% | 129,558 | 827 |
| 1998 | 0.65% | 2.57% | 131,464 | 855 |
| 1999 | 0.64% | 2.75% | 133,488 | 854 |
| 2000 | 0.64% | 2.94% | 136,891 | 881 |
| 2001 | 0.58% | 2.54% | 136,933 | 800 |
| 2002 | 0.57% | 2.48% | 136,485 | 776 |
| 2003 | 0.54% | 2.32% | 137,736 | 741 |
| 2004 | 0.56% | 2.41% | 139,252 | 781 |
| 2005 | 0.56% | 2.44% | 141,730 | 790 |
| 2006 | 0.54% | 2.38% | 144,427 | 775 |
| 2007 | 0.50% | 2.23% | 146,047 | 727 |
| 2008 | 0.52% | 2.25% | 145,363 | 753 |
| 2009 | 0.51% | 1.89% | 139,878 | 713 |
| 2010 | 0.58% | 2.27% | 139,064 | 800 |
| 2011 | 0.58% | 2.32% | 139,869 | 811 |
| 2012 | 0.60% | 2.47% | 142,469 | 853 |
| 2013 | 0.60% | 2.53% | 143,929 | 859 |
| 2014 | 0.65% | 2.72% | 146,305 | 952 |
| 2015 | 0.66% | 2.70% | 148,833 | 979 |
| 2016 | 0.69% | 2.99% | 151,436 | 1039 |
| 2017 | 0.65% | 2.82% | 153,337 | 994 |
| 2018 | 0.71% | 3.24% | 155,761 | 1107 |
| 2019 | 0.68% | 3.17% | 157,538 | 1071 |
| 2020 | 0.60% | 2.56% | 147,795 | 888 |
| 2021 | 0.68% | 3.16% | 152,581 | 1034 |
| 2022 | 0.76% | 3.49% | 158,291 | 1197 |
| 2023 | 0.76% | 3.51% | 161,037 | 1230 |

Table 6: Share of Workers with Part-Time Hours due to Childcare Problems

¹⁶ U.S. Bureau of Labor Statistics, Employment Level [LNU02000000], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/LNU02000000>, August 8, 2025.

True Rate of Unemployment for Veterans

The author references the functional rate of unemployment among veterans as part of the discussion on the Veteran Rapid Retraining Assistance Program: “In March 2021, while the U-3 for veterans was 5.3 percent, the TRU for veterans was 19.4 percent.”¹⁷

To compute the functional unemployment rate among veterans, LISEP follows the same procedure as the headline TRU¹⁸ (see methodological summary under “True Rate of Unemployment for Hispanic Women in Houston”), except using the IPUMS-published CPS rather than the Census-published CPS Basic Monthly microdata.¹⁹ In particular, LISEP uses samples corresponding to households in the outgoing rotation groups in the IPUMS CPS Basic Monthly data (i.e., households in the fourth or eighth month of their active interview process). These households are asked additional labor questions concerning earnings and hours as part of the earner study. The universe of these questions only concerns employed wage or salaried workers, so self-employed workers are excluded.²⁰

This computation focuses on civilian veterans, not individuals actively serving in the armed forces. Observations representing veterans are identified by the IPUMS code *vetstat*: “VETSTAT is a dichotomous variable identifying veterans, that is, persons who served in the military forces of the United States (Army, Navy, Air Force, Marine Corps, or Coast Guard) in time of war or peace, but who were not in the armed forces at the time of the survey.”²¹

The primary technical question in this analysis is the choice of survey weight used for aggregating the computation. Although the IPUMS CPS has an available weight for computing labor force information for veterans, the basis for the CPS veterans weight is the CPS composited weight, which relies on data from samples in non-outgoing rotation.²² Hence, LISEP works with *earnwt* to compute earnings and for consistency uses non-veterans-specific weights in the rest of the analysis.

The March 2021 monthly TRU estimate for veterans is 19.4%, with the full series graphed below.

¹⁷ *The Mismeasurement of America*, page 37.

¹⁸ See the full methodology on <https://www.lisep.org/tru>.

¹⁹ Sarah Flood et al. IPUMS CPS: Version 12.0. Minneapolis, MN: IPUMS, 2024. <https://doi.org/10.18128/D030.V12.0>. Accessed June 10, 2025.

²⁰ https://cps.ipums.org/cps/outgoing_rotation_notes.shtml.

²¹ https://cps.ipums.org/cps-action/variables/VETSTAT#description_section.

²² See CPS Technical Documentation, pages 74-80 on <https://www2.census.gov/programs-surveys/cps/methodology/CPS-Tech-Paper-77.pdf>.

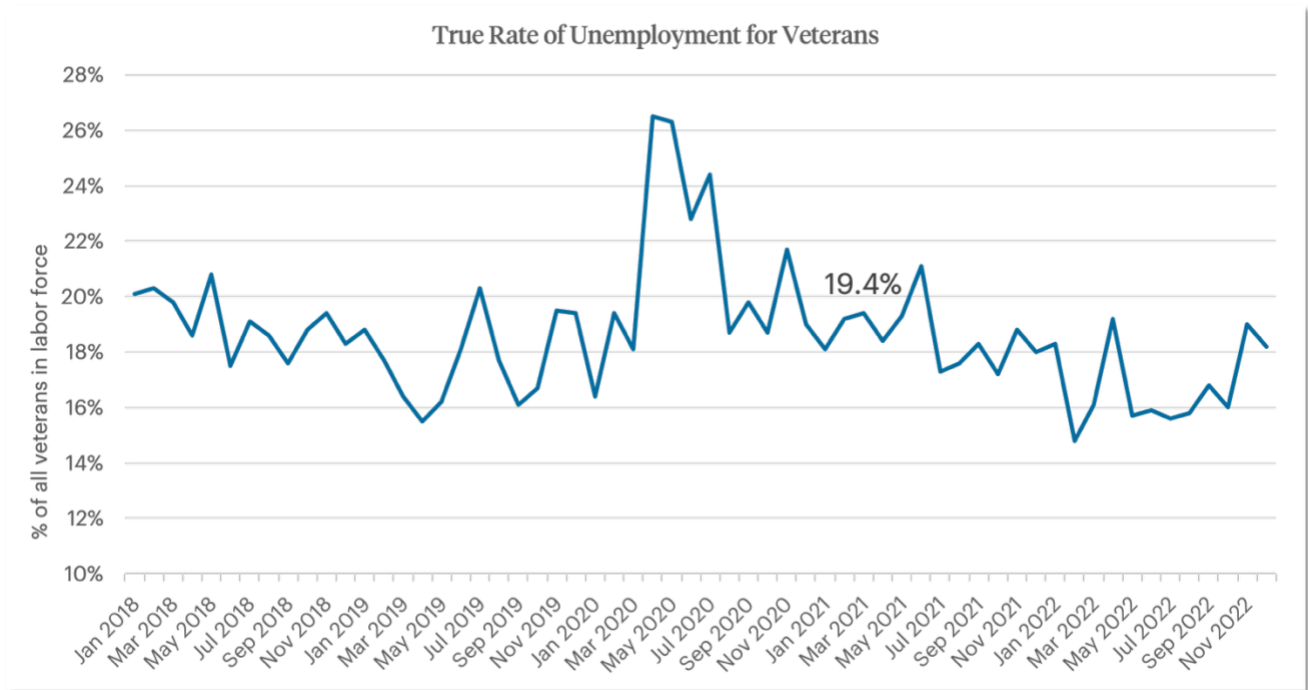


Figure 4: True Rate of Unemployment for Veterans (not seasonally adjusted)

| Year | Month | TRU (labor force, not seasonally adjusted) | TRU (veterans in the labor force, not seasonally adjusted) |
|------|-------|--|--|
| 2018 | 1 | 27.7% | 20.1% |
| 2018 | 2 | 27.5% | 20.3% |
| 2018 | 3 | 26.7% | 19.8% |
| 2018 | 4 | 26.1% | 18.6% |
| 2018 | 5 | 26.6% | 20.8% |
| 2018 | 6 | 27.2% | 17.5% |
| 2018 | 7 | 26.3% | 19.1% |
| 2018 | 8 | 25.8% | 18.6% |
| 2018 | 9 | 25.6% | 17.6% |
| 2018 | 10 | 25.4% | 18.8% |
| 2018 | 11 | 25.5% | 19.4% |
| 2018 | 12 | 25.2% | 18.3% |
| 2019 | 1 | 26.6% | 18.8% |
| 2019 | 2 | 25.5% | 17.7% |
| 2019 | 3 | 25.2% | 16.4% |
| 2019 | 4 | 24.8% | 15.5% |
| 2019 | 5 | 24.6% | 16.2% |
| 2019 | 6 | 24.9% | 18.1% |

| | | | |
|------|----|-------|-------|
| 2019 | 7 | 25.2% | 20.3% |
| 2019 | 8 | 24.7% | 17.7% |
| 2019 | 9 | 23.5% | 16.1% |
| 2019 | 10 | 24.1% | 16.7% |
| 2019 | 11 | 24.5% | 19.5% |
| 2019 | 12 | 25.1% | 19.4% |
| 2020 | 1 | 25.3% | 16.4% |
| 2020 | 2 | 25.8% | 19.4% |
| 2020 | 3 | 26.5% | 18.1% |
| 2020 | 4 | 34.2% | 26.5% |
| 2020 | 5 | 32.6% | 26.3% |
| 2020 | 6 | 31.3% | 22.8% |
| 2020 | 7 | 30.4% | 24.4% |
| 2020 | 8 | 28.2% | 18.7% |
| 2020 | 9 | 27.9% | 19.8% |
| 2020 | 10 | 26.9% | 18.7% |
| 2020 | 11 | 27.2% | 21.7% |
| 2020 | 12 | 26.7% | 19.0% |
| 2021 | 1 | 26.8% | 18.1% |
| 2021 | 2 | 27.5% | 19.2% |
| 2021 | 3 | 26.5% | 19.4% |
| 2021 | 4 | 24.9% | 18.4% |
| 2021 | 5 | 25.2% | 19.3% |
| 2021 | 6 | 25.2% | 21.1% |
| 2021 | 7 | 25.1% | 17.3% |
| 2021 | 8 | 24.2% | 17.6% |
| 2021 | 9 | 23.9% | 18.3% |
| 2021 | 10 | 23.3% | 17.2% |
| 2021 | 11 | 23.9% | 18.8% |
| 2021 | 12 | 23.6% | 18.0% |
| 2022 | 1 | 23.6% | 18.3% |
| 2022 | 2 | 23.6% | 14.8% |
| 2022 | 3 | 24.5% | 16.1% |
| 2022 | 4 | 23.3% | 19.2% |
| 2022 | 5 | 23.0% | 15.7% |
| 2022 | 6 | 22.3% | 15.9% |
| 2022 | 7 | 22.9% | 15.6% |
| 2022 | 8 | 22.3% | 15.8% |
| 2022 | 9 | 21.9% | 16.8% |
| 2022 | 10 | 23.7% | 16.0% |
| 2022 | 11 | 22.9% | 19.0% |
| 2022 | 12 | 23.0% | 18.2% |

Table 7: True Rate of Unemployment for Veterans

Chapter 2: True Weekly Earnings

Chapter 2 Errata

Correction on page 52: The original text states: "From 2006 (the peak of the bubble) to 2010 (widely regarded as the trough of the subprime crisis), real wages as measured by the median wages actually rose 2.8 percent. That was a statistical illusion: As the TWE reveals, inflation-adjusted wages in construction fell by 6.2 percent."

This passage should be revised to accurately reflect the data for both the labor force and construction workers: median wages for construction workers employed full-time increased 5.3 percent from 2006 to 2010, while the TWE recorded that median earnings for all construction workers fell 16.8 percent during the same period.

Correction to endnote 16 (page 142, first instance): The original text states: "the bottom half of wage earners (measured by hourly income) has double the prevalence of part-time workers in 2022 (40 percent compared with 20 percent)."

Due to an error in the treatment of missing values for the hourly wage variable, the percentage of part-time workers in the top half of wage earners should be corrected to 16 percent.

Correction to endnote 16 (page 142, second instance): The original text states: "Checking robustness by calculating all workers' total income, the takeaways are starker. (Disclaimer: This is not a perfect check because part-time workers achieve fewer working hours, so it is unsurprising that they would be in the lower half of the distribution.) In this case, the part-time worker prevalence is nearly six times as great with workers in the bottom half versus the top half of income earners (37.6 percent versus 6.9 percent in 2022.)"

The percentages of workers in the bottom half versus the top half should be revised to 37.8 percent and 7.0 percent, respectively.

Correction to endnote 20 (page 142): The original text states: "In 2022, 33.5 percent of construction workers were the sole providers for their family."

Due to an error in the classification of self-employed workers as earners, this should be revised to: "In 2022, 31.6 percent of construction workers were the sole providers for their family."

Prevalence of Part-Time Work

In the discussion of the BLS's Usual Weekly Earnings and LISEP's True Weekly Earnings, the author describes the prevalence of part-time workers within different incomes and occupations. This includes statistics focused on construction workers and service occupations, as well as prevalence of part-time workers across the income distribution. This section describes how the statistics on the prevalence of part-time work were computed. For a description on how LISEP calculated median weekly earnings for construction workers, refer to the subsequent section "True Weekly Earnings for Construction Workers."

LISEP computed statistics on the prevalence of part-time work using microdata from the IPUMS-published CPS Annual Social and Economic supplement (ASEC) sample.²³ All three follow analogous initial data preparation, before specific calculations are done for each statistic.

First, the sample is restricted to data encompassing the reference year 1995 onward. LISEP identifies earners within the sample as individuals with wage or salary income greater than zero for all individuals in-universe (*incwage*).²⁴ Unpaid family workers and self-employed workers during the reference year (*classwly* variable codes 29 and 10, 13, and 14 respectively) are considered as earners if they reported any income received as an employee. This is because the *classwly* variable describes the class of worker for the reference year based on the longest job held by the respondent.²⁵ Self-employed workers are also considered as earners if they reported positive business (*incbus* variable) or farm (*incfarm* variable) income.²⁶ Once the number of earners in each household has been tallied, the sample is restricted to individuals aged 16 and over (*age*) who worked during the reference year (*workly* variable code 2).²⁷ Unpaid family workers (*classwly* code 29) and self-employed workers (*classwly* codes 10, 13, and 14) are dropped from the sample, though they are counted in the number of earners within a given household. Finally, workers are identified as part-time workers if they worked at least one week part-time during the reference year, based on the *whyptly* variable (codes 1 through 4). The variable states the following cases for classifying whether a respondent worked part-time:

²³ Sarah Flood et al. IPUMS CPS: Version 12.0. Minneapolis, MN: IPUMS, 2024. <https://doi.org/10.18128/D030.V12.0>. Accessed June 12, 2025.

²⁴ https://cps.ipums.org/cps-action/variables/INCWAGE#codes_section.

²⁵ https://cps.ipums.org/cps-action/variables/CLASSWLY#description_section.

²⁶ See https://cps.ipums.org/cps-action/variables/INCBUS#description_section and https://cps.ipums.org/cps-action/variables/INCFARM#description_section.

²⁷ https://cps.ipums.org/cps-action/variables/WORKLY#description_section.

