Economic Research Service
U.S. DEPARTMENT OF AGRICULTURE

Trends and Patterns of Job Quality in the United States

Ephraim Nkonya and John Pender

Recommended citation format for this publication:

Nkonya, E., & Pender, J. (2025). *Trends and patterns of job quality in the United States* (Report No. EIB-286). U.S. Department of Agriculture, Economic Research Service.

Cover image assets sourced from Getty Images.

Use of commercial and trade names does not imply approval or constitute endorsement by USDA.

Trends and Patterns of Job Quality in the United States

Ephraim Nkonya and John Pender

Abstract

This study examines the trends and patterns of real wages, employer sponsored healthcare insurance coverage, and retirement benefits between 2000 and 2022. The analysis is disaggregated by racial and ethnic groups, sex, and between nonmetropolitan (nonmetro) and metropolitan (metro) areas. The results indicate the share of workers with high-quality jobs (i.e., jobs providing health insurance, retirement benefits, and real wages above the median within each census division as of 2000) declined between 2000 and 2022 in nonmetro and metro areas for White non-Hispanic workers and Black non-Hispanic workers but increased for Hispanic workers of all races. However, the mean real wages and the mean total value of compensation (adjusted for inflation), including nonwage benefits, increased in the study period in nonmetro and metro areas and across the racial and ethnic groups studied, but the increase is heavily skewed toward the top 10 percent of the wage and total compensation distributions.

Keywords: job quality, wage distribution, nonwage benefits, race and ethnicity, gender disparities

Acknowledgments

About the Authors

Ephraim Nkonya is a research agricultural economist and John Pender is a senior economist, both from the USDA, Economic Research Service.

Contents

Trends and Patterns of Job Quality in the United States

Ephraim Nkonya and John Pender

What Is the Issue?

Between 2000 and 2022, the mean wages of U.S. workers adjusted for inflation (real wages) grew by 15 percent. However, this real wage growth was distributed unevenly, with real wages of the top 10 percent of earners growing by 26 percent during this period. Meanwhile, the real wages of the bottom 50 percent grew by only 8 percent. The growth in real wages was offset by the declining availability of nonwage benefits provided by employers. It is less clear whether and how job quality, accounting for nonwage benefits as well as wages, has changed for U.S. workers and how such changes in job quality differ across different subpopulations of workers.

USDA, Economic Research Service authors investigated job quality trends from 2000 to 2022 for subpopulations of workers across metropolitan (metro) and nonmetropolitan (nonmetro) areas, as well as workers of different races, ethnicities, and sexes. This study addressed a lack of information in the job quality literature concerning trends in the broader components of job quality beyond wages, and how those trends vary across various subpopulations.
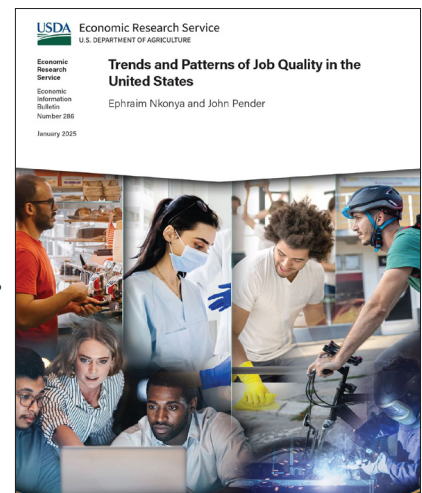
What Did the Study Find?

- Using a categorical measure of job quality (categorizing workers based on their wage levels and whether they receive employer sponsored health insurance and retirement benefits), the authors find that the share of workers with jobs in the highest job quality category declined across racial and ethnic groups and for men and women in nonmetro and metro areas.

- The job quality category that grew the most was the category with real wages above the median wage in 2000 and employer sponsored health insurance but with no retirement benefits. Thus, the decline in the share of workers in the highest job quality category was largely driven by a decline in the share of employers offering retirement benefits.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

- Using the job quality index (an estimate of employers' total costs for employees' wages, health insurance coverage, and retirement benefits), we found that the mean job quality index increased across nonmetro and metro areas, racial groups, ethnic groups, and sex. However, the growth in the job quality index was skewed with much greater growth in the top 10 percent than in all 9 lower quantiles. The real value of total compensation for workers in the bottom 10 percent of earners grew by only 5 percent between 2000–2004 and 2020–2022 for workers in both nonmetro and metro areas. The corresponding growth for workers in the top 10 percent of earners was 42 percent in nonmetro areas and 67 percent in metro areas.

- These findings were consistent across nonmetro and metro areas, the racial and ethnic groups studied (i.e., White non-Hispanic workers, Black non-Hispanic workers, and Hispanic workers of all races), and sex. The job quality index based on total compensation value showed improved job quality across different geographic and demographic groups, whereas the categorical measure showed declining job quality across the same groups. This emphasizes the need to carefully consider the best measure of job quality when evaluating job quality trends. The authors argue that total compensation more accurately reflects job quality than the categorical measure, since workers may have the loss of nonwage benefits offset by real wage increases.

How Was the Study Conducted?

This study used public microdata from the U.S. Department of Labor, Bureau of Labor Statistics (BLS) and the U.S. Department of Commerce, Bureau of the Census Current Population Survey Annual Social and Economic Supplement (CPS-ASEC) on three components of job quality including wages, employer sponsored retirement benefits, and employer sponsored health insurance. This study analyzed only three racial and ethnic groups including White, non-Hispanic workers, Black, non-Hispanic workers, and Hispanic workers of all races, who account for more than 90 percent of the U.S. workers. The authors used two approaches to analyze trend and patterns of job quality and its components: (1) categorical job quality and (2) a job quality index. The categorical job quality classification was based on combinations of real wages (above or below the median real wage in 2000 within the census division in which the worker resides), employer sponsored health insurance (provided or not), and employer sponsored retirement benefits (provided or not). The job quality index was based on estimates of employers' total costs of wages, health insurance coverage, and retirement benefits provided to workers. Since the CPS-ASEC does not report employers' cost of nonwage benefits, this study used U.S. Department of Labor, Bureau of Labor Statistics' National Compensation Survey data to create indexes of the value of nonwage benefits per dollar of wages. These indexes were combined with CPS-ASEC wage data and data on whether health insurance and retirement benefits were provided to estimate the job quality index.

Trends and Patterns of Job Quality in the United States

Introduction

There has been a divergent wage trend for the top high-income and bottom low-income earners in the United States since the late 1970s (Autor, 2019). From 1979 to 2017, the real wages of the top 1 percent of earners cumulatively grew by 157 percent compared with only 22 percent of real wage growth for the bottom 90 percent (Social Security Online, 2018). During the same period, median level workers' productivity increased by approximately 70 percent while the real median wage increased by only about 12 percent (Social Security Online, 2018). Nonwage benefits, such as employer sponsored health insurance coverage and retirement benefits, have also changed over the past few decades (Yabroff et al., 2020; Myers & Topoleski, 2021). For example, high-deductible health insurance plans are increasingly common and are replacing low deductible health insurance (Yabroff et al., 2020). Similarly, employers have been shifting away from offering traditional defined benefits pensions to defined contribution plans, which has shifted the bulk of responsibility for retirement benefits from employers to employees by increasing employees' contribution in retirement plans (Devlin-Foltz et al., 2015). These changes affect employee welfare, and the effects could be different across income, racial groups, ethnic groups, and by sex.

Our main objective with this study was to investigate the trends and patterns of wages and nonwage benefits received by workers from 2000 to 2022 and their implications on job quality. In this study, we defined job quality as the level of wages and nonwage benefits received by a worker.[1] The research questions included: (1) What are the patterns and trends of job quality components, such as wages, employer sponsored health insurance coverage and retirement plans across metropolitan and nonmetropolitan (nonmetro) areas, as well as by racial and ethnic groups, and by the sex of workers?; and (2) What are the patterns and trends of job quality across metropolitan and nonmetropolitan areas as well as by racial and ethnic groups, and the sex of workers? The contributions of this study include (1) its disaggregation of the compensation disparities into nonmetropolitan (nonmetro) and metropolitan (metro) areas; (2) combining wages and nonwage benefits into one job quality index that is an indicator of workers' total compensation; and (3) investigating job quality disparities by sex, race, and ethnicity, across metro and nonmetro areas.

Defining and Measuring Job Quality

There are several definitions of job quality, which use different indicators with some based on a very comprehensive set of indicators. For example, the United Nations' International Labor Organization (ILO) has used 75 statistical and 21 legal indicators[2] to determine job quality (International Labor Organization (ILO), 2020). Congdon et al. (2021) used a simpler measure that included five indicators: (1) pay, (2) benefits, (3) working conditions, (4) business culture and job design, and (5) on-the-job training. Data availability have

---

[1] Wages are payments made by employers to employees as a compensation for their labor and/or services. Nonwage benefits are compensations other than wage made by employers to employees to compensate for their labor and/or services. In this study, the nonwage benefits analyzed are employer sponsored health insurance and retirement benefits.

[2] The indicators are grouped into 10 major groups including: (1) employment opportunities; (2) adequate earnings and productive work; (3) decent working time; (4) combining work, family and personal life; (5) work that should be abolished; (6) stability and security of work; (7) equal opportunity and treatment in employment; (8) safe work environment; (9) social security; and (10) social dialogue.

become challenging as the number of indicators have increased in developing job quality definitions (Burgess & Connell, 2008; Findlay et al., 2013), which has resulted in use of ILO's job quality indicator remaining quite limited (Howell & Kalleberg, 2019). Another concern has been the subjective and arbitrary selection of the indicators used to define job quality in some studies, which has posed a challenge to assigning weights to quality assessments (Osteman, 2013). Thus, many researchers have used simpler job quality indicators with easily available data, especially the job quality indicators data that the U.S. Department of Labor, Bureau of Labor Statistics (BLS) regularly collect so researchers can agree about the indicators of a good quality job (Alpert et al., 2019; Acemoglu, 2019). The researchers' use of simpler and fewer indicators occurred because it is easier to collect data and/or the data are regularly collected by statistical institutions and agencies.

For example, the U.S. Private Sector Job Quality Index published by Cornell University uses data on earnings only (Alpert et al., 2019). Earnings data are regularly collected by the U.S. Department of Commerce, Bureau of the Census (Census Bureau) and the U.S. Department of Labor, Bureau of Labor Statistics (BLS). Researchers have used earnings data to define job quality based on the weekly dollar-income that an employee earns (Alpert et al., 2019; Nekoei & Weber, 2017). Many other economists also have also used only wage data in discussing job quality due to the ease of understanding the concept and readily available data. Some researchers assessing job quality have included nonwage benefits such as employer sponsored health insurance coverage and retirement benefits, which account for much of the employer cost of nonwage benefits and about which data are regularly collected by BLS and the Census Bureau. For example, Jones and Schmitt (2016) defined a good quality job as one that pays more than median wages and offers employer sponsored health insurance and a retirement benefit program.

The White House's National Science and Technology Council Subcommittee on Social, Behavioral, and Economic Sciences (SBE) established an interagency working group on good jobs. After having reviewed literature and initiatives relevant to job quality, the SBE working group recommended a sparse set of indicators of job quality that are easy to understand and for which data are collected regularly by reputable institutions (i.e., Federal and State statistical agencies, universities, private companies contracted by Federal or State Governments, etc.). The indicators include wages, employer sponsored health insurance, employer sponsored retirement benefits, and employees' perception on job satisfaction (Acemoglu, 2019). All four indicators are well understood by the public as they are regularly used in the media (Acemoglu, 2019). In this study, we incorporated data only on the first three of these indicators (i.e., wages, employer sponsored health insurance, and retirement benefits). We excluded job satisfaction since this indicator is subjective and data were not available in the data sources used or for the entire 2000–22 study period.

Excluding other key job quality indicators, such as job stability, job growth, and perception of job satisfaction, is one of the key limitations of our study. However, this study has contributed to the literature by including three indicators to form two job quality indicators using regularly collected data. We recommend that future studies use additional indicators to expand the job quality analysis.

Nonwage benefits from employers are increasingly important considerations when assessing employee welfare and job quality—especially health insurance benefits. Between 2000 and 2022, health consumption expenditures per capita increased 66 percent in real terms, from $7,717 to $12,835 in inflation-adjusted 2022 dollars (Centers for Medicare & Medicaid Services, 2023).[3] Rising healthcare costs have been an increasing burden on workers and their families, which have represented 20 percent of U.S. personal consumption expenditures by 2022 (U.S. Department of Commerce, Bureau of Economic Analysis (BEA), 2023), and can be a particularly large burden for uninsured households. In 2022, nearly 26 million U.S. workers aged 25–64 did not have health insurance, nearly 74 percent of whom lived in a family with at least 1 full-time worker (Tolbert et al., 2023). Uninsured adults have been much more likely than those with employer spon-

---

[3] Per capita health consumption expenditures are adjusted for inflation using the U.S. Department of Labor, BLS Consumer Price Index for all urban consumers (CPI-U).

sored health insurance to avoid or postpone needed healthcare or prescription drugs due to cost concerns and uninsured adults have been more likely to have medical debt and difficulties repaying medical debt (Tolbert et al., 2023). A 2015 survey about medical bills by KFF (formally known as the Kaiser Family Foundation) found that 53 percent of uninsured adults aged 25–64 had problems paying medical bills, compared with 19 percent of insured adults aged 25–64, and nearly 21 percent of those who had problems paying medical bills had declared bankruptcy (Hamel et al., 2016). Not surprisingly, Congdon et al. (2021) observed that workers whose employers had provided health insurance were less likely to change jobs. Similarly, workers in the United States have been more likely to take a low paying job if their employers provide health insurance (Garthwaite et al., 2014).

Employer provided retirement savings benefits have been increasingly important to the welfare of workers and their families. Between 2001 and 2022, the share of families holding retirement accounts increased from 52.8 percent to 54.4 percent, while the median value of assets held in retirement accounts increased from about $49,000 to $87,000 (inflation-adjusted 2022 dollars) (Federal Reserve Board (FRB), 2023b). Despite increasing median values of retirement savings, the share of nonretirees who reported that their retirement savings were on track has been declining in recent years, from 38 percent in 2017 to 31 percent in 2022 (FRB, 2023a). This concern may be partly due to the declining number and share of workers who have defined benefit pension plans.[4] During the 2000–21 period, the number of active participants in defined benefit plans decreased by nearly 50 percent (from 22.2 million to 11.6 million), while the number of active participants in defined contribution plans increased by more than 70 percent (from 50.9 million to 87.9 million) (U.S. Department of Labor, Employee Benefits Security Administration (EBSA), 2023).[5] It may also be related to concerns among nonretirees about the ability of Social Security to pay full benefits when they retire. These concerns increased in recent years according to public opinion surveys. For example, Gallup (2023) reported that 47 percent of nonretirees surveyed in June–July 2023 felt that Social Security would not be able to pay them a benefit when they retire, compared with 41 percent of nonretirees surveyed in March 2001. The share of retirees who believe that their Social Security benefits will be cut in the future has also increased, from 32 percent of those surveyed in January 2005 to 43 percent of those surveyed in June–July 2023 (Gallup, 2023).

Given the rising costs of healthcare and health insurance and workers' increasing dependence on employer sponsored retirement savings plans, the amount of compensation that workers receive via employer contributions to health insurance and retirement savings, unsurprisingly, has increased in the past two decades (figure 1). Between 2000 and 2022, the inflation-adjusted value of employer contributions to health insurance and retirement savings per worker-hour increased by more than 50 percent each, inflation-adjusted value of wages and salaries increased about 8 percent, and other nonwage benefits increased 15 percent. By 2022, employer costs of health insurance and retirement plans accounted for approximately 13 percent of the value of workers' total compensation, compared with less than 10 percent of total compensation in 2000.

---

[4] A defined benefit pension plan is a type of retirement plan through which an employer guarantees employee-specific retirement benefits based on an employee's earnings, tenure of service, and age.

[5] A defined contribution plan is a retirement plan in which the employer and/or employee contribute to retirement funds, which are invested. Examples of defined contribution retirement funds include 401(k) and 403(k) plans. Unlike defined benefit plans, the investment risks of defined contributions are borne by the employee.

Figure 1
Mean employer costs of workers' compensation, 2000–22
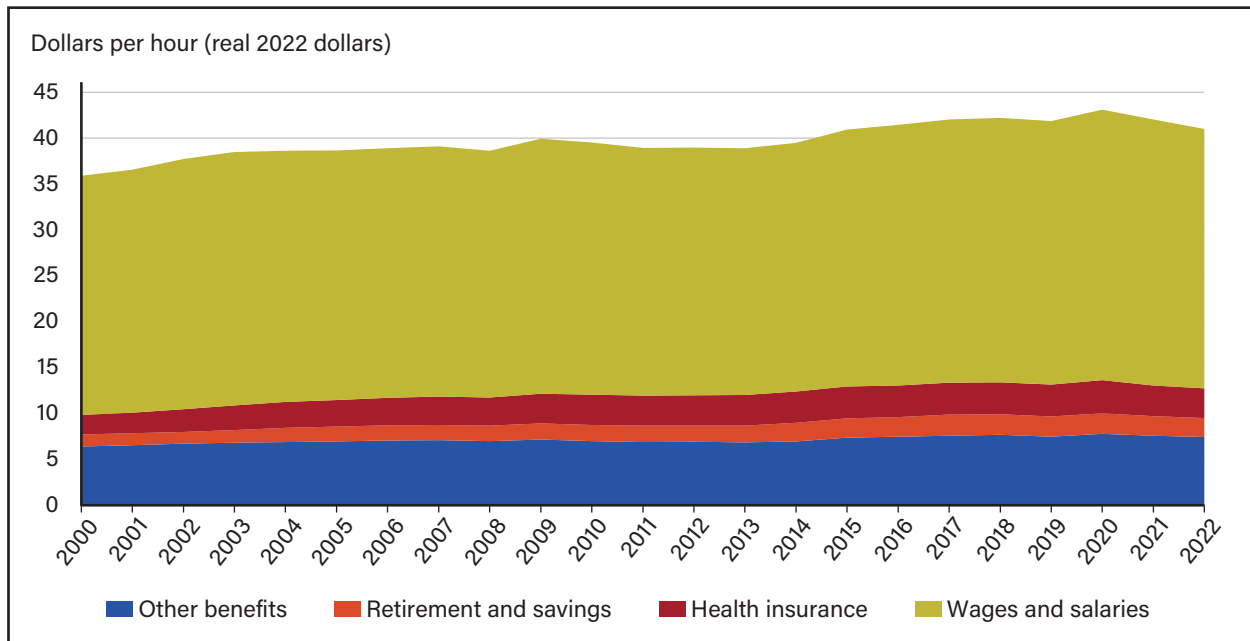
Dollars per hour (real 2022 dollars)

Source: USDA Economic Research Service using U.S. Department of Labor, Bureau of Labor Statistics data.

These findings support an approach of assessing job quality that includes nonwage benefits, such as used by Jones and Schmitt (2016). The data for all three elements considered by Jones and Schmitt (2016) have been available for workers in the United States from the Current Population Survey's Annual Social and Economic Supplement (CPS-ASEC), conducted by conducted by the Census Bureau in partnership with BLS.

The approach Jones and Schmitt (2016) used in their study implicitly assigned the same weight to employer sponsored health insurance and retirement benefits as wages and salaries were weighted, despite the value of these benefit contributions usually being much less than wage and salary payments. We augmented Jones and Schmitt's (2016) approach with an alternative approach by estimating the relative value of each type of employer contribution. To estimate these relative values, we used data from the National Compensation Survey conducted by BLS.

