# Women's Access to Quality Jobs in Mississippi

A Collaboration between the Institute for Women's Policy Research (IWPR) and the Women's Foundation of Mississippi (WFM)

## ABOUT THIS REPORT

This report examines job quality in Mississippi—specifically whether the jobs in Mississippi allow workers in the state to adequately provide for their families—and the extent to which women, including women of color, have access to better-quality jobs. This research was conducted by the Institute for Women's Policy Research (IWPR) and commissioned by the Women's Foundation of Mississippi (WFM). The research in this report supports the idea of improving the quality of all jobs in Mississippi and investing in workers, especially those women workers who are over-represented in low-paying jobs with few benefits.

## ABOUT THE WOMEN'S FOUNDATION OF MISSISSIPPI

The Women's Foundation of Mississippi (WFM) is a nonprofit foundation that seeks to promote social change and increase women's economic self-sufficiency through advocacy and strategic grantmaking. WFM is the only grantmaking and advocacy organization in Mississippi entirely dedicated to funding programs that improve the lives of women and girls statewide.

## ABOUT THE INSTITUTE FOR WOMEN'S POLICY RESEARCH

The Institute for Women's Policy Research conducts and communicates research to inspire public dialogue, shape policy, and improve the lives and opportunities of women of diverse backgrounds, circumstances, and experiences. IWPR works with policymakers, scholars, and public interest groups to design, execute, and disseminate research that illuminates economic and social policy issues affecting women and families and to build a network of individuals and organizations that conduct and use women-oriented policy research. The institute's work is supported by foundation grants, government grants and contracts, donations from individuals, and contributions from organizations and corporations. IWPR is a 501(c)(3) tax exempt organization.

## ACKNOWLEDGEMENTS

This research project was generously funded by the Women's Foundation of Mississippi; IWPR is grateful to Carol Penick, former Executive Director, Jamie Bardwell, former Deputy Director, and Lisa Jordan, Communications Director, for their support of IWPR's work and for their thoughtful feedback on drafts of the report.

The author thanks Carol Penick, former Executive Director of Women's Foundation of Mississippi, Jamie Bardwell, former Deputy Director of the Women's Foundation of Mississippi, Lisa Jordan, Communications Director of the Women's Foundation of Mississippi, Dr. Jeff Hayes, Program Director of Job Quality and Income Security at the Institute for Women's Policy Research, Dr. John Schmitt, Research Director at the Washington Center for Equitable Growth, and Dr. Cynthia Hess, Associate Director of Research at the Institute for Women's Policy Research for their thoughtful reviews and very helpful feedback.

Dr. Heidi Hartmann, IWPR President, Dr. Barbara Gault, IWPR Vice President, Dr. Jeff Hayes, IWPR Program Director for Job Quality and Income Security, and Dr. Jessica Milli, IWPR Study Director, provided invaluable advice and assistance on methods and data analysis.

The author also expresses her appreciation for the research assistance provided by Gina Chirillo, Coordinator, Office of the President, and by former IWPR research interns Emily Davis and Mariah Ferguson.

# Women's Access to Quality Jobs in Mississippi

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# Executive Summary

Work is the primary means by which American families and households obtain the resources to meet the basic needs of food, shelter, and healthcare. To provide economic security and stability, however, work should pay a living wage, provide workers with sufficient hours of work (full-time, full-year employment), and provide access to health insurance, a pension, and the flexibility for working women and men to balance work and family. Too many jobs fail to meet these desired characteristics.

In Mississippi, the median wage for all Mississippi workers employed full-time, year-round is $35,056. This is $8,249 less than the median for full-time year-round workers nationally ($43,305) and $15,224 short of the minimum needed in Mississippi to provide economic security for a family with two small children according to the Basic Economic Security Tables (BEST), one measure of basic needs.

Despite the fact that most households with children in Mississippi depend on the earnings of women workers—more than one-third of family households are headed by single mothers and more than half of households with children have a breadwinner mother—the earnings of women workers, especially Black and Hispanic women, are even lower than the median for all Mississippi workers (Anderson, Shaw, Childers, Milli, and DuMonthier 2016).[1] The median wage for all full-time year-round working women in Mississippi is just $30,485 ($35,000 for White women, $25,404 for Black women, and $24,388 for Hispanic women).[2]

A key reason women have lower earnings than men is the tendency for women to work in different—and lower paying—broad occupational groups than men. The analyses presented in this report find that more than one of every three (34.2 percent) Mississippi workers are in broad occupational groups rated as below average or worst job quality. The worst job quality occupations alone employ almost one in five (19.7 percent) women but just more than one in ten (11.9 percent) men. These are jobs with earnings too low to provide economic security for a family of four with two full-time working adults and two young children, according to the BEST.

Women also earn less than men who work in the same broad occupational group because women are concentrated in the lower-paying detailed occupations that make up each broad occupational group. And, in most cases, women still earn less than men even when they work in the same detailed occupation.

More troubling, this report shows that between 2004 and 2014 the inflation-adjusted median annual earnings of Mississippians working full-time, year-round fell by more than $1,000 in twelve of 22 broad occupational groups. Over the same ten-year period, there was a decline in the share of full-time, year-round workers with family incomes of at least 125 percent of the official poverty line. In three broad occupational groups—Personal Care and Service Occupations, Community and Social Services Occupations, and Food Preparation and Serving

[1] A breadwinner mother is either a married mother who provides 40 percent or more of family earnings or a single mother (Anderson et al. 2016).

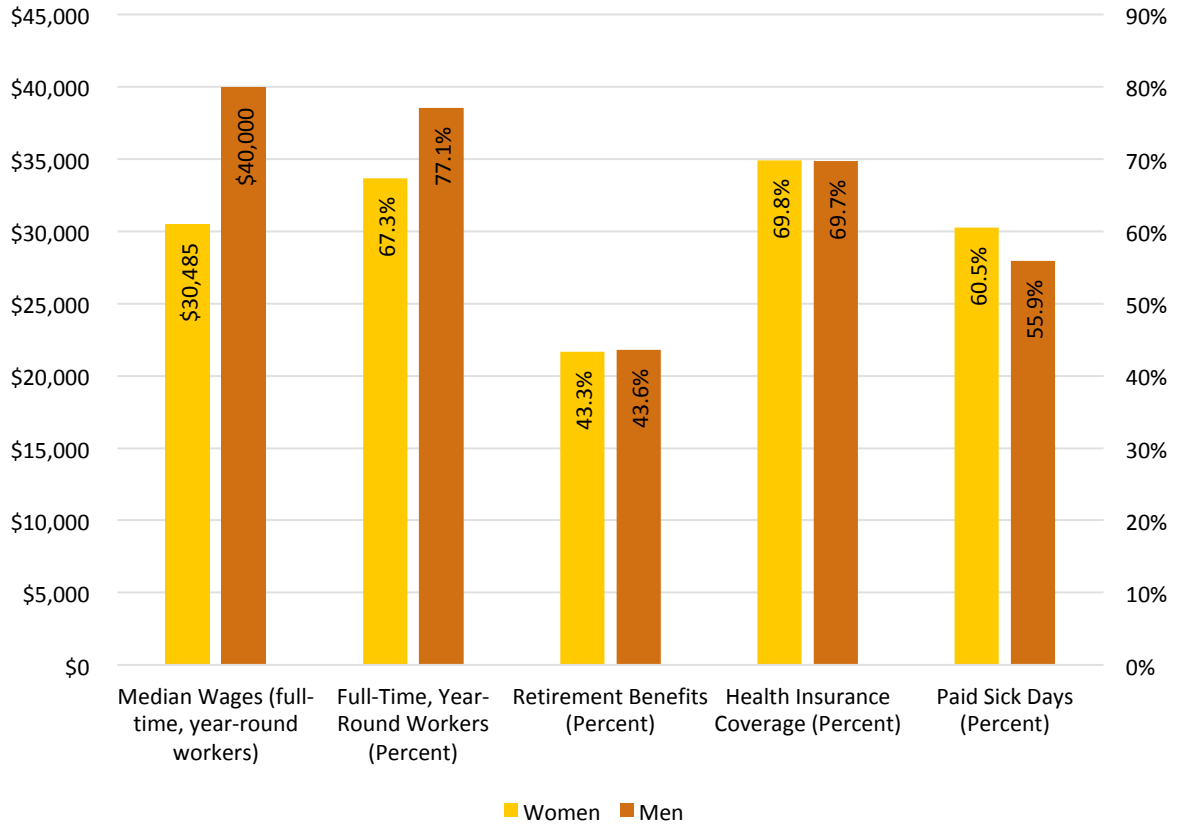
[2] Other/Two or More Races, American Indian and Alaska Native, and Asian and Pacific Islander workers' share of the workforce are too small in Mississippi to calculate earnings separately.

Related Occupations—there was a decline of six percentage points or more in the share with family incomes of at least 125 percent of the poverty line. Women, and women of color in particular, make up the majority of workers in these three broad occupational groups.

Mississippi workers are also less likely than workers nationally to have their employers provide health insurance (71.2 percent of workers nationally, 69.8 percent in Mississippi), retirement benefits (44.8 percent nationally, 43.5 percent in Mississippi), or to have paid sick days (60.0 percent nationally, 59.0 percent in Mississippi).

Among Mississippi workers, women are less likely than men to have full-time, year-round employment (67.3 percent of women, 77.1 percent of men), more likely to have access to paid sick days (60.5 percent of women, 55.9 percent of men), and about equally likely to have employer-provided health insurance (69.8 percent of women, 69.7 percent of men), and retirement benefits (43.3 percent of women, 43.6 percent of men).

**Job Quality Indicators for Mississippi Workers by Sex, 2014**




Source: IWPR analysis of 2012-2014 American Community Survey data, 2012-2014 Current Population Survey data, and 2014 Integrated Health Interview Series data from the Integrated Public Use Microdata Series (IPUMs).
Note: Workers age 16 and older. Median earnings are for full-time, year-round workers (35 or more hours per week and 50 or more weeks per year). Health Insurance is coverage provided by an employer or union of any family member.

This report compares broad occupational groups based on a job quality index comprised of five dimensions:

1) Wages
2) Health insurance coverage
3) Retirement benefits
4) Full-time, full-year work
5) Access to paid sick days

This report pegs average job quality to average levels for the state (and to the median for wages). Above average job quality, below average job quality, best job quality, and worst job quality categories are determined by their distance from the mean (or for wages, the median).

## Key Findings

**Just 3 percent of Mississippians work in jobs that meet the criteria for 'best' job quality occupations.** Across the five categories of the job quality index, more Mississippians (44.5 percent) work in broad occupational groups with average levels of pay and benefits than in any other job quality category. Nearly one-fifth of workers are in occupations that are either above average job quality (18.3 percent) or below average job quality (18.4 percent). A smaller but still substantial share of workers—15.8 percent—work in broad occupational groups classified as having the worst job quality. Just 3.1 percent of all workers in Mississippi work in the 'best' job quality occupations—these are occupations that pay well above the Mississippi median wage and provide the majority of its workers with basic benefits such as health insurance, retirement benefits, full time, year-round employment, and access to paid sick days.

**Men are more likely than women to be in the 'best' jobs whereas women are more likely than men to be in the worst jobs.** Although relatively few Mississippi workers are in broad occupational groups that are rated as 'best' job quality occupations, men are twice as likely as women to work in these jobs—4.1 percent compared with 2.0 percent. In contrast, women are 65 percent more likely than men to work in broad occupational groups rated as 'worst' job quality occupations—19.7 percent of women compared with 11.9 percent of men.

**Working women and men in Mississippi face substantial levels of occupational segregation within job quality categories** with the tendency for women workers to be concentrated in different and lower-paying detailed occupations than men. Across management occupations, for example, women are 42.5 percent of all workers. Across detailed management occupations, however, women are 62.6 percent of Food Service and Lodging Managers (median wages $27,839) and 70.3 percent of Medical and Health Services Managers ($57,922; see appendix F) but just 24.0 percent of Chief Executives and Legislators/Public Administration workers (median wages $86,611). In female-dominated occupations, where women make up more than three of every four workers, women are overrepresented in lower-paying detailed occupations. Women are 78.3 percent of all Education, Training and Library occupation workers including 97.0 percent of Teacher Assistants (median earnings $13,500) and 99.5 percent of Preschool and

Kindergarten Teachers, (median earnings for Mississippi not available), but just 50 percent of postsecondary teachers (median earnings $54,000).

**There are stark differences in job quality among women workers in Mississippi.** While women are more likely than men to work in both above average job quality occupations (21.4 versus 15.1 percent) and the worst job quality occupations (19.7 versus 11.9 percent), differences by race and ethnicity are substantial. One in four White women (25.8 percent) work in above average job quality occupations, more than twice the share of Hispanic women (12.5 percent) and 1.65 times the share of Black women (15.6 percent) in these jobs. In contrast, Black women are 1.8 times more likely than White women (26.0 percent compared with 14.7 percent), and Hispanic women are twice as likely as White women, to work in worst job quality occupations (29.9 percent compared with 14.7 percent).

**Women earn less than men in every job quality category, but the wage gap is widest in better jobs and narrowest in the worst quality jobs.** Mississippi women working full-time, year-round are paid, on average, just 76 percent of what men are paid. The gender wage gap is larger in the 'best' job quality and above average job quality occupations where the respective wage gaps in median annual pay are $19,508 and $19,632. The wage gap is smaller in the worst job quality occupations where women's median wages of $18,700 are $3,984 less than their male counterparts in these occupations.