“WHYPTLY reports the reason why respondents worked part-time (less than 35 hours) for at least one week during the previous calendar year. Some of these individuals normally worked a part-time job; others usually worked full-time but worked less than 35 hours for some weeks (e.g., because of slack work or a shortage of materials). Paid time off due to vacations, holidays, or sick leave did not count.”²⁸

This subset, that will be referred as “cleaned ASEC data”, is the basis for all three analyses on the prevalence of part-time work. The following sections will describe further subsetting of the cleaned ASEC data specific to each analysis and present the results.

Construction Occupation

“Consider again the case of construction workers, 80 percent of whom are considered full-time when they’re working, and many of whom earn relatively robust wages during those periods of employment.”²⁹

And

“In 2022, 31.6 percent of construction workers were the sole providers for their family.”³⁰

LISEP restricted the cleaned ASEC data to workers who held a job in construction in the previous year (*occ10ly* codes 6200-6765).³¹ From here, the percent of workers classified as part-time each year was computed using the individual ASEC weight (*asecwt*).

Sole-earners were identified as any earners living in a household with only one earner. As stated above, if another member of the household was classified as self-employed or an unpaid family worker, they counted as an additional earner within the household if they contributed any positive wage or salary, business or farm income to the household. LISEP compared the total number of construction earners (as employees) who were the sole earner in their household with the total number of individuals who worked in construction during the previous year (as employees). This was conducted with the ASEC household weight (*asecwh*).

²⁸ https://cps.ipums.org/cps-action/variables/WHYPTLY#description_section

²⁹ *The Mismeasurement of America*, page 47

³⁰ “Sole providers for their family” refers to construction workers who were the sole earner in their household. *The Mismeasurement of America*, endnote 20 page 142. This quote was amended to reflect a correction due to a misclassification of self-employed workers as non-earners.³¹ https://cps.ipums.org/cps-action/variables/OCC10LY#codes_section.

³¹ https://cps.ipums.org/cps-action/variables/OCC10LY#codes_section.

| Year | Percent of construction workers who were full-time out of those who worked last year | Percent of construction workers who were sole providers for their households out of those who worked last year |
|------|--|--|
| 1995 | 68.0% | 27.6% |
| 1996 | 68.0% | 26.8% |
| 1997 | 69.4% | 27.6% |
| 1998 | 73.7% | 26.0% |
| 1999 | 73.5% | 26.3% |
| 2000 | 74.0% | 26.1% |
| 2001 | 72.7% | 26.6% |
| 2002 | 75.6% | 27.3% |
| 2003 | 75.0% | 29.9% |
| 2004 | 75.2% | 29.9% |
| 2005 | 77.4% | 30.5% |
| 2006 | 76.7% | 29.0% |
| 2007 | 75.2% | 30.6% |
| 2008 | 72.6% | 30.6% |
| 2009 | 68.8% | 32.0% |
| 2010 | 68.4% | 33.8% |
| 2011 | 72.2% | 33.7% |
| 2012 | 71.4% | 33.3% |
| 2013 | 71.7% | 33.5% |
| 2014 | 74.3% | 33.2% |
| 2015 | 77.2% | 31.9% |
| 2016 | 77.8% | 30.9% |
| 2017 | 80.1% | 32.6% |
| 2018 | 78.4% | 32.2% |
| 2019 | 79.6% | 31.7% |
| 2020 | 77.1% | 31.7% |
| 2021 | 80.0% | 29.4% |
| 2022 | 80.0% | 31.6% |
| 2023 | 80.1% | 28.5% |

Table 8: Part-Time Work Prevalence, Construction Workers

Service Occupations

“In the food service industry, for example, about 60 percent of waiters and waitresses, and about 75 percent of hosts and hostesses, work part-time; however, the median wage for

*these occupations is determined exclusively by the wages drawn by the remaining employees working on a full-time basis. Half of all dental hygienists work part-time, but the median wage for dental hygienists is determined exclusively by the other half working full-time.*³² These percentages are listed for 2022.

Using the cleaned ASEC data, LISEP computes the percentage of workers who worked during the prior year in part-time for selected occupations from ASEC. The ASEC variable occ10ly is used to classify the occupational groups as detailed in the end notes: hostesses and hosts are in occupation classification code 4150, waiters and waitresses in 4110, and dental hygienists in 3310.³³

| Year | Dental Hygienists (3310) | Waiters and Waitresses (4110) | Hosts and Hostesses (4150) |
|------|--------------------------|-------------------------------|----------------------------|
| 1995 | 63.7% | 71.0% | |
| 1996 | 58.8% | 70.2% | |
| 1997 | 67.5% | 66.7% | |
| 1998 | 74.6% | 66.6% | |
| 1999 | 65.9% | 64.8% | |
| 2000 | 61.3% | 66.5% | |
| 2001 | 69.6% | 64.1% | |
| 2002 | 65.0% | 63.6% | 81.1% |
| 2003 | 72.6% | 66.8% | 84.6% |
| 2004 | 68.2% | 62.9% | 87.0% |
| 2005 | 53.7% | 63.6% | 82.0% |
| 2006 | 70.7% | 64.7% | 86.7% |
| 2007 | 42.5% | 65.5% | 78.7% |
| 2008 | 60.8% | 67.9% | 83.2% |
| 2009 | 52.4% | 69.2% | 92.2% |
| 2010 | 65.6% | 66.1% | 88.2% |
| 2011 | 72.2% | 66.1% | 81.3% |
| 2012 | 54.3% | 68.5% | 90.6% |
| 2013 | 75.5% | 65.4% | 84.2% |
| 2014 | 60.8% | 64.9% | 83.5% |
| 2015 | 69.5% | 65.5% | 81.1% |
| 2016 | 47.6% | 65.9% | 79.7% |
| 2017 | 71.3% | 60.7% | 87.3% |

³² *The Mismeasurement of America*, pages 45-46.

³³ See Chapter 2, endnote 17 on *The Mismeasurement of America*, page 142.

| | | | |
|------|-------|-------|-------|
| 2018 | 59.4% | 60.1% | 78.0% |
| 2019 | 57.9% | 63.5% | 84.5% |
| 2020 | 57.8% | 70.6% | 84.4% |
| 2021 | 54.2% | 67.1% | 82.8% |
| 2022 | 53.7% | 60.8% | 79.6% |
| 2023 | 49.1% | 64.3% | 89.2% |

Table 9: Part-Time Work Prevalence by Service Occupation

Part-Time Work Across the Wage Distribution

“In the median-wage indicator, however, those workers are ignored altogether—the part-time wages are not factored in. And, of course, that’s a substantial portion of employment—... most of whom subsist at the low end of the wage spectrum.”³⁴

“The IPUMS Annual Social and Economic Supplement (ASEC) dataset and author’s calculations indicate that the bottom half of wage earners (measured by hourly income) has double the prevalence of part-time workers in 2022 (40 percent compared with 16 percent). Unfortunately, even this measure is a lower estimate because the data measures only workers on hourly rates, not salaried workers. Checking robustness by calculating all workers’ total income, the takeaways are starker. (Disclaimer: This is not a perfect check because part-time workers achieve fewer working hours, so it is unsurprising that they would be in the lower half of the distribution.) In this case, the part-time worker prevalence is nearly six times as great with workers in the bottom half versus the top half of income earners (37.8 percent versus 7.0 percent in 2022).”³⁵

LISEP computes the percentage of workers in the private sector who worked part-time by income stratum.

LISEP first approaches this question based on hourly earnings, using the IPUMS earner study variable *hourwage* and weighting the percentage of part-time workers with *asecwt*, classifying workers as below the median or at or above the median hourly wage. The median hourly wage statistic is computed using the *earnwt* weight variable since it *hourwage* is an earner study variable.³⁶ For this calculation, the cleaned ASEC data

³⁴ *The Mismeasurement of America*, page 45. These statistics refer to the calendar year 2022.

³⁵ *The Mismeasurement of America*, endnote 16 page 142. This quote was amended to reflect corrections in the computation.

³⁶ Checking with computing the median using the *asecwt* weight variable instead, it yields the same median hourly wage in every year as when using the *earnwt* weight.

subset is further restricted to workers who were private sector employees during the previous week (*classwkr* variable code 21) and were paid by the hour at their current job (*paidhour* variable code 2). Since the hourly wage variable *hourwage* is an earner study variable, only respondents who were part of the Outgoing Rotation Group sample were considered. Further, observations with a missing value for the *hourwage* variable despite being in-universe were dropped. Finally, only respondents who were classified as private sector employees during the previous calendar year (*classwly* code 22) were considered. This is because the focus is on the hourly wage of private sector employees for the current week, but the part-time rate is based on whether a respondent worked part-time during the previous year.³⁷

One important caveat is the timing of the reference period of *hourwage* and *whyptly*, used for part-time classification. The variable *hourwage* “reports how much the respondent earned per hour in the current job, for those workers paid an hourly wage”³⁸, that is, the job held in March, the month when the respondent was surveyed. However, *whyptly* refers to all weeks in the previous calendar year³⁹. Studying the association of part-time hours with wage based on these two variables assumes a strong connection between the current job and the job held in the previous year, which may not hold for all observations, for example, if a respondent changed jobs in the previous 12 months. Hence, the following estimates are informative but imprecise.

| Year | Below Median | At or Above Median |
|------|--------------|--------------------|
| 1995 | 49.5% | 21.2% |
| 1996 | 48.5% | 21.5% |
| 1997 | 47.2% | 21.4% |
| 1998 | 46.2% | 18.9% |
| 1999 | 43.5% | 18.1% |
| 2000 | 42.1% | 20.6% |
| 2001 | 43.3% | 20.4% |
| 2002 | 44.0% | 20.1% |
| 2003 | 43.5% | 19.5% |
| 2004 | 44.3% | 19.3% |
| 2005 | 42.8% | 19.5% |
| 2006 | 41.9% | 20.3% |
| 2007 | 42.6% | 18.4% |
| 2008 | 47.7% | 21.5% |
| 2009 | 51.6% | 23.7% |

³⁷ LISEP understands that there is no way to identify whether an ASEC respondent was paid at an hourly rate during the previous calendar year.

³⁸ https://cps.ipums.org/cps-action/variables/hourwage#description_section.

³⁹ https://cps.ipums.org/cps-action/variables/whyptly#description_section.

| | | |
|------|-------|-------|
| 2010 | 49.2% | 20.6% |
| 2011 | 47.5% | 20.7% |
| 2012 | 48.8% | 21.0% |
| 2013 | 49.6% | 20.9% |
| 2014 | 47.0% | 20.6% |
| 2015 | 46.0% | 19.9% |
| 2016 | 47.4% | 19.7% |
| 2017 | 44.8% | 19.1% |
| 2018 | 44.7% | 19.7% |
| 2019 | 45.6% | 18.0% |
| 2020 | 45.1% | 20.9% |
| 2021 | 43.9% | 17.9% |
| 2022 | 40.8% | 16.4% |

Table 10: Part-Time Work Prevalence, Hourly Private-Sector Employees by Income Stratum

As a robustness check, this procedure is repeated using *incwage* instead of *hourwage*, which accounts for all income received as an employee (working longer hours will increase the total wages, so this is not an independent ranking). The subset for this robustness check includes respondents from all months-in-sample who are classified as private employees during both the current week and the previous calendar year.

| Year | Below Median | At or Above Median |
|------|--------------|--------------------|
| 1995 | 48.1% | 10.1% |
| 1996 | 48.5% | 9.7% |
| 1997 | 46.7% | 9.3% |
| 1998 | 43.6% | 8.2% |
| 1999 | 42.3% | 7.9% |
| 2000 | 42.1% | 8.7% |
| 2001 | 43.5% | 9.1% |
| 2002 | 42.1% | 8.4% |
| 2003 | 42.8% | 8.4% |
| 2004 | 42.7% | 8.2% |
| 2005 | 41.0% | 8.2% |
| 2006 | 40.8% | 8.6% |
| 2007 | 41.7% | 8.4% |
| 2008 | 45.4% | 9.0% |
| 2009 | 47.8% | 10.2% |
| 2010 | 48.0% | 9.3% |
| 2011 | 47.9% | 9.1% |
| 2012 | 46.7% | 8.8% |
| 2013 | 46.0% | 9.0% |
| 2014 | 43.8% | 8.8% |
| 2015 | 43.3% | 8.4% |
| 2016 | 44.8% | 8.2% |

| | | |
|------|-------|------|
| 2017 | 41.0% | 8.2% |
| 2018 | 39.9% | 7.9% |
| 2019 | 41.5% | 7.7% |
| 2020 | 43.7% | 9.9% |
| 2021 | 38.6% | 7.1% |
| 2022 | 37.8% | 7.0% |

Table 11: Part-Time Work Prevalence, Private-Sector Employees by Income Stratum

True Weekly Earnings for Construction Workers

Chapter 2 focuses on the construction sector as an example of how the headline BLS median usual weekly earnings statistic misrepresents the plight of workers during an economic downturn. The BLS median earnings statistic only considers wage- and salaried-workers that are employed full-time, so when a full-time employee's status changes to part-time or unemployment, they are removed from the BLS earnings sample. Conversely, when an unemployed or part-time worker becomes employed full-time, they are added to the BLS earnings sample. This is problematic during periods of increased labor market slack, such as the Great Recession, when low-earning workers first face layoffs or reduced hours during the downturn before returning to full-time status during the recovery. As a result, the BLS median earnings statistics tends to rise during downturns as the earnings distribution shifts to the right and to fall during recoveries as the distribution shifts to the left.

Consequently, the usual weekly earnings metric is useless as a gauge of workers' well-being during a business cycle's key inflection points. LISEP developed the True Weekly Earnings (TWE) measure, measuring median earnings for all wage- and salaried-workers in the labor force including part-time and unemployed workers, to address this limitation.⁴⁰

⁴⁰ The True Weekly Earnings methodology is available at <https://www.lisep.org/twe>.