Data Sources and an Empirical Approach to Estimating Job Quality

To estimate job quality, we focused on the level of wages provided and the provision of employer sponsored health insurance coverage and employer sponsored retirement plans provided. We used public microdata from the BLS and Census Bureau's Current Population Survey (CPS), which includes data on these job quality components. The CPS data are nationally representative and have been collected monthly since 1948. The accompanying data, such as the Current Population Survey's Annual Social and Economic Supplement (CPS-ASEC), were collected annually and included data on families, household composition, and other crucial socioeconomic data. In this study, we used data from the CPS-ASEC. The CPS-ASEC data have been the most widely cited source on health insurance coverage and retirement programs (Copeland, 2015; Jackson & Berchick, 2020). The CPS-ASEC microdata have included data over the entire study period and for the three job quality components as well as data on workers' demographic characteristics including the worker-respondents' racial and ethnic identities, and sex.

However, the CPS-ASEC data have the two following limitations:

- The CPS-ASEC public microdata do not include information on respondents' county of residence for most rural counties because of disclosure concerns. This data limitation made it impossible to analyze job quality trends across the full rural-urban continuum using these data. However, the data do report whether the worker resided in a metropolitan (metro) or nonmetropolitan (nonmetro) county. But the CPS-ASEC indicator of metro or nonmetro status changes over time when the Office of Management and Budget (OMB) classification of counties as metro or nonmetro changes. This means that locations that were classified as nonmetro in the CPS-ASEC during some survey periods may have been classified as metro locations during other survey periods. For example, in 1993, OMB classified 2,305 counties as nonmetro but by 2013 OMB only classified 1,976 nonmetro counties. Hence, the shifts in job quality trends that we estimated for metro and nonmetro areas could be, in part, due to metro/nonmetro classification changes. We do not know how the metro/nonmetro reclassifications have affected the results in this study.

- The CPS-ASEC data have also underreported employee participation in both retirement plans and employer sponsored health insurance (Copeland, 2015; Jackson & Berchick, 2020). Before 2014, the CPS-ASEC survey questions on health insurance coverage asked about the past calendar year's coverage and this has been shown to underestimate participation in employer sponsored healthcare insurance since most respondents did not use the calendar year as reference while responding to the surveys (Medalia et al., 2016). Accordingly, the new question asks employer sponsored health insurance coverage at the point in time when the respondent is answering the survey.

To address the lack of data on the county of residence for rural CPS-ASEC respondents, we used the CPS-ASEC data on respondents' residence in metro or nonmetro areas to analyze trends in job quality. Given that 59 percent of county Federal Information Processing Standards numbers had been anonymized in the CPS-ASEC data, we classified the metro and nonmetro areas at the State level (i.e., we divided each State into metro and nonmetro areas).

The U.S. Department of Labor, BLS and Census Bureau designed strategies to address respondents underreporting their participation in retirement plans, income levels, and participation in health insurance. The CPS-ASEC survey was redesigned over the 2014–16 period by revising questions on participation in health insurance and retirement plans (Copeland, 2015; Jackson & Berchick, 2020). The BLS and Census Bureau redesigned the CPS-ASEC's employer sponsored health insurance coverage question so that respondents would answer the question based on their current coverage compared with answering about their coverage last year (i.e., point-in-time health insurance coverage). The revised ASEC survey also included questions about employer sponsored health insurance offerings and respondents' uptake of the insurance offerings. OMB approved the new questions to be used in 2014 (Medalia et al., 2016).

The Census Bureau's redesign improved the CPS-ASEC data for employer sponsored health insurance participation and health insurance coverage (Medalia et al., 2016). However, the survey continued to underestimate health insurance coverage because the revisions did not fully address all sources of errors (Jackson & Berchick, 2020). The redesigned 2014 questionnaire added new variables on employer sponsored retirement accounts and participation, which captured more information than the pre-2014 questionnaire (Craig & Bedu, 2023). In 2019, the Census Bureau introduced the postsurvey collection processing and imputation methods to include more details on income, health insurance, and other demographic information (Jackson & Berchick, 2020). The processing and imputation methods increased the estimated health insurance coverage (Berchick & Jackson, 2022).[6]

---

[6] For details, please see Berchick and Jackson (2022).

Despite these improvements, using the CPS-ASEC data to analyze employer sponsored health insurance and retirement benefits have posed challenges since its design changes has affected job quality trends and patterns. This challenge may have led to erroneously indicating a trend that was not an actual trend. Unfortunately, other data sources also have limitations. For example, the Federal Reserve Board's Survey of Consumer Finance, which also collects data on employee benefits, is a small data set covering 4,500 to 6,500 households and is conducted only once every 3 years (Federal Reserve Board, 2022; Bricker et al., 2012). Accordingly, our analysis used the CPS-ASEC data, but with caveats to reflect the CPS-ASEC data issues (for more information, see appendix A, table A.1).

In this study, we used a descriptive statistical analysis as our major approach to analyzing data. We used two approaches to analyze job quality trends and patterns and the associated job quality components, which include categorical job quality and a job quality index. We conducted our analysis on workers' job quality across nonmetro and metro areas, racial and ethnic groups, and sex. Given the different earning trends across income groups, we divided the observations into 10 quantiles of earnings or total compensation. The separation of earnings into groups helped to assess each group's trends, each of which have been changing differently over time.

In our analysis, we compared job quality and its components across different demographic and geographic groups. To ensure the differences we discussed were statistically significant, we conducted a paired sample t-test for comparing the most important groups (table B.1).[7] The largest groups compared were the high job quality (workers receiving high pay, health insurance and retirement benefits) and low job quality (workers receiving low pay, and with no health insurance or retirement benefits). With no exception, all differences between these groups were statistically different at p=0.001, which indicated that the results reported in the figures were statistically different (table B.1). We reported the summary statistics of the major variables analyzed in this report (table C.1).

Categorical Job Quality

Following Jones and Schmitt (2016), in considering data availability and the indicators of good jobs discussed above, we created a job quality classification using wages, employer sponsored health insurance coverage, and retirement benefits. However, unlike Jones and Schmitt (2016) who analyzed each component separately, we formed combinations to get one categorization of job quality. Consistent with Jones and Schmitt (2016), we divided wages into two groups, above and below the median wage. We used the median wage of a baseline year (2000) as the threshold for defining wages in high-quality and low-quality jobs. We selected 2000 as the baseline year since our objective for the study was to examine the job quality trends from 2000 to 2022. We then compared workers' real wages (adjusted for inflation to 2000 levels using the U.S. Department of Labor, BLS's Consumer Price Index (CPI)) in any year to the median level in 2000 in the same census division.[8] Figure 2 shows that the threshold wage for high-quality jobs we used in this study was comparable with thresholds used in most other job quality studies.

---

[7] A paired sample t-test is a statistical test used to compare two related samples. If the absolute value of the t-test exceeds a critical value, it means the two samples are statistically different, with the probability of incorrectly rejecting the null hypothesis indicated by the p-value of the test.

[8] The nine Census divisions and the corresponding States in each division in brackets are: (1) New England (Maine, Vermont, New Hampshire, Massachusetts, Connecticut and Rhode Island), (2) Middle Atlantic (New York · New Jersey and Pennsylvania), (3) East North Central (Illinois, Indiana, Michigan, Ohio and Wisconsin), (4) West North Central (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota), (5) South Atlantic (Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia and West Virginia), (6) East South Central (Alabama, Kentucky, Mississippi, and Tennessee), (7) West South Central (Arkansas, Louisiana, Oklahoma, and Texas), (8) Mountain (Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, and Wyoming), and (9) Pacific (Alaska, California, Hawaii, Oregon, and Washington).

Researchers have used different thresholds to divide earners into high-wage and low-wage jobs and they have often used median income as the threshold for job quality (Howell, 2019). Mason and Salverado (2018) justified the popular use of median wage rather than the mean as the threshold for defining good jobs, because the median has not been sensitive to how the wage distribution is skewed. Acemoglu (2019) and the U.S. Department of Labor's Good Job Initiative have recommended using the living wage. The living wage has been claimed to be a better indicator as it captures the cost of living and other aspects that determine welfare (Glasmeier, 2023).[9] However, the living wage calculator reports only 1 year of data at any time, and since this study has covered more than 20 years of data using the living wage was not feasible. For this reason, we used the real median wage from 2000 as the threshold for this study. The living wage in recent years was similar to the real median wage in 2000, and this increased our confidence of using the median wage.

Figure 2
High quality job real wage threshold comparison (inflation-adjusted to year 2000 dollars)
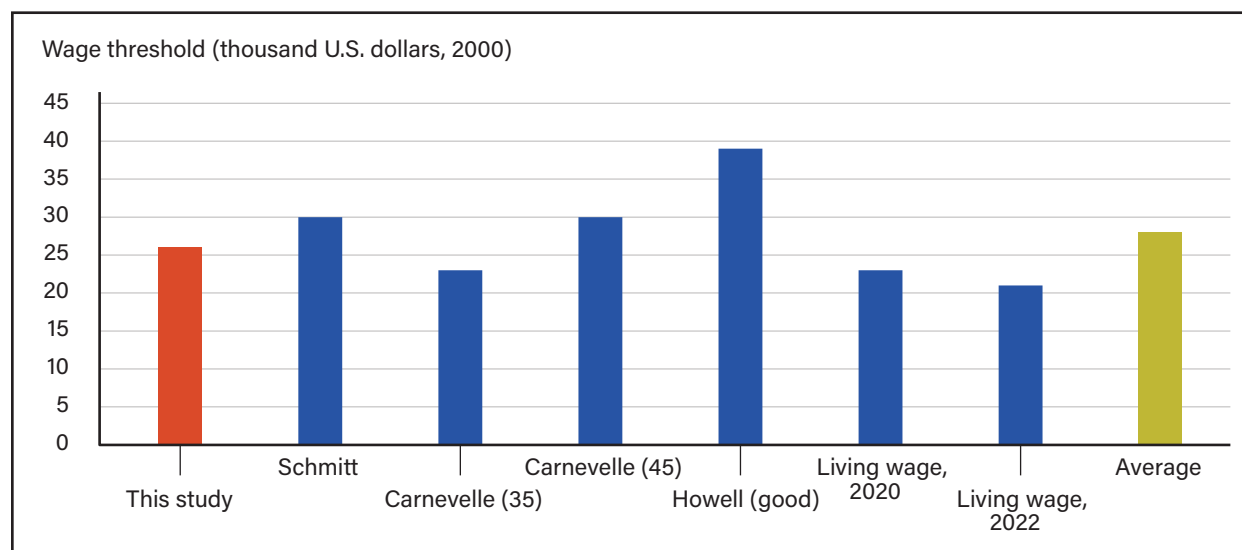
Schmitt = Threshold for job quality drawn from Schmitt and Jones (2012). Carnevale (35) = Threshold drawn from Carnevale et al. (2017) for workers who are aged 35 or younger. Carnevale (45) = Threshold drawn from Carnevale et al. (2017) for workers' who are aged 45 or younger. Howell (good) = Threshold for good-quality jobs as per Howell (2019), who uses three thresholds with corresponding pay per hour to determine lousy jobs, decent jobs, and good jobs.

Note: The living wage data are obtained from Glasmeier (2020) and Glasmier (2022). Values were converted to 2000 U.S. dollars using the U.S Department of Labor, Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers.

Source: USDA, Economic Research Service using data from Carnevale, A.P., Strohl, J., Ridley, N., & Gulish, A. (2018). *Three educational pathways to good jobs: High school, middle skills, and bachelor's degree*. Georgetown University; Glasmeier, A. K. (2023). *Living wage calculator*. Massachusetts Institute of Technology; Howell, D. (2019). *From decent to lousy jobs: New evidence on the decline in American job quality*, 1979–2017. Washington Center for Equitable Growth; Schmitt, J., & Jones, J. (2012). *Where have all the good jobs gone?* Center for Economic and Policy Research; and U.S Department of Labor, Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers.

Regarding nonwage benefits, we used information in the CPS-ASEC concerning whether workers have employer sponsored health insurance and whether their employer offers an employer sponsored retirement plan. Using the responses, workers were classified in one of two categories for employer sponsored health insurance access (i.e., yes or no) and into one of two categories for employer sponsored retirement plan access (i.e., yes or no). There are eight possible combinations of these categories of real wages, employer sponsored health insurance coverage, and employer sponsored retirement benefits (table 1).

---

[9] Examples of the other aspects that determine welfare include access to health services and education.

Table 1

The possible combinations of levels of wages and employer sponsored health insurance coverage and retirement benefits, and corresponding shares of workers in the United States, 2000–22

Combination	Abbreviated term	Percent[1]
Wage greater than or equal to median in 2000, healthcare, retirement plan	High pay, ESI and ESR	30
Wage greater than or equal to median in 2000, no healthcare, has retirement plan	High pay and ESR, no ESI	6
Wage greater than or equal to median in 2000, has healthcare, no retirement plan	High pay and ESI, no ESR	14
Wage greater than or equal to median in 2000, no healthcare, no retirement plan	High pay, no ESI, no ESR	10
Wage less than median in 2000, healthcare, retirement plan	Low pay, ESI and ESR	6
Wage less than median in 2000, no healthcare, has retirement plan	Low pay, ESR, no ESI	3
Wage less than median in 2000, has healthcare, no retirement plan	Low pay, ESI, no ESR	9
Wage less than median in 2000, no healthcare, no retirement plan	Low pay, no ESI and no ESR	22

ESI = Employer sponsored health insurance. ESR = Employer sponsored retirement benefits.

[1] The percent is an average for all years, 2000–22.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Over the 2000–22 study period, 30 percent of CPS-ASEC respondents had high-quality jobs with high earnings, employer sponsored health insurance coverage, and access to employer sponsored retirement benefits. Only 6 percent of employees received high pay and an employer sponsored retirement plan but did not have employer sponsored health insurance coverage. An even smaller share of employees lacked employer sponsored health insurance coverage following implementation of the Affordable Care Act's (ACA's) Employer Shared Responsibility Provision in 2015. ACA penalized employers with 100 or more full-time equivalent employees who did not provide employer sponsored health insurance coverage to full-time workers (Abramowitz & O'Hara, 2017). Employees earning low wages and with no employer sponsored health insurance coverage or employer sponsored retirement benefits comprised the second largest share of possible job quality indicator combinations (22 percent).

This categorical measure of job quality gives nonwage benefits similar weight in the measure of job quality as real wages, even though real wages have accounted for a much larger proportion to employers' costs than nonwage benefits. This may bias conclusions about job quality changes over time. For example, this approach could suggest declining job quality even when the real value of employer compensation, including both wages and nonwage benefits, is increasing. For example, a worker would fall into the second job quality category (i.e., high pay, with no employer sponsored health insurance but with employer sponsored retirement benefits) even when their employer doubles their wage, provides them a retirement benefit plan, but still does not provide health insurance. In this case, the total value of compensation likely has increased, yet the employee remains in the same second job quality category. To address this potential limitation, we also used the job quality index approach.

Job Quality Index

The job quality index, as defined in this study, is an estimate of employers' total costs for employees' wages, employer sponsored health insurance coverage, and employer sponsored retirement benefits. Unfortunately, the CPS-ASEC data has not reported the costs employers incur when supporting employees' health insur-

ance or retirement benefits. But the U.S. Department of Labor, Bureau of Labor Statistics' (BLS) National Compensation Survey (NCS) has reported the average value of employers' costs and employee wages, by major industry at the census division level. We used these data to calculate a job quality index that combines all three indicators of job quality—specifically wages, employer sponsored health insurance, and employer sponsored retirement benefits—into a single indicator reflecting the estimated total employer cost of compensation.

We used the NCS data to calculate the average total wage values and employers' costs of providing health insurance coverage and retirement benefits to workers in each industry and census division.[10] We then used those values to calculate wages as a share of total compensation (including wages plus employers' cost of providing health insurance and retirement benefits) in each census division and industry sector. We referred to those shares as wage weights (indicated by e_{tij} in equation (1) below) and used them to estimate the job quality index for a worker in the CPS-ASEC sample by dividing their wage by the appropriate wage weight (depending on whether the worker participated in an employer sponsored health insurance plan or retirement benefit plan).

The job quality index is calculated by:

(1)
$$Y_{tijk} = \frac{w_{tijk}}{e_{tij}}$$

Where Y_{tijk} = Estimated index of total wages and nonwage health insurance and retirement benefits in year t, paid by employer type (industry) i,[10] to employee k, in census division j[11] and where w_{tijk} = wages in year t paid by employer type i to employee k (derived from the CPS-ASEC data).

In addition, e_{tij} = wages as share of total compensation and benefits for employer type i in census division j (j = 1, 2….9) (derived from the U.S. Department of Labor, BLS's NCS data). Dividing w_{tijk} by e_{tij} provides an estimate of total compensation received by workers at time t in industry i and census division j.[12] The data for estimating e_{tij} were obtained from NCS data since the CPS-ASEC data do not report the amount the employer pays for employees' retirement benefits and health insurance. The estimated total compensation and benefit (Y_{tijk}) is used as the indicator of job quality. The median of Y_{tijk} in each census division in the baseline year, 2000, was calculated and used as a benchmark in some of the analysis.

---

[10] We used the industry categories of the North American Industry Classification System (NAICS):

(1) Goods-producing industries include natural resources-based industries (e.g., agriculture, forestry, fishing and hunting); mining, quarrying and oil and gas extraction; construction; and manufacturing.

(2) Service industries include trade, transportation, and utilities; financial services, information, professional, and business services; education and health services; leisure and hospitality; other services other than government; and government.

[11] The nine Census divisions are: (1) New England, (2) Middle Atlantic, (3) East North Central, (4) West North Central, (5) South Atlantic, (6) East South Central, (7) West South Central, (8) Mountain, and (9) Pacific divisions.

[12] This job quality indicator estimate implicitly assumes that all workers in an industry and census division in a given year have the same value of e_{tij}, which is a simplification required by the lack of data regarding the value of nonwage benefits provided to individual employees. Thus, the estimated job quality indicator does not necessarily reflect total compensation paid to each worker in the CPS-ASEC data, but the job quality indicator is assumed to reflect the average total compensation to aggregations of workers, such as workers in metro compared with nonmetro areas or by race and ethnicity.

Results

We investigated trends in these measures using four 5-year periods (2000–2004, 2005–2009, 2010–2014, and 2015–2019) as well as a final 3-year period (2020–2022). The three measures included wages, employer sponsored health insurance coverage, and employer sponsored retirement benefits. Aggregating results across these periods reduced the potential for finding false trends due to sampling variability. The five periods studied roughly corresponded to periods with distinct macroeconomic conditions, including the growth period of the early 2000s, the Great Recession of 2007–09, recovery from the Great Recession (2010–14), the prepandemic period of economic growth (2015–19), and the Coronavirus (COVID-19) pandemic period (2020–22).[13]

Categorical Measure of Job Quality

In nonmetro and metro areas, we found that the most common job quality category during the 2000–2004 period was for the workers who received real wages above the threshold (median wage in 2000) in their census division, had employer sponsored health insurance coverage, and employee sponsored retirement benefits (figures 3 and 4). In 2000–2004, approximately 28 percent of workers in nonmetro areas belonged to this group. The share of workers in this category fell to 24 percent in 2015–19 but increased to 27 percent in the 2020–22 COVID-19 pandemic period (figure 3). We observed a comparable trend in metro areas, but a greater share of workers was in this group, 33 percent in 2000–2004 and 29 percent in 2020–2022 (figure 4).

Throughout the 2000–2004 to 2015–2019 periods, we found the second biggest job quality category in both metro and nonmetro areas was for workers who received low wages and did not receive employer sponsored health insurance coverage or employer sponsored retirement benefits. We found that approximately 22 percent to 27 percent of workers were classified as part of this job quality group in both metro and nonmetro areas but fell significantly during the COVID-19 pandemic for the 2020–22 period.

In nonmetro and metro areas, we found that the share of workers in the first, third, and seventh categories increased markedly in the 2020–22 period, while the share in the eighth category (low wage, no employer sponsored health insurance coverage, and no employer sponsored retirement benefits) greatly declined. Changes in the second, fourth, fifth, and sixth categories were small (figures 3 and 4). Given the changes in the first seven categories (table 1), the substantial reduction in the share of employees in the worst job quality category appeared to have resulted from various changes, including a significant rise in real wages by 2020–22 and an increase in the share of workers receiving employer sponsored health insurance coverage and/or retirement benefits.