**Women are paid less than men working in the same detailed occupations.** Even when women and men work in the same detailed occupation, women earn less. Among Education Administrators, for example, women are paid $8,129 less than the median for all (male and female) workers in the occupation and among Financial Managers women are paid $7,533 less. Women are even paid less than all workers in occupations that are nontraditional for men such as Elementary and Middle School Teachers ($150 less than all workers) and Registered Nurses ($127 less than all workers).[3]

**Middle-skill jobs are a good way for women to earn better wages.** While women tend to be concentrated in many of the lowest-paying jobs in Mississippi, there are opportunities for higher wages in 'middle-skill jobs'—jobs that pay above the state median wage but do not require a bachelor's degree. Thirty-eight percent of all Mississippi workers are in 'middle-skill jobs' including jobs that are nontraditional for women such as Electrician ($45,368) and Welding, Soldering, and Brazing Workers ($39,632), as well as occupations such as Sales Representatives, Wholesale and Manufacturing ($50,808) and Police Officers and Detectives ($37.119).[4] Increasing women's share of workers in good-paying jobs, especially good paying jobs that are

[3] Earnings comparisons are between women and all workers in the occupation because some occupations contain too few men to allow comparisons between women and men.

[4] The Perkins Act defines nontraditional occupations for women as occupations where less than 25 percent of all workers are women (see < https://www.gpo.gov/fdsys/pkg/BILLS-109s250enr/pdf/BILLS-109s250enr.pdf>, pg 6). These are also referred to as male-dominated occupations. In contrast, if women are more than 75 percent of all workers in an occupation, it is referred to as female-dominated and nontraditional for men.

nontraditional for women, can help reduce occupational segregation and close the gender wage gap.

**The fastest growing jobs in Mississippi are predominantly done by women and many are in the worst job quality occupations.** Women are more than 70 percent of all workers in the four broad occupational groups projected to grow the fastest in Mississippi between 2012 and 2022. The four broad occupational groups projected to grow the fastest—Healthcare Support Occupations (17 percent growth), Healthcare Practitioners and Technical Occupations (16.9 percent growth), Personal Care and Service Occupations (14 percent growth), and Education, Training, and Library Occupations (13.6 percent growth)—are all predominantly female occupations, and two are rated as worst job quality occupations with low median wages and few benefits.

## Policy Recommendations

### Improve the Quality of all Jobs

- **Increase the minimum wage.** While Mississippi does not have a state minimum wage, the federal minimum wage, currently $7.25 per hour, leaves many workers and their families in poverty. Raising the minimum wage, including for tipped workers who have a federal minimum wage of $2.13, and indexing it to the median wage would improve overall job quality, raise earnings, and reduce gender and racial wage gaps.
- **Increase access to health insurance and retirement benefits.** While these benefits are crucial resources for Mississippi workers and their families, almost one in three (30.2 percent) Mississippi workers do not have employer-provided health insurance coverage and more than one half (56.5 percent) lack retirement benefits on their current job.
- **Increase access to paid sick days**. More than four in ten (41 percent) Mississippi workers lack access to paid sick days, more than six in ten (66 percent) workers in the worst job quality occupations. Legislation providing these workers with access to paid sick days would allow these workers to take care of themselves and their families without fear of losing their jobs or losing badly needed wages. Paid sick days can also provide needed flexibility to workers to help them balance work and family.
- **Increase access to full-time, full-year work** to help workers meet the economic needs of their families.
- **Improve the quality of part-time work** by ensuring predictability in workers' schedules, increasing hourly wages to be comparable to those of full-time workers in the same jobs, and prorating benefits for these workers.
- **Improve workers' access to collective bargaining** to increase wages and to increase access to paid sick days, health insurance, and retirement benefits for workers, as well as both the predictability of work schedules and the flexibility to take time off with pay to care for family members.

## Reduce Occupational Segregation and Gender and Racial Wage Gaps

- **Reduce discrimination** by improving enforcement of state and federal anti-discrimination laws, increasing transparency around hiring, job placement, and pay, and banning the use of salary history in determining the current salary of new hires.
- **Increase access to training and education** through increased financial support, subsidized and on-campus childcare, and partnerships with employers and unions to provide apprenticeships and other career pathways to nontraditional jobs for women and disadvantaged men in STEM and health care. Improving workers' access to middle-skill jobs and higher quality jobs will increase their earnings and their ability to support their families.

## Increase Support for Working Women and Men as they Seek to Balance the Demands of Family, Work, and Education.

- **Increase access for all workers to paid medical and family care leave.** This would be particularly beneficial to women workers who need to take time away from work due to the birth (or adoption) of a child or for a serious illness, their own or a family member's. Providing paid leave would also encourage men to take leave for their own illness or a family member's. Providing such leaves reduces illnesses spread at work, improves outcomes from illnesses, reduces health care costs, and can reduce worker turnover and increase retention, which benefits employers.
- **Increase the availability of affordable childcare** including universal Pre-K and greater state investment in childcare subsidies or publicly provided childcare. Increased access to affordable childcare makes it possible for mothers and fathers to spend more time in paid employment, including taking advantage of the availability of full-time employment, and increasing the resources available for their families. High quality affordable childcare also improves developmental outcomes for children.
- **Increase access to affordable elder and disability care** because state investments in elder care facilities and in-home care can equally benefit working women, their families, and employers.

# I. Introduction

Jobs with family-sustaining wages and benefits allow workers to meet the needs of their families and achieve economic security and stability. Research on the status of workers in Mississippi suggests, however, that many workers—especially women workers—may not have access to such jobs. The unemployment rate in Mississippi has exceeded the national average in recent years, educational levels among Mississippians are lower than in most other states, and Mississippi's poverty rate is the highest in the nation (Anderson et al. 2016; Mississippi Department of Employment Security 2015, 2016). Data on women in the state indicate that they may have less access to jobs that provide a living wage: female workers in Mississippi who are employed full-time, year-round make only 76 cents on the dollar compared with their male counterparts, resulting in a gender wage gap that is larger than in the nation overall. In addition, more than one in five women (22 percent) in the state lives in poverty (Anderson et al. 2016). For women of color, these challenges are especially intense: women of color in Mississippi have much lower earnings and higher poverty rates than White women (Anderson et al. 2016; IWPR 2016).

These obstacles point to the urgent need to ensure that women in Mississippi have access to better quality jobs, particularly given the critical role that women's earnings play in achieving family economic security. As is the case nationally, women's earnings in Mississippi make a major contribution to family income. In 2014, more than one-third (35.6 percent) of family households in the state were headed by single mothers, and more than half (57.7 percent) of all households with children were headed by a breadwinner mother—a married mother who provided 40 percent or more of family earnings or a single mother (Anderson et al. 2016). In Black-mother households with children, more than four in five (83.1 percent) were headed by a breadwinner mother (Anderson 2016). Women's success in Mississippi's workforce is, therefore, integral to the well-being of families across the state.

This report seeks to provide information that **policymakers, employers, and educators** can use to help women obtain jobs that can improve family economic security. It analyzes job growth, job quality, and the degree to which women in Mississippi work in jobs with higher earnings and benefits or jobs with low wages and no benefits. **While there is no consensus on what constitutes a "good job," common characteristics across definitions include livable wages, the provision of health insurance, employer supported retirement benefits, access to full time work, and access to paid leave** (Kalleberg 2011, Michel and Ben-Ishai 2016, Schmitt and Jones 2012, Schmitt and Jones 2013).

To assess how many women in Mississippi hold jobs with these characteristics, the report develops a job quality index with five indicators—median annual earnings; the provision of health insurance; retirement benefits; share of workers with full-time, year-round employment; and the provision of paid sick days—to evaluate overall job quality for 22 broad occupational groups defined by the Bureau of Labor Statistics' Standard Occupational Classification System. Where possible, detailed occupations within these broad occupational groups are also examined.

The report analyzes how workers are distributed across the broad occupational groups and job quality categories by gender and race/ethnicity to determine who is most (and least) likely to work in higher quality jobs. In addition, the report examines which broad occupational groups are projected to produce the largest number of jobs between 2012 and 2022, highlighting areas of opportunity for preparing workers in Mississippi to obtain good jobs.

The report points to the need for embracing multiple strategies to increase women's access to high quality jobs. Improving women's job quality and economic security requires increasing the number of women in middle-skill STEM and other nontraditional jobs for women (U.S. Department of Labor 2009). Middle-skill jobs are those that require education beyond a high school diploma but less than a four-year degree (National Skills Coalition 2014). According to the National Skills Coalition (2014), there are too few Mississippi workers prepared for the available middle-skill jobs: 59 percent of jobs in the state are middle-skill jobs while only 50 percent of workers have the skills and training necessary to fill those jobs. While not all middle-skill jobs are high quality jobs, nationally more than one-half of projected job openings in middle-skill occupations have median annual earnings for full-time workers of $35,000 or more (Hegewisch, Bendick, Gault, and Hartmann 2016), suggesting that many of these jobs represent a promising prospect for workers seeking to improve their circumstances.

Ensuring that the state has enough workers to fill each and every one of its existing middle-skill jobs, however, is not enough to meet the demands of a diverse and growing workforce for high quality jobs. Some middle-skill jobs, some high-skill jobs, and many more jobs considered low-skill—jobs requiring only a high school degree and/or on-the-job training—are crucial to the state's economy but are not jobs that provide high wages or good benefits. Improving the quality of many jobs in Mississippi is, therefore, also critical to improving the economic security of women and families. This report aims to provide information that key stakeholders can use to promote these goals and increase access to quality jobs in Mississippi.

# II. Job Growth in Mississippi, 2004-2014

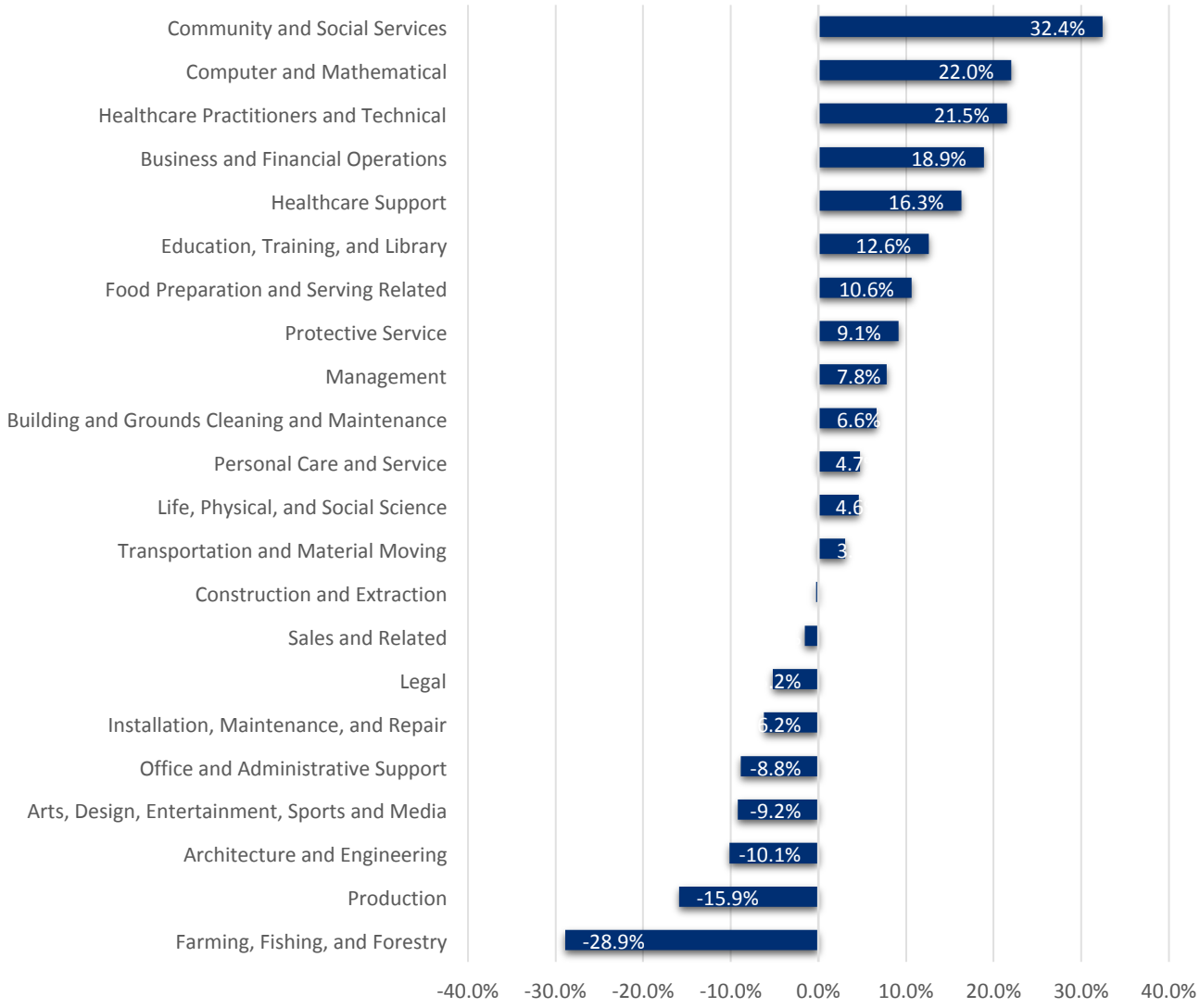
This report begins with a discussion of which jobs in Mississippi are growing, and which are shrinking, to provide context for assessing trends in the quality of jobs available in the state. A brief overview of the Local Workforce Development Areas in Mississippi is then provided.