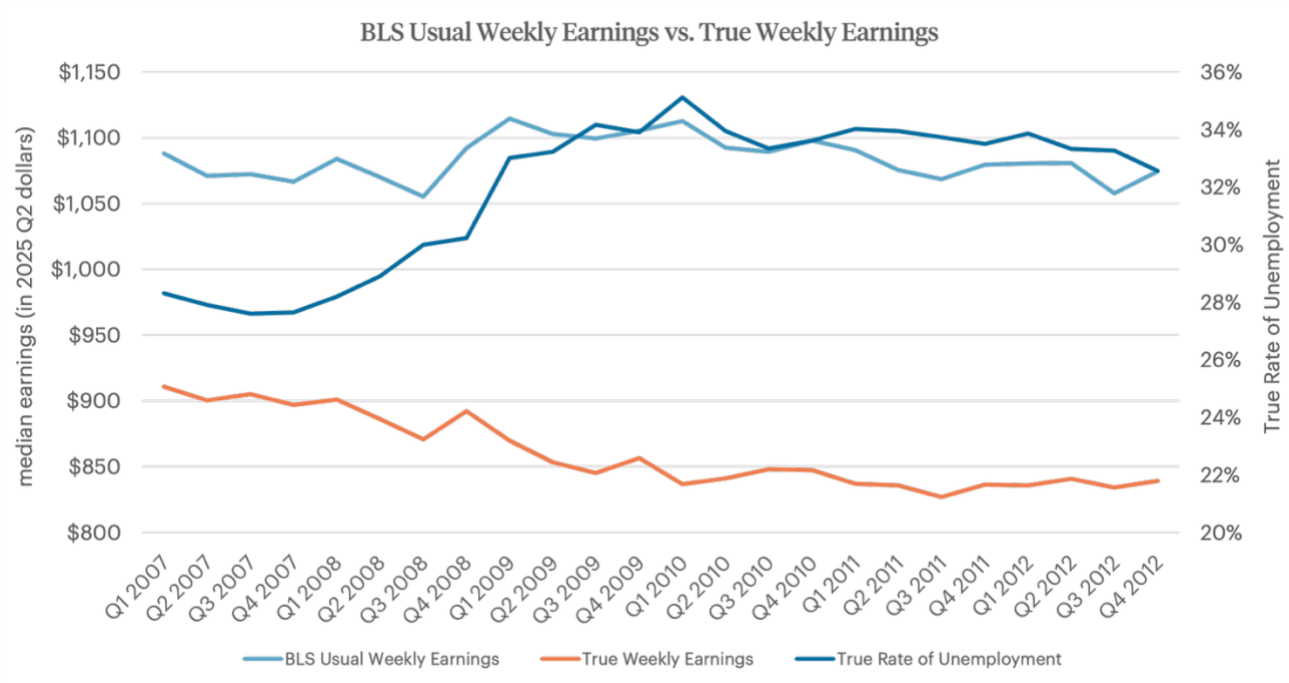


Figure 5: BLS Usual Weekly Earnings vs. True Weekly Earnings⁴¹

LISEP follows the TWE methodology to compute the median earnings statistics for construction workers. LISEP uses data from the Outgoing Rotation Group sample from the Basic Monthly Current Population Survey accessed through IPUMS.⁴² The sample includes all respondents in the civilian non-institutional labor force (identified with *labforce* variable code 2)⁴³ that is age 16 or older, with a few exceptions. All self-employed workers and unpaid family workers are excluded (identified with the *classwkr* variable codes 10, 13, 14 and 29).⁴⁴ Since the focus is on construction workers, only respondents in construction occupations, identified with the occupation codes for the *occ2010* variable 6200 through 6765, are included.⁴⁵ LISEP identifies construction workers through their occupation

⁴¹ The earnings and True Rate of Unemployment statistics are not seasonally adjusted.

U.S. Bureau of Labor Statistics, Employed full time: Median usual weekly nominal earnings (second quartile): Wage and salary workers: 16 years and over [LEU0252881500Q], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/LEU0252881500Q>, August 14, 2025.

U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CPIAUCSL>, August 14, 2025.

⁴² Sarah Flood et al., "Integrated Public Use Microdata Series, Current Population Survey: Version 11.0," 2023, accessed April 29, 2024, <https://doi.org/10.18128/D030.V11.0>.

⁴³ https://cps.ipums.org/cps-action/variables/LABFORCE#codes_section.

⁴⁴ https://cps.ipums.org/cps-action/variables/CLASSWKR#codes_section.

⁴⁵ https://cps.ipums.org/cps-action/variables/OCC2010#codes_section.

classification rather than through the industry classification to focus on a group of workers of similar characteristics, such as educational attainment and work activities, that is more akin to what might be considered a typical “construction job”. Classifying workers based on industry would mean that workers in other types of occupations, such as management, business and financial operations (about 1 in 5 workers), or office and administrative support (about 5% of workers) are included.⁴⁶ However, as figure 8 shows, the industry classification would also have shown declining True Weekly Earnings at the median for construction workers following the burst of the housing bubble.

Once the sample of construction workers is determined, LISEP further subsets the sample to replicate the BLS sample of usual median earnings of full-time workers. Full-time workers are identified as those usually working full-time hours at all jobs using the *wkstat* variable (codes 10 through 13) as well as the usual hours worked per week at all jobs (*uhrsworkt* variable) and their main jobs (*uhrsworkorg* variable).⁴⁷ Respondents who usually work 35 hours per week or more are identified as working full-time. This subset will be referred as the “BLS sample” while the sample of all construction wage- and salaried-workers in the labor force, as described above, will be referred as the “TWE sample” for the remainder of the section.

In both the BLS sample and the TWE sample, usual weekly earnings are measured with the *earnweek* variable.⁴⁸ In the TWE sample, unemployed workers are assigned a weekly earnings value of 0. No treatments are made to top-coded weekly earnings values in either sample as these values are at the top of the earnings distribution, so the top-coding does not affect the median earnings statistic. To calculate the median earnings in a given sample, LISEP replicates the binning method used by the BLS. A summary of this computation, detailed in the TWE methodology,⁴⁹ follows:

“Specifically, we grouped each weekly earnings measure into \$50 bins. We then determined which bin contains the median weighted wage. Then within this bin, we linearly interpolated across the endpoints of the bin, based on the weights of the rest of the sample.

These weights are used for the Outgoing Rotational Group (ORG) survey, which are four times the weights used for the regular CPS. This is because the ORG sample is just the

⁴⁶ <https://www.bls.gov/spotlight/2022/the-construction-industry-labor-force-2003-to-2020/home.htm>.

⁴⁷ https://cps.ipums.org/cps-action/variables/WKSTAT#codes_section , https://cps.ipums.org/cps-action/variables/UHRSWORKT#description_section , https://cps.ipums.org/cps-action/variables/UHRSWORKORG#description_section.

⁴⁸ https://cps.ipums.org/cps-action/variables/EARNWEEK#description_section.

⁴⁹ See Section II. B. “Mathematical Calculation of the Statistics” in LISEP’s True Weekly Earnings methodology, which can be accessed through <https://www.lisep.org/twe>.

fourth and the eighth month of the eight-month sampling done by the CPS and is one fourth of the households. This variable on IPUMS is EARNWT and signifies the number of persons in the civilian non institutional adult population that are represented by that specific entry.⁵⁰

Figures 6 and 7 below illustrate how the TWE captures the decline in earnings experienced by construction workers during the subprime crisis while the BLS median earnings metric's narrow focus on full-time workers misleadingly describe that median earnings had increased even as employment and activity in the sector plummeted.⁵¹ The TWE recorded that median earnings for construction workers were \$877 per week in 2006, on average, and fell 16.8% to \$730 in 2010, on average. During the same period, the BLS metric for median earnings for construction workers employed full-time rose 5.3% from \$950 to \$1,001 a week.⁵² Neither the TWE nor the BLS series are seasonally adjusted.

⁵⁰ https://cps.ipums.org/cps-action/variables/EARNWT#codes_section.

⁵¹ U.S. Bureau of Labor Statistics, All Employees, Construction [USCONS], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/USCONS>, August 14, 2025.

U.S. Bureau of Economic Analysis, Real Gross Domestic Product: Construction (23) in the United States [USCONSTRQGSP], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/USCONSTRQGSP>, August 14, 2025.

⁵² All earnings are adjusted for inflation using the Consumer Price Index for All Urban Consumers and expressed in Q1 2024 dollars.

U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CPIAUCSL>, April 10, 2024.

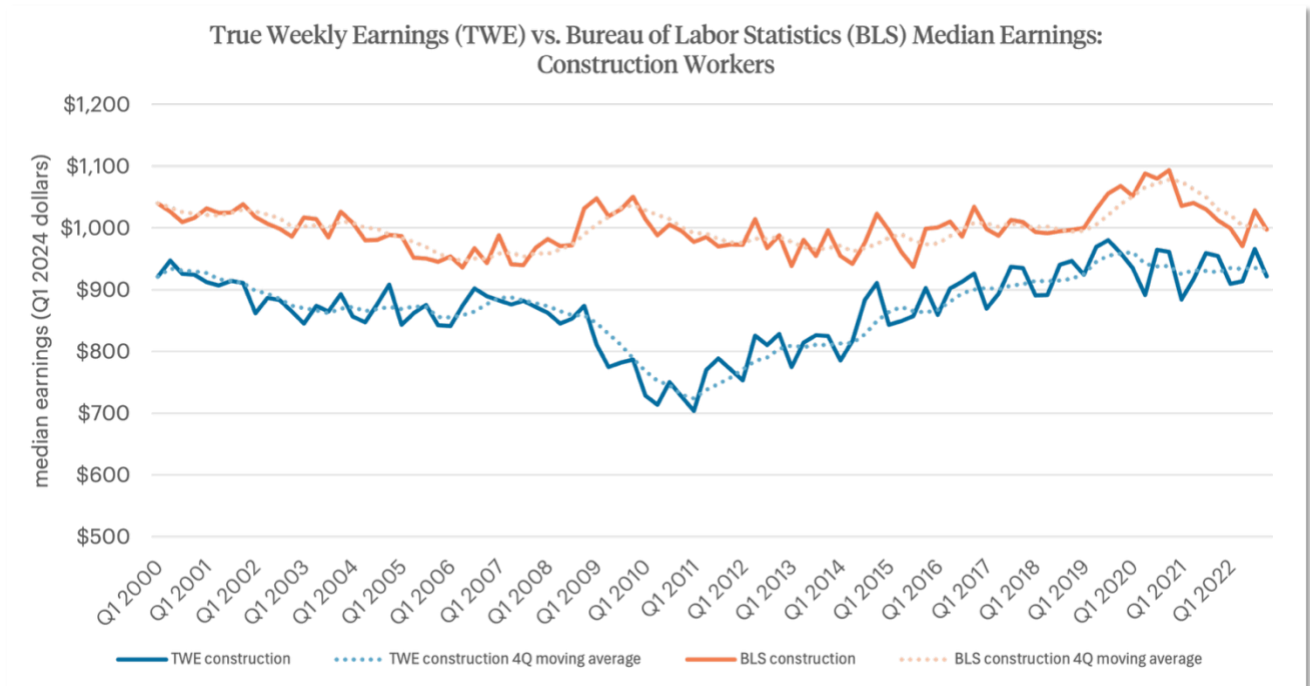


Figure 6: True Weekly Earnings vs. Bureau of Labor Statistics Median Earnings for Construction Workers (not seasonally adjusted)

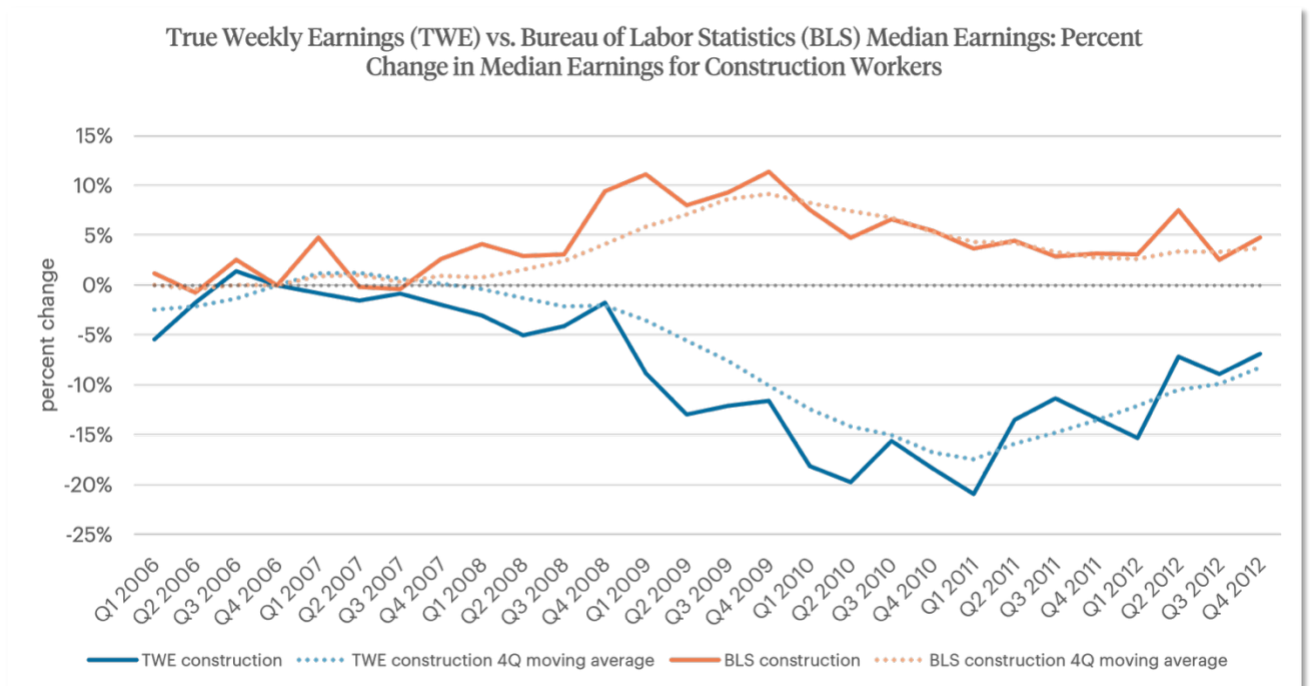


Figure 7: True Weekly Earnings vs. Bureau of Labor Statistics Median Earnings: Percent Change in Median Earnings for Construction Workers (not seasonally adjusted)

| Date | True Weekly Earnings – Construction | True Weekly Earnings – Construction 4Q Moving Average | BLS Median Earnings – Construction | BLS Median Earnings – Construction 4Q Moving Average |
|---------|-------------------------------------|---|------------------------------------|--|
| Q1 2000 | \$921 | \$921 | \$1,040 | \$1,040 |
| Q2 2000 | \$947 | \$934 | \$1,026 | \$1,033 |
| Q3 2000 | \$926 | \$931 | \$1,010 | \$1,025 |
| Q4 2000 | \$924 | \$930 | \$1,016 | \$1,023 |
| Q1 2001 | \$912 | \$927 | \$1,032 | \$1,021 |
| Q2 2001 | \$907 | \$917 | \$1,024 | \$1,021 |
| Q3 2001 | \$914 | \$914 | \$1,025 | \$1,024 |
| Q4 2001 | \$911 | \$911 | \$1,038 | \$1,030 |
| Q1 2002 | \$862 | \$898 | \$1,017 | \$1,026 |
| Q2 2002 | \$886 | \$893 | \$1,007 | \$1,022 |
| Q3 2002 | \$884 | \$886 | \$999 | \$1,015 |
| Q4 2002 | \$865 | \$874 | \$986 | \$1,002 |
| Q1 2003 | \$845 | \$870 | \$1,017 | \$1,002 |
| Q2 2003 | \$874 | \$867 | \$1,015 | \$1,004 |
| Q3 2003 | \$865 | \$862 | \$984 | \$1,000 |
| Q4 2003 | \$893 | \$869 | \$1,027 | \$1,011 |
| Q1 2004 | \$856 | \$872 | \$1,008 | \$1,009 |
| Q2 2004 | \$847 | \$865 | \$980 | \$1,000 |
| Q3 2004 | \$877 | \$868 | \$980 | \$999 |
| Q4 2004 | \$908 | \$872 | \$989 | \$990 |
| Q1 2005 | \$843 | \$869 | \$987 | \$984 |
| Q2 2005 | \$862 | \$872 | \$952 | \$977 |
| Q3 2005 | \$875 | \$872 | \$951 | \$970 |
| Q4 2005 | \$842 | \$856 | \$945 | \$959 |
| Q1 2006 | \$841 | \$855 | \$954 | \$950 |
| Q2 2006 | \$874 | \$858 | \$936 | \$946 |
| Q3 2006 | \$902 | \$865 | \$967 | \$951 |
| Q4 2006 | \$890 | \$877 | \$943 | \$950 |
| Q1 2007 | \$883 | \$887 | \$988 | \$959 |
| Q2 2007 | \$876 | \$887 | \$941 | \$960 |
| Q3 2007 | \$882 | \$883 | \$940 | \$953 |
| Q4 2007 | \$872 | \$878 | \$968 | \$959 |
| Q1 2008 | \$863 | \$873 | \$982 | \$958 |
| Q2 2008 | \$845 | \$865 | \$971 | \$965 |
| Q3 2008 | \$853 | \$858 | \$972 | \$973 |
| Q4 2008 | \$874 | \$859 | \$1,032 | \$989 |