---

[13] The Great Recession was a severe global economic downturn, which started in the United States in 2007 following the collapse of the housing market, which in turn led to financial crises that caused large financial institutions to fail. The COVID-19 pandemic also led to an economic recession due to its effect on labor market disruptions and supply-chain disruptions.

Figure 3
Nonmetropolitan job quality trends by category, 2000–2004 to 2020–2022
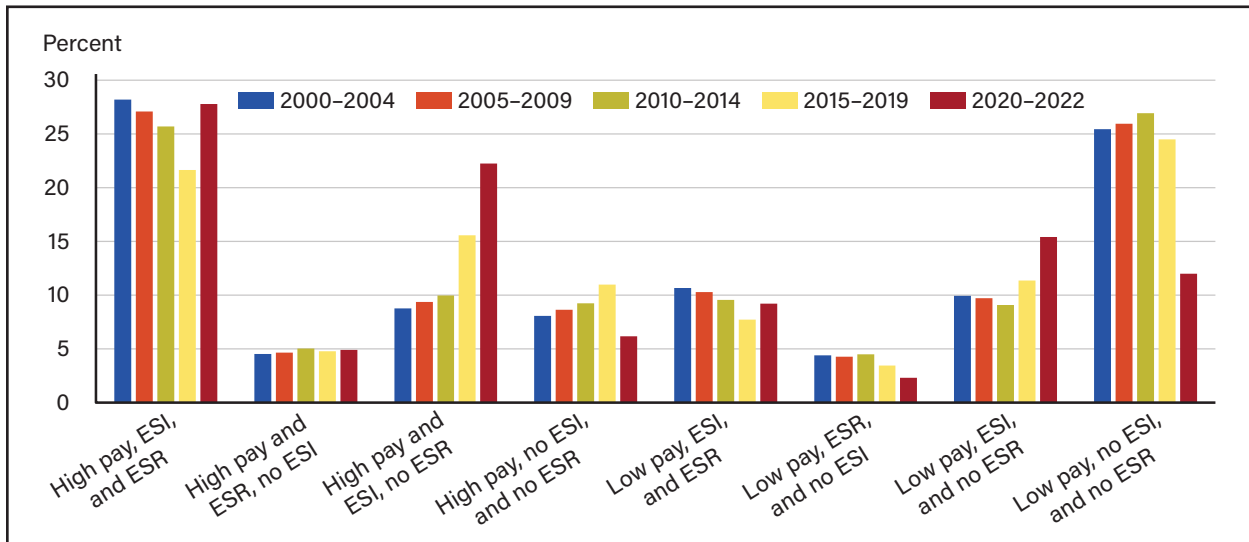
Percent

Legend: 2000–2004, 2005–2009, 2010–2014, 2015–2019, 2020–2022

Categories: High pay, ESI, and ESR | High pay and ESR, no ESI | High pay and ESI, no ESR | High pay, no ESI, and no ESR | Low pay, ESI, and ESR | Low pay, ESR, and no ESI | Low pay, ESI, and no ESR | Low pay, no ESI, and no ESR

ESI = Employer sponsored health insurance coverage. ESR = Employer sponsored retirement benefits.

Note: Baseline year for calculating median income is 2000. The median was calculated using the U.S. Department of Commerce, Bureau of the Census's census divisions.

Source: USDA, Economic Research Service estimates using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Figure 4
Metropolitan job quality trends by category, 2000–2004 to 2020–2022
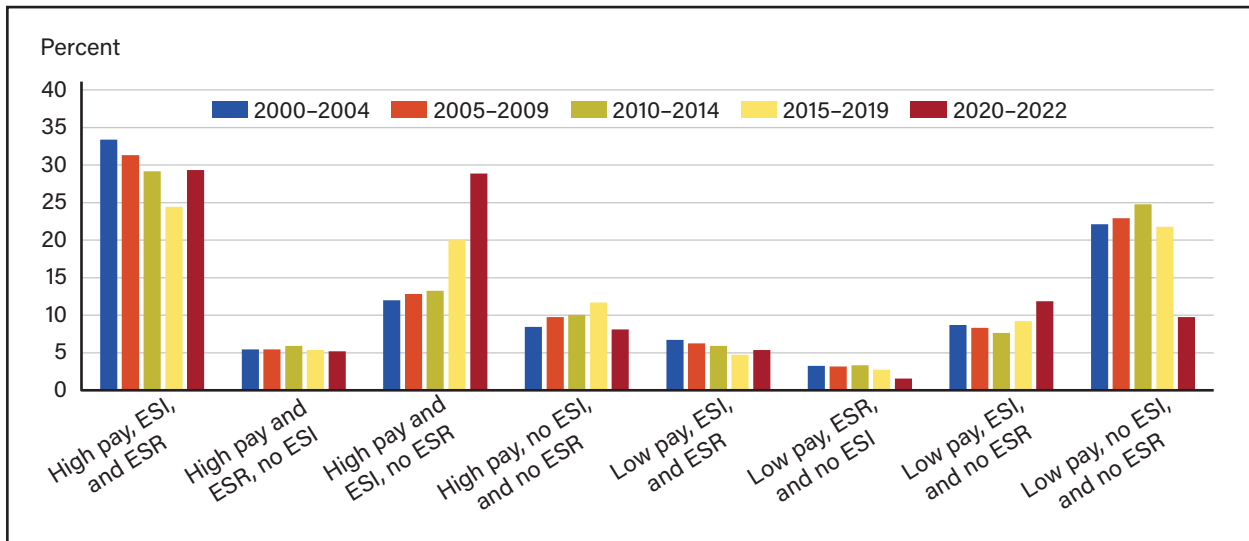
Percent

Legend: 2000–2004, 2005–2009, 2010–2014, 2015–2019, 2020–2022

Categories: High pay, ESI, and ESR | High pay and ESR, no ESI | High pay and ESI, no ESR | High pay, no ESI, and no ESR | Low pay, ESI, and ESR | Low pay, ESR, and no ESI | Low pay, ESI, and no ESR | Low pay, no ESI, and no ESR

ESI = Employer sponsored health insurance coverage. ESR = Employer sponsored retirement benefits.

Note: Baseline year for calculating median income is 2000. The median was calculated using the U.S. Department of Commerce, Bureau of the Census's census divisions.

Source: USDA, Economic Research Service estimates using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

For example, Bundorf et al. (2021) observed that Medicaid enrollment increased significantly during the 2020–22 COVID-19 pandemic period. The cost of employer sponsored health insurance coverage also increased during the 2020–22 COVID-19 pandemic (Claxton et al., 2023). Claxton and Rae (2023) illustrated employees' increased uptake of employer sponsored health insurance coverage during the COVID-19 pandemic. As a result of these changes, the mean value of total compensation per worker increased significantly in the 2020–22 period (figure 8) as did the share of workers in the highest job quality category (i.e., high wage, employer sponsored health insurance coverage, and employer sponsored retirement benefits) (figures 3 and 4).

In nonmetro and metro areas, we found the job quality category with the fastest growth was where workers received high wages, employer sponsored health insurance coverage, but did not receive employer sponsored retirement benefits (figures 3 and 4). The share of workers in this group grew by 14 percentage points in nonmetro areas from 2000–2004 to 2020–2022 but by only 1 percentage point from 2000–2004 to 2010–2014 (figure 3). In metro areas, the share of workers in this job quality category grew by 17 percentage points from 2000–2004 to 2020–2022 but by only 1 percentage point from 2000–2004 to 2010–2014 (figure 4). One possible factor contributing to the faster growth estimated for this category after 2014 may have been the aforementioned changes in the CPS-ASEC survey in 2014 to improve measurement of workers' participation in employer sponsored benefits. For the pre-2014 groupings (before the 2014 CPS-ASEC data collection and processing changes), the job quality group where workers received below the 2000 median wages and did not receive employer sponsored health insurance coverage nor employer sponsored retirement benefits grew the fastest in both metro and nonmetro areas. In this job quality group, the share of workers in nonmetro areas grew by approximately 2 percentage points to 27 percent between the 2000–2004 and 2010–2014 periods while the share of metro area workers in this job quality group grew by 3 percentage points in metro areas from 22 percent to 25 percent.

The second job quality category that grew significantly in both metro and nonmetro areas was the category wherein workers received low wages and employer sponsored health insurance coverage but did not receive employer sponsored retirement benefits. The share of workers in this category increased by 3 percentage points to 12 percent between the 2000–2004 and 2020–2022 periods in nonmetro areas while this category grew by 5 percentage points to 15 percent in metro areas.

Given that the metro and nonmetro area job quality category patterns are similar (e.g., both metro and nonmetro areas experienced similar rates of growth in the two largest job quality categories), we combined metro and nonmetro areas to summarize patterns and trends by racial and ethnic groups (table 2). In 2000–2004, the largest shares of White non-Hispanic workers and Black non-Hispanic workers were in the highest quality job category, 36 percent of White non-Hispanic workers and 28 percent of Black non-Hispanic workers (table 2). The largest share of White non-Hispanic workers was in the highest quality job category throughout the entire 2000–22 period. Similarly, the largest share of Black non-Hispanic workers was in the highest quality job category for most of the study period, except for the 2010–14 and 2015–19 periods. By contrast, only 17 percent of Hispanic workers of all races were in the highest quality job category in 2000–2004, while, during the same time period, 38 percent of Hispanic workers of all races were in the lowest quality job category (i.e., low wages, no employer sponsored health insurance coverage, and no retirement benefits). Between the 2000–2004 and 2020–2022 periods, the share of jobs in the highest job quality declined for White and Black non-Hispanic workers but increased for Hispanic workers of all races.

Across the three racial and ethnic groups examined in this report (i.e., non-Hispanic White workers, non-Hispanic Black workers, and Hispanic workers of all races), the job quality category receiving high pay and employer sponsored health insurance coverage but not receiving retirement benefits category had the fastest growth in share of workers. Across the three racial and ethnic groups, this job quality category increased by

Trends and Patterns of Job Quality in the United States, EIB-286
USDA, Economic Research Service

16 percentage points. Almost all the growth in this category occurred between 2010–14 and 2020–22 for all three racial and ethnic groups. The White non-Hispanic workers group receiving high wages and employer sponsored health insurance coverage but not employer sponsored retirement benefits category also grew by 1.7 percentage points between 2000–2004 to 2010–2014. However, for Hispanic workers of all races and Black non-Hispanic workers, the job quality category receiving low wages with no employer sponsored health insurance coverage or employer sponsored retirement benefits grew the fastest between 2000–2004 to 2010–2014. Overall, among the three racial and ethnic groups studied, White non-Hispanic workers were found to be most likely to be in higher quality jobs in 2000–2004, followed by Black non-Hispanic workers and then Hispanic workers of all races (table 2). The subpopulation group of White non-Hispanic workers was the largest group of workers analyzed in this study (table 3). Thus, the size of the White non-Hispanic worker group has justified its use as a benchmark of the other two racial and ethnic identity groups.

Table 2
Categorical job quality trends by race and ethnicity, 2000–2022

	2000–2004	2005–2009	2010–2014	2015–2019	2020–2022	Percentage point change[a]	
White, Non-Hispanic						T2 – T1	T3 – T1
High pay, ESI and ESR	35.9	34.2	32.3	26.9	30.8	-3.6	-5.1
High pay and ESR, no ESI	5.7	5.9	6.5	6.0	5.7	0.8	0.0
High pay and ESI, no ESR	11.5	12.5	13.2	20.1	27.8	1.7	16.3
High pay, no ESI, no ESR	8.2	9.4	10.0	12.0	8.4	1.8	0.2
Low pay, ESI and ESR	7.2	6.8	6.4	5.0	5.2	-0.9	-2.0
Low pay and ESR, no ESI	3.5	3.4	3.5	2.9	1.8	0.0	-1.8
Low pay and ESI, no ESR	7.8	7.5	6.8	8.0	10.1	-1.0	2.2
Low pay, no ESI, no ESR	20.1	20.3	21.2	19.3	10.2	1.2	-9.8
Black, non-Hispanic							
High pay, ESI and ESR	27.7	26.4	24.6	20.9	27.0	-3.1	-0.7
High pay and ESR, no ESI	4.6	4.5	4.8	4.2	3.5	0.2	-1.1
High pay and ESI, no ESR	10.4	11.3	11.1	17.6	26.3	0.7	16.0
High pay, no ESI, no ESR	7.0	8.1	7.5	8.7	5.6	0.5	-1.3
Low pay, ESI and ESR	10.8	10.0	9.0	7.3	9.2	-1.7	-1.6
Low pay and ESR, no ESI	3.8	3.6	4.2	3.1	1.5	0.4	-2.3
Low pay and ESI, no ESR	12.4	12.1	11.4	14.3	18.6	-1.0	6.2
Low pay, no ESI, no ESR	23.4	24.0	27.4	23.7	8.3	4.0	-15.2
Hispanic, all races							
High pay, ESI and ESR	17.0	16.3	15.9	15.4	23.4	-1.1	6.4
High pay and ESR, no ESI	3.3	3.1	3.2	3.3	3.7	0.0	0.5
High pay and ESI, no ESR	9.7	10.7	10.4	15.9	27.1	0.7	17.4
High pay, no ESI, no ESR	9.9	11.0	10.7	11.7	6.5	0.7	-3.4
Low pay, ESI and ESR	6.5	5.5	5.6	4.8	7.1	-0.9	0.6
Low pay and ESR, no ESI	3.2	3.0	3.2	2.9	1.6	0.0	-1.6
Low pay and ESI, no ESR	12.0	10.9	9.7	12.5	19.3	-2.3	7.4
Low pay, no ESI, no ESR	38.4	39.4	41.3	33.4	11.1	2.9	-27.3

T_1 = Time period 1, 2000–2004. T_2 = Time period 2, 2010–2014. T_3 = Time period 3, 2020–2022. ESI = Employer sponsored health insurance. ESR = Employer sponsored retirement benefits. High pay = Workers' real wage is equal or above the median wage in 2000 in the same census division. Low pay = Workers' real wage is less than the median wage in 2000 in the same census division.

Source: USDA, Economic Research Service estimates using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

There are differences between the shares of men and women workers (i.e., a gender gap) in the different job quality categories by period and the percent changes from the 2000–2004 period to the 2020–2022 period (figure 5). During the 2000–2004 period, 38 percent of men and 26 percent of women were in the highest job quality category, a gender gap of approximately 12 percentage points. The gender gap in the highest job quality category declined by nearly 7 percentage points over the study period to approximately 5 percent in 2020–2022.

Table 3
Share of workers in each subpopulation analyzed, 2000–2022

	2000–2004	2005–2009	2010–2014	2015–2019	2020–2022
	Percent				
Nonmetropolitan					
Racial and ethnic group					
White, non-Hispanic	82.8	83.6	81.8	81.2	80.9
Hispanic, all races	5.6	5.7	7.3	7.0	7.2
Black, non-Hispanic	7.3	6.9	6.6	7.2	7.4
Other	4.3	3.7	4.2	4.6	4.5
Sex					
Male	51.9	51.6	51.2	51.8	51.7
Female	48.1	48.4	48.8	48.2	48.3
Metropolitan					
White, non-Hispanic	67.5	65.8	63.3	60.3	58.1
Hispanic, all races	13.6	15.3	16.6	18.1	19.2
Black, non-Hispanic	12.1	12.0	11.8	12.4	12.8
Other	6.8	6.9	8.3	9.2	9.9
Sex					
Male	52.4	52.7	52.3	52.3	52.6
Female	47.6	47.3	47.7	47.7	47.4

Other = American Indian and Alaska Native, Asian American, Native Hawaiian, and Pacific Islander, or two or more races.

Source: USDA, Economic Research estimates using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

The gender gap was positive (i.e., the percentage of men workers was greater than the percentage of women workers) for all job quality categories with high wages and negative for all job quality categories with low wages throughout the study period, meaning that men were more likely to be in high wage jobs and women were more likely to be in low wage jobs (figure 5).

For the second job quality category (high pay with employer sponsored health insurance coverage, but no employer sponsored retirement benefits), the gender gap increased by about 4 percentage points from 2000–2004 to 2020–2022 (i.e., more men were in higher paying jobs and more women were in lower paying jobs). The change for the third job quality category during the same period declined by about 4 percentage points.

Figure 5
Gender gap in the shares of men and women workers in job quality categories, 2000–22

ESI = Employer sponsored health insurance. ESR = Employer sponsored retirement benefits.

Note: The gender gap (measured in percent share) in a job quality category is defined as the percent of men workers in a job quality category minus the percent of women workers in the same category. The category with high pay, no ESI and ESR is not included because it has too few observations.

Source: USDA, Economic Research Services estimates using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.
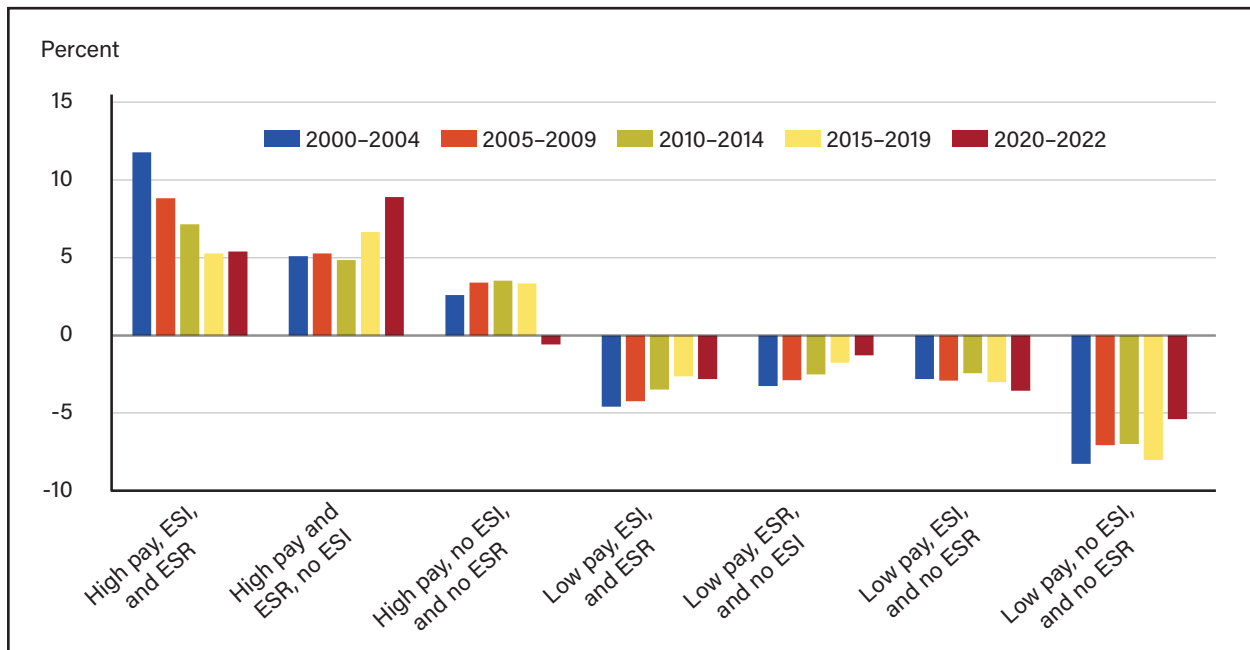
Job Quality Index

We used trends of the average wage weights (i.e., wages as a share of total employer costs for wages, employer sponsored health insurance, and employer sponsored retirement benefits) to estimate the job quality index, by time period and major industry sectors (table 4). The weights for wages declined between 2000–2004 and 2020–2022 in all sectors, though to a much greater extent in the government sector than in goods-producing industries and/or service industries.[14] As discussed earlier, these wage weight declines indicate increasing employer costs for nonwage benefits relative to wages. The employer sponsored healthcare insurance coverage weight increased over the 2000–22 period in all sectors, especially in the government sector.