In 2014 there were almost 16,000 more jobs in Mississippi than there had been in 2004, a rate of **net job growth of 1.4 percent**, a rate 4.2 percentage points lower than the national growth rate (5.6 percent; Bureau of Labor Statistics 2015a). The rate of job growth was also much lower than the rate of population growth—**there was a 6.9 percent increase in the working-age population (aged 16 to 64) in Mississippi.** To better understand which occupations are growing and which are in decline, Figure 2.1 shows job growth and job losses in Mississippi between 2004 and 2014 across 22 broad occupational groups. Nine of the 22 broad occupational groups had a net loss of jobs over the ten-year period while 13 experienced job growth.

## Growth and Decline in Broad Occupational Groups

The fastest growing broad occupational groups are Community and Social Services Occupations, Computer and Mathematical Occupations, and Healthcare Practitioners and Technical Occupations, each experiencing growth of 20 percent to more than 30 percent across this recent ten-year period. Healthcare Practitioners and Technical Occupations, Community and Social Services Occupations, along with Healthcare Support Occupations (16.3 percent growth) are part of the established Healthcare and Social Assistance Industry in Mississippi. In addition, a new healthcare support industry is growing in regions of the state like the *Mississippi Delta* (State of Mississippi 2015).

**Figure 2.1. Percentage Job Growth and Decline by Broad Occupational Group, 2004 to 2014**

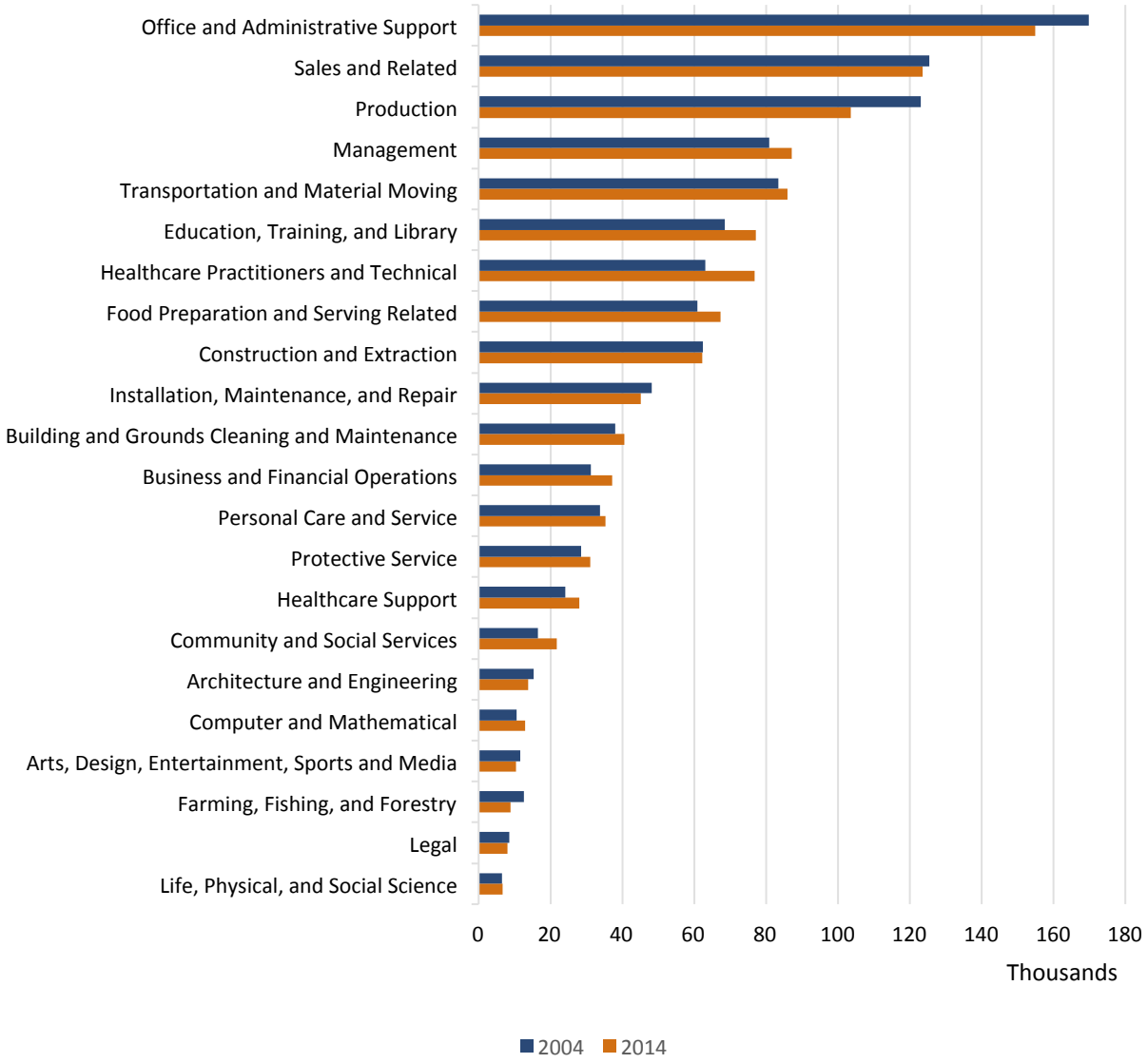



Source: IWPR analysis of 2002-2004 and 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series, version 6.0).
Note: For workers aged 16 and older.

**The growth in healthcare jobs in Mississippi reflects the growth in demand for healthcare as the baby boomer generation ages**, as is the case nationally, but Mississippi has particularly demanding healthcare needs. **Obesity** is a serious problem in the state (as it is nationally) and the state ranks at or near the bottom nationally for **heart disease mortality, incidence of diabetes, and poor mental health, among other health related ailments** (Anderson et al 2016).

While Figure 2.1 shows the percentage change in the number of workers in each broad occupational group, Figure 2.2 shows the total number of workers in both 2004 and 2014. Comparing both figures shows that despite high growth rates in Computer and Mathematical Occupations, there are relatively few jobs in this broad occupational group in 2014.

**Figure 2.2. Total Employment by Broad Occupational Group, 2004 and 2014**




Source: IWPR analysis of 2002-2004 and 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series, version 6.0).
Note: For workers age 16 and older.

In contrast to the fast growing broad occupational groups, **Farming, Fishing, and Forestry Occupations and Production Occupations** saw a substantial decline in workers, with

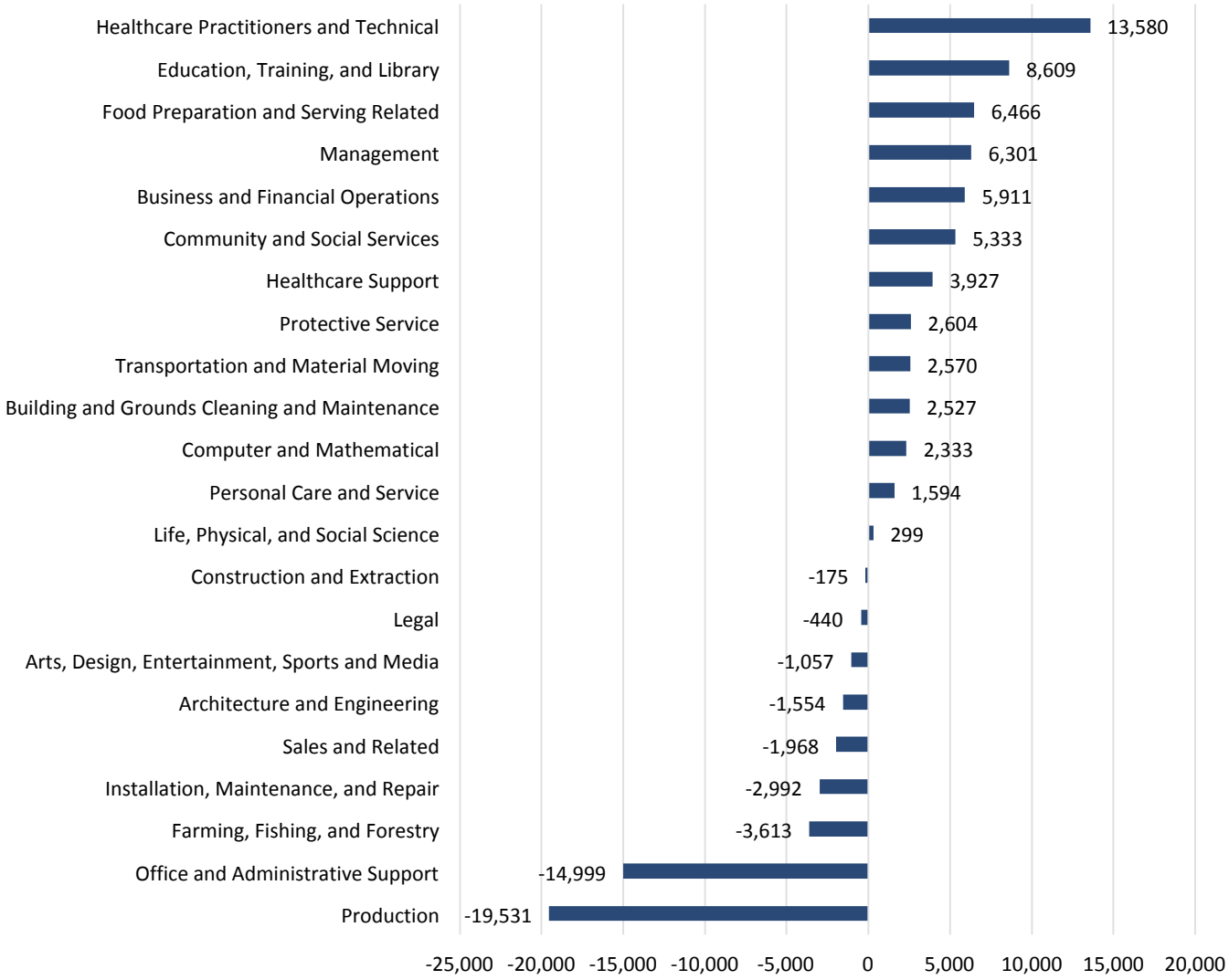
employment dropping by **28.9 percent and 15.9 percent**, respectively. While Farming, Fishing and Forestry Occupations also employ a relatively small number of workers, it is part of the agriculture industry which, together with agriculture-related Production Occupations (i.e., food processing), make up the number one industry in Mississippi, employing 29 percent of the state's workforce according to the Mississippi Department of Agriculture and Commerce (2015).[5]

The broad occupational groups employing the largest numbers of Mississippians in both 2004 and 2014 were Office and Administrative Support Occupations, despite its loss of almost 15,000 jobs, Sales and Related Occupations with a loss of nearly 2,000 jobs, and, even with the loss of more than 19,500 jobs, Production Occupations (Figures 2.2 and 2.3).

Figure 2.3 below shows the total number of jobs gained or lost over the ten-year period. The broad occupational groups adding the largest number of jobs were Healthcare Practitioners and Technical Occupations (adding 13,580 jobs), Education, Training, and Library Occupations (8,609), and Food Preparation and Serving Related Occupations (6,466). Growth in Food Preparation and Serving Related Occupations may reflect the growth of the Tourism and Film Industries in Mississippi.

[5] Workers are grouped into occupations—and broad occupational groups—based on the type of work they do (Bakers, Agricultural Inspectors, Dentists), but they are grouped into industries based on the type of work the employer is engaged in (Construction, Manufacturing, Accommodation and Food Services; <https://www.bls.gov/bls/glossary.htm>). An industry includes workers in many different occupations. For example, the Construction Industry includes Welders, Managers, and Secretaries.

**Figure 2.3. The Number of Mississippi Jobs Added and Lost Across Broad Occupational Groups, 2004 to 2014.**




Source: IWPR analysis of 2002-2004 and 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series, version 6.0).
Note: For workers age 16 and older.

## Local Workforce Development Areas (LWDAs)

The benefits of job growth and the pain of job losses are not felt equally across the state of Mississippi. The state of Mississippi is divided into four Local Workforce Development Areas (LWDAs; see Appendix C), each with a somewhat distinct occupational and industry mix (State of Mississippi 2016).

The *Mississippi Delta* Local Workforce Development Area (LWDA) is the only LWDA that has had a consistent decline in population since 2004. This is a majority African American (66.9%) area with employment centered primarily in agriculture, and it does not contain a Metropolitan Statistical Area (MSA) (State of Mississippi 2015).[6]

The *Mississippi Partnership* LWDA also lacks an MSA of its own but several counties are included in the Tennessee-Mississippi-Arkansas MSA. This LWDA is home to several new and emerging industries including in manufacturing (plastics and rubber, transportation equipment, furniture) and Telehealth.[7] It's also home to several large manufacturing companies including Cooper Tires, Toyota, and Stark Aerospace (State of Mississippi 2015).

Mississippi's *Southcentral Mississippi Works* LWDA, which includes the Jackson MSA, has several established industries including healthcare, energy (oil and gas), and agribusiness (Forestry and Logging). This LWDA is also reportedly becoming a key site for the automotive industry including Nissan (State of Mississippi 2015).

The fourth LWDA is the *Twin Districts* LWDA, which includes both the Gulfport-Biloxi-Pascagoula MSA and the Hattiesburg MSA, and is the largest LWDA in terms of population with over 1 million residents. This LWDA contains the established industries of energy (coal, oil, and gas), healthcare, and leisure and accommodation (State of Mississippi 2015).

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[6] A metropolitan statistical area consists of one or more counties that include a city or other Census Bureau defined urbanized area or urban cluster with 50,000 or more inhabitants and adjacent counties that have a high degree of social and economic integration with the urban core such as commuting to work (Wilson et al 2012). One of the Mississippi counties (Tunica County) is included in the Tennessee-Mississippi-Arkansas MSA.