| | | | | |
|---------|-------|-------|---------|---------|
| Q1 2009 | \$811 | \$846 | \$1,048 | \$1,006 |
| Q2 2009 | \$774 | \$828 | \$1,019 | \$1,018 |
| Q3 2009 | \$782 | \$810 | \$1,031 | \$1,032 |
| Q4 2009 | \$786 | \$788 | \$1,050 | \$1,037 |
| Q1 2010 | \$728 | \$768 | \$1,014 | \$1,029 |
| Q2 2010 | \$714 | \$753 | \$988 | \$1,021 |
| Q3 2010 | \$751 | \$745 | \$1,005 | \$1,015 |
| Q4 2010 | \$726 | \$730 | \$995 | \$1,001 |
| Q1 2011 | \$703 | \$723 | \$978 | \$991 |
| Q2 2011 | \$770 | \$737 | \$985 | \$991 |
| Q3 2011 | \$789 | \$747 | \$970 | \$982 |
| Q4 2011 | \$771 | \$758 | \$973 | \$977 |
| Q1 2012 | \$753 | \$771 | \$972 | \$975 |
| Q2 2012 | \$826 | \$785 | \$1,014 | \$982 |
| Q3 2012 | \$810 | \$790 | \$967 | \$982 |
| Q4 2012 | \$828 | \$804 | \$988 | \$986 |
| Q1 2013 | \$774 | \$810 | \$939 | \$977 |
| Q2 2013 | \$814 | \$807 | \$980 | \$969 |
| Q3 2013 | \$827 | \$811 | \$955 | \$965 |
| Q4 2013 | \$825 | \$810 | \$996 | \$967 |
| Q1 2014 | \$786 | \$813 | \$955 | \$972 |
| Q2 2014 | \$817 | \$813 | \$942 | \$962 |
| Q3 2014 | \$884 | \$828 | \$976 | \$967 |
| Q4 2014 | \$911 | \$849 | \$1,023 | \$974 |
| Q1 2015 | \$843 | \$864 | \$996 | \$984 |
| Q2 2015 | \$849 | \$872 | \$961 | \$989 |
| Q3 2015 | \$857 | \$865 | \$937 | \$979 |
| Q4 2015 | \$903 | \$863 | \$999 | \$973 |
| Q1 2016 | \$859 | \$867 | \$1,001 | \$975 |
| Q2 2016 | \$902 | \$880 | \$1,010 | \$987 |
| Q3 2016 | \$913 | \$894 | \$986 | \$999 |
| Q4 2016 | \$926 | \$900 | \$1,035 | \$1,008 |
| Q1 2017 | \$869 | \$903 | \$998 | \$1,007 |
| Q2 2017 | \$894 | \$901 | \$987 | \$1,002 |
| Q3 2017 | \$937 | \$907 | \$1,013 | \$1,008 |
| Q4 2017 | \$935 | \$909 | \$1,010 | \$1,002 |
| Q1 2018 | \$891 | \$914 | \$994 | \$1,001 |
| Q2 2018 | \$892 | \$914 | \$991 | \$1,002 |
| Q3 2018 | \$941 | \$915 | \$994 | \$997 |
| Q4 2018 | \$947 | \$917 | \$997 | \$994 |

| | | | | |
|---------|-------|-------|---------|---------|
| Q1 2019 | \$925 | \$926 | \$1,000 | \$996 |
| Q2 2019 | \$970 | \$945 | \$1,031 | \$1,005 |
| Q3 2019 | \$980 | \$955 | \$1,056 | \$1,021 |
| Q4 2019 | \$959 | \$958 | \$1,068 | \$1,038 |
| Q1 2020 | \$935 | \$961 | \$1,052 | \$1,052 |
| Q2 2020 | \$891 | \$941 | \$1,088 | \$1,066 |
| Q3 2020 | \$965 | \$938 | \$1,080 | \$1,072 |
| Q4 2020 | \$962 | \$938 | \$1,094 | \$1,079 |
| Q1 2021 | \$884 | \$925 | \$1,035 | \$1,074 |
| Q2 2021 | \$917 | \$932 | \$1,041 | \$1,063 |
| Q3 2021 | \$959 | \$930 | \$1,030 | \$1,050 |
| Q4 2021 | \$954 | \$929 | \$1,012 | \$1,030 |
| Q1 2022 | \$909 | \$935 | \$1,000 | \$1,021 |
| Q2 2022 | \$913 | \$934 | \$971 | \$1,003 |
| Q3 2022 | \$966 | \$936 | \$1,028 | \$1,003 |
| Q4 2022 | \$921 | \$928 | \$997 | \$999 |

Table 12: True Weekly Earnings vs. Bureau of Labor Statistics Median Earnings: Construction Workers (Q1 2024 dollars)

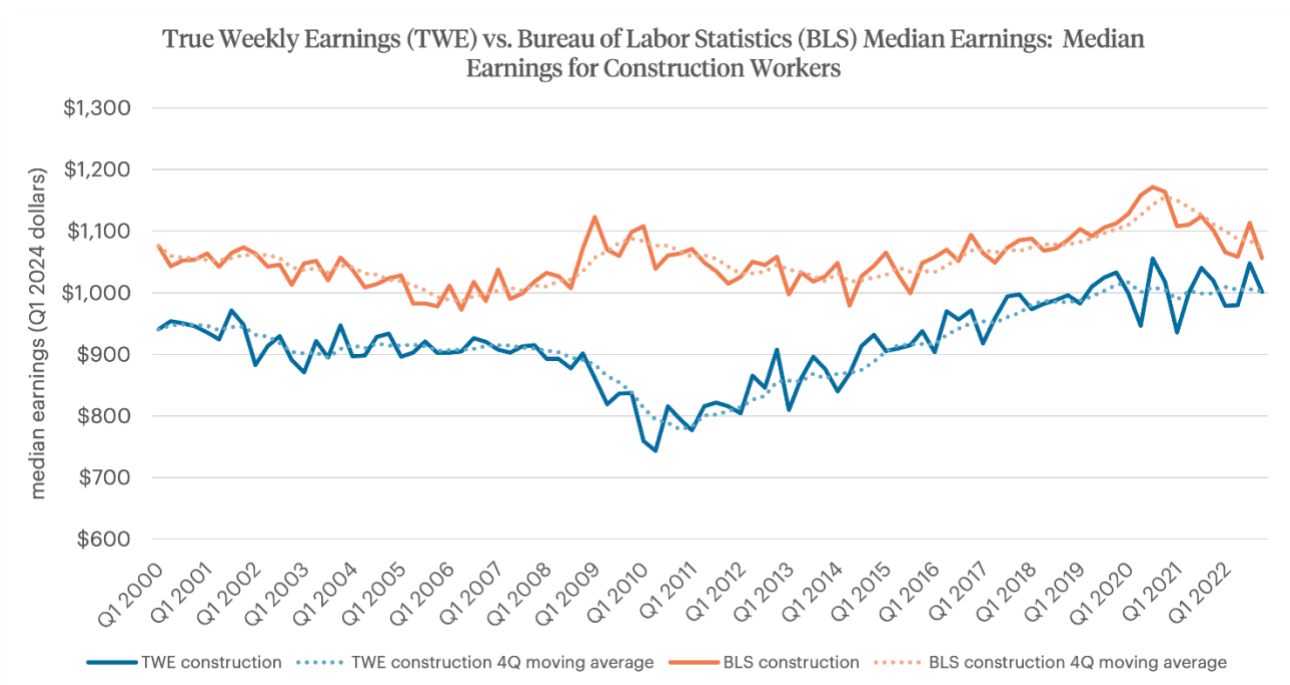


Figure 8: True Weekly Earnings vs. Bureau of Labor Statistics Median Earnings: Median Earnings for Construction Workers (not seasonally adjusted)

Chapter 3: True Living Cost

Chapter 3 Erratum

Correction to endnote 35 (page 148): The original text states: "LISEP uses the 2010 Occupational Code classification scheme from the US Census Bureau, with codes 3740, 3130, and 7150 representing firefighters, nurses and auto mechanics, respectively."

This endnote should clarify that the calculation it refers to applies to Automotive Service Technicians and Mechanics with classification code 7200, rather than classification code 7150 for Automotive Body and Related Repairers.

Increase in Median Earnings for Selected Occupations

Chapter 3 discusses the increase in the Consumer Price Index relative to increases in earnings for selected occupations:

*"Between 2001 and 2023, registered nurses saw their median incomes grow 81 percent. Those working as auto mechanics saw their incomes rise 82 percent. Firefighters saw their incomes rise 55 percent."*⁵³

This analysis uses the IPUMS-published CPS Basic Monthly sample.⁵⁴ Because of the focus on earnings, LISEP subsets the data to Outgoing Rotation Groups (ORG) and focuses on employed (*empstat* code 10 or 12) wage or salaried earners, dropping the unemployed as well as the self-employed (*classwkr* codes 10, 13, and 14) or unpaid family workers (*classwkr* code 29).

Wages are estimated by the variable *earnweek2*, with individuals missing this value dropped from the sample. Because the second ORG (*mish* code 8) has a lower topcoding than the first ORG (*mish* code 4) in the year 2023, *earnweek2* is re-topcoded to apply the second ORG's topcode to all individuals in that 2023, consistent with the Census Bureau's recommendation.⁵⁵ Since only a few values are topcoded, this would not affect the median statistic as calculated.

Earnings are annualized as the number of weeks worked *wksworkorg* times the weekly earnings for each worker. If the individual reported working for 0 weeks or for more than 52

⁵³ *The Mismeasurement of America*, page 77.

⁵⁴ Sarah Flood et al. IPUMS CPS: Version 12.0. Minneapolis, MN: IPUMS, 2024. <https://doi.org/10.18128/D030.V12.0>. Accessed July 2, 2025.

⁵⁵ https://cps.ipums.org/cps-action/variables/EARNWEEK2#comparability_section.

weeks (but not missing), *wksworkorg* is conservatively set to 50. Workers with multiple jobs are conservatively assumed to earn the same amount at each of their jobs, the amount reported by *earnweek2*.

Median earnings (weighted by *earnwt*) are reported by year and 2010 Occupational Code (*occ2010*), as described in the end notes (with codes 3740, 3130, and 7200 representing firefighters, nurses, and auto mechanics, respectively.), reported below.

| Occupation | Median Annual Earnings 2001 | Median Annual Earnings 2023 |
|--|-----------------------------|-----------------------------|
| Registered Nurses | \$38,700 | \$70,200 |
| Firefighters | \$45,300 | \$70,200 |
| Automotive Service Technicians and Mechanics | \$27,500 | \$50,000 |

Table 13: Median Annual Earnings by Occupation, 2001-2023 (in nominal dollars)

Cost-of-Living Adjustments Using the True Living Cost Metric

In Chapter 3, the author provides examples of government programs and policies that are indexed to the Consumer Price Index (CPI) to keep up with cost-of-living. Payments, such as defined benefit pensions, are subject to cost-of-living adjustments (COLAs) indexed to the CPI. Unlike LISEP's True Living Cost index (TLC), the CPI is not a measure of cost of living and does not reflect the lived experience of low- and middle-income households who rely on these programs. This section details how payments subject to COLAs indexed to the CPI would have differed over the last twenty-two years if they had been tied to the TLC instead.

Veterans' Pension

Military retirement defined benefit plans are adjusted for cost-of-living using a COLA indexed to the Consumer Price Index for All Urban Wage Earners and Clerical Workers (CPI-W). To illustrate how using the CPI-W can shortchange the needed COLA for pension payments to keep up with cost-of-living, as defined by TLC, the author provides the hypothetical example of a master sergeant with thirty years of service retired in 2001, the earliest year for TLC data. LISEP assumes that the initial pension payment follows the

“Final Pay” retirement plan and was based on a final pay of \$3,467.10.^{56, 57} Given the 75% retired pay multiplier for those with thirty years of service, that yields an initial monthly pension of \$2,600.325, rounded to \$2,600 for simplicity. In the example, LISEP supposes that the retiree receives the \$2,600 monthly pension during 2002, and COLAs become effective in the following year (2003). In reality, the military retired pay COLAs become effective on December 1st of a given year as they are based on the year-over-year percent increase in the 3rd quarter average of the CPI-W. The military retirement COLA formula is as follows:

“The COLA is determined by the percentage increase, if any, between the average 3rd quarter Consumer Price Index (CPI) of the current year over the average 3rd quarter (CPI) of the prior year. In the event of a decrease in the CPI, the COLA will not be negative but will be zero. Additionally, the COLA for the next year will reach back to the 3rd quarter CPI to the last year in which there was a positive COLA increase.”⁵⁸

Following this and using the non-seasonally adjusted CPI-W series, we compare how the COLA indexed to the CPI-W compares to a COLA indexed to the TLC.⁵⁹ LISEP assumes that the TLC-indexed COLA follows a similar formula as the CPI-indexed COLA. Since the TLC index is annual, LISEP applies the annual percent increase in the TLC to the pension plan. The chart and tables below summarize the results, with the column “Year Payment” referring to the year when a retirement payment is received and “Year” referring the year corresponding to the CPI-W or TLC cost index.

⁵⁶ The Final Pay plan is the “primary retirement plan for Reserve members with initial date of entry into service prior to September 8, 1980” and would correspond to the retired master sergeant in LISEP’s example. A 75% retired pay multiplier for 30 years of service would apply. <https://militarypay.defense.gov/Pay/Retirement/>.

⁵⁷ The final pay of \$3,467.10 is based on the E-8 pay grade for those enlisted over 26 years based on the 2000 US Military Basic Pay Charts. <https://www.navy.mil/navydata/charts/2000-military-pay-chart.html>.

⁵⁸ <https://militarypay.defense.gov/Pay/Retirement/Cola.aspx>.

⁵⁹ U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Wage Earners and Clerical Workers: All Items in U.S. City Average [CWUR0000SA0], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CWUR0000SA0>, April 26, 2024.