The changes in weights for the three indicators of job quality indicate the changes in the distribution or increase or decrease of employer costs. The weights for employer sponsored retirement plans slightly changed in the goods-producing industry whereas retirement plans increased in the service industry and the government sector. The weight for employer sponsored health insurance increased in the goods-producing industry but fell slightly during the 2020–22 COVID-19 pandemic period as the weight for wages increased.

---

[14] The only exception was for the goods-producing sector in which the wage share increased from 0.82 in 2015–19 to 0.84 in 2020–22.

Table 4

Wage, employer sponsored healthcare insurance coverage, and employer sponsored retirement benefits shares of total employer compensation (weights), 2000–22

|	2000–2004	2005–2009	2010–2014	2015–2019	2020–2022
	Proportion				
Goods-producing industries					
Wages	0.85	0.84	0.83	0.82	0.84
Employer sponsored health insurance	0.09	0.11	0.11	0.11	0.10
Employer sponsored retirement benefits	0.06	0.06	0.06	0.07	0.06
Service-producing industries					
Wages	0.88	0.86	0.84	0.84	0.84
Employer sponsored health insurance	0.08	0.09	0.10	0.10	0.10
Employer sponsored retirement benefits	0.04	0.05	0.06	0.07	0.06
Government sector					
Wages	0.86	0.79	0.76	0.73	0.72
Employer sponsored health insurance	0.07	0.09	0.10	0.13	0.15
Employer sponsored retirement benefits	0.11	0.13	0.14	0.13	0.13

Note: The goods-producing industry includes natural resources-based industries (e.g., agriculture, forestry, and fishing and hunting); mining, quarrying and oil and gas extraction; construction; and manufacturing. The service industry included trade, transportation, and utilities; financial services, information, professional and business services; education and health services; leisure and hospitality; government; and other services other than public services.

Source: USDA, Economic Research Service estimates using U.S. Department of Labor, Bureau of Labor Statistics, 2000–22 National Compensation Survey data; and U.S. Department of Commerce, Bureau of the Census, North American Industry Classification System.

For the government sector, the employer sponsored health insurance share of employers' total cost (ESI weight) more than doubled over the study period (from 7 percent in 2000–2004 to 15 percent in 2020–2022). By contrast, the ESI weight changed only slightly in the private sector. For metro and nonmetro areas, ESI and ESR weights increased at a faster rate than the wage weight during 2000 to 2022 (figures 6 and 7). This indicated that the real dollar value of nonwage benefits increased faster than the real dollar value of wages during this period (figures 6 and 7). This means that even though workers' access to employer sponsored health insurance coverage and employer sponsored retirement benefits has declined, workers with employer sponsored health insurance coverage and employer sponsored retirement benefits are receiving both at a higher cost to employers. As mentioned earlier, the inflation-adjusted value of employer contributions to employer sponsored health insurance coverage and employer sponsored retirement benefits per worker-hour increased by more than 50 percent each from 2000 to 2022, while the inflation-adjusted value of wages and salaries increased only about 8 percent and other nonwage benefits increased 15 percent (figure 1).

Figure 6
Share of wages, employer sponsored insurance, and employer sponsored retirement to total employer cost, nonmetropolitan areas, 2000–22
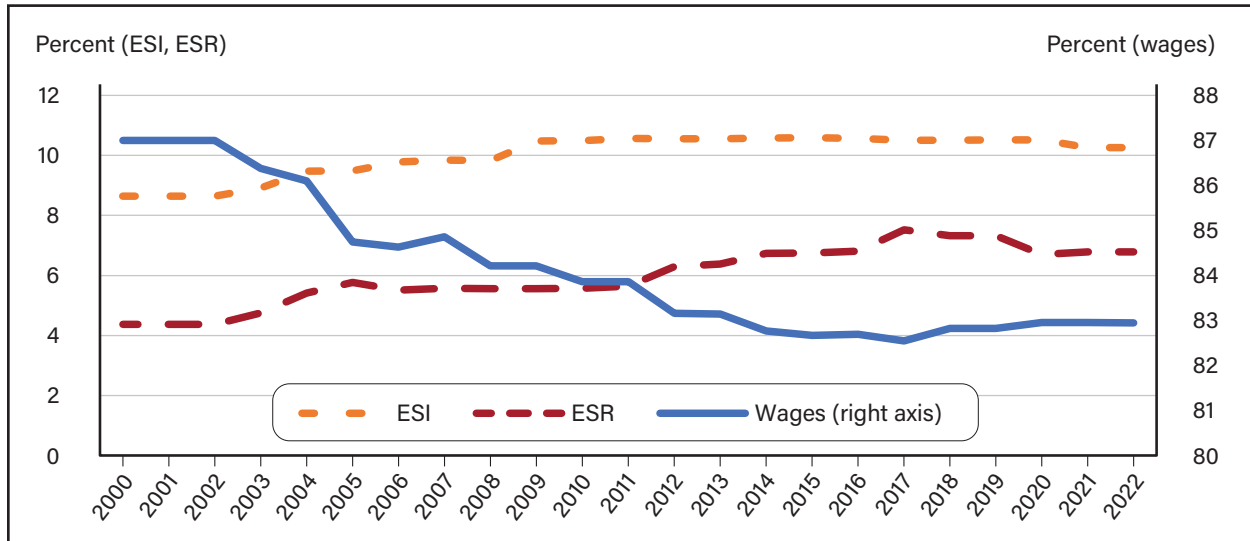
ESI = Employer sponsored health insurance. ESR = Employer sponsored retirement benefits.

Source: USDA, Economic Research Service using U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey data.

Figure 7
Share of wages, employer sponsored insurance, and employer sponsored retirement to total employer cost, metropolitan areas, 2000–22
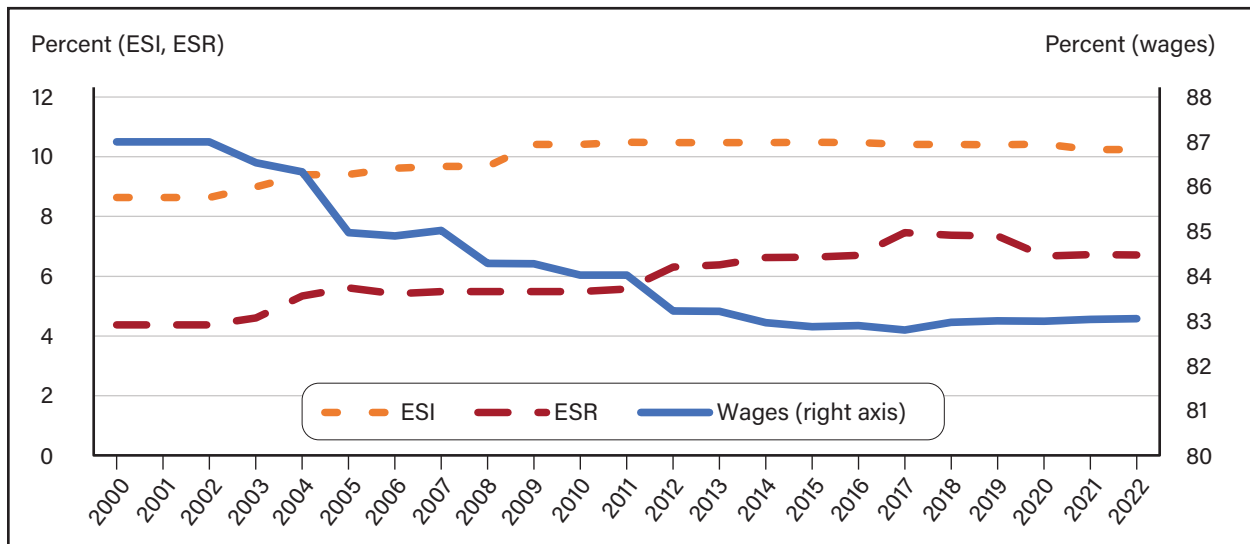
ESI = Employer sponsored health insurance. ESR = Employer sponsored retirement benefits.

Source: USDA, Economic Research Service using U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey data.

Nationally, the mean job quality index (JQI) increased consistently and nearly parallel to the wage trend (figure 8). Wages accounted for about 73–87 percent of the total employer cost across sectors and periods, without large changes in the wage weight except in the government sector (table 4).

Trends and Patterns of Job Quality in the United States, EIB-286
USDA, Economic Research Service

Figure 8
Trend of mean annual real wages and job quality index per employee, 2000–22

Thousand U.S. dollars, 2000
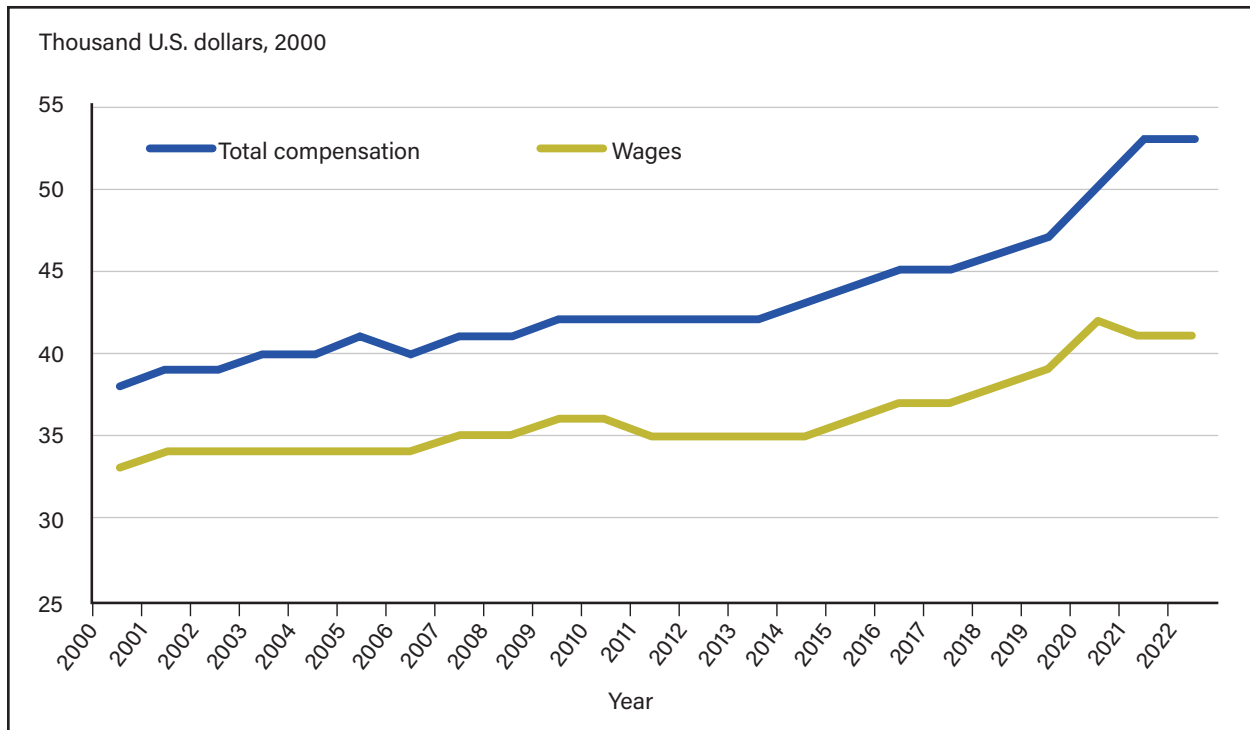
Note: The job quality index is an estimate of the inflation-adjusted value of compensation employers pay per worker per year. The job quality index includes wages and employer contributions to health insurance and retirement plans. Values were adjusted to 2000 U.S. dollars values using the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers data.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data; and U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey data.

In both metro and nonmetro areas, the job quality categories with wages above the 2000 median were more likely to have employer sponsored health insurance coverage and/or employer sponsored retirement benefits, and the average JQI values for these high-wage categories were well above the average JQI values for categories with wages below the 2000 median (figures 9 and 10). Also, the job quality groups with wages above the 2000 median showed faster growth in the JQI values than the groups with wages below the 2000 median, indicating increasing inequality in the value of total compensation among the job quality categories.

Figure 9
Relationship between job quality index and job quality categories, nonmetropolitan areas, 2000–22

JQI (Thousand U.S. dollars, 2000)

Legend:
- High pay, ESI, ESR
- High pay, ESR, no ESI
- High pay, ESI, no ESR
- High pay, no ESI, no ESR
- Low pay, ESI , ESR
- Low pay, ESR, no ESI
- Low pay, ESI, no ESR
- Low pay, no ESI, no ESR

JQI = Job quality index. ESI = Employer sponsored health insurance. ESR = Employer sponsored retirement benefits.
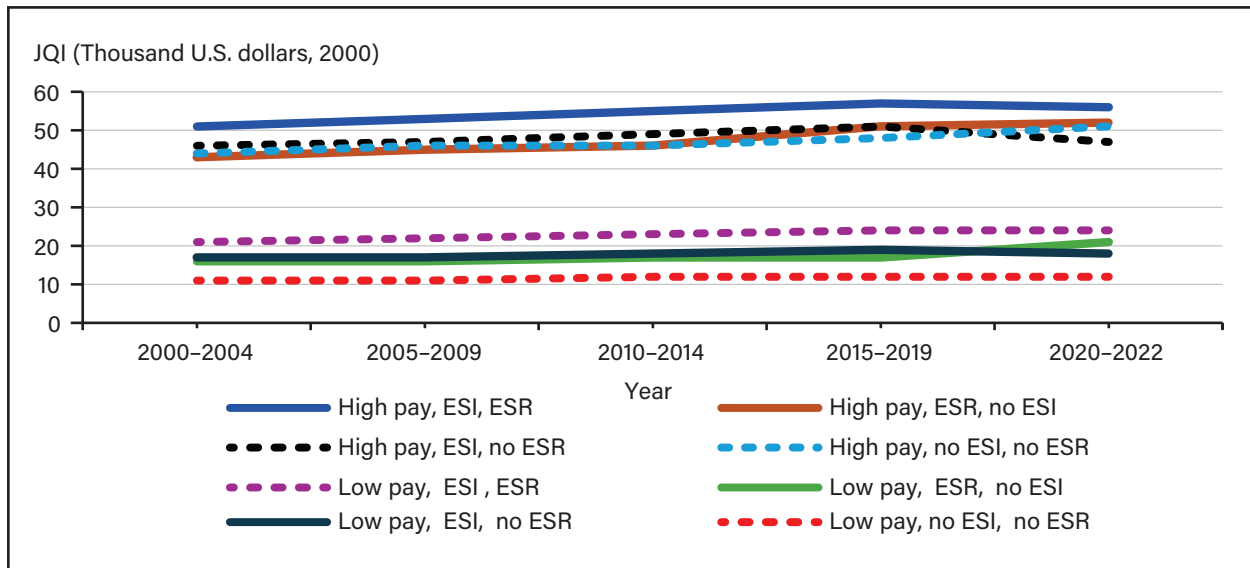
Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Figure 10
Relationship between job quality index and job quality categories, metropolitan areas, 2000–22
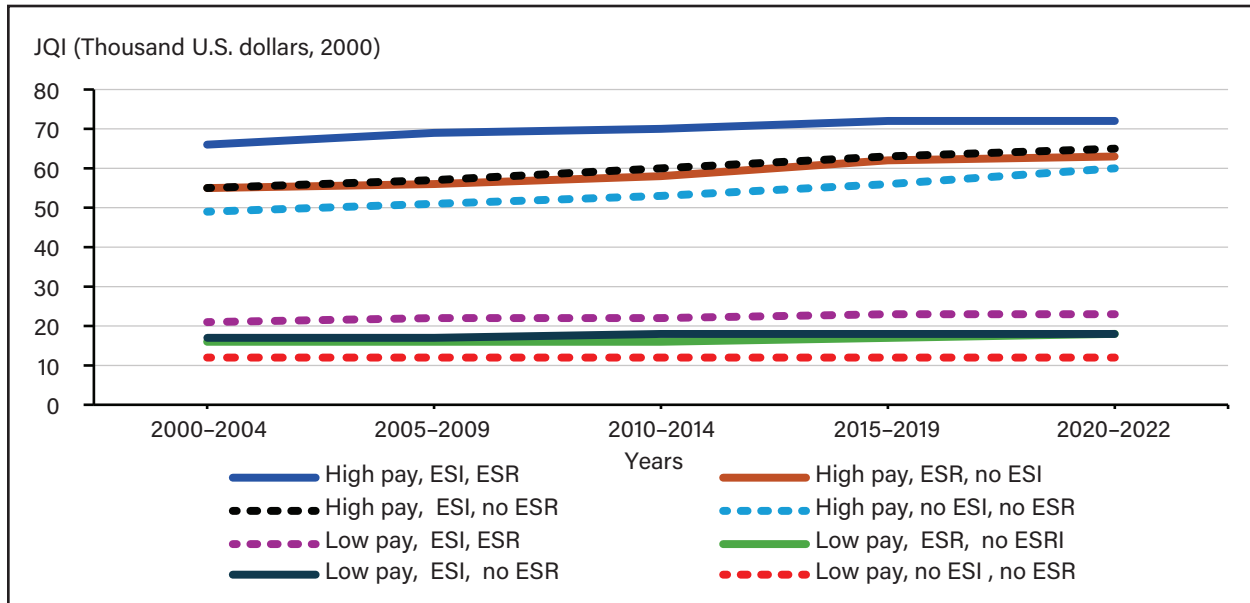
JQI (Thousand U.S. dollars, 2000)

Legend:
- High pay, ESI, ESR
- High pay, ESR, no ESI
- High pay, ESI, no ESR
- High pay, no ESI, no ESR
- Low pay, ESI, ESR
- Low pay, ESR, no ESRI
- Low pay, ESI, no ESR
- Low pay, no ESI , no ESR

JQI = Job quality index. ESI = Employer sponsored health insurance. ESR = Employer sponsored retirement benefits.

Source: USDA, Economic Research Service analysis using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data; and U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey data.

The job quality index increases were heavily skewed towards the highest earners in both metro and nonmetro areas (figures 11 and 12).

Figure 11

Job quality index trends in nonmetropolitan areas by quantiles, 2000–22

JQI (Thousand U.S. dollars, 2000)

JQI = Job quality index. Q = Quantile.

Note: The job quality index is an estimate of the inflation-adjusted value of compensation paid by employers, including wages, employer sponsored health insurance, and employer sponsored retirement plans. The mean JQI is estimated for 10 quantiles in each study period. The quantiles are tenths of the population of workers organized from the lowest job quality index quantile (Q1) to the highest job quality index quantile (Q10).

Source: USDA, Economic Research Service analysis using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data; and U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey data.