[7] New and emerging industries are defined in the State of Mississippi's Workforce Innovation and Opportunity Act Plan as those industries which had no presence or a small presence in 1990 but had grown by more than 200 percent by 2010. Established industries are defined as industries that had a larger presence in 1990 with little or no growth by 2010 (p. 5). Telehealth refers to the use of technology to deliver healthcare services, information, or education (U.S. Department of Health and Human Services < https://www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Telehealth/whatistelehealth.html>). For example, telehealth would include the use of Skype or another two-way telecommunications system to complete a medical consultation or office visit.

# III. Measuring Job Quality: The Index

Job quality is a broad concept; there are a range of indicators of job quality with wages, employer-provided health insurance, retirement plans, and worker's access to paid leave (vacation, paid sick days, and paid family leave) being some of the most common (Carnevale, Jayasundera, and Gulish 2015, Michel and Ben-Ishai 2016, Schmitt and Jones 2012, Schmitt and Jones 2013). Just as important for understanding job quality are job security, predictability in the scheduling of work hours, opportunities for promotions and pay raises, and workplace safety among other factors (Kalleberg 2009, 2011, OECD 2016). Unfortunately, data for many of these indicators are not available for occupations, especially at the state level. To produce the most complete job quality index for workers in Mississippi, this report includes all available indicators for broad occupational groups in the state of Mississippi or for the Southern states that include Mississippi. The resulting indicators of job quality included in the index are:

1) Median annual wages
2) Employer-provided health insurance coverage
3) Employer-sponsored retirement benefits
4) Full-time, full-year employment
5) Access to paid sick days

## How the Index is Calculated

The analysis in this report is based on analysis of data from the United States Census Bureau's American Community Survey, the Current Population Survey which is jointly produced by the United States Census Bureau and the Bureau of Labor Statistics, and the National Health Interview Survey. All three data sources are available from the Integrated Public Use Microdata Series (IPUMs) at the University of Minnesota.

The American Community Survey is used to estimate employment; earnings; employer-provided health insurance; full-time, year-round status of workers; poverty rates; and educational attainment.[8] The Current Population Survey is used to estimate retirement benefits, and the Integrated Health Interview Series is used to estimate access to paid sick days. All indicators are estimated across 22 broad occupational groups.

Retirement benefits are measured as the share of workers covered by an employer-supported pension plan. There were not enough observations for pensions in the Current Population Survey to calculate pension participation separately for each of the 22 broad occupational

[8] The American Community Survey (ACS) asks about health insurance coverage from an employer and counts all health insurance coverage that is provided by an employer—including health insurance provided by one's spouse. Because women are more likely to get their health insurance through their spouse's employer than men are to receive coverage through their spouse's employer, this measure biases upward the quality of women's employment. Full-time, year-round work is 35 hours per week for 50 or more weeks per year. Poverty rates refer to having a family income below the official poverty threshold.

groups. To address this, the 22 broad occupational groups were combined to form seven larger occupational groupings for which to estimate pension participation.[9]

- Management Occupations and Business and Financial Operations Occupations were combined.
- The following *professional occupations* were combined: Computer and Mathematical Occupations, Architecture and Engineering Occupations, Life, Physical and Social Science Occupations, Community and Social Services Occupations, Legal Occupations, Education, Training, and Library Occupations, and Healthcare Practitioners and Technical Occupations.
- The following *service occupations* were combined: Healthcare Support Occupations, Protective Service Occupations, Food Preparation and Serving Related Occupations, Building and Grounds Cleaning and Maintenance Occupations and Personal Care and Service Occupations.
- Farming, Fishing, and Forestry Occupations, Construction and Extraction Occupations, and Installation Maintenance and Repair Occupations were combined.
- Production Occupations and Transportation and Material Moving Occupations were combined.

There were sufficient observations for both Sales and Related Occupations and Office and Administrative Support Occupations to estimate pension participation without combining them with other broad occupational groups so they were not combined with other broad occupational groups to estimate pension participation.

Because the National Health Interview Survey does not release data at the state level, to estimate the share of workers in each broad occupational group with paid sick days, the share of workers in each broad occupational group with paid sick days was analyzed for the southern region which includes Mississippi.[10] The results were then weighted to reflect the characteristics of workers in Mississippi.

To create the job quality index, three job quality indicators—median earnings, health insurance coverage, and full-time, year-round employment, were estimated for Mississippi workers for each of the broad occupational groups. Paid sick days and participation in a retirement (pension) plan were estimated as described above. Each estimate was then standardized by dividing the value for the broad occupational group by the value for the state as a whole. The standardized value for median earnings was weighted to have four times as much influence on the final index score as all other indicators. These standardized values were then summed across indicators for each broad occupational group to create the composite index score for each broad occupational group. IWPR's Job Quality Index is thus a relative measure. All broad occupational groups are compared with average jobs in Mississippi.

[9] Data are reported only if there are 70 or more sample observations on the indicator for the broad occupational group with the exception of earnings which are reported only if there are 100 or more sample observations.
[10] The southern region includes the following states: Kentucky, Tennessee, Mississippi, Alabama, Texas, Arkansas, Oklahoma, Louisiana, Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida.

A broad occupational group would receive a total score of eight on the composite index if it received the same value on each of the job quality indicators as the average value on those indicators for the state. Because median earnings are given a weight of four, a broad occupational group with median earnings of exactly the same value as the state median would receive a score of 4 for median earnings. Each broad occupational group would receive a score of 1 for each of the four remaining indicators if its score on each indicator exactly matched the state average, receiving four additional points for an overall total of eight. Values above eight on the composite index indicate the broad occupational group provides better-quality jobs, on average, than the average for the state. Values below eight indicate the broad occupational group provides worse-quality jobs, on average, than the average for the state.

All broad occupational groups were then assigned to job quality groupings based on their score relative to the average for the state as a whole (see Table 3.1). Broad occupational groups with composite scores from 7.25 to 9.25 were categorized as average job quality, scores from 9.25 to 11.25 were categorized as above average job quality, and composite scores of 11.25 or higher were categorized as best job quality. For scores below the average, 6.25 to 7.25 were categorized as below average job quality and scores below 6.25 were categorized as worst job quality.

**Table 3.1. Job Quality Category Assignment for Broad Occupational Groups in Mississippi**

| Job Quality Category | Broad Occupational Group |
|---|---|
| **Best Job Quality** | Architecture and Engineering |
| | Computer and Mathematical |
| | Legal |
| **Above Average Job Quality** | Life, Physical, and Social Science |
| | Management |
| | Business and Financial Operations |
| | Healthcare Practitioners and Technical |
| **Average Job Quality** | Construction and Extraction |
| | Installation, Maintenance, and Repair |
| | Protective Service |
| | Production |
| | Arts, Design, Entertainment, Sports and Media |
| | Community and Social Services |
| | Office and Administrative Support |
| | Education, Training, and Library |
| **Below Average Job Quality** | Transportation and Material Moving |
| | Sales and Related |
| **Worst Job Quality** | Farming, Fishing, and Forestry |
| | Building and Grounds Cleaning and Maintenance |
| | Food Preparation and Serving Related |
| | Personal Care and Service |
| | Healthcare Support |

While not included in the index for practical and methodological reasons, IWPR assessed broad occupational groups with respect to change between 2004 and 2014 in the share of workers with family income above 125 percent of the poverty level, share of workers employed full time (35 or more hours per week), and change in inflation-adjusted median earnings. This report also examines the educational composition of Mississippi workers in 2014 across the 22 broad occupational groups and provides projections of job growth through 2022.

The IWPR Job Quality Index is intended to serve as a measure of job quality for workers, employers, policymakers, and educators. The index not only shows current job quality and where improvements are needed to meet the needs of Mississippi workers, it helps job seekers and educational institutions assess the likelihood of different broad occupational groups providing a livable wage, full-time, year-round work, access to healthcare, provisions for retirement, as well as accommodations to juggle both work and family as measured by access to paid sick days.

## What the Index Does and Does Not Tell Us

Research can have the most positive impact when research consumers—educators, employers, and policymakers—are cognizant of both what the research can tell you and what it can't. The current report develops a job quality index which is used to assess overall job quality in Mississippi and to evaluate women's access to better-quality jobs in Mississippi. The approach taken in this report is a relative approach. The job quality index assigns broad occupational groups to job quality categories based on the occupational group's standing relative to the state as a whole.

This approach takes into account differences in the cost of living across states—it is cheaper to live in Mississippi than in some other states. This approach can also over-estimate the quality of some jobs in the state because overall wages are low. Table 3.2 shows that median wages for Mississippi workers employed full-time, year-round are $35,056. This is an average of $8,249 lower than the $43,305 median for workers nationally (Table 3.2), and is among the lowest median earnings across all states, including other southern states (Anderson et al. 2016). [11]

[11] All five job quality indicators shown in Table 3.2 (median wages, health insurance, retirement benefits, full-time, full-year employment, and paid sick days) collectively determine the assignment of each broad occupational group to a job quality category and, as a result, the value for each of these indicators in the average job quality category differs from the median wages and average values for these indicators for all Mississippi workers.

**Table 3.2. Job Quality Indicators for each Job Quality Category in Mississippi, 2014**

| | Median Wages | Health Insurance Coverage (Percent) | Retirement Benefits (Percent) | Employed Full-Time, Year-Round (Percent) | Paid Sick Days (Percent) |
|---|---|---|---|---|---|
| **United States** | **$43,305** | **71.2%** | **44.8%** | **69.8%** | **60.0%** |
| **All Mississippi Workers** | **$35,056** | **69.8%** | **43.5%** | **72.2%** | **59.0%** |
| **Best Job Quality** | $61,865 | 86.9% | N/A | 89.0% | 84.3% |
| **Above Average Job Quality** | $51,554 | 81.7% | 53.1% | 84.2% | 77.3% |
| **Average Job Quality** | $33,229 | 74.5% | 47.7% | 75.5% | 62.0% |
| **Below Average Job Quality** | $30,932 | 61.5% | 31.4% | 65.4% | 47.5% |
| **Worst Job Quality** | $20,323 | 49.1% | 21.4% | 53.7% | 34.0% |

Source: IWPR analysis of 2012-2014 American Community Survey data, 2012-2014 Current Population Survey data, and 2014 Integrated Health Interview Series data from the Integrated Public Use Microdata Series (IPUMs). N/A indicates too few observations to calculate percentage.
Note: Workers age 16 and older. Median earnings are 2014 dollars for full-time, year-round workers (35 or more hours per week and 50 or more weeks per year). Health Insurance is coverage provided by an employer or union of any family member.

To put the earnings for job quality categories in context, Table 3.3 shows the minimum wage levels required for families of different sizes and composition in Mississippi to meet basic economic security standards, according to one such measure now housed at IWPR and called the Basic Economic Security Tables, or BEST. The values in Table 3.3 are based on the cost of living in Mississippi and include the cost of housing, food, childcare, and transportation among other costs. These values assume the worker has employer-sponsored health insurance and retirement benefits.[12]

The median wages in all but the above average and 'best' job quality occupations fall well below the wages needed to ensure basic economic security for a full-time, year-round working mother with two small children. Workers in the worst job quality occupations face the greatest challenges with median earnings of just $20,323. Comparing Table 3.2 with column two in Table 3.3 shows that even with two adults working full-time, year round, a family with two small children in these occupations would still fall considerably short of the earnings needed for economic security.

[12] Other costs include utilities, out of pocket expenses for healthcare, emergency and retirement savings, personal and household items and taxes; tax credits family qualify for are deduced from minimum earnings. For additional details on the index, see Appendix H and < http://www.wowonline.org/documents/USBESTMethodologyReport.pdf>.

**Table 3.3: Household Income Needed for Basic Economic Security for Workers with Employer-Provided Benefits in Mississippi by Household Size and Composition, 2014**

| | 1 Worker<br>1 Infant (0 to 3)<br>1 Preschooler (6 to 12) | 2 Workers<br>1 Infant (0 to 3)<br>1 Preschooler (6 to 12) | 1 Worker<br>1 Schoolchild (6 to 12)<br>1 Teenager (13 to 18) |
|---|---|---|---|
| **Annual Earnings (Family)** | $50,280 | $61,488 | $43,368 |
| **Hourly Earnings (per worker)** | $23.81 | $14.56 | $20.53 |

Source: IWPR Basic Economic Security Tables (BEST), http://www.basiceconomicsecurity.org/best/.
Note: The BEST was last updated in 2014 but not all data sources are 2014 data, see appendix H for detailed sources and dates for all BEST indicators. Earnings assume workers have employer-sponsored health insurance, a retirement plan, and access to unemployment insurance.

It is also important to note that because the analyses in this report focus on the broad occupational group, the reader must remember there is a substantial amount of diversity within job quality categories. Across all job quality categories, one-half of workers earn less than the median and not all workers are equally likely to receive any given employment benefit. It is not uncommon for groups of workers defined by sex, race, ethnicity, or numerous other characteristics to be clustered in the lower-quality jobs of broader, much better quality occupations (Charles 2011) and the research reported here confirms this pattern.

Table 3.2 shows that occupations ranked as above average job quality and best job quality not only have higher earnings than average, below average, and worst job quality occupations, they are also more likely to provide workers with benefits. Comparing 'best' job quality and worst job quality occupations, 'best' job quality occupations are much more likely to provide benefits such as health insurance coverage (86.9 percent in 'best' job quality occupations compared with only 49.1 percent in worst job quality occupations), full-time, year-round employment (89.0 vs. 53.7 percent), and access to paid sick days (84.3 vs. 34.0 percent).