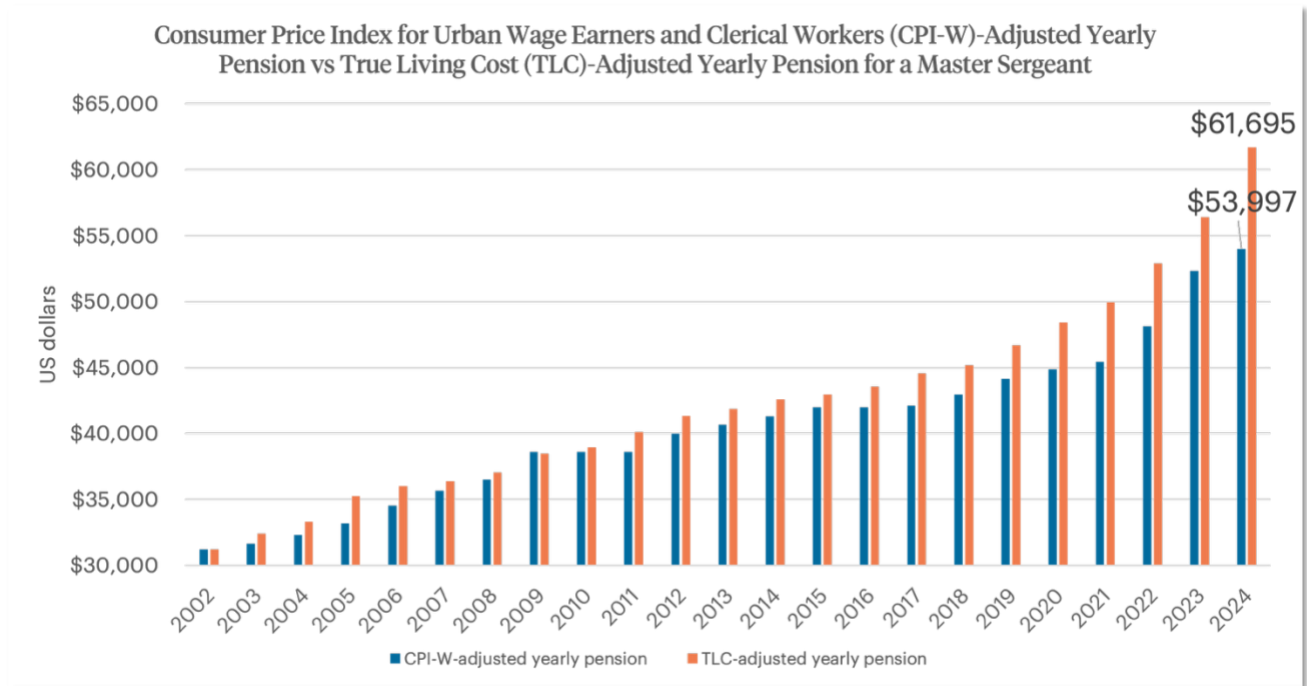


Figure 9: Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W)-Adjusted Yearly Pension vs True Living Cost (TLC)-Adjusted Yearly Pension for a Master Sergeant

| Year Payment | Year | CPI-W Q3 Average | COLA Factor CPI-W | TLC (Index 2001 = 100) | COLA Factor TLC |
|--------------|------|------------------|-------------------|------------------------|-----------------|
| 2002 | 2001 | 174.1 | | 100.0 | |
| 2003 | 2002 | 176.6 | 1.014 | 103.9 | 1.039 |
| 2004 | 2003 | 180.3 | 1.021 | 106.8 | 1.028 |
| 2005 | 2004 | 185.1 | 1.027 | 113.0 | 1.058 |
| 2006 | 2005 | 192.7 | 1.041 | 115.3 | 1.021 |
| 2007 | 2006 | 199.1 | 1.033 | 116.6 | 1.011 |
| 2008 | 2007 | 203.6 | 1.023 | 118.7 | 1.018 |
| 2009 | 2008 | 215.5 | 1.058 | 123.3 | 1.039 |
| 2010 | 2009 | 211 | 1 | 124.8 | 1.012 |
| 2011 | 2010 | 214.1 | 1 | 128.6 | 1.03 |
| 2012 | 2011 | 223.2 | 1.036 | 132.4 | 1.03 |
| 2013 | 2012 | 226.9 | 1.017 | 134.2 | 1.013 |
| 2014 | 2013 | 230.3 | 1.015 | 136.5 | 1.017 |
| 2015 | 2014 | 234.2 | 1.017 | 137.7 | 1.009 |
| 2016 | 2015 | 233.3 | 1 | 139.6 | 1.014 |

| | | | | | |
|------|------|-------|-------|-------|-------|
| 2017 | 2016 | 235.1 | 1.003 | 142.8 | 1.023 |
| 2018 | 2017 | 239.7 | 1.02 | 144.7 | 1.014 |
| 2019 | 2018 | 246.4 | 1.028 | 149.5 | 1.033 |
| 2020 | 2019 | 250.2 | 1.016 | 155.0 | 1.037 |
| 2021 | 2020 | 253.4 | 1.013 | 159.9 | 1.032 |
| 2022 | 2021 | 268.4 | 1.059 | 169.4 | 1.059 |
| 2023 | 2022 | 291.9 | 1.087 | 180.5 | 1.066 |
| 2024 | 2023 | 301.2 | 1.032 | 197.4 | 1.094 |

Table 14: Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) vs. True Living Cost (TLC): COLA Calculations

| Year Payment | CPI-W-Adjusted Monthly Pension | CPI-W-Adjusted Yearly Pension | TLC-Adjusted Monthly pension | TLC-Adjusted Yearly Pension |
|--------------|--------------------------------|-------------------------------|------------------------------|-----------------------------|
| 2002 | \$2,600.00 | \$31,200.00 | \$2,600.00 | \$31,200.00 |
| 2003 | \$2,636.40 | \$31,637.00 | \$2,701.40 | \$32,417.00 |
| 2004 | \$2,691.76 | \$32,301.00 | \$2,777.04 | \$33,324.00 |
| 2005 | \$2,764.44 | \$33,173.00 | \$2,938.11 | \$35,257.00 |
| 2006 | \$2,877.78 | \$34,533.00 | \$2,999.81 | \$35,998.00 |
| 2007 | \$2,972.75 | \$35,673.00 | \$3,032.81 | \$36,394.00 |
| 2008 | \$3,041.12 | \$36,493.00 | \$3,087.40 | \$37,049.00 |
| 2009 | \$3,217.51 | \$38,610.00 | \$3,207.80 | \$38,494.00 |
| 2010 | \$3,217.51 | \$38,610.00 | \$3,246.30 | \$38,956.00 |
| 2011 | \$3,217.51 | \$38,610.00 | \$3,343.69 | \$40,124.00 |
| 2012 | \$3,333.34 | \$40,000.00 | \$3,444.00 | \$41,328.00 |
| 2013 | \$3,390.01 | \$40,680.00 | \$3,488.77 | \$41,865.00 |
| 2014 | \$3,440.86 | \$41,290.00 | \$3,548.08 | \$42,577.00 |
| 2015 | \$3,499.35 | \$41,992.00 | \$3,580.01 | \$42,960.00 |
| 2016 | \$3,499.35 | \$41,992.00 | \$3,630.13 | \$43,562.00 |
| 2017 | \$3,509.85 | \$42,118.00 | \$3,713.62 | \$44,564.00 |
| 2018 | \$3,580.05 | \$42,961.00 | \$3,765.62 | \$45,187.00 |
| 2019 | \$3,680.29 | \$44,163.00 | \$3,889.88 | \$46,679.00 |
| 2020 | \$3,739.17 | \$44,870.00 | \$4,033.81 | \$48,406.00 |
| 2021 | \$3,787.78 | \$45,453.00 | \$4,162.89 | \$49,955.00 |
| 2022 | \$4,011.26 | \$48,135.00 | \$4,408.50 | \$52,902.00 |

| | | | | |
|-------|------------|--------------|------------|--------------|
| 2023 | \$4,360.24 | \$52,323.00 | \$4,699.46 | \$56,394.00 |
| 2024 | \$4,499.77 | \$53,997.00 | \$5,141.21 | \$61,695.00 |
| Total | | \$930,817.00 | | \$977,285.00 |

Table 15: Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W)-Adjusted Yearly Pension vs True Living Cost (TLC)-Adjusted Yearly Pension for a Master Sergeant

Social Security Benefits

Social Security benefits are also subject to COLAs indexed to the CPI-W using a similar formula as for the military retirement plan described above:

“A COLA effective for December of the current year is equal to the percentage increase (if any) in the CPI-W from the average for the third quarter of the current year to the average for the third quarter of the last year in which a COLA became effective. If there is an increase, it must be rounded to the nearest tenth of one percent. If there is no increase, or if the rounded increase is zero, there is no COLA for the year.”⁶⁰

For the example in the book, the author compares how the annual Old-Age and Survivors Insurance benefit would affect someone retiring in 2002 if the TLC were used to adjust the monthly benefit for cost of living. LISEP sets the initial annual benefit for 2002 at \$10,000. Based on the December 2002 average benefit of \$836.90, amounting to \$10,043 if annualized, \$10,000 seems a reasonable benchmark.⁶¹ LISEP applies the annual percent change of the TLC as a COLA just as in the military pension example. The results are summarized below:

⁶⁰ <https://www.ssa.gov/oact/cola/latestCOLA.html>.

⁶¹ In fact, retired workers may have earned slightly more on an annual basis, on average, with the average benefit for retired workers in December 2002 being \$851.4, or \$10,217 a year. See table 5.A1 “Number and average monthly benefit, by type of benefit and race, December 2002” on <https://www.ssa.gov/policy/docs/statcomps/supplement/2003/5a.pdf>.

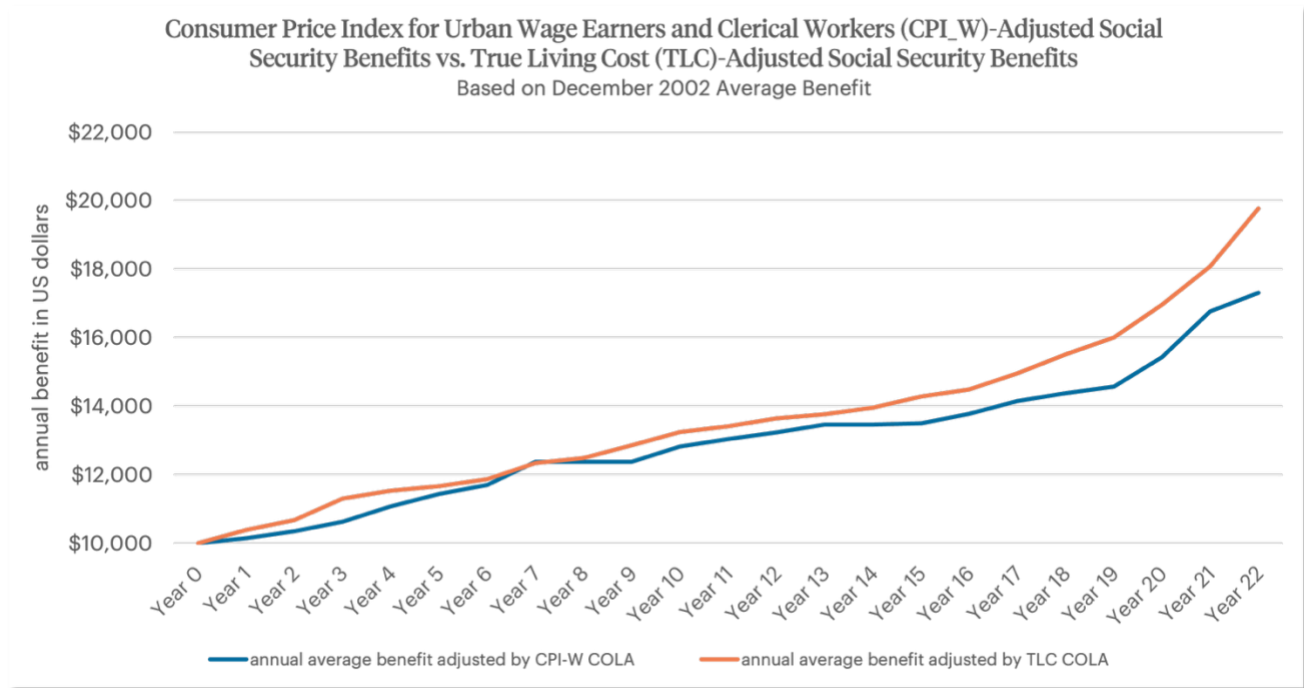


Figure 10: Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W)-Adjusted Social Security Benefits vs True Living Cost (TLC)-Adjusted Social Security Benefits

| Year Payment | CPI-W-Adjusted Monthly Pension | CPI-W-Adjusted Yearly Pension | TLC-Adjusted Monthly Pension | TLC-Adjusted Yearly Pension | % Difference (TLC-Adjusted Pension / CPI-Adjusted Pension) |
|--------------|--------------------------------|-------------------------------|------------------------------|-----------------------------|--|
| 2002 | \$833 | \$10,000 | \$833.33 | \$10,000 | 0.0% |
| 2003 | \$845 | \$10,140 | \$865.83 | \$10,390 | 2.5% |
| 2004 | \$863 | \$10,353 | \$890.08 | \$10,681 | 3.2% |
| 2005 | \$886 | \$10,632 | \$941.70 | \$11,300 | 6.3% |
| 2006 | \$922 | \$11,068 | \$961.48 | \$11,538 | 4.2% |
| 2007 | \$953 | \$11,434 | \$972.05 | \$11,665 | 2.0% |
| 2008 | \$975 | \$11,697 | \$989.55 | \$11,875 | 1.5% |
| 2009 | \$1,031 | \$12,375 | \$1,028.14 | \$12,338 | -0.3% |
| 2010 | \$1,031 | \$12,375 | \$1,040.48 | \$12,486 | 0.9% |
| 2011 | \$1,031 | \$12,375 | \$1,071.69 | \$12,860 | 3.9% |
| 2012 | \$1,068 | \$12,821 | \$1,103.85 | \$13,246 | 3.3% |

| | | | | | |
|-------|---------|-----------|------------|-----------|-------|
| 2013 | \$1,087 | \$13,038 | \$1,118.20 | \$13,418 | 2.9% |
| 2014 | \$1,103 | \$13,234 | \$1,137.20 | \$13,646 | 3.1% |
| 2015 | \$1,122 | \$13,459 | \$1,147.44 | \$13,769 | 2.3% |
| 2016 | \$1,122 | \$13,459 | \$1,163.50 | \$13,962 | 3.7% |
| 2017 | \$1,125 | \$13,499 | \$1,190.26 | \$14,283 | 5.8% |
| 2018 | \$1,147 | \$13,769 | \$1,206.93 | \$14,483 | 5.2% |
| 2019 | \$1,180 | \$14,155 | \$1,246.76 | \$14,961 | 5.7% |
| 2020 | \$1,198 | \$14,381 | \$1,292.89 | \$15,515 | 7.9% |
| 2021 | \$1,214 | \$14,568 | \$1,334.26 | \$16,011 | 9.9% |
| 2022 | \$1,286 | \$15,428 | \$1,412.98 | \$16,956 | 9.9% |
| 2023 | \$1,398 | \$16,770 | \$1,506.24 | \$18,075 | 7.8% |
| 2024 | \$1,442 | \$17,307 | \$1,647.82 | \$19,774 | 14.3% |
| Total | | \$298,339 | | \$313,232 | 5.0% |

Table 16: Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W)-Adjusted Social Security Benefits vs True Living Cost (TLC)-Adjusted Social Security Benefits

Ohio Minimum Wage

The minimum wage of fifteen states and the District of Columbia is indexed to a measure of inflation, usually the CPI in order to keep up with cost-of-living, while another five states have scheduled to index their minimum wage to inflation.⁶² The aim of these policies is to prevent the erosion of purchasing power of minimum wage workers and other low-wage workers who may be impacted. Indeed, the purchasing power of the federal minimum wage as measured by the CPI-U was 30% lower in 2024 than in 2010.^{63,64} Because the state of Ohio has indexed its minimum wage to the national CPI-W since 2008, the earliest (under current law) along with Montana among states to index their minimum wage to inflation,⁶⁵ it serves to illustrate how even these efforts have short-changed low-income workers due to underestimating the increase in their cost of living. Every year, Ohio updates its minimum wage based on the year-over-year change of the CPI-W in August, rounded to the nearest five cents:

⁶² <https://www.epi.org/blog/tying-minimum-wage-increases-to-inflation-as-12-states-do-will-lift-up-low-wage-workers-and-their-families-across-the-country/>. <https://www.congress.gov/crs-product/R43792>.