Figure 12

Job quality index trends in metropolitan areas by quantiles, 2000–22

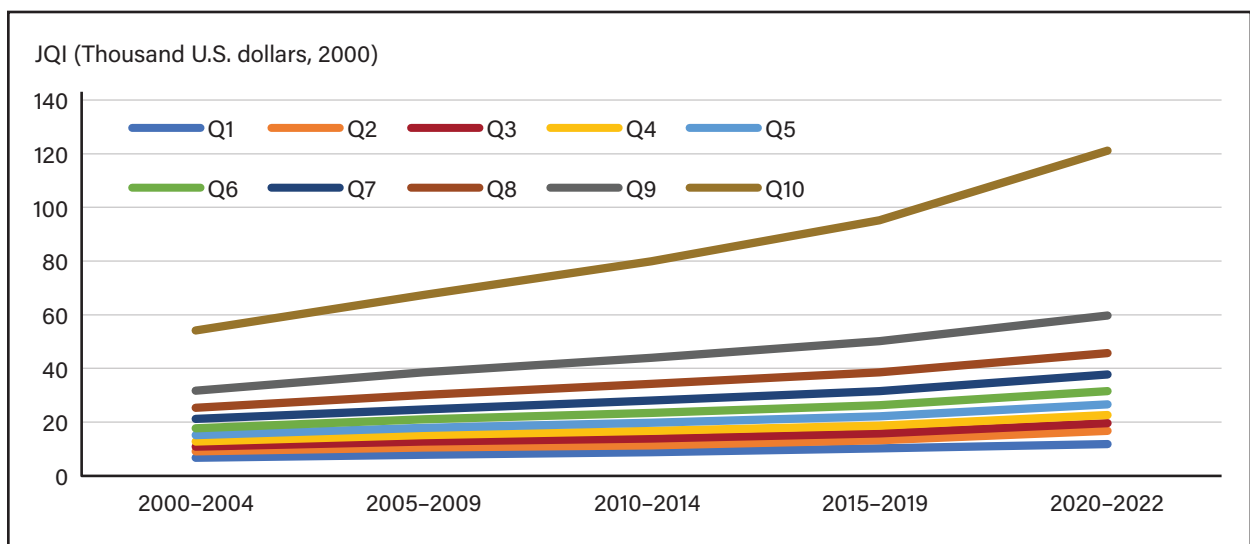JQI (Thousand U.S. dollars, 2000)

JQI = Job quality index. Q = Quantile.

Note: The job quality index is an estimate of the inflation-adjusted value of compensation paid by employers, including wages, employer sponsored health insurance, and employer sponsored retirement plans. The mean JQI is estimated for 10 quantiles in each study period. The quantiles are tenths of the population of workers organized from the lowest job quality index quantile (Q1) to the highest job quality index quantile (Q10).

Source: USDA, Economic Research Service analysis using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data; and U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey data.

The real value of total compensation for workers in the bottom 10 percent of earners grew by only 5 percent between 2000–2004 and 2020–2022 in both nonmetro and metro areas (figures 13 and 14). The corresponding growth for workers in the top 10 percent of earners was 42 percent in nonmetro areas and 67 percent in metro areas. The job quality improvement was greater for workers in metro areas than in nonmetro areas in most quantiles.

Figure 13
Change in job quality index in nonmetropolitan areas by quantiles, 2000–22
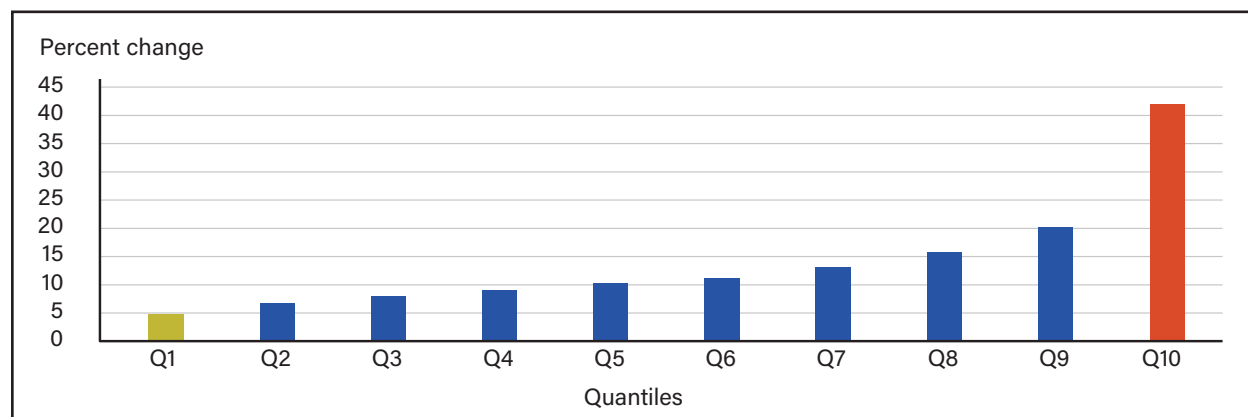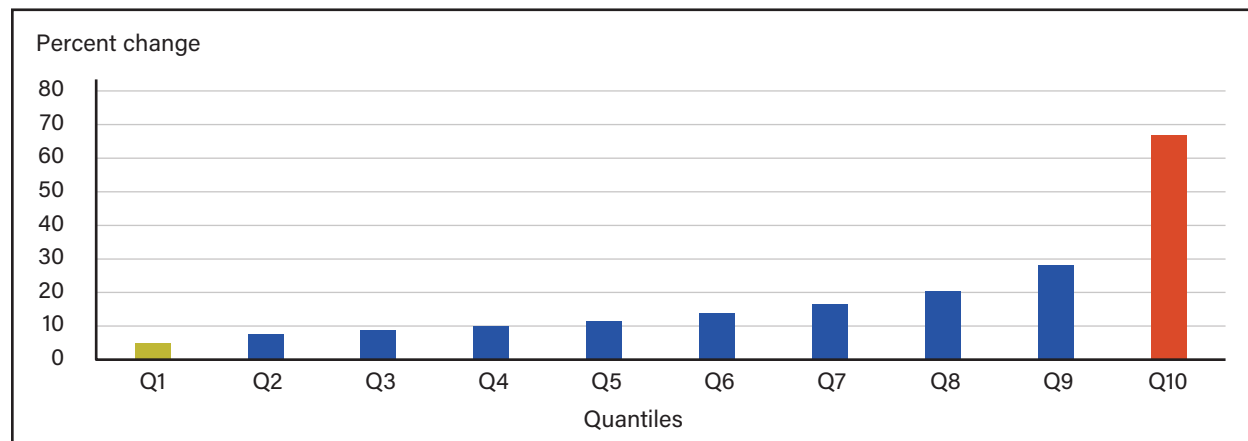

JQI = Job quality index. Q = Quantile.

Note: The job quality index is an estimate of the inflation-adjusted value of compensation paid by employers, including wages, employer sponsored health insurance, and employer sponsored retirement plans. The mean JQI is estimated for 10 quantiles in each study period. The quantiles are tenths of the population of workers organized from the lowest job quality index quantile (Q1) to the highest job quality index quantile (Q10). The first and tenth quantiles are in different colors to highlight their stark differences.

Source: USDA, Economic Research Service analysis using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data; and U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey data.

Figure 14
Change in job quality index in metropolitan areas by quantiles, 2000–22

Q = Quantile

Note: The job quality index is an estimate of the inflation-adjusted value of compensation paid by employers, including wages, employer sponsored health insurance, and employer sponsored retirement plans. The mean JQI is estimated for 10 quantiles in each study period. The quantiles are tenths of the population of workers organized from the lowest job quality index quantile (Q1) to the highest job quality index quantile (Q10). The first and tenth quantiles are in different colors to highlight their stark differences.

Source: USDA, Economic Research Service analysis using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data; and U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey data.

Real Wages

Real mean wages have followed an upward trend for all sub-populations studied. Real mean wages were higher for White, non-Hispanic workers than for Black, non-Hispanic workers or Hispanic workers of all races throughout the study period, but mean wages grew somewhat more for Hispanic workers than for White, non-Hispanic workers or Black, non-Hispanic workers (figures 15 and 16). During the 2000–22 period, the real mean wage growth was slowest before and during the Great Recession (2007–09) and was fastest during the 2014–20 periods. The mean annual growth in wage earnings dipped for all racial and ethnic groups in 2021 and 2022, which was likely due to the COVID-19 recession and responses, as well as the effects of rising inflation on real wages.

Figure 15
Annual mean real wage trends by racial and ethnic groups in nonmetropolitan areas, 2000–22
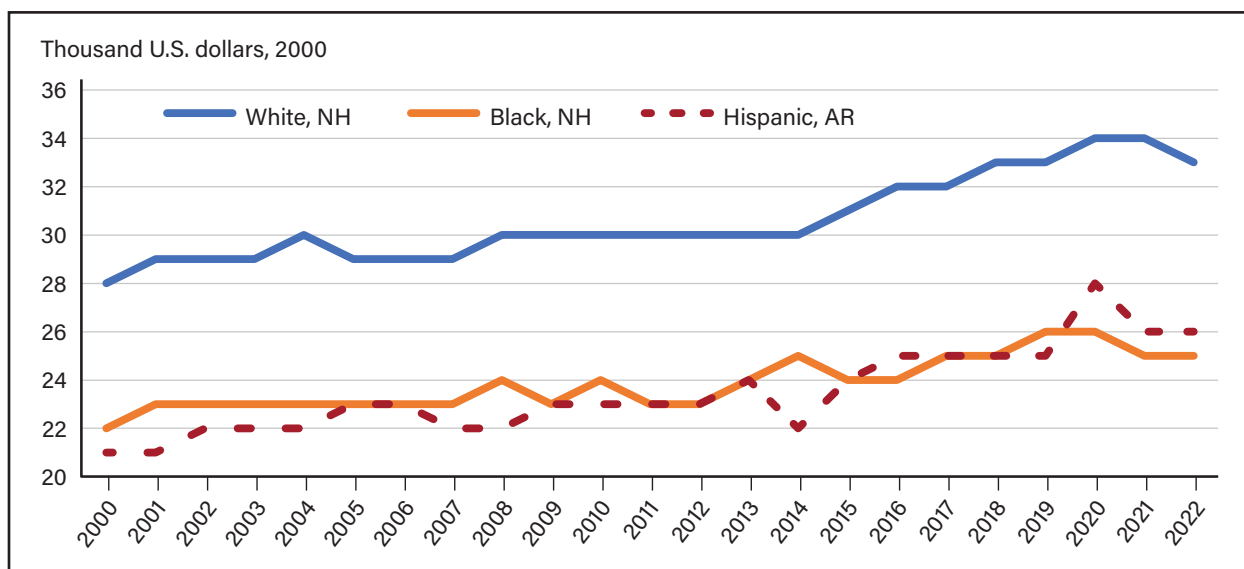
White, NH = White, non-Hispanic workers. Black, NH = Black, non-Hispanic workers. Hispanic, AR = Hispanic workers, all races.

Note: The three races and ethnicities account for the more than 90 percent of U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.

Source: USDA, Economic Research analysis of U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Figure 16
Annual mean real wage trends by racial and ethnic groups in metropolitan areas, 2000–22
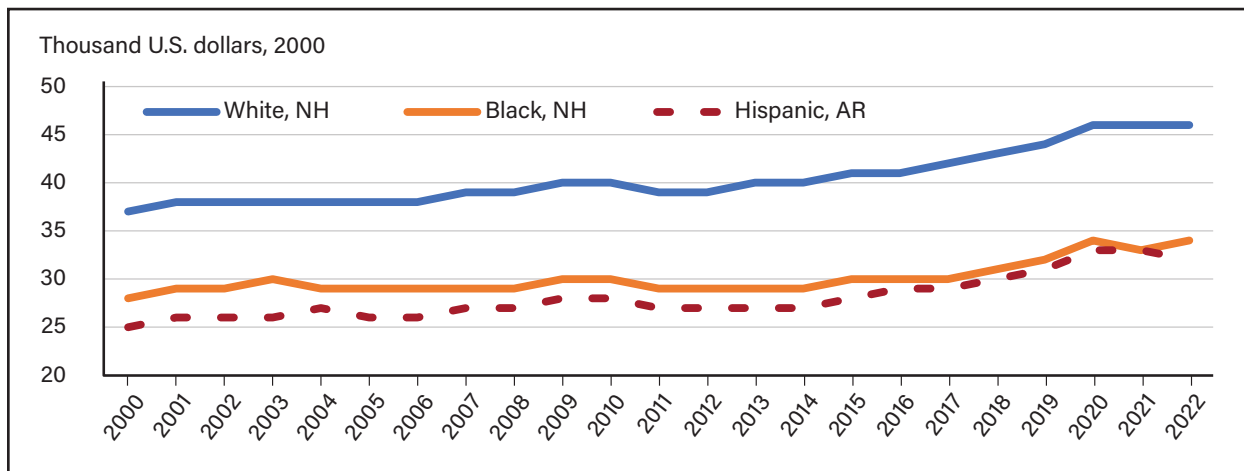

Thousand U.S. dollars, 2000

White, NH = White, non-Hispanic workers. Black, NH = Black, non-Hispanic workers. Hispanic, AR = Hispanic workers of all races.

Note: The three races and ethnicities account for the more than 90 percent of the U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.

Source: USDA, Economic Research analysis of U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

There has been a persistent gender wage gap, which, in this study, has been calculated as the female wage as a percent of the male wage for the same racial and ethnic groups (figure 17). In both metro and nonmetro areas, the gender wage gap has been widest between male and female White, non-Hispanic workers and narrowest between male and female Black, non-Hispanic workers (figure 17).

During the 2020–22 period, White, non-Hispanic female workers in metro areas received $0.77 per dollar that White, non-Hispanic male workers received. This wage discrepancy represented a slight decrease in the gender gap for White, non-Hispanic workers compared with the 2000–2004 period when White, non-Hispanic female workers in metro areas earned $0.74 per dollar earned by White, non-Hispanic male workers. During the 2020–22 period, White, non-Hispanic female workers in nonmetro areas received $0.81 per dollar that White, non-Hispanic workers received, which represented an increase in nonmetro female White non-Hispanic workers' wages relative to nonmetro male White, non-Hispanic workers' wages since 2000–2004.

Figure 17
Female worker wages as a percent of male worker wages in metropolitan and nonmetropolitan areas by racial and ethnic groups, 2000–22

White, NH, NM = White, non-Hispanic workers, nonmetropolitan (nonmetro) area. Black, NH, NM = Black, non-Hispanic workers, nonmetro area. Hispanic, AR, NM = Hispanic workers of all races, nonmetro area. White, NH, M = White, non-Hispanic workers, metropolitan (metro) area. Black, NH, M = Black, non-Hispanic workers, metro area. Hispanic, AR, M = Hispanic workers of all races, metro area.

Note: The three races and ethnicities account for the more than 90 percent of the U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.
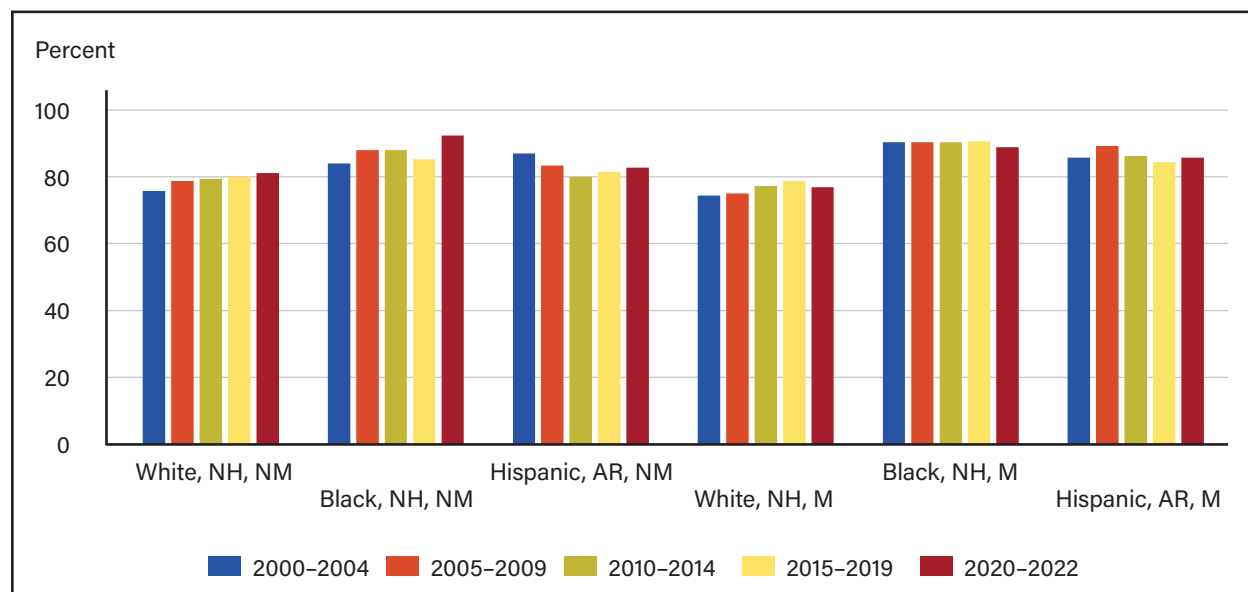
In metro areas, the gender wage gap decreased more for White, non-Hispanic workers than for Black, non-Hispanic workers or Hispanic workers of all races. A Black, non-Hispanic female worker received approximately $0.90 for every $1.00 a Black, non-Hispanic male worker received in metro areas throughout the study period. In nonmetro areas, the gender wage gap between male and female Black, non-Hispanic workers decreased by 8 percentage points between the 2000–2004 period and the 2020–2022 period. The gender wage gap between Hispanic workers of all races increased in nonmetro areas but remained largely unchanged in metro areas over the 2000–22 period. Another study, which did not consider race and ethnicity of workers, has shown that the gender wage gap is narrowing among young female workers who earned a college degree (Fry, 2022).

Examination of wage gap trends across different racial and ethnic groups showed a persistent gap between White, non-Hispanic workers and Black, non-Hispanic workers and Hispanic workers of all races. The wage gap between White, non-Hispanic workers and Hispanic workers of all races in nonmetro areas declined from 24 percentage points in 2000–2004 to 21 percentage points in 2020–2022 (figure 18).

Figure 18

Wages of Black, non-Hispanic workers and Hispanic workers of all races wages as a percent of White, non-Hispanic worker wages in nonmetropolitan and metropolitan areas, 2000–22

Black, NH, NM = Black, non-Hispanic workers, nonmetropolitan (nonmetro) area. Hispanic, AR, NM = Hispanic workers of all races, nonmetro area. Black, NH, M = Black, non-Hispanic workers, metropolitan (metro) area. Hispanic, AR, M = Hispanic workers of all races, metro area.

Note: The three races and ethnicities account for the more than 90 percent of the U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.
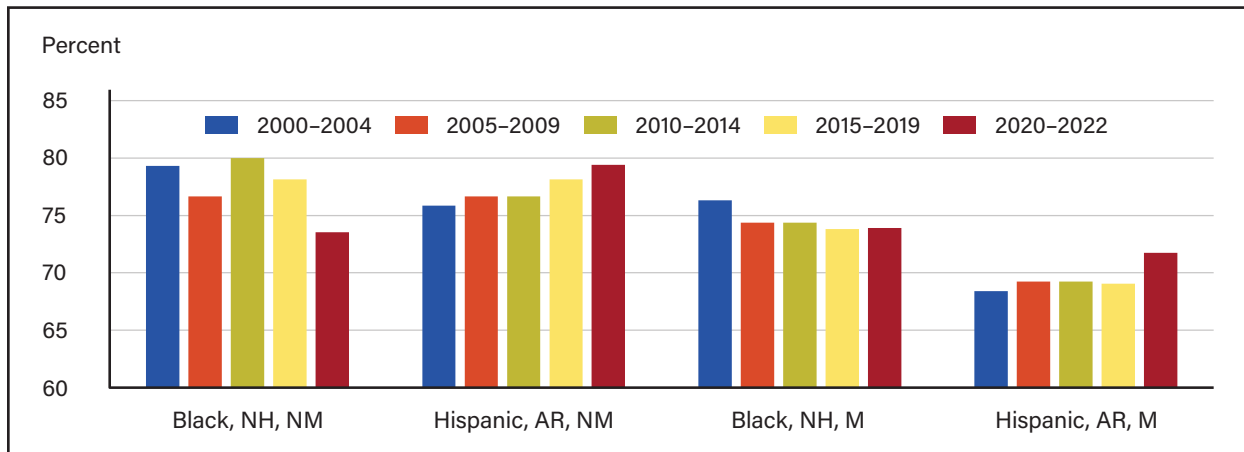
Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

In both metro and nonmetro areas, the wage gap between White, non-Hispanic workers and Hispanic workers of all races declined slightly between the 2000–2004 and 2015–2019 period and declined even more significantly during the COVID-19 pandemic in metro areas. The wage gap between White, non-Hispanic workers and Black, non-Hispanic workers increased in both metro and nonmetro areas but increased the most in nonmetro areas.