Table 3.4 provides data for the five job quality indicators across job quality categories for women and men separately, it shows that the median wage for women in the 'best' job quality category is $19,508 lower than for men in the same job quality category. This comparison shows that those women who do make it into 'best' job quality occupations receive a lower wage than even men in the above average job quality category. In fact, the table shows that women earn less than men in every job quality category.

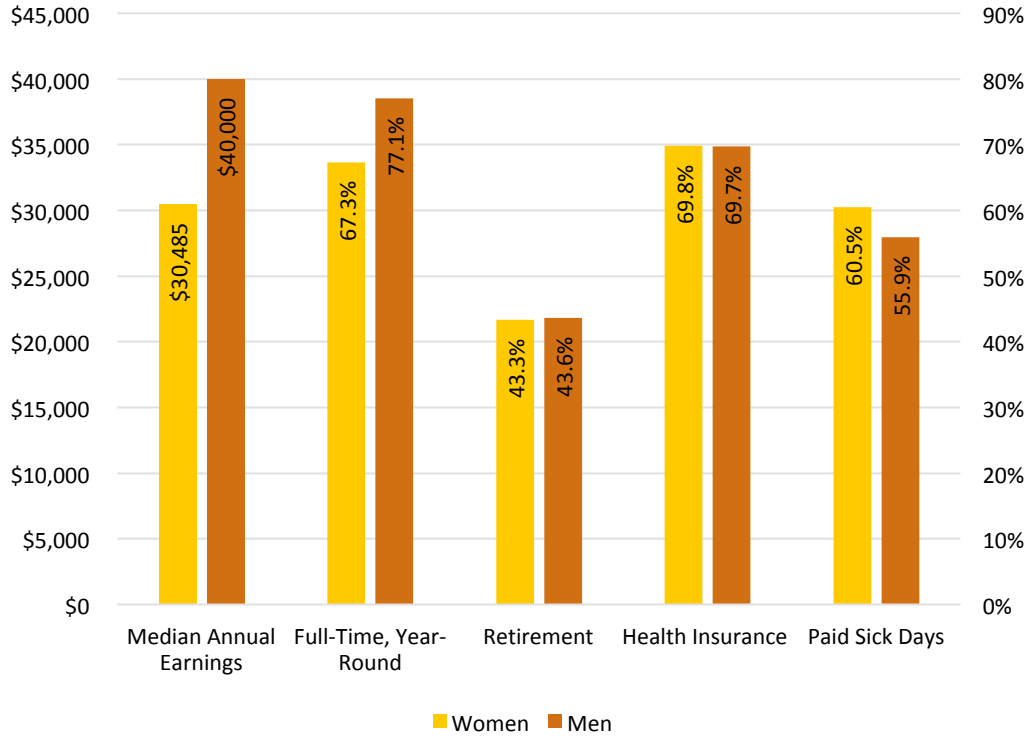
**Table 3.4. Job Quality Indicators for Women and Men Nationally, Statewide in Mississippi, and for each Job Quality Category in Mississippi, 2014.**

| | Median Wages | | Health Insurance Coverage (Percent) | | Retirement Benefits (Percent) | | Employed Full-Time, Year-Round (Percent) | | Paid Sick Days (Percent) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| **United States** | **$38,614** | **$48,976** | **72.0%** | **70.4%** | **44.3%** | **45.2%** | **63.3%** | **75.8%** | **60.1%** | **60.2%** |
| Mississippi | **$30,485** | **$40,000** | **69.8%** | **69.7%** | **43.3%** | **43.6%** | **67.3%** | **77.1%** | **60.5%** | **55.9%** |
| Best Job Quality | $49,492 | $69,000 | 87.7% | 86.5% | N/A | N/A | 86.1% | 90.4% | 83.5% | 84.8% |
| Above Average Job Quality | $45,368 | $65,000 | 83.3% | 79.4% | 51.9% | 54.7% | 81.3% | 88.4% | 77.9% | 76.4% |
| Average Job Quality | $30,000 | $37,000 | 77.3% | 72.0% | 51.5% | 44.5% | 72.1% | 78.6% | 68.9% | 56.2% |
| Below Average Job Quality | $25,000 | $36,088 | 55.6% | 65.6% | N/A | 36.6% | 53.0% | 73.9% | 42.7% | 50.8% |
| Worst Job Quality | $18,700 | $22,684 | 48.5% | 50.2% | 20.1 | N/A | 50.9% | 58.2% | 35.5% | 31.5% |

Source: IWPR analysis of 2012-2014 American Community Survey data, 2012-2014 Current Population Survey data, and 2014 Integrated Health Interview Series data from the Integrated Public Use Microdata Series (IPUMs).
N/A indicates too few observations to calculate percentage.
Note: Workers age 16 and older. Median earnings are for full-time, year-round workers (35 or more hours per week and 50 or more weeks per year). Health Insurance is coverage provided by an employer or union of any family member.

Men are also more likely than women—by almost ten percentage points—to work full-time, year-round. Full-time, year-round employment increases the probability that workers will receive the other employment benefits shown in Figure 3.1. (Bureau of Labor Statistics 2014a). While many women choose to work part-time, that choice may reflect constraints such as lack of affordable childcare or the need to care for sick or disabled family members such as a parent (Hess, Milli, Hayes, and Hegewisch 2015, Parker 2015). For many other women, part-time employment reflects a lack of full-time options (Golden 2016).

**Figure 3.1. Job Quality Indicators for Mississippi Workers by Sex, 2014**




Source: IWPR analysis of 2012-2014 American Community Survey data, 2012-2014 Current Population Survey data, and 2014 Integrated Health Interview Series data from the Integrated Public Use Microdata Series (IPUMs).
Note: Workers age 16 and older. Median earnings are for full-time, year-round workers (35 or more hours per week and 50 or more weeks per year). Health Insurance is coverage provided by an employer or union of any family member.

Women and men in Mississippi are about equally likely to have employer supported retirement benefits (43.3 percent and 43.6%, see Figure 3.1). Generally, economic security in retirement is thought to depend on a three-legged stool of personal savings, social security, and employer-provided retirement benefits in the form of a pension. Workers in low-wage jobs, of whom a disproportionate share are women, lack adequate savings. Relying on social security alone will leave too many of today's workers economically insecure during retirement, even more so for women who will have even lower social security payments (Fischer and Hayes 2013, Social Security Administration 2016). These facts make employer-supported retirement benefits ever more important for all workers, but especially for women workers.

Nationally, health insurance coverage for non-elderly adults is provided primarily through employment (Bureau of Labor Statistics 2014b) and for those workers who receive health insurance through their employer, it is the largest non-cash benefit they receive (Bureau of Labor Statistics 2014b, Bureau of Labor Statistics 2016c). In Mississippi, women and men are equally

likely to have employer-sponsored health insurance coverage (69.8 percent and 69.7 percent respectively).[13]

The one benefit women in Mississippi are more likely than men to receive is paid sick days. Paid sick days allow workers to take time off work when they are sick or to care for a child or other family member who is ill or disabled without losing pay, or worse, losing their jobs. Because women are more likely than men to take time off to care for sick children and other family members, they benefit the most from paid sick days and other forms of job-protected paid leave. But providing job security and pay for needed time off will encourage men to take time to care for their own illnesses as well as those of their family members, improving health outcomes for the community.

# IV. Quality of Jobs in Mississippi

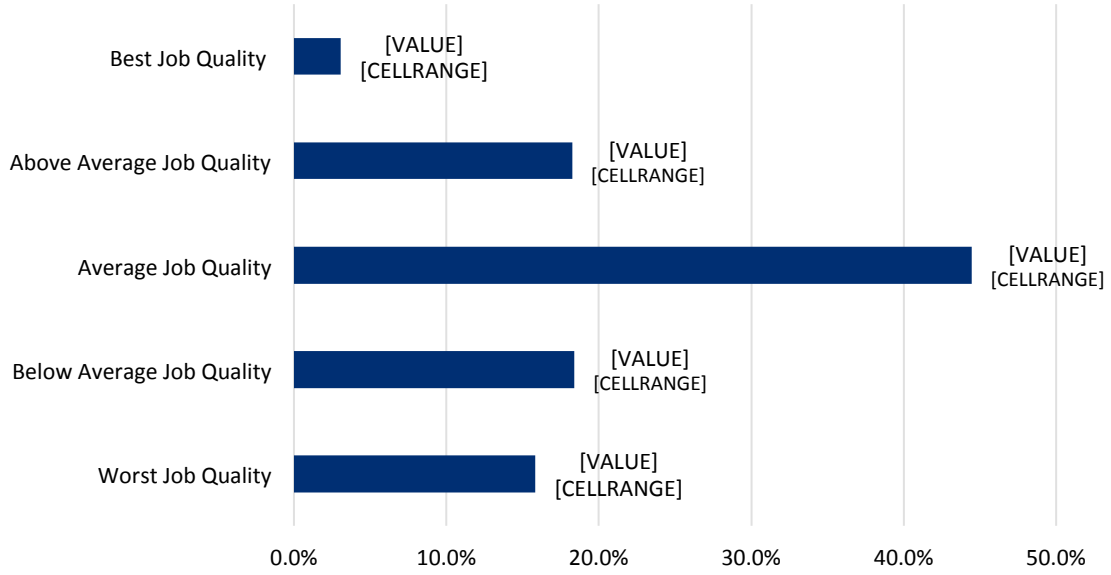
[13] This refers only to coverage, not to the quality of healthcare coverage. Employer-sponsored health insurance plans differ substantially in a number of ways including the medical services covered, the amount of any deductible, and the amount of co-pays (Bureau of Labor Statistics 2015f).

## Workers' Distribution Across Job Quality Categories

In 2014 there were more than 1.1 million Mississippians working across the 22 broad occupational groups shown above in Figure 2.2. Figure 4.1 below shows these workers aggregated into the five job quality categories by their broad occupational groups. Just over one in five Mississippi workers (21.4 percent) are in broad occupational groups that are rated as above average job quality (18.3 percent) or 'best' job quality (3.1 percent). More than one in three (34.2 percent) Mississippi workers are in broad occupational groups that are rated as below average job quality (18.4 percent) or worst job quality (15.8 percent). The largest job quality category, average job quality occupations, accounts for 44.5 percent of all Mississippi workers.

> Just 3.1 percent of Mississippi workers are in best job quality occupations while most Mississippians (44.5 percent) are in average job quality occupations.

**Figure 4.1. Percent Distribution and Number of Mississippi Workers across Job Quality Categories, 2014**



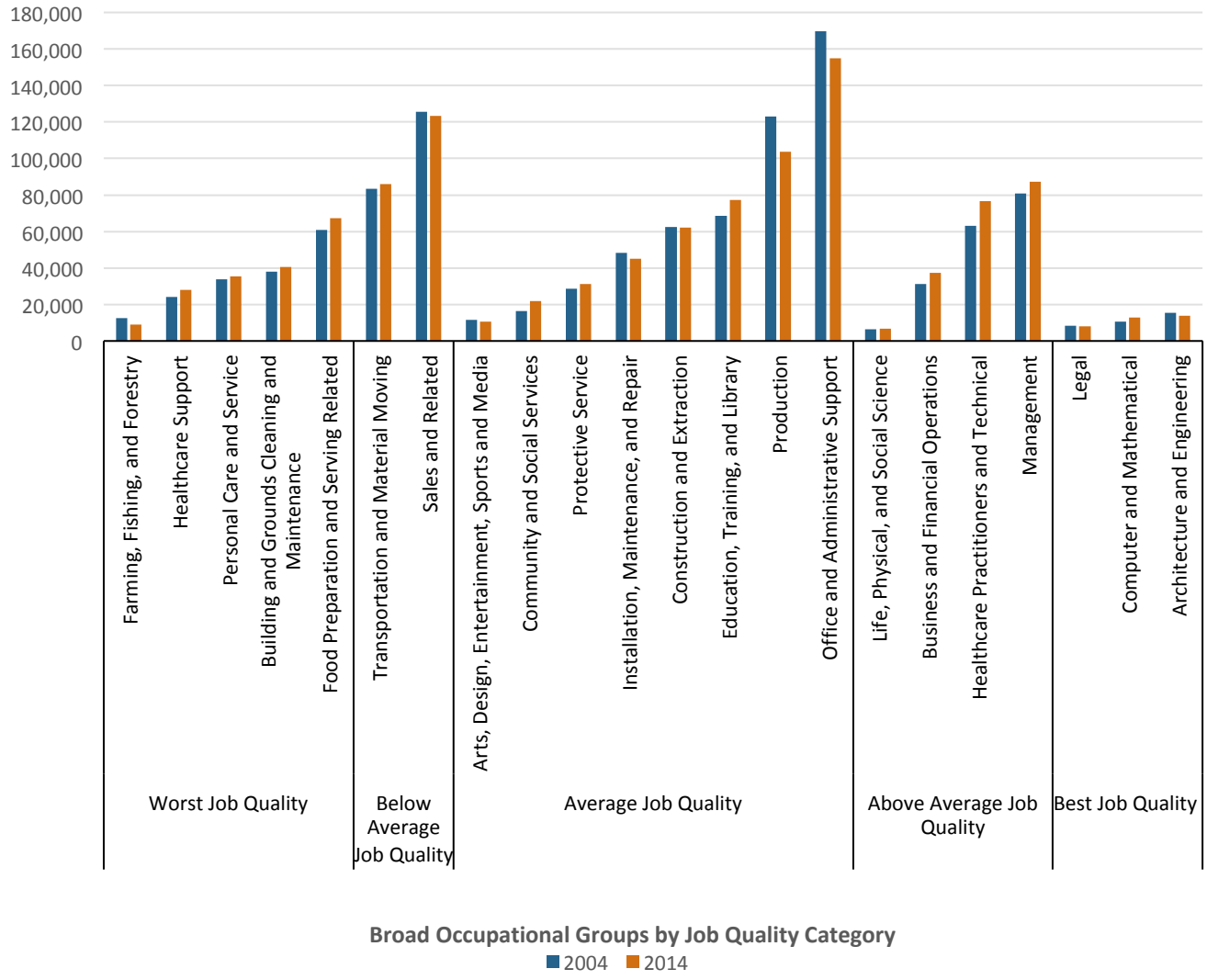

Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: For workers age 16 and older.