⁶³ The federal minimum wage has last been updated in July 2009 at the level of \$7.25 per hour. <https://www.dol.gov/agencies/whd/minimum-wage/history/chart>.

⁶⁴ See author's calculations on <https://fred.stlouisfed.org/graph/?g=1JvLs>.

U.S. Department of Labor, Federal Minimum Hourly Wage for Nonfarm Workers for the United States [FEDMINNFRWG], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/FEDMINNFRWG>, June 9, 2025.

U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CPIAUCSL>, June 9, 2025.

⁶⁵ States like Washington, Oregon and Florida had already indexed their minimum wage to inflation before 2008 but have updated their laws since then. https://www.epi.org/publication/webfeatures_snapshots_20051221/. <https://www.congress.gov/crs-product/R43792>.

“On the thirtieth day of each September, beginning in 2007, this state minimum wage rate shall be increased effective the first day of the following January by the rate of inflation for the twelve month period prior to that September according to the consumer price index or its successor index for all urban wage earners and clerical workers for all items as calculated by the federal government rounded to the nearest five cents.”⁶⁶

As a result, Ohio’s minimum wage has increased from \$6.85 per hour in 2007 to \$10.45 per hour in 2024, or \$21,736 a year if annualized.⁶⁷ However, if the minimum wage was indexed to the TLC based on the year-over-year change, the state’s minimum wage would have been \$11.50 per hour in 2024, or \$23,920 a year if annualized. In other words, the minimum wage would have been 10% higher, or more than \$2,000 a year.

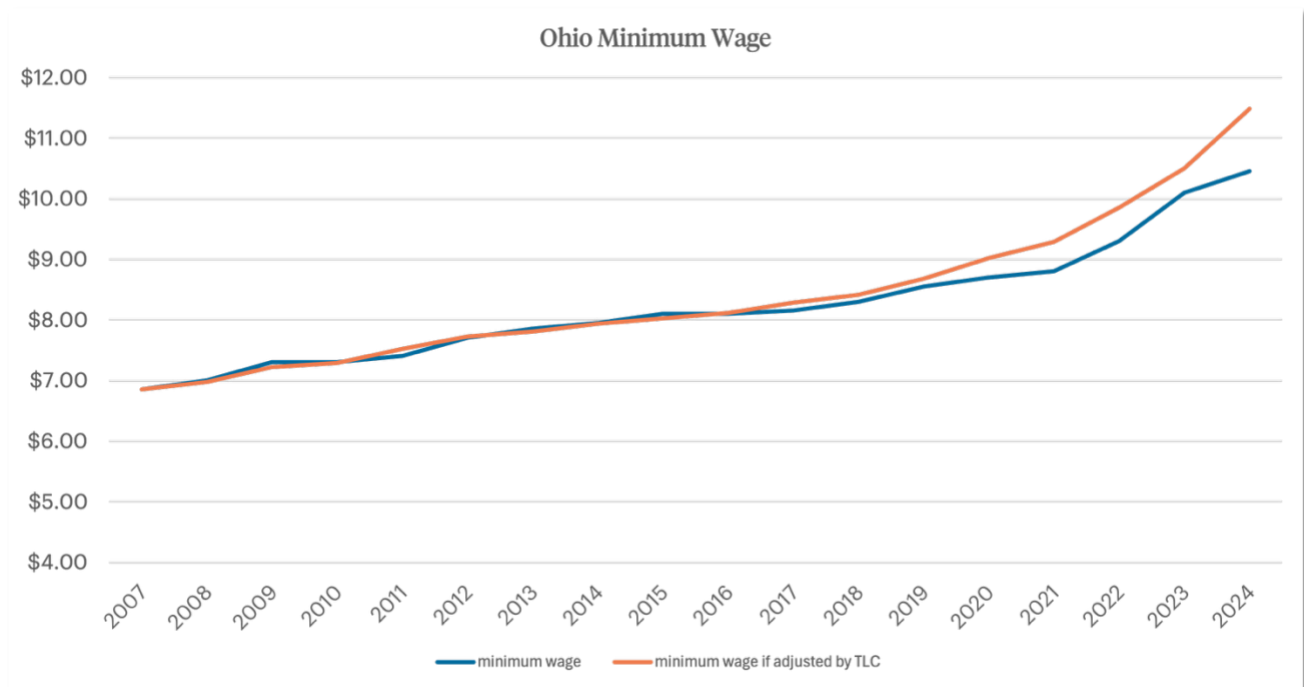


Figure 11: Ohio Minimum Wage Indexed to Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) vs True Living Cost (TLC)

⁶⁶ <https://codes.ohio.gov/ohio-constitution/section-2.34a#>.

⁶⁷ U.S. Department of Labor, State Minimum Wage Rate for Ohio [STTMINWGOH], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/STTMINWGOH>, June 9, 2025.

| Year | Minimum Wage | Minimum Wage if Adjusted by TLC | Annualized Minimum Wage | Annualized TLC-Adjusted Minimum Wage |
|------|--------------|---------------------------------|-------------------------|--------------------------------------|
| 2007 | \$6.85 | \$6.85 | \$14,248 | \$14,248 |
| 2008 | \$7.00 | \$6.95 | \$14,560 | \$14,456 |
| 2009 | \$7.30 | \$7.20 | \$15,184 | \$14,976 |
| 2010 | \$7.30 | \$7.30 | \$15,184 | \$15,184 |
| 2011 | \$7.40 | \$7.50 | \$15,392 | \$15,600 |
| 2012 | \$7.70 | \$7.70 | \$16,016 | \$16,016 |
| 2013 | \$7.85 | \$7.80 | \$16,328 | \$16,224 |
| 2014 | \$7.95 | \$7.95 | \$16,536 | \$16,536 |
| 2015 | \$8.10 | \$8.00 | \$16,848 | \$16,640 |
| 2016 | \$8.10 | \$8.10 | \$16,848 | \$16,848 |
| 2017 | \$8.15 | \$8.30 | \$16,952 | \$17,264 |
| 2018 | \$8.30 | \$8.40 | \$17,264 | \$17,472 |
| 2019 | \$8.55 | \$8.70 | \$17,784 | \$18,096 |
| 2020 | \$8.70 | \$9.00 | \$18,096 | \$18,720 |
| 2021 | \$8.80 | \$9.30 | \$18,304 | \$19,344 |
| 2022 | \$9.30 | \$9.85 | \$19,344 | \$20,488 |
| 2023 | \$10.10 | \$10.50 | \$21,008 | \$21,840 |
| 2024 | \$10.45 | \$11.50 | \$21,736 | \$23,920 |

Table 17: Ohio Minimum Wage Indexed to Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) vs True Living Cost (TLC)

Poverty Guidelines Using the True Living Cost Metric

The poverty guidelines are published each year by the Department of Health and Human Services (HHS) with the goal of determining a household's financial eligibility for government programs.⁶⁸ They are a simplified version of the poverty thresholds published by the Census Bureau with the statistical goal of determining how many people live in poverty. The thresholds vary by family size and number of children as well as whether the household is elderly for 1- and 2-person units while the guidelines only vary by family

⁶⁸ A list of relevant programs is available under "What programs use the poverty guidelines?".
<https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/frequently-asked-questions-related-poverty-guidelines-poverty>.

size.⁶⁹ The poverty thresholds which are updated annually with a one-year lag using the CPI-U are used to determine the poverty guidelines for a given year. Using the final weighted average thresholds by family size, based on family weights from CPS ASEC, that are published in September of a given year, and the CPI-U for all items, the Department of Health and Human Services updates the poverty guidelines that are issued in January of the following year. For example, the HHS states that “the 2021 poverty guidelines were issued in January 2021, calculated from the calendar year 2019 thresholds issued in September 2020, updated to reflect the price level of calendar year 2020. Therefore, the 2021 poverty guidelines are approximately equal to the poverty thresholds for 2020 (for most family sizes).”⁷⁰

LISEP focuses on how using the TLC index instead of the CPI-U to update the poverty thresholds and guidelines would have affected the poverty guidelines. LISEP does not redefine poverty as the cost of meeting the TLC for each of eight family types, but because the cost-of-living of low- and middle income households as measured by the TLC has increased faster than the CPI since 2001, it finds that the poverty guidelines (and thresholds) would have been at least 14% higher in 2024 than as published. As a result, more households would meet the financial eligibility criteria for various government programs.

| Household size | Headline Poverty Line (HHS) | True Living Cost Poverty Line | Absolute Difference | % Difference |
|----------------|-----------------------------|-------------------------------|---------------------|--------------|
| 1 | \$15,060 | \$17,510 | \$2,450 | 16.3% |
| 2 | \$20,440 | \$23,590 | \$3,150 | 15.4% |
| 3 | \$25,820 | \$29,670 | \$3,850 | 14.9% |
| 4 | \$31,200 | \$35,750 | \$4,550 | 14.6% |
| 5 | \$36,580 | \$41,830 | \$5,250 | 14.4% |
| 6 | \$41,960 | \$47,910 | \$5,950 | 14.2% |
| 7 | \$47,340 | \$53,990 | \$6,650 | 14.0% |
| 8 | \$52,720 | \$60,070 | \$7,350 | 13.9% |

Table 18: 2024 Department of Health and Human Services (HHS) Poverty Line vs. True Living Cost-adjusted Poverty Line

⁶⁹ Another difference is that the thresholds don't vary by geography whereas there are three sets of guidelines: for the 48 contiguous states and DC, for Alaska, and for Hawaii. LISEP's analysis focuses on the guidelines for the 48 contiguous states and DC.

⁷⁰ <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/frequently-asked-questions-related-poverty-guidelines-poverty>.

LISEP computed the 2024 TLC-adjusted poverty guidelines reported in Table 18 following the formula detailed above and on the HHS website.⁷¹ First, starting with the 2001 final weighted average poverty thresholds, it applied the annual increase in the TLC to the thresholds to determine the TLC-adjusted poverty thresholds through 2023. LISEP applied the overall TLC increase rather than the increase in the TLC cost for each of its family types, matching how the thresholds are adjusted with the CPI-U, meaning that the same factor was applied for all household sizes to adjust the poverty thresholds each calendar year. Next, LISEP computed the arithmetic average of the difference in the TLC-adjusted poverty threshold between successive household sizes (up to eight people), rounded to the nearest \$20 dollars, for each year. Simply put, this average difference means how much having one additional person in the household increases the poverty guideline. Finally, LISEP used the four-person household size as the reference to determine the poverty guidelines for all household sizes. After rounding up the TLC-adjusted poverty threshold to the nearest \$50 for the four-person household, determining the TLC-adjusted poverty guideline for this household size, LISEP applied the average difference, rounded to the nearest \$20, to compute the poverty guidelines for every household size in 2024.⁷²

Chapter 4: Shared Economic Prosperity

Chapter 4 Errata

Correction on page 99 and to endnote 13 (page 151): The original text reports earnings growth for various industries between 1951 and 1979 as: finance (21%), durable goods manufacturing (47%), special trades (36.4%), and grocery stores (70%).

These figures should be corrected due to data input errors. The correct earnings growth percentages are: finance (16.6%), durable goods manufacturing (49.6%), special trades (46.2%), and grocery stores (22.3%).

Endnote 13 on page 151 should be corrected to state that the 1979 average weekly earnings correspond to each industry's annual 1979 average rather than the December 1979 value.

⁷¹ See <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/prior-hhs-poverty-guidelines-federal-register-references/2024-poverty-guidelines-computations>.

⁷² LISEP also replicated the poverty guidelines using the CPI-U following the steps of this computation as a robustness check and found the same poverty guideline level by household size for 2024.

Correction on page 111: The original sentence states: "Households headed by thirty-something adults in the 30th percentile saw median wages fall from \$16.99 to \$16.82."

This statistic refers to the change in median wages for households in the bottom 60 percent of the income distribution. The sentence should be corrected to: "Households headed by thirty-something adults in the bottom 60 percent saw median wages fall from \$16.99 to \$16.82."

Wage Growth by Occupation since 1976

Chapter 4 discusses the difference in wage growth experienced by different segments of the workforce, illustrating that workers' ability to share in economic growth over time varies dramatically between and within careers.

This analysis uses data from the IPUMS-published CPS ASEC sample from 1976 onwards.⁷³ The data are not longitudinal; they represent, in each year, the growth that a worker at a given percentile of earners in their occupation would have earned relative to their 1976 counterpart.