Employer Sponsored Health Insurance

During the study period, the share of workers with employer sponsored health insurance coverage trended down for all three racial and ethnic groups and in nonmetro and metro areas (figures 19 and 20). Employer sponsored health insurance coverage for Black, non-Hispanic workers and Hispanic workers of all races in metro and nonmetro areas declined faster from 2018 to 2020. This trend appears to be a continuation and intensification of a downward trend in health insurance coverage observed by Claxton and Rae (2023) for prime working age workers (aged 25–64 years) for the 1998–2018 period.

Across the three racial and ethnic groups studied, employer sponsored health insurance coverage was the lowest among Hispanic workers of all races in both metro and nonmetro areas (figures 19 and 20). This finding has been consistent with another study that has shown Hispanic workers of all races have had the lowest healthcare coverage rates (Buchmueller & Levy, 2020). White, non-Hispanic and Black, non-Hispanic workers had a comparable share of workers with employer sponsored health insurance coverage.

Figure 19

Share of workers with employer sponsored health insurance by race and ethnicity in nonmetropolitan areas, 2000–22
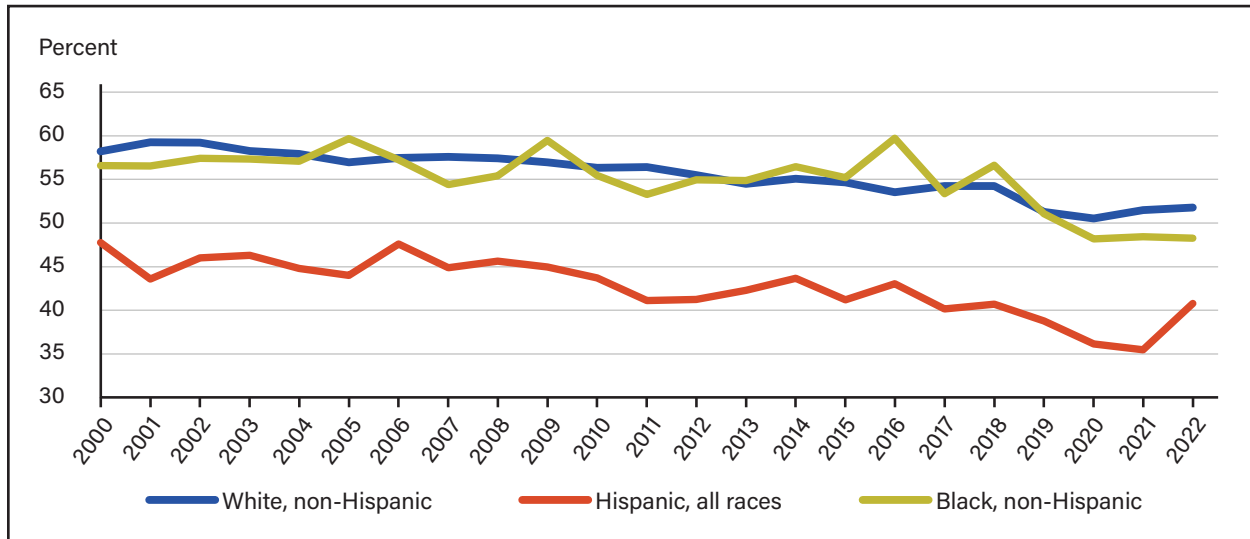
Note: The three races and ethnicities account for the more than 90 percent of the U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

The Current Population Survey's Annual Social and Economic Supplement (CPS-ASEC) survey under-reported employer sponsored health insurance coverage before 2014 (Medalia et al., 2016). We compared results from different data sources to determine how the CPS-ASEC survey's reported employer sponsored health insurance coverage estimates differed from other survey data (figure 21). Even though those data—namely those provided by the KFF (formerly known as the Kaiser Family Foundation) and the U.S. Public Health Service's Agency for Healthcare Research and Quality (AHRQ)—do not cover the same population as the CPS-ASEC survey, they show comparable patterns. All three data sources report falling employer sponsored health insurance coverage for all racial and ethnic worker groups from 2008 to 2011.

Figure 20
Share of workers with employer sponsored health insurance by race and ethnicity in metropolitan areas, 2000–22
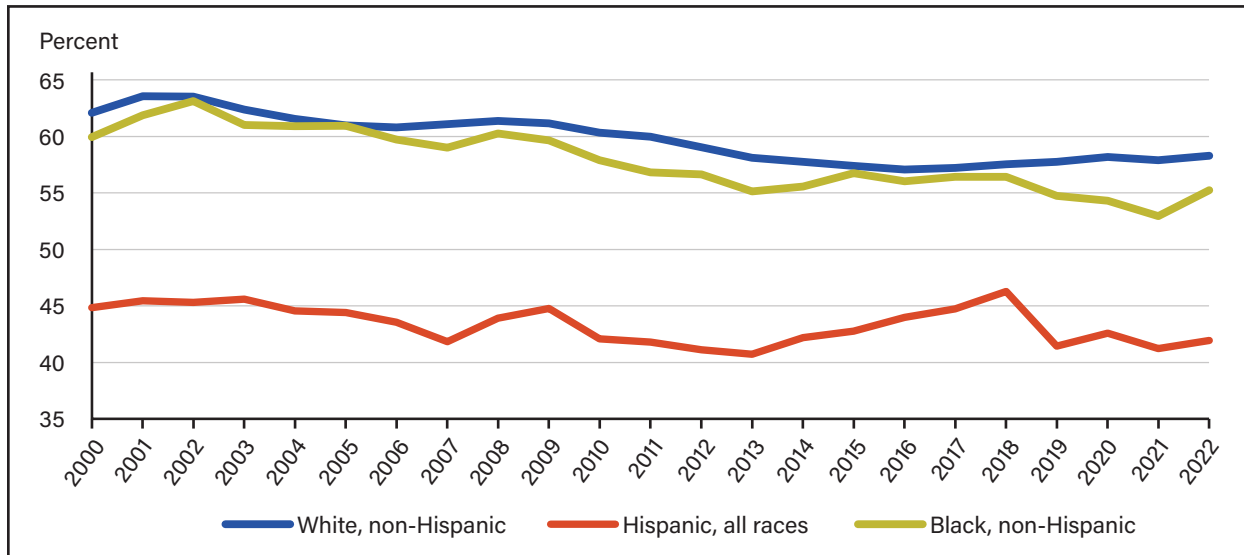

Note: The three races and ethnicities account for the more than 90 percent of the U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

After 2011, KFF data had shown a slight increase in health insurance coverage, whereas the CPS-ASEC survey insurance coverage data remained largely unchanged until 2018. The AHRQ data on employer sponsored health insurance coverage reported decreases of health insurance coverage for all races and ethnic groups in metro and nonmetro areas from 2009 to 2014, when coverage then remained unchanged at 48 percent until 2019, it increased in 2020, and then fell back to same level of 48 percent in 2021. We did not observe increased estimates of employer sponsored health insurance coverage after the CPS-ASEC survey was redesigned in 2014. Additionally, we expected that the CPS-ASEC's reported employer sponsored health insurance coverage would be higher than KFF's reported coverage level because CPS-ASEC has included Federal Government employees whose coverage has been relatively high, while the KFF survey excluded Federal employees. This data discrepancy could be due to the CPS-ASEC survey including younger workers (aged 15–24 years) whose employer sponsored health insurance coverage is lower than workers aged 25 and older.

The gender gap in employer sponsored health insurance coverage was greatest and has persisted (although it has decreased) among White, non-Hispanic workers in metro and nonmetro areas (figure 22). Black, non-Hispanic workers in metro areas had similar employer sponsored health insurance coverage among male and female workers throughout the 2000–22 study period. However, there was a small gap (0–4 percentage points) in employer sponsored health insurance coverage in nonmetro areas among male and female Black, non-Hispanic workers and Hispanic workers of all races.

Figure 21
Employer sponsored health insurance coverage reported by different surveys, 2008–21
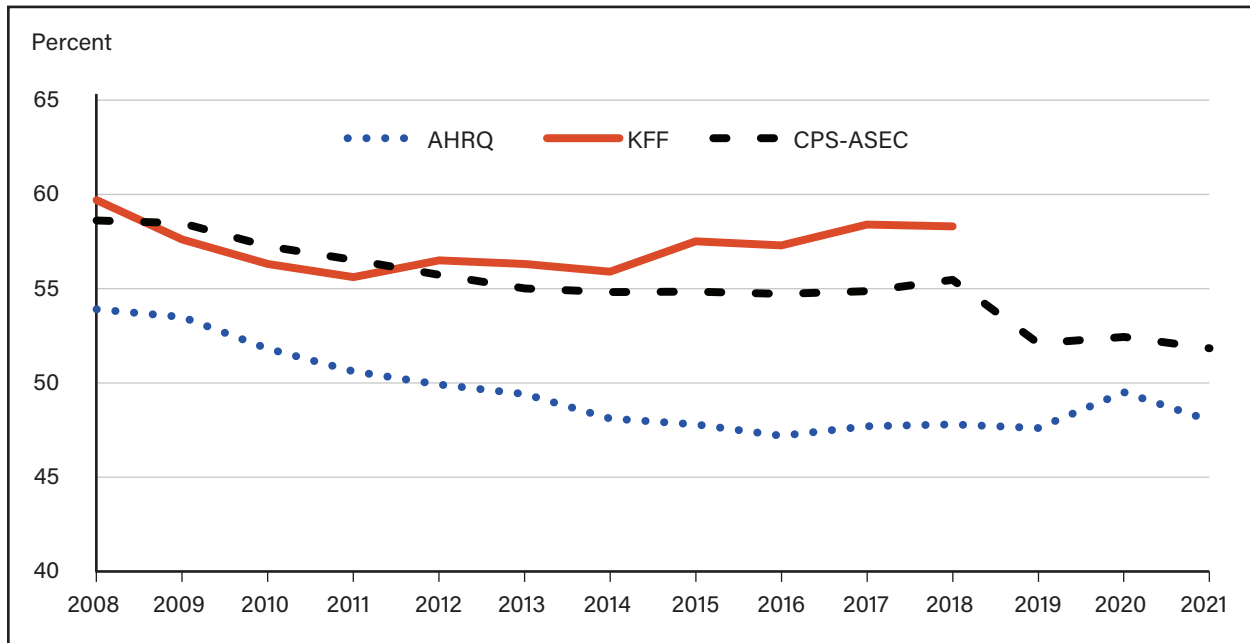
AHRQ = U.S. Public Health Service, Agency for Healthcare Research and Quality. KFF = The Kaiser Family Foundation (former name). CPS-ASEC = U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social and Economic Supplement.

Note: AHRQ conducts a Medical Expenditure Panel Survey covering private sector workers aged 25–64. The KFF (formerly known as the Kaiser Family Foundation) survey collects data that cover private sector workers aged 25–64. The CPS-ASEC survey covers the entire U.S. population of private sector and government workers aged 15–64 years.

Source: USDA, Economic Research Service using U.S. Public Health Service, AHRQ data; KFF (Kaiser Family Foundation) data; and U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, CPS-ASEC data.

In metro areas, Hispanic female workers of all races had higher employer sponsored health insurance coverage than Hispanic male workers of all races from 2000–2004 to 2010–2014, but male workers' employer sponsored health insurance coverage rates surpassed female workers' coverage rates thereafter.

Consistent with Luznar and Costa (2019),[15] workers in the Federal Government, mining, and manufacturing sectors reported the highest employer sponsored health insurance coverage, whereas those in the service, construction, and agricultural sectors reported the lowest coverage (figure 23). Gig workers (i.e. workers engaged in temporary, flexible, and contingent arrangement with their employers) largely have operated in the service sector (Zipperer et al., 2022) and they lack employer sponsored health insurance coverage. Farm workers' access to health insurance coverage in the United States also has been low (Donkor & Perloff, 2022). Luznar and Costa (2019) also found construction industry workers had lower access to health insurance than workers in the manufacturing and mining industries.

---

[15] However, Luznar and Costa (2019) did not include the agriculture industry.

Figure 22

Gap in share of male and female workers with employer sponsored health insurance by race and ethnicity in metropolitan and nonmetropolitan areas, 2000–22

White, NH, NM = White, non-Hispanic workers, nonmetropolitan (nonmetro) area. Black, NH, NM = Black, non-Hispanic workers, nonmetro area; Hispanic, AR, NM = Hispanic workers of all races, nonmetro area. White, NH, M = White, non-Hispanic workers, metropolitan (metro) area. Black, NH, M = Black, non-Hispanic workers, metro area. Hispanic, AR, M = Hispanic workers of all races, metro area.

Note: The three races and ethnicities account for the more than 90 percent of the U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Figure 23
Employer sponsored health insurance coverage by industry, 2000–22

Percent

Legend: ■ 2000–2004 ■ 2005–2009 ■ 2010–2014 ■ 2015–2019 ■ 2020–2022

Categories: Government, Mining, Manufacturing, Ag industries, Service, Construction, Agriculture
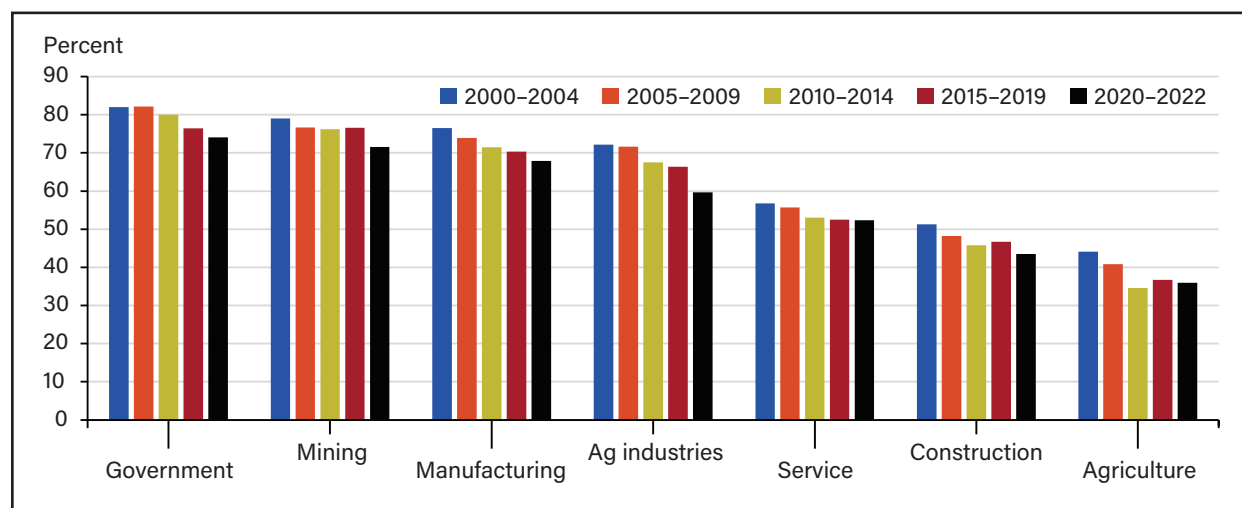
Government = Federal, State, and other local jurisdictions (excluding military). Mining =Mining, quarrying, and oil and gas extraction. Manufacturing = Production of goods using labor and machinery. Ag industries (Agricultural industries) = Food and nonfood agricultural processing industries. Service (service industries) = Wholesale, retail, transportation, utilities, information, finance and insurance, real estate (e.g., rental and leasing), professional, scientific and technical services, management of companies and enterprises, administrative, support services, waste management and remediation services, education services, healthcare and social assistance, arts, entertainment and recreation, accommodation and food services, and other services (excluding public administration, such as government). Construction = Planning, designing, building and maintenance of buildings, infrastructure, etc. Agriculture = Farming, forestry, fishing, and hunting.

Note: The sectors are defined according to the U.S. Department of Commerce, Bureau of the Census, North American Industry Classification System (NAICS)

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Employer Sponsored Retirement Benefits

According to Current Population Survey-Annual Social and Economic Supplements (CPS-ASEC) data, less than 50 percent of White, non-Hispanic, Black, non-Hispanic, and Hispanic workers of all races had access to employer sponsored retirement benefits throughout the 2000–22 study period in nonmetro and metro areas (figures 24 and 25). This figure is lower than the share reported by U.S. Department of Labor, Bureau of Labor Statistics' (BLS) National Compensation Survey (NCS) data (Topoleski & Myers, 2021). As discussed earlier, this discrepancy may be due, in part, to underreporting employer sponsored retirement benefits participation in the CPS-ASEC survey (Copeland, 2015).

The share of workers with access to an employer sponsored retirement benefits program is consistently highest for White workers and lowest for Hispanic workers in nonmetro and metro areas (figures 24 and 25). The gap in access to retirement benefits between White, non-Hispanic workers and Hispanic workers of all races was found to be wider in metro than in nonmetro areas. The possible reasons for low employer sponsored retirement benefit access for Hispanic workers of all races include immigration status and/or a lack of retirement investing and savings knowledge (Blanco et al., 2017). Undocumented immigrants often lack employer sponsored retirement benefits since they get employed in low-wage contingent jobs that do not offer retirement benefits. For example, one study found that approximately 43 percent of Hispanic workers of all races had no knowledge about investing in retirement compared with 12 percent of all workers who had no knowledge (National Council of La Raza, 2005).

Workers' access to retirement plans has been trending downward for all races in both nonmetro and metro areas (figures 24 and 25), with a marked decline in access to retirement plans after 2014. Access to defined benefit retirement pension programs has been decreasing since the mid-to-late 1980s (Andersen & Bhattacharya, 2017). By 2006, many U.S. companies had significantly reduced their defined benefit pension plans and replaced them with 401(k) and other types of defined contribution retirement plans. The 2007–09 Great Recession further contributed to reduced availability of defined benefit plans (Andersen & Bhattacharya, 2017). However, given that the CPS-ASEC question on pension included both defined benefit and defined contribution plans, the decline in estimated retirement plan access could be due to other reasons, such as underreporting of employer sponsored retirement in the CPS-ASEC survey (Copeland, 2015).

Beyond the general tendency for underreporting employer sponsored retirement in the CPS-ASEC survey, income questions related to retirement income that began with the 2014 CPS-ASEC appear to have resulted in even lower retirement participation reporting (Copeland, 2015). The revised questionnaire also was more detailed and this could have led to respondent fatigue, resulting in the underreporting of participation (Copeland, 2015). This may explain the abrupt decline in the shares of workers of all races and ethnicities who reported participating in employer sponsored retirement plans beginning in 2014 (figures 24 and 25).

Another reason for the downward trend in workers' access to retirement benefits may be the increasing size of the transient workforce (i.e., gig workforce), where workers are paid on short-term contracts. The U.S. Department of Labor, Bureau of Labor Statistics (BLS) defines the gig workforce as contingent workers who do not have an implicit or explicit contract for long-term employment (Torpey & Hogan, 2016). Gig workers' share of the labor force increased between the 2010–14 and 2020–22 periods. Gig workers are less likely than other employees to have employer sponsored retirement so they likely have contributed to the downward trend in employer sponsored retirement access.

Most gig jobs do not offer benefits like healthcare coverage or retirement plans (Hacker, 2019), so this could be one of the driving reasons for declined retirement access (Friedman, 2014; Malos et al., 2018; Thelen, 2019; Manning & Mazeine, 2022). The number and revenues of nonemployer firms, many of which are gig firms, grew at a faster rate from 2014–2015 than in 2012–2013 (Malso et al., 2018). Therefore, nonemployer firms may have contributed to the faster decline of employer sponsored retirement access and participation in the 2014–22 period (figure 26). The nonemployer firms are firms which do not have payroll employees and rely on contingent workers they hire on short-term basis.