## Characteristics of Broad Occupational Groups by Job Quality Category

Figure 4.2 shows the number of workers employed in each broad occupational group in both 2004 and 2014 by job quality classification. This figure shows which job quality category each broad occupational group is assigned to and how each broad occupational group has grown or declined over time. Figure 4.3, showing the median earnings for workers in each broad occupational group, illustrates the range in earnings across the broad occupational groups that make up each job quality category.

The worst job quality broad occupational groups are Farming, Fishing, and Forestry Occupations; Healthcare Support Occupations; Personal Care and Service Occupations; Building and Grounds Cleaning and Maintenance Occupations; and Food Preparation and Serving Related Occupations. Not only are the earnings low and benefits lacking, but the number of jobs in Farming, Fishing, and Forestry Occupations fell by 28.9 percent between 2004 and 2014, the only broad occupational group among worst job quality occupations to lose workers (Figure 2.1). Job losses in these occupations reflect, to some extent, increased efficiency and technological advances in the detailed occupations of Agricultural Inspectors, Graders and Sorters of Agricultural Products, Fishing and Hunting Workers, and Logging Workers which make up this broad occupational group (Bureau of Labor Statistics 2016a, Bureau of Labor Statistics 2016b).

**Figure 4.2. Number of Mississippi Workers in Broad Occupational Groups by Job Quality Classification, 2004 and 2014**



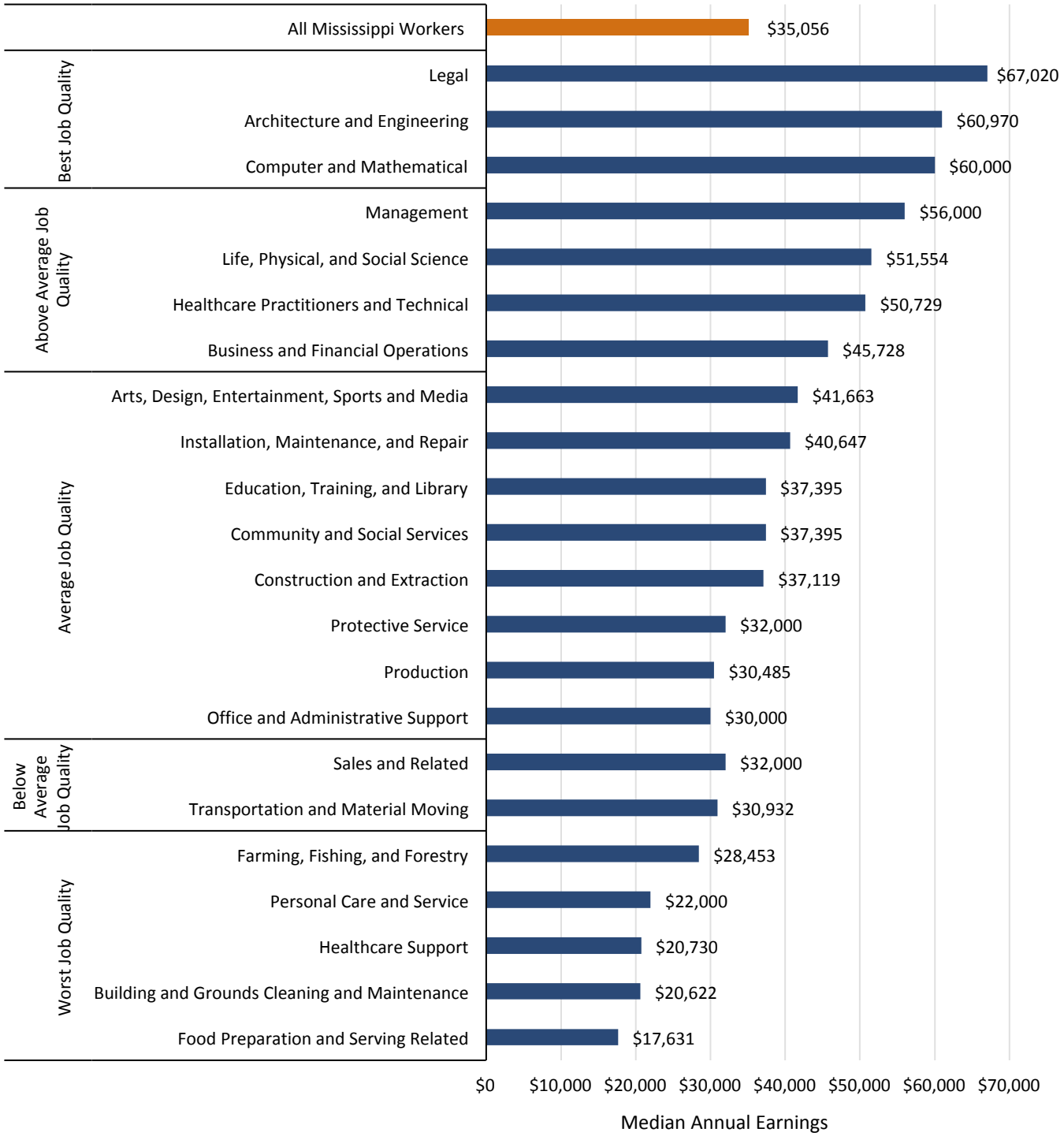

Source: IWPR analysis of 2002-2004 and 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: For workers age 16 and older.

Some of the other jobs in the broad occupational groups in the worst job quality category are less amenable to mechanization or other technological advances and many provide services that are essential to the well-being of the state's population and the economy overall. In spite of their importance, many of these jobs are poorly paid and provide few, if any, benefits. Personal Care and Service Occupations, for example, include the low-wage detailed occupations of Childcare Workers (median earnings not available) and Personal Care Aides ($16,497). While the number of childcare workers fell by 6.4 percent, the number of Personal Care Aides more than doubled between 2004 and 2014 (see Appendix F). Healthcare Support Occupations, also among the worst job quality broad occupations, include jobs such as Nursing, Psychiatric, and Home Health Aides with median earnings of $20,323.

Food Preparation and Serving Related Occupations—including Waiters and Waitresses ($15,141) and Chefs and Cooks ($17,275)—grew by 10.6 percent, adding more than 6,400 jobs between 2004 and 2014 and experiencing the most job growth of all worst job quality occupations. Building and Grounds Cleaning and Maintenance Occupations added fewer jobs but still employed more than 40,000 workers in 2014 with most being paid very low wages—median earnings for full-time, year-round Maids and Housekeeping Cleaners were just $17,528 while Janitors and Building Cleaners were paid $20,622 (see Appendix F for earnings of large detailed occupations, percent change in employment, percent female, and share of workers with an associate's degree).

Average job quality occupations, the job quality category employing the largest numbers of Mississippi workers in 2014, experienced a decline in total number of jobs since 2004. Especially notable were the declines in Office and Administrative Support Occupations—the largest broad occupational group in Mississippi—and Production Occupations, the third largest broad occupational group in the state (Figure 4.2). Average job quality occupations include a diverse range of broad occupational groups from Education, Training, and Library Occupations—including detailed occupations from Postsecondary Teachers ($54,000) to Teacher Assistants ($13,500)—to Construction and Extraction Occupations.

**Figure 4.3. Median Annual Earnings for Full-Time, Full-Year Mississippi Workers by Broad Occupational Group and Job Quality Category, 2014**




Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: For workers age 16 and older. Earnings are in 2014 dollars.

Above average job quality occupations, employing 18.3 percent of Mississippi workers, provide workers

Above average job quality occupations, employing 18.3 percent of Mississippi workers, provide workers with higher than average earnings and are more likely than average, below average or worst job quality occupations to provide workers with benefits.

with higher than average earnings and are more likely than average, below average or worst job quality occupations to provide workers with benefits (Table 3.2). As Figure 2.3 shows, Healthcare Practitioners and Technical Occupations added the largest numbers of workers of all broad occupational groups—13,580 jobs—between 2004 and 2014. This broad occupational group includes a diverse group of detailed occupations including Physicians and Surgeons ($152,425), Registered Nurses ($55,000), Licensed Practical and Licensed Vocational Nurses ($35,000), and Health Diagnosing and Treating Practitioner Support Technicians ($28,000; Appendix F, Appendix G).

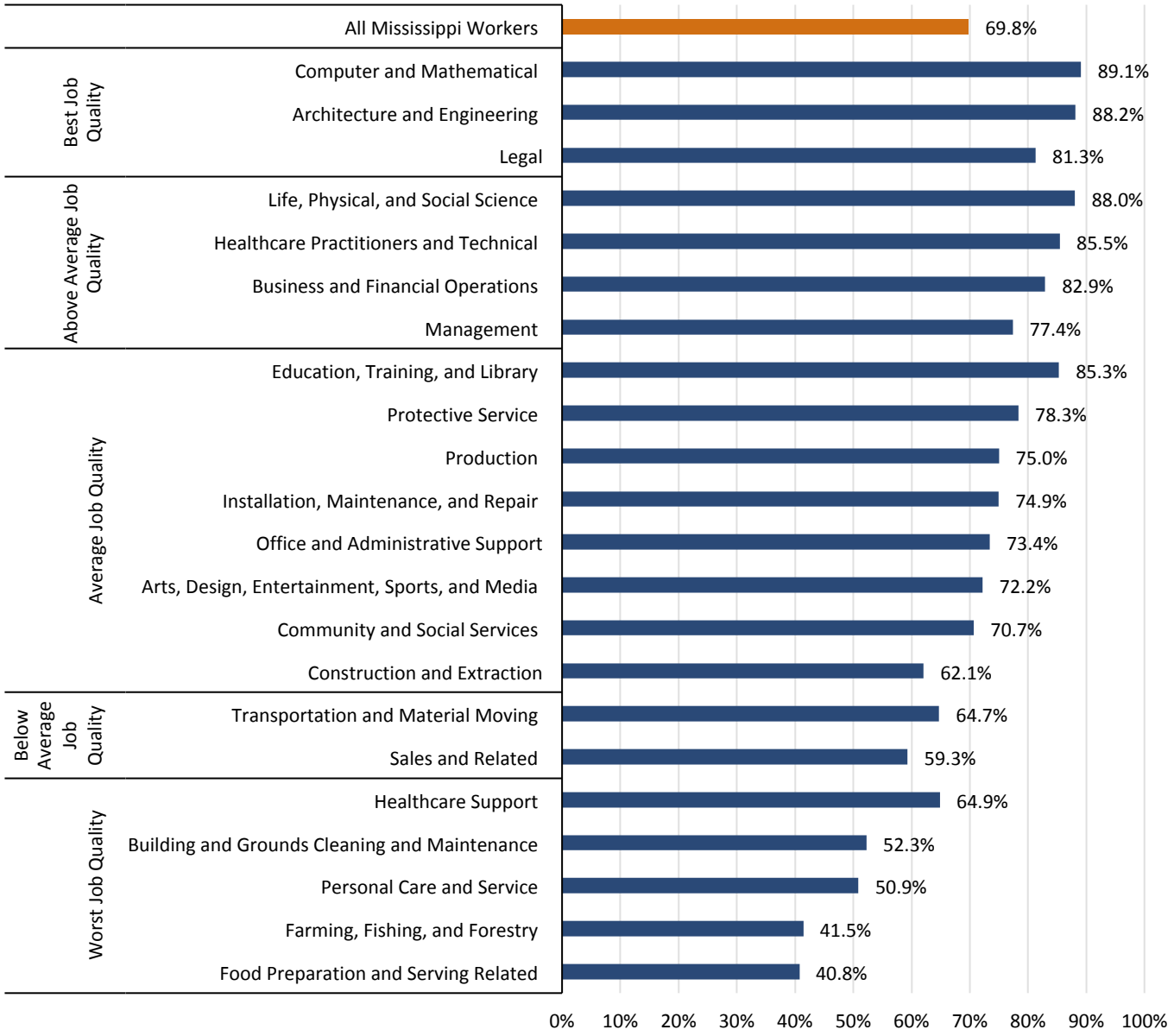
Management Occupations, also above average job quality, added 6,301 jobs between 2004 and 2014. Management is the largest of the above average job quality broad occupational groups and includes the large detailed occupation of Food Service and Lodging Managers ($27,839) which grew by 32.5 percent and Managers not elsewhere classified (including Postmasters; $60,970) which grew by 34.9 percent. Several management occupations lost jobs, however, including General and Operations Managers ($60,970) and Chief executives and legislators/public administration ($86,611).

In addition to earnings, benefits are an important indicator of job quality and can make up a significant portion of total employment compensation. As Figures 4.4 through 4.6 show, those broad occupational groups that provide workers with one of the benefits below also tend to provide them with the others; good jobs tend to be good on multiple indicators.