LISEP wanted to consider wage growth among a variety of occupations across a variety of levels of education attainment and required professional experience. Also, LISEP wanted to select occupations for which most people would assume there would be steady demand for the skills used. Not all of the occupations considered are the most lucrative, but each involves a combination of reliability, competence, and experience that should, in theory, command respectable job stability and earning power. In particular, LISEP looks at wages for:

| Occupation Last Year, 2010 Basis | OCC10LY |
|--|---------|
| Financial Managers | 120 |
| Social Workers | 2010 |
| Lawyers, and judges, magistrates, and other judicial workers | 2100 |
| Editors, News Analysts, Reporters, and Correspondents | 2810 |
| Dental Hygienists | 3310 |
| First-Line Supervisors of Food Preparation and Serving Workers | 4010 |
| Human Resources Assistants, Except Payroll and Timekeeping | 5360 |
| Automotive Service Technicians and Mechanics | 7200 |
| Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics | 7220 |

⁷³ Sarah Flood et al. (2023). Integrated Public Use Microdata Series, Current Population Survey: Version 11.0. Minneapolis, MN: IPUMS. <https://doi.org/10.18128/D030.V11.0>. Accessed Dec 15, 2023.

| | |
|--|------|
| First-Line Supervisors of Production and Operating Workers | 7700 |
| Machinists | 8030 |
| Welding, Soldering, and Brazing Workers | 8140 |
| Packaging and Filling Machine Operators and Tenders | 8800 |
| Driver/Sales Workers and Truck Drivers | 9130 |
| Taxi Drivers and Chauffeurs | 9140 |

Table 19: List of Selected Occupations

The analysis begins by cleaning the data, dropping households where any member has a negative weight. Experimental weights from 2014 are removed, and only individuals aged 22 or older with a single employer are retained. The age of 22 is around when a person would be expected to have completed a bachelor's degree. At this point, one would expect a higher proportion of people to be supporting themselves through a job to which they are committing most of their time and attention. Wages are assigned based on employment type: self-employed, unincorporated individuals (*classwly* code 13) use non-farm business income (*incbus* variable),⁷⁴ while incorporated self-employed and all wage/salary employees (*classwly* codes 14, 22, 25, 27, and 28) use wage and salary income (*incwage* variable); others and those with missing occupations (*occ10ly*) are excluded. Wages are adjusted to January 2024 dollars using the CPI. LISEP believes this would be a conservative measure of the change in cost-of-living for low- and middle-income households as neither the TLC nor the Minimal Quality of Life Index (MQL), which have increased more than the CPI between 2001 and 2023, extend prior to 2001. The data is subset to years after 1976 and to selected occupations. For each occupation, the first and last sample years are identified, along with the percent change and compounded annual growth rate in relevant metrics. Graphs are generated to show discontinuities, worker counts, wage percentiles, and observation counts, using *inclongj* as a reference for trends from the 1990s onward.

| Occupation | 40 th Wage Percentile | 60 th Wage Percentile | 80 th Wage Percentile | 90 th Wage Percentile |
|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Financial Managers | 6.4% | 24.5% | 35.6% | 69.7% |
| Social Workers | -0.5% | 1.6% | -2.6% | -0.3% |
| Lawyers, and judges, magistrates, and other judicial workers | 21.7% | 24.6% | 21.7% | 63.6% |
| Editors, News Analysts, Reporters, and Correspondents | -7.5% | 1.3% | 7.6% | 7.1% |

⁷⁴ https://cps.ipums.org/cps-action/variables/INCBUS#codes_section.

| | | | | |
|---|--------|--------|--------|--------|
| Dental Hygienists | 91.0% | 6.2% | -22.5% | -36.7% |
| First-Line Supervisors of Food Preparation and Serving Workers (since 1982) | 70.5% | 53.7% | 0.6% | -0.4% |
| Human Resources Assistants, Except Payroll and Timekeeping | -34.1% | -37.2% | -41.6% | -48.5% |
| Automotive Service Technicians and Mechanics | -27.2% | -18.9% | -12.7% | -8.4% |
| Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics | -14.5% | -9.6% | -15.4% | -7.5% |
| First-Line Supervisors of Production and Operating Workers | -17.3% | -14.5% | 0.8% | 5.3% |
| Machinists | -23.7% | -20.8% | -9.3% | -2.6% |

Table 20: Percent Change in Real Wages Earned Annually by Occupation and Wage Percentile, 1976-2022 (unless otherwise noted)

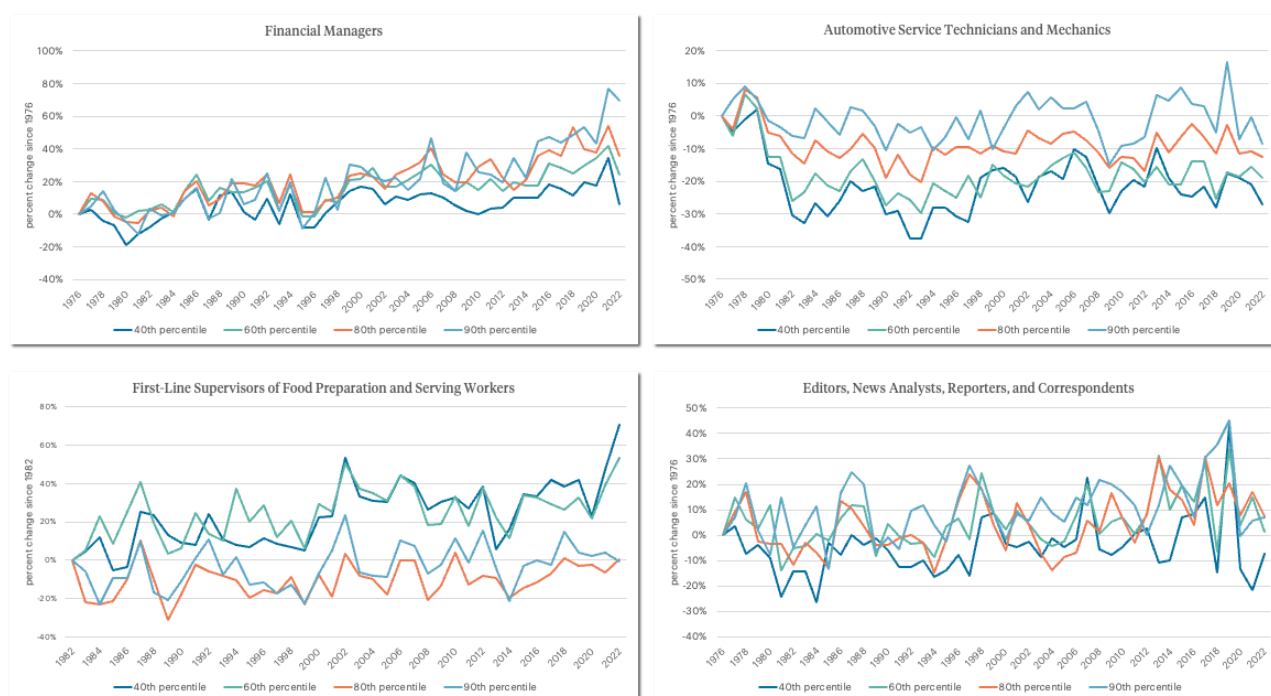


Figure 12: Real Wage Growth for Selected Occupations (in percent)

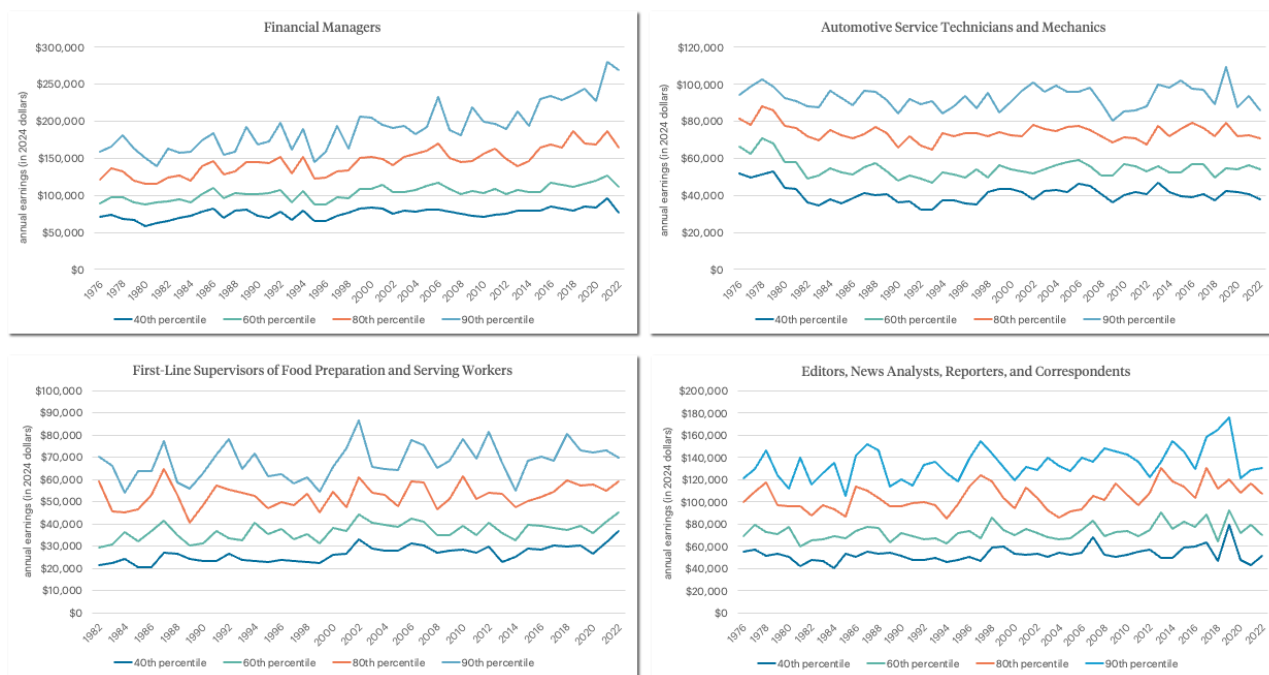


Figure 13: Real Wage Growth for Selected Occupations (in 2024 dollars)

A limitation in the analysis is that the series are very noisy. The percentiles are subsets of modestly-sized datasets given the specificity of the occupations, so they may experience changes year to year due to sampling randomness in addition to reflecting underlying workforce dynamics. As a result, while summary statistics for growth at different percentiles is reported in the book to illustrate how the potential for earnings has varied for different workers within the occupations over time, it is more informative to visualize the data graphically to capture long-term trends. Here, we expand on the summary statistics presented.

The 80th percentile earnings for financial managers grew 35.6% between 1976 and 2022, as reported. While the noise makes it difficult to claim any particular year as an inflection point, real growth is modest throughout the 1980s and early 1990s. It accelerates during the late 1990s and early 2000s until the Great Recession before accelerating once again from 2016 onward. The much higher wage level at this stage is well summarized by the 35.6% growth rate over the period in spite of the year-to-year fluctuations. By contrast, those earning at the 40th percentile saw much smaller accelerations, and less consistently positive growth.

For automotive service technicians, the path for the 80th percentile versus the 40th percentile follows a similar trajectory, but due to the difference in starting points, the effects are more severe lower in the distribution. For example, the beginning of the 1980s represents a serious decline: between 1976 and 1983, the 80th percentile wages fall from about \$81,000 to \$69,000, while the 40th percentile falls from about \$52,000 to \$35,000. Although the falls in both levels are not too far apart numerically (again, in a noisy series), a \$12,000 drop will have a much more substantial effect in percentage terms at a \$35,000 annual earnings level than at \$52,000.

More generally, and beyond the results presented in the main text, CPI-adjusted wage growth across percentiles is generally quite uneven for the occupations considered. Several of what might be termed “traditional middle-class occupations” exhibited a within-profession spread, with more growth (or at least softer declines) accumulating to the top earners. This included Financial Managers; Automotive Service Technicians and Mechanics; Editors, News Analysts, Reporters, and Correspondents; First-Line Supervisors of Production and Operating Workers; and Machinists. While not a definitive description of the entire labor market, it is evidence that even within occupations, workers are faring very differently.

Some occupations that may earn close to the minimum wage showed the opposite effect: lower wages rising faster (or falling slower) than higher wages. This held dramatically for First-Line Supervisors of Food Preparation and Serving Workers; but also for Packaging and Filling Machine Operators and Tenders; Driver/Sales Workers and Truck Drivers; and Taxi Drivers and Chauffeurs. Whether due to the minimum wage acting as a floor or simply the sheer need to take on more hours for basic survival, there do seem to be upward pressures on the very lowest earners once annual wages start to fall too far below the \$50,000 mark. Some of this is a mathematical artifact: \$10,000 is a much larger percent increase when starting at \$20,000 than at \$50,000, but much of it occurs in absolute terms as well.

A few cases don’t match either trend. Welding, Soldering, and Brazing Workers saw earnings losses at the 40th, 60th, and even 90th percentiles, despite being a skilled profession, and the number of Welders has stagnated more generally. Dental Hygienists saw losses at the 80th percentile, though the 40th percentile made substantial gains and growing demand for employment. Social Workers saw similar gains between the 40th, 60th, and 80th percentiles. In 2022, Lawyers, judges, magistrates, and other judicial workers had very close wage growth between the 40th, 60th, and 80th percentiles, but in prior years, 40th and 60th had surpassed the 80th. (However, the 90th and 95th percentiles far surpassed

those in growth.)

The analysis is illustrative of experiences within a few professions, and it comes with a few caveats. First, this analysis does not take into account total household income, which is a more pertinent measure of well-being. While it is possible that some workers found themselves individually in the 40th percentile, this may not reflect their place in the household income distribution. Second, this analysis does not take into account geographic variation or demographic shifts within professions. Third, the analysis considers only total wages, without controlling for the number of hours it took to earn that income. Nevertheless, this analysis remains useful for understanding how wage growth over the past half-century has differed both across and within occupations.

Hourly Earnings for Households in Their Thirties

In Chapter 4, LISEP compares the median hourly earnings of adults in their thirties in 1980 to those in 2022:

“Between 1980 and 2022, the median hourly income for households with adults in their thirties fell from nearly \$23.61 to \$23.07 (in constant 2022 dollars, adjusted using the CPI-U). Households headed by thirty-something adults in the bottom 60 percent saw median wages fall from \$16.99 to \$16.82. Meanwhile, comparable households in the top 25 percent saw their hourly income grow from \$40.64 to \$47.12, and households in the top 10 percent saw a jump from \$51.23 to \$67.31.”⁷⁵

Despite working more hours on average, the median hourly wage has stagnated (and even declined) for these households after adjusting for inflation using the CPI-U.⁷⁶ At the same time, median hourly earnings for households in the higher income strata rose considerably in real terms.

The analysis in the book focuses on households with a single earner in their thirties, but this appendix also provides examples considering dual-earning households. The “Book” sample refers to the sample for which hourly earnings were reported on the book. It only includes households with one earner in their thirties. For households where there are two earners, but only one of them is in their thirties, only the hours and earnings from the earner in their thirties is considered.

⁷⁵ *The Mismeasurement of America*, page 111. This quote was amended to correct an editing error.

⁷⁶ Because the earliest MQL data is only up to 2001, LISEP used the CPI-U to compare the 1980 earnings to the 2022 earnings. Given the higher increase in cost-of-living indicated by the MQL since 2001, LISEP suspects that the decline in purchasing power of hourly wages would be even more severe for low- and middle-income households.

This appendix also considers two other subsets of households in their thirties which are not included in the book as published: the “Single” subset and the “Dual” subset. “Single” refers to a single-earner household in their thirties while “Dual” refers to dual-earner households where both earners are in their thirties. Households where one of the earners is not in their thirties are excluded from the “Dual” and the “Single” subsets. Households with more than two earners are excluded from all three subsets.