Anderson et al. (2021) estimated that about 16 percent of U.S. adults were engaged in online gig jobs[16] and 30 percent of those reported that their gig was their main job in 2020. Similarly, Bracha and Burke (2019) found that 19 percent of U.S. adults aged 21 years and above were engaged in any type of gig jobs. The U.S. Department of Labor's BLS agency has been tracking nonemployer firms, which include those involved in gig jobs, using the nonemployer survey (i.e., Contingent Worker Supplement to the Current Population Survey). The number and revenues of nonemployer firms earning $1,000 or more grew by approximately 17 percent between 2012 and 2019 (figure 26). Black, non-Hispanic workers and Hispanic workers of all races have been more likely to take on gig jobs (Anderson et al., 2021).

The increasing number and participation in gig jobs is part of an upward trend of outsourcing low-paying and lower valued jobs to independent contractors (Weil, 2014; Goldschmidt & Schmieder 2015), whereas firms have tended to keep complex, high-paying, and high value jobs within the respective firms (Weil, 2014). Studies have shown that labor law compliance by independent contractors and small companies has been low and this leads to lower quality jobs as many such employers do not provide mandated health insurance and other benefits (Bernhardt et al., 2016).

---

[16] Examples of online gig workers include Uber, Inc., Doordash, Inc., and Instacart (Maplebear, Inc.) drivers.

Figure 24

Share of workers with access to employer sponsored retirement benefits in nonmetropolitan areas, by race and ethnicity, 2000–22
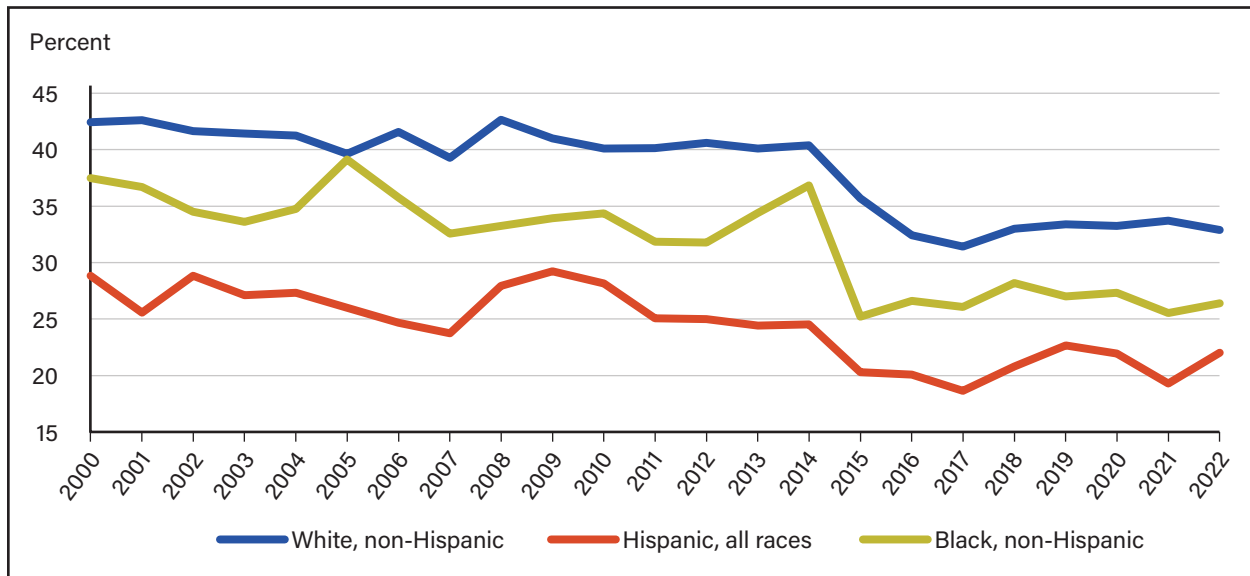
Note: The three racial and ethnic identities account for the more than 90 percent of the U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Due to low labor law compliance, Weil (2014) reported that job quality and wages in the United States are likely to be lower in outsourced jobs than corresponding jobs retained inhouse. For example, Uber drivers are outsourced labor, but management and executives are inhouse. Similarly, Goldschmidt and Schmieder (2015), who analyzed job quality in Germany, observed a significant decrease of wages for outsourced labor.

Figure 25

Share of workers with access to employer sponsored retirement benefits in metropolitan areas, by race and ethnicity, 2000–22
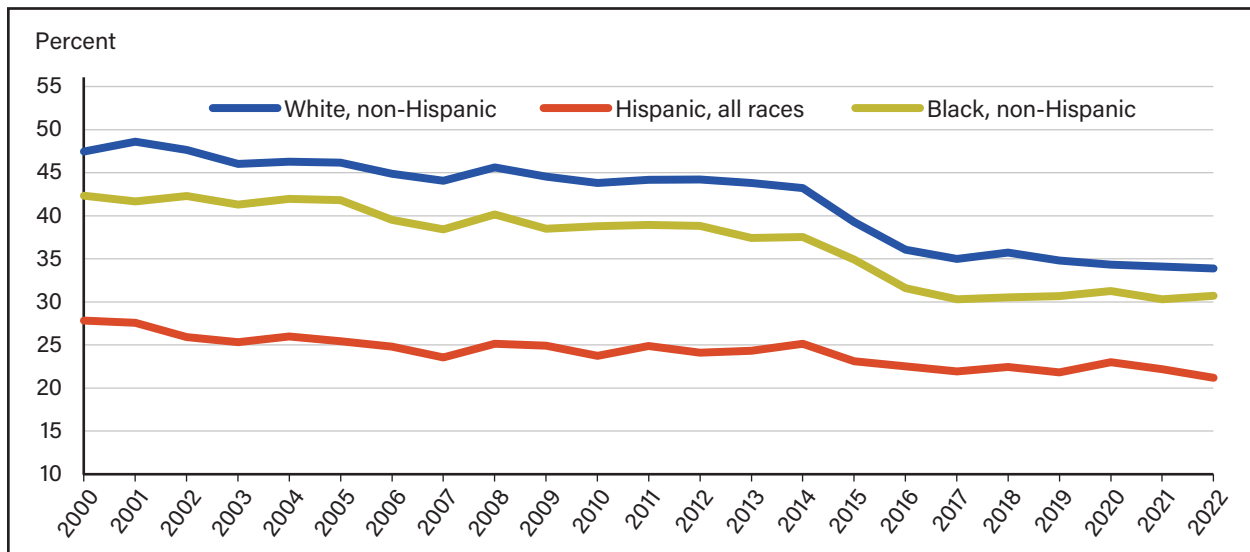
Note: The three races and ethnicities account for the more than 90 percent of the U.S. workers. The excluded races include American Indian/Alaska Native, Asian, Native Hawaiian and other Pacific Islander, other race, and mixed-race workers.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Figure 26
Trend of nonemployer firms and revenue, 2012–2020
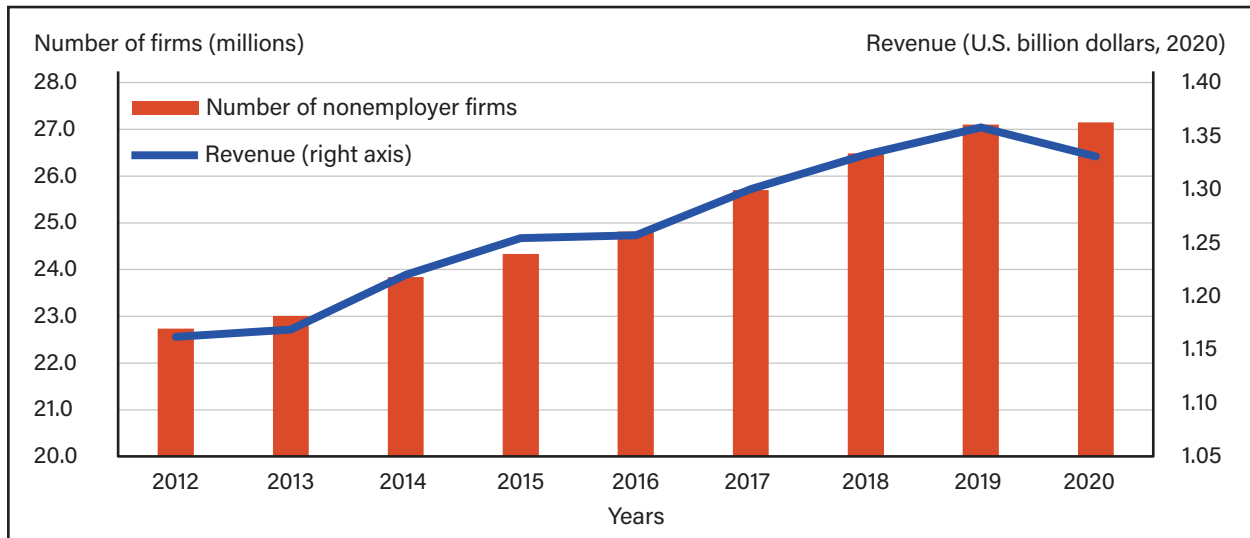
Number of firms (millions)   Revenue (U.S. billion dollars, 2020)

Source: USDA, Economic Research Service using U.S. Department of Labor, Bureau of Labor Statistics, nonemployer data.

The gender gap for employer sponsored retirement plan access has declined since the 2000–2004 period in both nonmetro and metro areas (figure 27). In fact, access to employer sponsored retirement benefits for metro workers reached gender parity in metro areas in the 2020–22 period, but the gender gap for retirement access increased during this same period for nonmetro workers.

Figure 27
Gender gap for employer sponsored retirement benefit access in nonmetropolitan and metropolitan areas, 2000–22
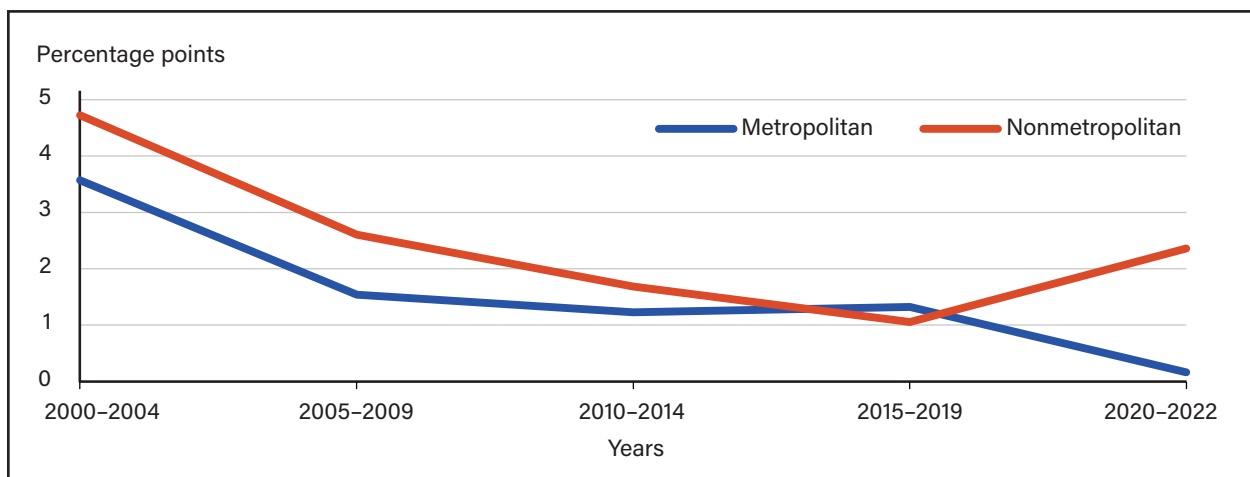
Note: The gender gap is the percent of male workers of all races and ethnicities with access to retirement benefits minus the percent of female workers of all races and ethnicities with access to retirement benefits.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Conclusions

This study investigated patterns and trends in job quality across nonmetropolitan (nonmetro) and metropolitan (metro) areas for workers by sex, race, and ethnicity between 2000 and 2022 using two approaches (i.e., job quality category and job quality index) to measure job quality. Using a categorical measure of job quality, we found that the share of workers with jobs in the highest job quality category (i.e., workers with high wages, real wages above the median in 2000) and employer sponsored health insurance and retirement benefits declined for White, non-Hispanic workers and Black, non-Hispanic workers but increased for Hispanic workers of all races. The job quality category with high real wages, employer sponsored health insurance, but no retirement benefits had the most growth in the share of workers across racial and ethnic groups in both nonmetro and metro areas. The share of workers with low wages, employer sponsored health insurance, but no retirement benefits also noticeably grew. Therefore, the decline in retirement benefit access affected the job quality categories for both high wage and low wage workers.

A limitation in our job quality category measure is that it implicitly equally weights real wages and nonwage benefits (i.e., employer sponsored health insurance coverage and retirement benefits), even though the wage payment costs for employers are generally much larger than nonwage benefit costs.

Using the job quality index, which accounts for the estimated employer costs of sponsoring health insurance and retirement benefits, we found that the mean job quality index increased over the 2000–22 study period in both nonmetro and metro areas, for different racial and ethnic groups, and for both male and female workers. However, the growth in job quality measured by the job quality index was skewed, with much greater growth in the top 10th job quality category quantile than in all 9 lower job category quantiles. Total compensation (i.e., real wage and nonwage benefits) for workers in the bottom 10 percent (bottom quantile) grew by only 5 percent for workers in both nonmetro and metro areas. The corresponding growth for workers in the top 10 percent (top quantile) was 42 percent in nonmetro areas and 67 percent in metro areas.

The findings that the job quality index has shown job quality improvement (based on the value of total compensation) across different geographic and demographic groups, whereas the categorical measure has shown decreasing job quality for some groups, emphasized the need to carefully consider the best measure of job quality when evaluating job quality trends. A measure based on total compensation more fully reflects job quality, which allows tradeoffs between higher wages and lower benefits to be considered than the categorical measure.

There are differences in the patterns and trends of the components of the job quality index across the intersections of workers' geography, race, ethnicity, and sex. Mean real wages were higher for White, non-Hispanic workers than for Black, non-Hispanic workers or Hispanic workers of all races throughout the 2000–22 study period in both nonmetro and metro areas. The wage gap between White, non-Hispanic workers and Black, non-Hispanic workers increased in nonmetro and metro areas during the study period, while the wage gap between White, non-Hispanic workers and Hispanic workers of all races decreased in both metro and nonmetro areas. Wages were higher for male workers compared with female workers across racial and ethnic groups in both nonmetro and metro areas. The gender wage gap somewhat declined over the 2000–22 study period for White, non-Hispanic female workers in nonmetro and metro areas and for Black, non-Hispanic female workers in nonmetro areas. Although the gender gap fell for Black, non-Hispanic female workers and Hispanic female workers of all races in metro areas, the gender gap increased for Hispanic female workers of all races in nonmetro areas.

Access to employer sponsored health insurance coverage throughout the 2000–22 study period for White, non-Hispanic workers and Black, non-Hispanic workers in metro and nonmetro areas ranged from 48 percent to 64 percent, while a lower share (35 percent–46 percent) of Hispanic workers of all races had

access in nonmetro and metro areas. The share of workers with access to employer sponsored health insurance declined over the study period for all racial and ethnic groups studied in nonmetro and metro areas and across industries. Although the gender gap in access to employer sponsored health insurance declined over the period driven by a declining gender gap among White, non-Hispanic workers in both nonmetro and metro areas, female workers of all races and ethnicities had less access to employer sponsored health insurance than male workers throughout the study period.

A declining share of workers of all racial and ethnic groups had access to employer sponsored retirement benefits in nonmetro and metro areas. The gender gap in participation in employer sponsored retirement benefits has declined in nonmetro and metro areas since 2000, though the gap increased in nonmetro areas in the pandemic period (2020–22). In metro areas, participation in employer sponsored retirement benefits reached gender parity in the 2020–22 pandemic period.

The share of workers with access to employer sponsored health insurance and/or retirement benefits has declined, perhaps in part, due to the growth of the gig economy and outsourcing. The underreporting of nonwage benefits—especially the substantial decline in measured availability of retirement benefits beginning in 2014—in the Current Population Survey Annual Social and Economic Supplement (CPS-ASEC), may be due, in part, to data collection and imputation changes. The declining availability of retirement benefits observed in the 2014–22 CPS-ASEC data has not been consistent with trends observed in the U.S. Department of Labor, Bureau of Labor Statistics' (BLS) National Compensation Survey or the Federal Reserve Board's Survey of Consumer Finances, wherein employer sponsored retirement plan participation remained at or above the participation rates observed in 2014. Since the CPS-ASEC data may not accurately reflect worker participation in employer sponsored retirement plans, our job quality estimates in this study may overstate how many workers have shifted into lower job quality categories and understate the job quality index increases.

Although wage data are important for assessing job quality, only focusing on wage rates as a way of measuring job quality may result in an incomplete measurement. Real wage growth has been partially offset by the declining nonwage benefit access. In addition, if we had only focused on the mean or median value changes, our assessment would have missed dimensions of trend heterogeneity including differences across rural-urban areas, demographic groups, and indicator distribution. It is important to note that the job quality index and real wage distribution growth is skewed because the quantile with the highest wages have grown much faster than all other wage quantiles. However, despite the skewness and the differences found across all the dimensions of heterogeneity that we investigated, this study has shown a pattern of increasing job quality over the past two decades that was broadly shared across nonmetro and metro areas, racial and ethnic groups, and sex. Yet, in some cases, such as in declining wage gaps between White, non-Hispanic workers and Hispanic workers of all races and between White, non-Hispanic female workers and White, non-Hispanic male workers, job quality gaps across groups have been reduced. However, large differences in job quality remain across the demographic groups studied. For example in nonmetro areas, for every U.S. dollar that a White non-Hispanic worker earned in wages, a Black non-Hispanic worker received only $0.79 in 2000–2004 and $0.73 in 2020–2022, illustrating the magnitude and persistence of the wage gap among racial and ethnic groups.

This study has limitations that include the possible underreporting of health insurance coverage and retirement program availability in the CPS-ASEC survey and changes in some of the methods used to collect and impute CPS-ASEC data, which may have indeterminately affected our results. Since these data errors have plausibly overestimated the decline of employer sponsored retirement benefit availability, our job quality findings will be overly pessimistic. In addition, the CPS-ASEC data does not publicly release data with county identifiers. The lack of attributable county identifiers to the CPS-ASEC data limits our data analysis across the rural-urban continuum, which would have provided a more thorough picture of how job quality trends

and patterns vary across diverse geographies instead of using the coarser metro/nonmetro classification. Future studies could address this limitation by seeking access to the confidential CPS-ASEC microdata, which includes the U.S. Federal Information Processing System numbers of anonymized counties in the publicly available data.

A third limitation is that the CPS-ASEC data do not include the value of nonwage benefits. To counter this lack of CPS-ASEC data, we used average weights to reflect the share of total employer costs for wages and nonwage benefits by industry and census division, based on U.S. Department of Labor, Bureau of Labor Statistics' (BLS) National Compensation Survey (NCS) data. The NCS data could not be used directly for our analysis because that survey does not report workers' characteristics, such as race, ethnicity, and sex. Thus, using the weights calculated from the NCS was the best that could be done with publicly available data even though they mask a lot of variation that may be occurring at the individual job and worker level. Some of the variation may be associated with different races, ethnicities, geographies (e.g., the rural-urban continuum), level of education, work tenure, and entrepreneurship of workers. This means that our estimates may be biased (i.e., the variation we are covering over may not be randomly distributed across the dimensions of heterogeneity that we investigated). Future research proposing to link the confidential CPS-ASEC microdata with the confidential NCS microdata at a more disaggregated level could yield important additional insights.

Finally, many factors affect wages and nonwage benefits offered for different jobs. This study did not investigate the drivers of job quality (i.e., race, ethnicity, geography (e.g., the rural-urban continuum), level of education, work tenure, and entrepreneurship of workers). Accordingly, there is need for more research on the factors affecting job quality, particularly research on factors that may be differentially affecting diverse U.S. subpopulations.