For those aged 18 to 64 years of age, health insurance is most often tied to employment. Figure 4.4 shows, however, that health insurance is not equally available to all workers. In Computer and Mathematical Occupations, almost 90 percent of workers have employer-provided health insurance coverage. This drops to just over 40 percent of workers in Food Preparation and Serving Related Occupations and in Farming, Fishing, and Forestry Occupations, the broad occupational groups with the lowest rates of health insurance coverage.[14]

**Figure 4.4. Share of Mississippi Workers with Employer-Sponsored Health Insurance by Broad Occupational Group and Job Quality Category, 2014**

[14] Sample sizes are not sufficient to estimate health insurance, retirement benefits, or paid sick days access for detailed occupations.




Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series)
Note: All workers are aged 16 or older. Health insurance is coverage provided by an employer or union of any family member.

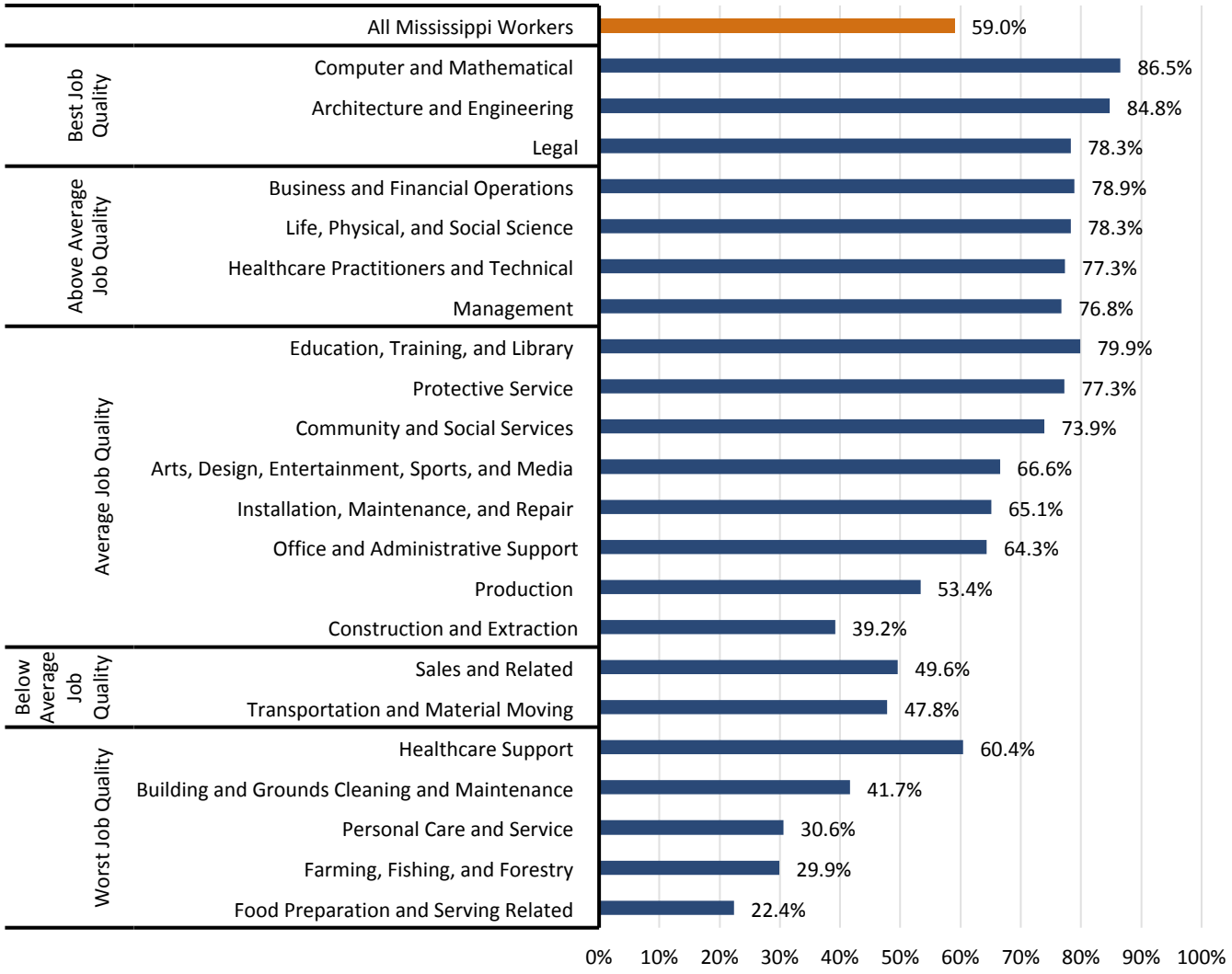
Less common than health insurance coverage is access to paid sick days. On average, 59 percent of Mississippi workers



On average, 59 percent of Mississippi workers have access to paid sick days; however, there is a large range from 86.5 percent of Computer and Mathematical Occupations to just 22.4 percent of Food Preparation and Serving Related Occupations.

have access to paid sick days; however, there is a large range from 86.5 percent of Computer and Mathematical Occupations to just 22.4 percent of Food Preparation and Serving Related Occupations.

**Figure 4.5. Share of Mississippi Workers with Paid Sick Days by Broad Occupational Group and Job Quality Category, 2014.**




Source: IWPR analysis of 2014 Integrated Health Interview Series (Integrated Public Use Microdata Series)
Note: All workers are aged 16 or older.

The least common benefit workers receive is employer-sponsored retirement benefits—only 43.5 percent of all working Mississippians receive

Even in the 'best' job quality occupations fewer than six in ten workers have retirement benefits at work, and between 30 percent and 40 percent of those in the worst job quality occupations do.

retirement benefits from their employer.[15] Figure 4.6 shows that even in the 'best' job quality occupations fewer than six in ten workers have retirement benefits at work, and between 30 percent and 40 percent of those in the worst job quality occupations do. Even this overstates the degree to which workers have retirement security, however.

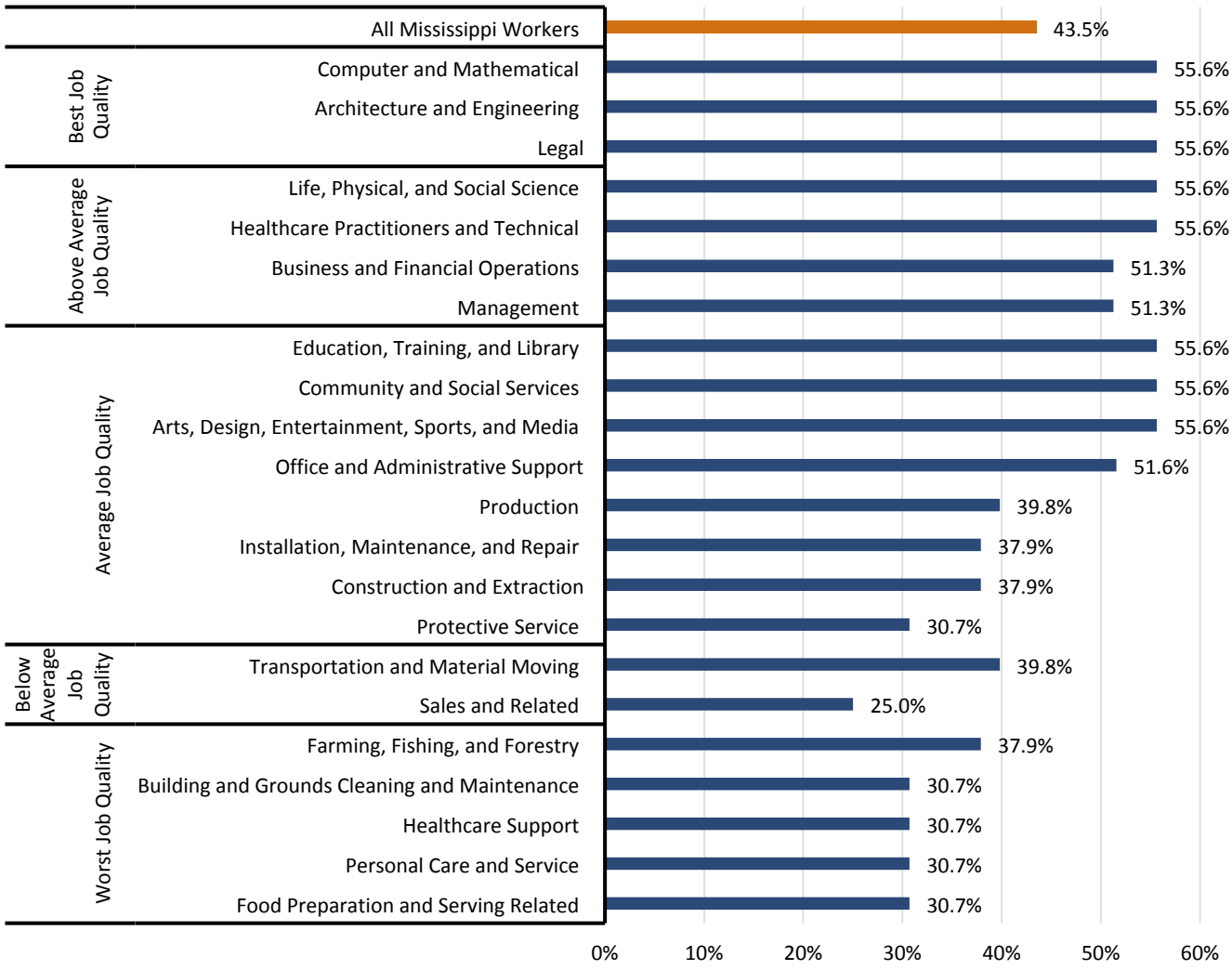
Retirement benefits include both defined benefit pensions (the benefit workers will receive after retirement is defined when the employee joins the plan and benefits are guaranteed, ensuring the worker and his/her family a stable source of income) and defined contribution accounts (employer and employee contribute to the account with the employer often matching, up to a point, the contribution of the employee; benefits are not guaranteed). While defined benefit pensions plans were once common, today only about 20 percent of workers have them as employers increasingly shift to defined contribution plans (Morrissey 2016, Wiatrowski 2012).[16]

Defined contribution plans fail to provide retirement security for most workers who contribute. Contributions to these plans are voluntary and whether workers contribute and how much depends on their earnings—those with lower wages contribute less, those with the lowest wages may not be able to contribute at all. This initial inequality is exacerbated when employers' contributions to their employees' plans match what the employees themselves are able to contribute and through tax incentives that often benefit higher-earning workers (Morrissey 2016, Wiatrowski 2012). One consequence of these weaknesses is greater levels of inequality between workers by job quality, income, race and ethnicity, and gender in defined contribution plans (Morrissey 2016).

**Figure 4.6. Share of Mississippi Workers with Employer-Sponsored Retirement Benefits by Broad Occupational Group and Job Quality Category, 2014**

[15] Retirement benefits are measured as participation in an employer-supported pension. Pensions may be either a 401K or a defined benefit plan.

[16] While our data do not allow us to distinguish between those retirement plans that will provide workers and their families with economic security after they retire and those that will not, it is important to understand the distinction.




Source: IWPR analysis of 2012-2014 Current Population Survey Microdata (Integrated Public Use Microdata Series)

Note: All workers are aged 16 or older. To estimate retirement benefits, they were estimated separately for Sales and Related Occupations and for Office and Administrative Support Occupations. The remaining 20 broad occupational groups were aggregated as follows to create five larger occupational groupings for which retirement benefits were estimated: (1) Management Occupations and Business and Financial Operations Occupations were combined; (2) Computer and Mathematical Occupations, Architecture and Engineering Occupations, Life, Physical and Social Science Occupations, Community and Social Services Occupations, Legal Occupations, Education, Training, and Library Occupations, and Healthcare Practitioners and Technical Occupations were combined; (3) Healthcare Support Occupations, Protective Service Occupations, Food Preparation and Serving Related Occupations, Building and Grounds Cleaning and Maintenance Occupations and Personal Care and Service Occupations were combined; (4) Farming, Fishing, and Forestry Occupations, Construction and Extraction Occupations, and Installation Maintenance and Repair Occupations were combined; and (5) Production Occupations and Transportation and Material Moving Occupations were combined.

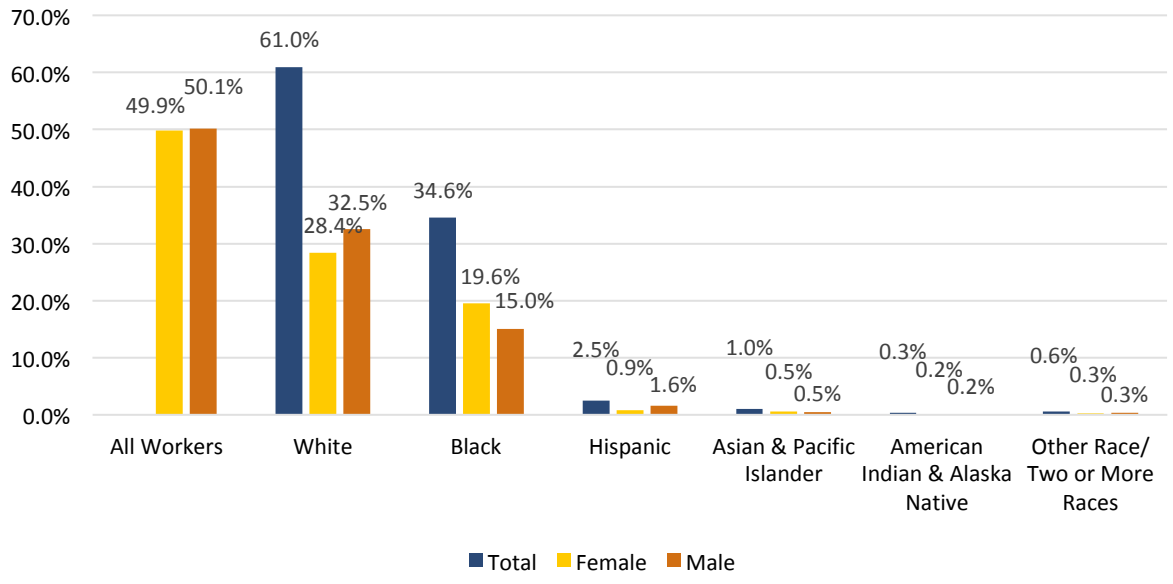
# V. Who Has Above and Below Average Quality Jobs in Mississippi?