When considering single- and dual-earning households together (“Single & Dual” subset), the median hourly earnings of all households with adult earners in their thirties also declined after adjusting CPI inflation, albeit by a lower amount.⁷⁷ Similarly, the median hourly earnings of high-income households increased considerably in real terms. However, caution needs to be taken when interpreting the numbers for specific income groups when both single- and dual-earners are considered since the income distribution, based on total wage and salary income, is not adjusted either for household sizes or the number of earners. As a result, single-earner households with a higher hourly income are more likely to be overrepresented in the lower strata (bottom 60%) while dual-earner households with lower hourly income but higher total income are more likely to be overrepresented in the higher income strata (top 25% or top 10%). Considering only dual-earning households in their thirties, CPI-adjusted median hourly earnings did increase for this group between 1980 and 2022, but the rise was considerably higher in both percent and absolute terms for higher-income households.

| Income Group | Book 1980 | Book 2022 | Change in Average Annual Hours Worked | Single & Dual 1980 | Single & Dual 2022 | Change in Average Annual Hours Worked |
|--------------|-----------|-----------|---------------------------------------|--------------------|--------------------|---------------------------------------|
| All | \$23.61 | \$23.07 | 94.0 | \$25.62 | \$25.45 | 307.0 |
| Bottom 60% | \$16.99 | \$16.82 | 123.2 | \$19.59 | \$19.18 | 151.8 |
| Top 25% | \$40.64 | \$47.12 | 28.10 | \$38.21 | \$48.08 | 550.2 |
| Top 10 % | \$51.23 | \$67.31 | -16.0 | \$46.11 | \$66.74 | 570.5 |

Table 21: Median Hourly Earnings for Households in their Thirties by Sample and Income Group (in 2022 dollars)

| Income Group | Single 1980 | Single 2022 | Change in Average Annual Hours Worked | Dual 1980 | Dual 2022 | Change in Average Annual Hours Worked |
|--------------|-------------|-------------|---------------------------------------|-----------|-----------|---------------------------------------|
| All | \$25.62 | \$23.08 | 53.1 | \$25.56 | \$28.85 | 513.9 |

⁷⁷ As described above, this only includes households with one or two earners and where all earners are in their thirties. Consequently, a dual-earnings household with an earner in their thirties and one not in their thirties is excluded.

| | | | | | | |
|------------|---------|---------|-------|---------|---------|-------|
| Bottom 60% | \$18.13 | \$16.83 | 47.5 | \$20.77 | \$22.31 | 525.3 |
| Top 25% | \$42.70 | \$48.08 | 24.1 | \$35.66 | \$53.85 | 483.4 |
| Top 10% | \$54.65 | \$70.67 | -22.5 | \$42.74 | \$76.71 | 507.6 |

Table 22 Median Hourly Earnings for Households in their Thirties by Subset and Income Group (in 2022 dollars)

LISEP conducted this analysis using data from the American Community Survey, accessed through the IPUMS USA database.⁷⁸ The samples are the 1980 1% metro sample, the 2000 1% sample, and the 2022 1% sample. LISEP used the *incwage* variable to determine an earner's total pre-tax wage and salary income each year.⁷⁹ LISEP used the CPI-U to adjust earnings to 2022 dollars, based on the annual average CPI-U index.⁸⁰ To identify the number of hours worked per person in a given year, LISEP used the *wkswork1* and *uhrswork* variables providing the number of weeks worked in the past year and the usual hours worked in a given week in the past year respectively.⁸¹ Earners were identified as anyone with a non-zero or non-missing value for *incwage*. To identify the number of earners by household, LISEP subset the sample to only adults older than 24 before dropping all households with more than two earners. The subset for the book analysis consists of households headed by a single earner in their thirties. Households with two earners in their thirties were dropped while households with two earners but only one of them in their thirties was kept. To complement the analysis, this appendix also provides estimates for a subset of households with only single-earners in their thirties in single-earner households, dual-earning households with both earners in their thirties, and a subset including both single-earning and dual-earning households with all earners in their thirties.

For calculations for specific income groups, the household income distribution was determined using the total annual earnings in a given year, based on *incwage* and weighted by the household weight *hhwt*,⁸² without adjusting for household size or number of earners. Hourly earnings were determined as the total annual earnings in a household divided by the total hours worked by the earners in that household (for whom the earnings were considered in the total). Finally, for each income group (including all households, the bottom 60%, top 25% and top 10% of households in the subset), the median hourly

⁷⁸ Steven Ruggles et al. (2025) IPUMS USA: Version 16.0 [dataset]. Minneapolis, MN: IPUMS, 2025. <https://doi.org/10.18128/D010.V16.0>. Accessed June 12, 2025.

⁷⁹ https://usa.ipums.org/usa-action/variables/INCWAGE#description_section.

⁸⁰ U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CPIAUCSL>, January 31, 2024.

⁸¹ https://usa.ipums.org/usa-action/variables/WKSWORK1#description_section. https://usa.ipums.org/usa-action/variables/UHRSWORK#description_section.

⁸² https://usa.ipums.org/usa-action/variables/HHWT#description_section.

earnings as well as average hours worked were calculated, weighted by *hhwt*. The following tables summarize the results.

| Year | Income Group | Median Hourly Earnings (2022 dollars) | Annual Mean Hours Worked | Annual Average Earnings | Change Median Hourly Earnings | Change Mean Hours Worked | Change Annual Average Income |
|------|--------------|---------------------------------------|--------------------------|-------------------------|-------------------------------|--------------------------|------------------------------|
| 1980 | All | \$23.61 | 1896.9 | \$51,537 | | | |
| 2022 | All | \$23.08 | 1990.9 | \$61,179 | -2.2% | 5.0% | 18.7% |
| 1980 | Bottom 60% | \$17.00 | 1677.0 | \$28,488 | | | |
| 2022 | Bottom 60% | \$16.83 | 1800.2 | \$30,033 | -1.0% | 7.3% | 5.4% |
| 1980 | Top 25% | \$40.64 | 2280.6 | \$100,664 | | | |
| 2022 | Top 25% | \$47.12 | 2308.7 | \$132,813 | 15.9% | 1.2% | 31.9% |
| 1980 | Top 10% | \$51.24 | 2376.5 | \$131,515 | | | |
| 2022 | Top 10% | \$67.31 | 2360.6 | \$198,538 | 31.4% | -0.7% | 51.0% |

Table 23 Summary Statistics on Hourly Household Earnings for Book Subset

| Year | Income Group | Household Earners Structure | Median Hourly Earnings (2022 Dollars) | Annual Mean Hours Worked | Annual Average Earnings (2022 Dollars) | Change Median Hourly Earnings | Change Mean Hours Worked | Change Annual Average Income |
|------|--------------|-----------------------------|---------------------------------------|--------------------------|--|-------------------------------|--------------------------|------------------------------|
| 1980 | All | Single & Dual | \$25.62 | 2493.1 | \$69,099 | | | |
| 2022 | All | Single & Dual | \$25.45 | 2800.1 | \$94,917 | -0.7% | 12.3% | 37.4% |
| 1980 | All | Single | \$25.62 | 1965.4 | \$56,511 | | | |
| 2022 | All | Single | \$23.08 | 2018.6 | \$63,654 | -9.9% | 2.7% | 12.6% |
| 1980 | All | Dual | \$25.56 | 3534.6 | \$93,943 | | | |
| 2022 | All | Dual | \$28.85 | 4048.5 | \$144,852 | 12.9% | 14.5% | 54.2% |
| 1980 | Bottom 60% | Single & Dual | \$19.59 | 2081.5 | \$41,265 | | | |
| 2022 | Bottom 60% | Single & Dual | \$19.18 | 2233.3 | \$43,817 | -2.1% | 7.3% | 6.2% |
| 1980 | Bottom 60% | Single | \$18.13 | 1780.6 | \$32,708 | | | |
| 2022 | Bottom 60% | Single | \$16.83 | 1828.1 | \$30,533 | -7.2% | 2.7% | -6.6% |
| 1980 | Bottom | Dual | \$20.77 | 3327.7 | \$68,090 | | | |

| | | | | | | | | |
|------|------------|---------------|---------|--------|-----------|-------|-------|--------|
| | 60% | | | | | | | |
| 2022 | Bottom 60% | Dual | \$22.31 | 3853.0 | \$85,777 | 7.4% | 15.8% | 26.0% |
| 1980 | Top 25% | Single & Dual | \$38.21 | 3282.6 | \$128,019 | | | |
| 2022 | Top 25% | Single & Dual | \$48.08 | 3832.8 | \$213,432 | 25.8% | 16.8% | 66.7% |
| 1980 | Top 25% | Single | \$42.70 | 2308.8 | \$107,943 | | | |
| 2022 | Top 25% | Single | \$48.08 | 2332.9 | \$141,471 | 12.6% | 1.0% | 31.1% |
| 1980 | Top 25% | Dual | \$35.66 | 3914.0 | \$148,594 | | | |
| 2022 | Top 25% | Dual | \$53.85 | 4397.4 | \$282,597 | 51.0% | 12.3% | 90.2% |
| 1980 | Top 10% | Single & Dual | \$46.11 | 3409.5 | \$162,968 | | | |
| 2022 | Top 10% | Single & Dual | \$66.74 | 3980.0 | \$314,877 | 44.7% | 16.7% | 93.2% |
| 1980 | Top 10% | Single | \$54.65 | 2408.0 | \$142,681 | | | |
| 2022 | Top 10% | Single | \$70.67 | 2385.4 | \$209,083 | 29.3% | -0.9% | 46.5% |
| 1980 | Top 10% | Dual | \$42.74 | 3992.8 | \$182,644 | | | |
| 2022 | Top 10% | Dual | \$76.71 | 4500.4 | \$403,854 | 79.5% | 12.7% | 121.1% |

Table 24: Summary Statistics on Hourly Household Earnings by Number of Earners

Earnings Growth by Industry 1951-1979

Average weekly earnings by industry for 1951 can be found in the May 1954 edition of “Employment and Earnings”, accessible through FRASER.⁸³ The Annual Supplement described on page 45 contains annual data from 1948-1953, which in Table SC-1 summarizes earnings series originally published in the “Hours and Earnings Industry Report”, which were consistently published in Table C-1 of the Monthly Labor Review. This analysis uses the annual 1951 “Average weekly earnings” by “Industry group and industry”. It should be noted that these industry definitions predate the Standard Industry Classification (SIC) codes available in later years, see “Classification of Establishment Reports” under “Section A – Employment” of the Explanatory Notes (see Section C for additional information on Hours and Earnings data, which uses the same classification schedule as the employment data). Specifically, “the titles and descriptions of industries presented in the 1945 Standard Industrial classification Manual, Vol. I (U.S. Bureau of the Budget, Washington, D.C.) are used for classifying reports from manufacturing establishments; the 1942 Industrial Classification Code, (U.S. Social Security Board), for

⁸³ United States. Bureau of Labor Statistics. “May 1954,” *Employment and Earnings* (May 1954). <https://fraser.stlouisfed.org/title/60#20063>, accessed on September 3, 2025.

reports from nonmanufacturing establishments."

Average weekly earnings by industry for 1979 can be found in the March 1980 edition of "Employment and Earnings" under Table C-2.⁸⁴ This analysis uses the 1979 annual average "Average weekly earnings" by "Industry". Industries are given by the 1972 SIC codes.

The table below maps the specific industries that were compared between 1951 and 1979, along with how they're referred to in the book.⁸⁵ Note that the 1972 SIC Codes apply directly to the 1979 data only; LISEP qualitatively associates them with the 1951 industry classification only for the purposes of this analysis.

| Book Text | Industry: 1951 | Industry: 1979 | 1972 SIC Codes |
|----------------------------------|---|--|----------------|
| "those working in finance" | "Banks and Trust Companies" under " <i>Finance, Insurance, and Real Estate</i> " | "Banking" under " <i>Finance, Insurance, and Real Estate</i> " | 60 |
| "those working in durable goods" | "Durable Goods" under " <i>Manufacturing</i> " | "Durable Goods" under " <i>Manufacturing</i> " | 24, 25, 32-39 |
| "those in 'special trades'" | "Special-trade Contractors" under "Building Construction," under " <i>Contract Construction</i> " | "Special Trade Contractors" under " <i>Construction</i> " | 17 |
| "grocery store workers" | "Food and Liquor Stores" under "Retail Trade (Except Eating and Drinking Places)" under " <i>Wholesale and Retail Trade</i> " | "Grocery Stores" under "Food Stores" under " <i>Retail Trade</i> " | 541 |

Table 25: Industry Mapping for 1951-1979 Earnings Growth Analysis

In order to compare the annual 1979 average weekly earnings to their annual 1951 counterparts, the 1979 annual average weekly earnings values are deflated by the Not Seasonally Adjusted annual average 1979 CPI-U relative to the Not Seasonally Adjusted annual average 1951 CPI-U, that is, by a deflator of $25.958 / 72.575 = 0.35767$.⁸⁶ The results are detailed in the table below:

⁸⁴ United States. Bureau of Labor Statistics. "March 1980," *Employment and Earnings* (March 1980).

<https://fraser.stlouisfed.org/title/60#20366>, accessed on September 3, 2025.

⁸⁵ *The Mismeasurement of America*, page 99.

⁸⁶ U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCNS], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CPIAUCNS>, September 3, 2025.

| Industry: 1951 | Nominal Average Weekly Earnings: 1951 | Industry: 1979 | Nominal Average Weekly Earnings: 1979 | Average Weekly Earnings 1979 (In 1951 Dollars) | Earnings Growth (Inflation- Adjusted) |
|-----------------------------|---|-----------------------------|---|---|--|
| Banks and trust companies | \$50.32 | Banking | \$164.08 | \$58.69 | 16.6% |
| Durable goods manufacturing | \$69.47 | Durable goods manufacturing | \$290.5 | \$103.90 | 49.6% |
| Special-trade contractors | \$87.32 | Special trade contractors | \$356.93 | \$127.66 | 46.2% |
| Food and liquor stores | \$54.54 | Grocery stores | \$186.56 | \$66.73 | 22.3% |

Table 26: Average Weekly Earnings Growth for Selected Industries, 1951-1979

The discrepancies between these results and those in the published text are primarily due to errors in transferring the average weekly earnings values from the archived tables to the published computation. The CPI adjustment used previously was the Seasonally Adjusted CPI-U annual averages of both 1951 and 1979, rather than the Not Seasonally Adjusted CPI-U annual averages. Correcting for the data input error, the application of the Seasonally Adjusted CPI-U annual average would result in the deflator $25.973 / 72.583 = 0.35784$, and growth estimates of 16.7%, 49.6%, 46.3%, and 22.4%, respectively. The choice of taking the annual average of the seasonally adjusted CPI rather than the non-seasonally adjusted one only had a marginal effect on the growth estimates of at most 0.1 percentage points.

Given the high inflation occurring during the year 1979 and seasonal fluctuations in earnings, comparing earnings in a specific month in 1979 to the 1951 average would result in noticeably different earnings growth estimates, but it would still be directionally aligned with the comparison of the annual averages. For example, comparing the 1951 annual average to the December 1979 values instead would result in earnings growth of 15.3%, 50.2%, 45.3% and 16.9% for the respective industries instead.

Finally, the published earnings growth for grocery store workers—reported as more than 70% compared to the corrected figure of 22.3%—is problematic, as the data transferring error was larger here than in other industries. This error does impact the conclusions of the analysis. While real wage gains for manufacturing and special trades contractors still point to a strong economy in industries that typically did not require a bachelor's degree, grocery

workers experienced much weaker growth in total take-home pay.

That said, hourly wages for grocery workers grew about 53.3% over the period (nominal: \$1.36 to \$5.83), comparable to hourly-wage increases in durable goods manufacturing (+52.5%; nominal: \$1.67 to \$7.12) and special trades (+52.7%; nominal: \$2.31 to \$9.86). The slower growth in grocery workers' average weekly earnings is partly explained by the decrease in average weekly hours worked (from 40.1 in 1951 to 32 in 1979). This suggests a meaningful increase in the prevalence of part-time work in the grocery store industry. Average weekly hours also fell in durable goods manufacturing (from 41.6 to 40.8) and special trades (from 37.8 to 36.2) during the same period but by a significantly lower amount than for grocery store workers. Taken together, these trends suggest that the broad economic growth of the period did lift hourly wages across industries beyond manufacturing and special trades. Still, this interpretation should be approached with caution: higher hourly wages do not necessarily translate into stronger overall purchasing power.