References

Abramowitz, J., & O'Hara, B. (2017). New estimates of offer and take-up of employer-sponsored insurance. *Medical Care Research and Review*, *74*(5), 595–612.

Acemoglu, D. (2019). It's good jobs, stupid. *Economists for Inclusive Prosperity, MIT Research Brief.*

Alpert, D., Ferry, J., Hockett, R. C., & Khaleghiyan, A. (2019). The U.S. private sector job quality index. *Cornell Legal Studies Research Papers*, 20–33.

Anderson, M., McClain, C., & Faverio, M. (2021). *The state of gig work in 2021.* Pew Research Center.

Andersen, T. M., & Bhattacharya, J. (2017). The intergenerational welfare state and the rise and fall of pay-as-you-go pensions. *The Economic Journal*, *127*(602), 896–923.

Autor, D. (2019). Work of the past, work of the future. *American Economic Association Papers and Proceedings*, *109*, 1–32.

Berchick, E.R. & Jackson, H. (2022). Data processing improvements for estimates of health insurance coverage in the current population survey annual social and economic supplement. *Medical Care Research and Review*, *79*(2), 308–316.

Blanco, L. R., Aguila, E., Gongora, A., & Duru, O. K. (2017). Retirement planning among Hispanics: In God's hands? *Journal of Aging & Social Policy*, *29*(4), 311–331.

Bricker, J., Kennickell, A. B., Moore, K. B., & Sabelhaus, J. (2012). Changes in U.S. family finances from 2007 to 2010: Evidence from the survey of consumer finances. *Federal Reserve Bulletin*, *98*(2).

Buchmueller, T. C., & Levy, H. G. (2020). The ACA's impact on racial and ethnic disparities in health insurance coverage and access to care: An examination of how the insurance coverage expansions of the Affordable Care Act have affected disparities related to race and ethnicity. *Health Affairs*, *39*(3), 395–402.

Bundorf, M.K., Gupta, S. & Kim, C. (2021, September). Trends in U.S. health insurance coverage during the COVID-19 pandemic. *Journal of American Medical Association Health Forum 2*(9), e212487–e212487.

Carnevale, A. P., Strohl, J., Ridley, N., & Gulish, A. (2018). *Three educational pathways to good jobs: High school, middle skills, and bachelor's degree.* Georgetown University.

Centers for Medicare & Medicaid Services (2023). *National health expenditure data: Historical data.*

Claxton G. & Rae, M. (2023). *What are the recent trends in employer-based health coverage?* KFF (formerly known as The Kaiser Family Foundation).

Claxton, G., Rae, M., Damico, A., Wager, E., Winger, A., & Long, M. (2023). Health benefits in 2023: Premiums increase with inflation and employer coverage in the wake of Dobbs: Study examines health benefits in 2023, including premiums and employer coverage. *Health Affairs*, *42*(11), 1606–1615.

Congdon, W. J., Katz, B., & Shakesprere, J. (2021). *Job quality and economic mobility: Potential mechanisms, an empirical approach, and directions for research.* Urban Institute.

Copeland, C. (2015). The effect of the Current Population Survey redesign on retirement-plan participation estimates. *Employee Benefit Research Institute Issue*, *36*(12).

Copeland C., & Bedu, K. (2023). Retirement plan participation and the Current Population Survey: The trends from the retirement account questions. *Employee Benefit Research Institute Issue.*

Donkor, K. B. and Perloff, J. M. (2022). The effects of the Affordable Care Act on seasonal agricultural workers. *Journal of the Agricultural and Applied Economics Association*, *1*(4), 435–445.

Federal Reserve Board. (2023a). *Economic well-being of U.S. households in 2022.*

Federal Reserve Board (2022). *Survey of consumer finances.*

Federal Reserve Board. (2023b). *Survey of consumer finances, 1989–2022, retirement accounts by all families.*

Friedman, G. (2014). Workers without employers: Shadow corporations and the rise of the gig economy. *Review of Keynesian Economics*, *2*(2), 171–188.

Fry, R. (2022). *Young women are out-earning young men in several U.S. cities.* Pew Research Center.

Gallup (2023). *Social Security.*

Garthwaite, C., Gross, T., & Notowidigdo, M. J. (2014). Public health insurance, labor supply, and employment lock. *Quarterly Journal of Economics*, 129(2), 653–696.

Glasmeier, A. K. (2020). *Living wage calculator.* Massachusetts Institute of Technology.

Glasmeier, A. K. (2022). *Living wage calculator.* Massachusetts Institute of Technology.

Glasmeier, A. K. (2023). *Living wage calculator.* Massachusetts Institute of Technology.

Goldschmidt, D., & Schmieder, J. F. (2015). *The rise of domestic outsourcing and the evolution of the German wage structure* (Discussion Paper No. 9194). IZA (Institute of Labor Economics).

Gould, E. (2020). *State of working America wages 2019: A story of slow, uneven, and unequal wage growth over the last 40 years.* Economic Policy Institute.

Hacker, J. S. (2019). *The great risk shift: The new economic insecurity and the decline of the American dream.* Oxford University Press.

Hamel, L., Norton, M., Pollitz, K., Levitt, L., Claxton, G., & Brodie, M. (2016). *The burden of medical debt: Results from the Kaiser Family Foundation/New York Times Medical Bills Survey.* KFF (formerly known as The Kaiser Family Foundation).

Howell, D. (2019). *From decent to lousy jobs: New evidence on the decline in American job quality, 1979–2017.* Washington Center for Equitable Growth.

Howell, D. R., & Kalleberg, A. L. (2019). Declining job quality in the United States: Explanations and evidence. *The Russell Sage Foundation Journal of the Social Sciences*, *5*(4), 1–53.

International Labor Organization. (2020). *Measuring job quality. Difficult but necessary.*

Jackson, H., & Berchick, E. R. (2020). Improvements in uninsurance estimates for fully imputed cases in the Current Population Survey Annual Social and Economic Supplement. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing, 57.*

Jones, J., & Schmitt, J. (2016). Trends in job quality for African American workers, 1979–2011. *The Review of Black Political Economy*, *43*(1), 1–19.

Luznar, O. D., & Costa, J. (2019). The prevalence of employer-provided benefits by industry of employment and implications for Social Security disability insurance claiming behavior. *Social Security Bulletin*, *79(*1), 47–55.

Malos, S., Vogelgesang Lester, G., & Virick, M. (2018). Uber drivers and employment status in the gig economy: Should corporate social responsibility tip the scales. *Employee Responsibilities and Rights Journal*, *30*(4), 239–251.

Mason G., & Salverda, W. (2010). Low pay, working conditions, and living standards. In J. Gautié & J. Schmitt (Eds.), *Low-wage work in the wealthy world* (pp. 35–90). Russell Sage.

Medalia, C., O'Hara, B., & Smith, J.C. (2016). *How did the questionnaire change in the CPS ASEC affect health insurance estimates?* U.S. Department of Commerce, Bureau of the Census.

Myers, E. A., & Topoleski, J. J. (2021). *Worker participation in employer-sponsored pensions: Data in brief* (Report No. R43439). U.S. Congressional Research Service.

National Council of La Raza. (2005). *Retirement security for Latinos; Retirement security project policy facts.* UnidosUS.

Nekoei, A., & Weber, A. (2017). Does extending unemployment benefits improve job quality? *American Economic Review*, *107*(2), 527–61.

Schmitt, J., & Jones, J. (2012). *Where have all the good jobs gone?* Center for Economic and Policy Research.

Tolbert, J., Drake, P., & Damico, A. (2023). *Key facts about the uninsured population.* KFF (formerly known as The Kaiser Family Foundation).

Topoleski, J. J., & Myers, E. A. (2021). *Multiemployer defined benefit (DB) pension plans: A primer* (Report No. 43305). U.S. Congressional Research Service.

Torpey E., & Hogan, A. (2016, May). *Working in a gig economy.* U.S. Department of Labor, Bureau of Labor Statistics.

U.S. Department of Commerce, Bureau of Economic Analysis. (2023). *National income and product accounts.*

U.S. Department of Labor, Bureau of Labor Statistics. (2018). *Handbook of methods: Current Population Survey.*

U.S. Department of Labor, Bureau of Labor Statistics. (2021). *National compensation survey: Glossary of employee benefit terms.*

U.S. Department of Labor, Bureau of Labor Statistics. (2023). *Employer costs for employee compensation.*

U.S. Department of Labor, Employee Benefits Security Administration. (2023). *Private pension plan bulletin historical tables and graphs 1975–2021.* U.S. Department of Labor, Employee Benefits Security Administration.

U.S. Social Security Administration (2018). *Wage statistics, various years.*

Weil, D. (2014). *The fissured workplace.* Harvard University Press.

Yabroff, K. R., Valdez, S., Jacobson, M., Han, X., & Fendrick, A. M. (2020). The changing health insurance coverage landscape in the United States. *American Society of Clinical Oncology Educational Book*, *40*, e264–e274.

Zipperer, B., McNicholas, C., Poydock, M., Schneider, D., & Harknett, K. (2022). National survey of gig workers paints a picture of poor working conditions, low pay. *El Trimestre Económico*, *89*(356), 1199–1214.

Appendix A: Current Population Survey Questions for Data Used in the Study

Table A.1
Current Population Survey questions for data used in the study

Code	Description	Question, as asked
INCWAGE OINCWAGE	Indicates each respondent's total pretax wage and salary income—that is, money received as an employee—for the previous calendar year.	What is your best estimate of (name's/your) correct total amount of earnings from your main employer during year xxxx? What is your best estimate of (name's/your) correct total amount of earnings from all other employers during year xxxx?
GRPOWNLY	Whether, during the previous calendar year, the respondent was the policyholder for group health insurance that was related to current or past employment.	In the previous calendar year, were you a policyholder for group insurance plan provided through your current or former employer or union? Military health insurance will be covered later in another question. 1 Yes 2 No
PENSION	Indicates whether the respondent's union or employer for his or her longest job during the preceding calendar year had a retirement plan for any of the employees, and, if so, whether the respondent was included in that plan. The question specifically excluded retirement support from Social Security.	Other than Social Security did (ANY) employer or union that (name/you) worked for in xxxx have a retirement plan for any of its employees? 1 Yes 2 No
METAREA	Identifies the metropolitan area in which a household was located. The current classification is based on the 2013 delineation. Most of the years included in this study (2013–20) fall under this delineation.	Information on metropolitan status is added to each respondent by the U.S. Department of Commerce, Bureau of the Census.
Sex	Gives each person's sex.	What is (name of person talking about)'s sex?

| Male |
| Female |

Race	I am going to read you a list of five race categories. You may choose one or more races. For this survey, Hispanic origin is not a race. (Are/Is) (NAME/you) White; Black or African American; American Indian or Alaska Native; Asian; OR Native Hawaiian or Other Pacific Islander?
Racial categories in the U.S. Department of Commerce, Bureau of the Census, Current Population Survey have been more consistent than racial categories in the census. Up through 2002, the number of race categories ranged from three (White, Black, and other) to five (i.e., White, Black, American Indian/Eskimo/Aleut, Asian, or Pacific Islander, and those with more than one race). Beginning in 2003, respondents could report more than one race, and the number of codes rose to 21, and then up to 26 codes in 2013.	Do not probe unless response is Hispanic or a Hispanic origin.
	Enter all that apply, separate with commas:
	White,
	Black or African American,
	American Indian or Alaska Native,
	Asian,
	Native Hawaiian or Other Pacific Islander,
	Other - DO NOT READ

xxxx = The study period years 2000–22. other = American Indian and Alaska Native, Asian American, Native Hawaiian, and Pacific Islander, or two or more races.

Note: Given that the focus of the present study is on job quality, we only included employees with wages above zero. The U.S. Department of Commerce, Bureau of the Census Current Population Survey reports wages for people who were at work for 1 to 34 hours during the survey reference week and exclude people who were not at work during the reference week. Self-employed (i.e., people who work for an unincorporated business) are not included. However, self-employed people whose businesses are incorporated are included as employees of their own business.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Appendix B: Statistical Significance Tests of Differences Between Groups in Job Quality Components, 2000–22

Table B.1

Statistical significance tests of differences between groups in job quality components, 2000–22

Race and ethnicity			
Mean wages (U.S. dollars, 2000)			
	White, non-Hispanic	Black, non-Hispanic	P-value
2000–2004	17.8	12.8	0.000
2005–2009	21.0	15.1	0.000
2010–2014	23.8	17.0	0.000
2015–2019	27.3	19.8	0.000
2020–2022	32.9	24.4	0.000
	White, non-Hispanic	Hispanic, all races	
2000–2004	17.8	14.4	0.000
2005–2009	21.0	16.7	0.000
2010–2014	23.8	18.8	0.000
2015–2019	27.3	20.8	0.000
2020–2022	32.9	25.3	0.000
	Male	Female	
2000–2004	19.1	14.8	0.000
2005–2009	22.3	17.5	0.000
2010–2014	25.0	20.0	0.000
2015–2019	28.6	22.7	0.000
2020–2022	34.9	27.4	0.000
Employer sponsored health insurance coverage (percent of workers)			
	White, non-Hispanic	Black, non-Hispanic	P-value
2000–2004	63	61	0.000
2005–2009	61	60	0.000
2010–2014	59	56	0.000
2015–2019	57	56	0.000
2020–2022	58	54	0.000
	White, non-Hispanic	Hispanic, all races	
2000–2004	63	45	0.000
2005–2009	61	44	0.000
2010–2014	59	42	0.000
2015–2019	57	44	0.000
2020–2022	58	42	0.000
	Male	Female	
2000–2004	60	50	0.000
2005–2009	58	50	0.000
2010–2014	55	48	0.000
2015–2019	57	51	0.000
2020–2022	77	69	0.000

Continued on next page ▶

Race and ethnicity		
Participation in employer sponsored retirement benefits program (percent of workers)		
	White, non-Hispanic	Black, non-Hispanic	P-value
2000–2004	49	44	0.000
2005–2009	48	42	0.000
2010–2014	47	41	0.000
2015–2019	39	33	0.000
2020-2022	37	32	0.000
	White, non-Hispanic	Hispanic, all races	
2000–2004	49	29	0.000
2005–2009	48	27	0.000
2010–2014	47	27	0.000
2015–2019	39	25	0.000
2020–2022	37	24	0.000
	Male	Female	P-value
2000–2004	48	43	0.000
2005–2009	45	42	0.000
2010–2014	44	42	0.000
2015–2019	36	34	0.000
2020–2022	34	33	0.003
High job quality category, with high pay, health insurance and retirement benefits (percent of workers)		
	White, non-Hispanic	Black, non-Hispanic	P-value
2000–2004	31	25	0.000
2005–2009	31	24	0.000
2010–2014	30	23	0.000
2015–2019	24	18	0.000
2020–2022	22	17	0.003
	White, non-Hispanic	Hispanic, all races	
2000–2004	31	16	0.000
2005–2009	31	16	0.000
2010–2014	30	15	0.000
2015–2019	24	13	0.000
2020–2022	22	13	0.003
	Male	Female	
2000–2004	34	22	0.000
2005–2009	32	22	0.000
2010–2014	30	22	0.000
2015–2019	24	18	0.000
2020–2022	21	18	0.003
Low job quality category, low pay, no health insurance or retirement benefits (percent of workers)		
	White, non-Hispanic	Black, non-Hispanic	
2000–2004	18	19	0.000
2005–2009	18	20	0.000
2010–2014	19	22	0.000

Race and ethnicity			
2015–2019	17	19	0.000
2020–2022	7	5	0.003
	White, non-Hispanic	Hispanic, all races	
2000–2004	18	32	0.000
2005–2009	18	33	0.000
2010–2014	19	35	0.000
2015–2019	17	27	0.000
2020–2022	7	6	0.003
	Male	Female	
2000–2004	16	24	0.000
2005–2009	17	25	0.000
2010–2014	18	26	0.000
2015–2019	15	23	0.000
2020–2022	5	8	0.003

P-value = Probability value. The p-value represents the probability that the observed difference in sample means is due to sampling error if there were no actual difference in the population means in the two populations.

Note: The White, non-Hispanic workers data represent the benchmark group, which is then compared with both Black, non-Hispanic workers and Hispanic workers all races data.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.

Appendix C: Summary Statistics of Variables Analyzed in This Report, 2000–22

Table C.1
Summary statistics of variables analyzed in this report, 2000–22

	2000–2004	2005–2009	2010–2014	2015–2019	2020–2022[1]
Employed workers by race and ethnicity (percent)					
Nonmetropolitan					
White, non-Hispanic	82.8	83.6	81.8	81.2	80.9
Black, non-Hispanic	7.3	6.9	6.6	7.2	7.4
Hispanic, all races	5.6	5.7	7.3	7.0	7.2
Other	4.3	3.7	4.2	4.6	4.5
Female	48.1	48.4	48.8	48.2	48.3
Male	51.9	51.6	51.2	51.8	51.7
Metropolitan					
White, non-Hispanic	67.5	65.8	63.3	60.3	58.1
Black, non-Hispanic	12.1	12.0	11.8	12.4	12.8
Hispanic, all races	13.6	15.3	16.6	18.1	19.2
Other	6.8	6.9	8.3	9.2	9.9
Female	47.6	47.3	47.7	47.7	47.4
Male	52.4	52.7	52.3	52.3	52.6
Annual wages (2000 U.S. dollars)					
Nonmetropolitan					
White, non-Hispanic	29.0	30.0	30.0	32.0	34.0
Black, non-Hispanic	22.0	23.0	23.0	25.0	27.0
Hispanic, all races	23.0	23.0	24.0	25.0	25.0
Female	25.0	25.0	26.0	27.0	29.0
Male	31.0	32.0	32.0	34.0	35.0
Metropolitan					
White, non-Hispanic	38.0	39.0	39.0	42.0	46.0
Black, non-Hispanic	26.0	27.0	27.0	29.0	33.0
Hispanic, all races	29.0	29.0	29.0	31.0	34.0
Female	31.0	32.0	32.0	34.0	37.0
Male	39.0	40.0	40.0	43.0	47.0
Employer sponsored health insurance (percent of workers with employer sponsored health insurance)					
Nonmetropolitan					
White, non-Hispanic	41.9	40.8	40.3	33.2	33.3
Black, non-Hispanic	35.4	34.9	34.3	26.6	26.0
Hispanic, all races	27.5	26.4	25.2	20.5	20.6
Female	48.0	48.0	46.0	46.5	47.0
Male	57.0	55.0	53.0	50.5	51.4

	2000–2004	2005–2009	2010–2014	2015–2019	2020–2022[1]
Metropolitan					
White, non-Hispanic	47.2	45.0	43.7	36.1	34.0
Black, non-Hispanic	41.9	39.7	38.2	31.6	30.5
Hispanic, all races	26.5	24.8	24.6	22.3	21.7
Female	53.0	52.0	50.0	49.0	50.2
Male	61.0	58.0	55.0	49.0	50.2
Employer sponsored retirement (percent of workers with employer sponsored retirement)					
Nonmetro					
White, non-Hispanic	41.9	40.8	40.3	33.2	33.3
Black, non-Hispanic	35.4	34.9	34.3	26.6	26.0
Hispanic, all races	27.5	26.4	25.2	20.5	20.6
Female	39.0	39.1	38.5	31.8	31.0
Male	41.7	39.7	38.7	31.6	32.2
Metro					
White, non-Hispanic	47.2	45.0	43.7	36.1	34.0
Black, non-Hispanic	41.9	39.7	38.2	31.6	30.5
Hispanic, all races	26.5	24.8	24.6	22.3	21.7
Female	41.8	40.6	39.1	32.3	30.9
Male	44.6	41.2	39.6	33.0	30.7

[1]We created this bin with fewer than 5 years to coincide with the Coronavirus (COVID-19) pandemic.

Source: USDA, Economic Research Service using U.S. Department of Commerce, Bureau of the Census and U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Annual Social Economic Supplement data.