## Composition of the Mississippi Workforce

Just over half of all Mississippi women—53.9 percent—are in the workforce compared with 62.3 percent of men. There are, however, differences in the labor force participation rate for women of different racial and ethnic groups: Asian and Pacific Islander women and Black women have the highest labor force participation rates at 59.4 and 59.2 percent respectively, Hispanic women's labor force participation rate is 54.3 percent, and Native American women have a labor force participation rate of 54.2 percent. White women have a labor force participation rate of 51.2 percent and women of other races or two or more races have the lowest labor force participation rate at 50.8 percent (Anderson et al. 2016).

Women make up a slightly smaller share of Mississippi workers than do men (50.1 percent to 49.9 percent, Figure 5.1) and Black and White workers make up the largest shares by far of Mississippi's workforce. White men—the largest race-sex group—make up almost one-in-three (32.5 percent) of Mississippi's workers—and White women are the second largest at 28.4 percent. Black men and women also make up substantial shares of the workforce at 15.0 percent and 19.6 percent respectively. Together, Black and White workers make up more than 95 percent of Mississippi workers; Hispanic workers, the third largest racial/ethnic group in the workforce, are 2.5 percent of all Mississippi workers.[17]

**Figure 5.1. Sex and Race Composition of Mississippi Workers, 2014**




Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. Racial groups are non-Hispanic; Hispanics may be of any race.

## Median Earnings by Sex, Race, and Ethnicity

[17] Other/Two or More Races, American Indian and Alaska Native, and Asian and Pacific Islander workers' shares of the workforce are too small to allow further disaggregation by job quality classification, broad occupational groups, or earnings, and therefore, are not included in all further analyses that include race.

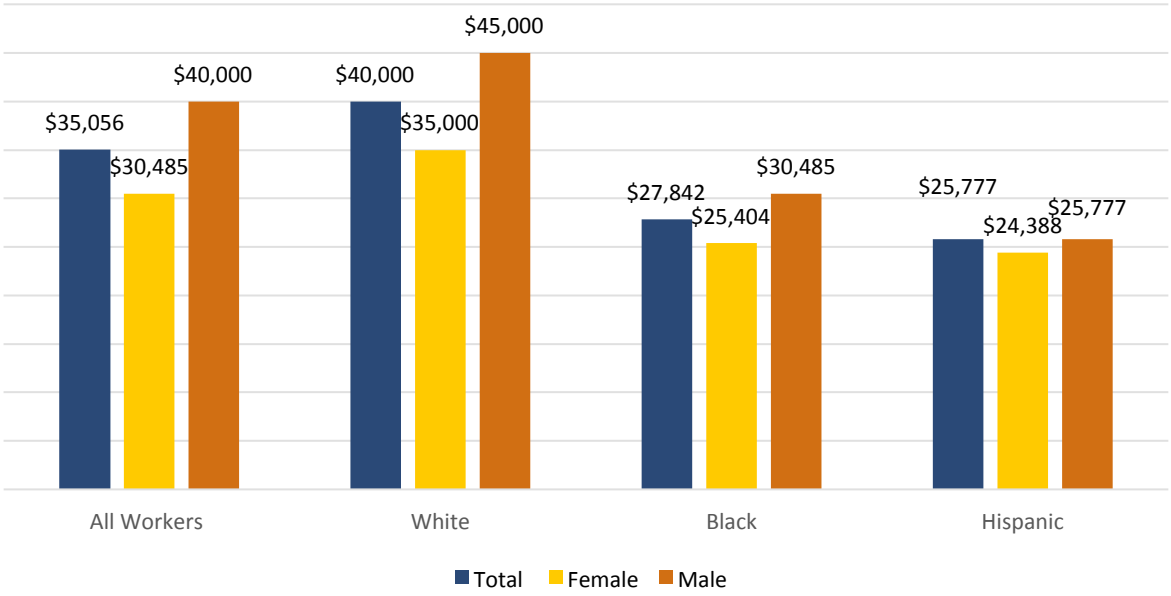
Women in Mississippi working full time, year-round are paid just 76 cents for every dollar that men are paid, producing a gender wage gap of 24 percent (Figure 5.2). This commonly cited metric of gender inequality understates the degree of inequality in the wages of men and women by race and ethnicity. Women are paid less than their same-race male counterparts across all major racial/ethnic groups with the smallest gaps among Black and Hispanic workers due to the low wages of Black and Hispanic men.

Women are paid less than their same-race male counterparts across all major racial/ethnic groups with the smallest gaps among Black and Hispanic workers due to the low wages of Black and Hispanic men.

When compared with White men's wages, however, Black and Hispanic women fare much worse. The wages of all women working full-time, year-round in Mississippi are just 67.7 percent of White men's wages. White women are paid 77.8 percent, Black women are paid 56.5 percent, and Hispanic women just 54.2 percent of White men's wages.

The wages of all women working full-time, year-round in Mississippi are just 67.7 percent of White men's wages.

**Figure 5.2. Median Wages for Mississippi Workers by Race, Ethnicity, and Sex, 2014**.




Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. Workers employed full-time, year-round (35 or more hours per week, 50 or more weeks per year). Racial groups are non-Hispanic; Hispanics may be of any race.

A principal source of the differences in earnings is occupational segregation, the tendency for men and women or workers from different racial/ethnic backgrounds to work in different

occupations (Blau and Kahn 2016, Charles 2011). Below, this report examines the distributions of workers across job quality categories, broad occupational groups, and detailed occupations by sex and, to the extent possible, race/ethnicity.

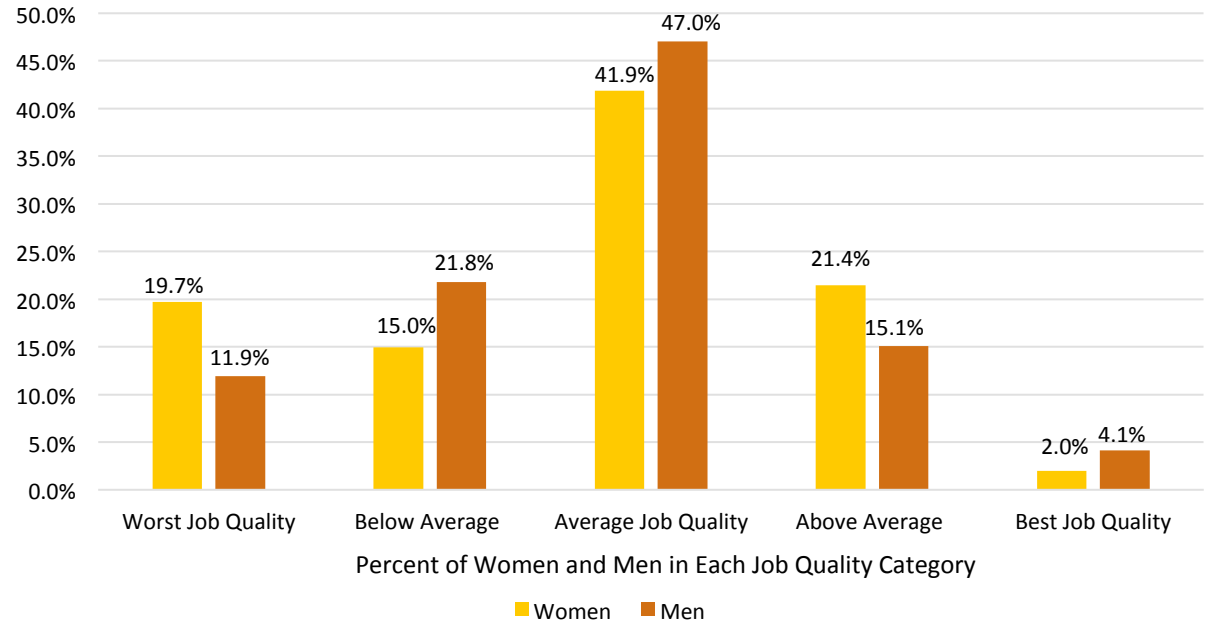
## Distribution of Mississippi Workers by Sex, Race, and Ethnicity across Job Quality Categories

Figure 5.3 shows the share of men and women who work in each of the job quality categories. 'Best' job quality occupations—one of the two job quality categories that pays wages high enough to provide economic security for a full-time, year-round worker with two children—employ only 3.1 percent of all Mississippi workers. While there are relatively few workers in the 'best' quality occupations, men are twice as likely as women to be in these jobs (4.1 percent vs. 2.0 percent).

While there are relatively few workers in the best job quality occupations—just 3.1 percent of all workers—men are twice as likely as women to be in these jobs (4.1 percent vs. 2.0 percent).

In contrast, women are 65 percent more likely than men (19.7 percent compared with 11.9 percent) to work in the worst job quality occupations. Worst job quality occupations have median annual earnings of $20,323, less than half of all workers are covered by employer-provided insurance, just over one-third (34.0 percent) have paid sick days at work, and just over one in five (21.4 percent) have retirement benefits at work (see Table 3.2 above).

**Figure 5.3. Distribution of Mississippi Workers across Job Quality Categories by Sex, 2014**




Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older.

The largest share of all Mississippi workers—44.5 percent—are employed in occupations in the average job quality category (see Figure 4.1). Men are more likely than women to be in these jobs, 47.0 percent of all men compared with 41.9 percent of women.[18] Men are also more likely than women to work in below average job quality occupations—21.8 percent of men compared with 15.0 percent of women—while women are more likely than men to work in above average job quality occupations—21.4 percent versus 15.1 percent.

Table 5.1 shows the distribution of working women and of working men across the five job quality categories along with their median earnings in that job quality category. Comparing their earnings, women are paid less than men in all five job quality categories. The gender wage gap is largest in the 'best' and above average job quality occupations. While women are more likely to work in the above average job quality category, their median wages in these occupations is $19,632 less than men's wages in the same job quality category.

**Table 5.1. Distribution of Mississippi Workers across Job Quality Categories by Sex and Median Earnings, 2014**

[18]A Chi Squared analysis confirms statistically significant differences between men's and women's distributions across broad occupational groups.

| | Women | | Men | |
|---|---|---|---|---|
| | Percent of All Women Employed in the Job Quality Category | Median Wages | Percent of All Men Employed in the Job Quality Category | Median Wages |
| **Best Job Quality** | 2.0% | $49,492 | 4.1% | $69,000 |
| **Above Average Job Quality** | 21.4% | $45,368 | 15.1% | $65,000 |
| **Average Job Quality** | 41.9% | $30,000 | 47.0% | $37,000 |
| **Below Average Job Quality** | 15.0% | $25,000 | 21.8% | $36,088 |
| **Worst Job Quality** | 19.7% | $18,700 | 11.9% | $22,684 |

Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. Wages are in 2014 dollars.

The wage gap in the worst job quality occupations, the other job quality category more likely to employ women than men, is $3,984. This is the smallest wage gap of all job quality categories. The median wage, even if only the median for men is considered ($22,684), is too low to provide economic security for a family with children (see Table 3.3). Despite this, almost one in five employed women (19.7 percent) work in these occupations for a median annual wage of $18,700.

Not all women are equally likely to work in the worst job quality occupations or in the above average job quality occupations. Women of color are particularly likely to work in low-paying occupations with few benefits. Table 5.2 shows the distributions of men and women across job quality categories by race and Hispanic ethnicity. Women in each of the major racial and ethnic groups in Table 5.2 are more likely to work in worst job quality occupations than their same-race/same-ethnicity male counterparts. Black and Hispanic women however, are the most likely of all race-sex groups to work in the worst job quality occupations. Black women are 1.8 times more likely than White women (26.0 percent compared with 14.7 percent) and Hispanic women are twice as likely as White women to work in worst job quality occupations (29.9 percent compared with 14.7 percent). At the same time, Black and Hispanic women are less likely the White women, or White men, to work in above average job quality occupations.

Black women are 1.8 times more likely than White women (26 percent compared with 14.7 percent) and Hispanic women are twice as likely as White women to work in worst job quality occupations (29.9 percent compared with 14.7 percent).

**Table 5.2. Distribution of Mississippi Workers by Sex and Race/Ethnicity across Job Quality Categories, 2014**

| | | Worst Job Quality | Below Average | Average Job Quality | Above Average | Best Job Quality |
|---|---|---|---|---|---|---|
| **Men** | White | 8.6% | 20.9% | 46.6% | 18.6% | 5.3% |
| | Black | 17.9% | 24.4% | 48.2% | 7.7% | 1.7% |
| | Hispanic | 18.6% | 19.0% | 52.5% | 7.8% | 2.0% |
| **Women** | White | 14.7% | 13.7% | 43.4% | 25.8% | 2.3% |
| | Black | 26.0% | 16.4% | 40.5% | 15.6% | 1.4% |
| | Hispanic | 29.9% | 16.8% | 38.7% | 12.5% | 2.1% |

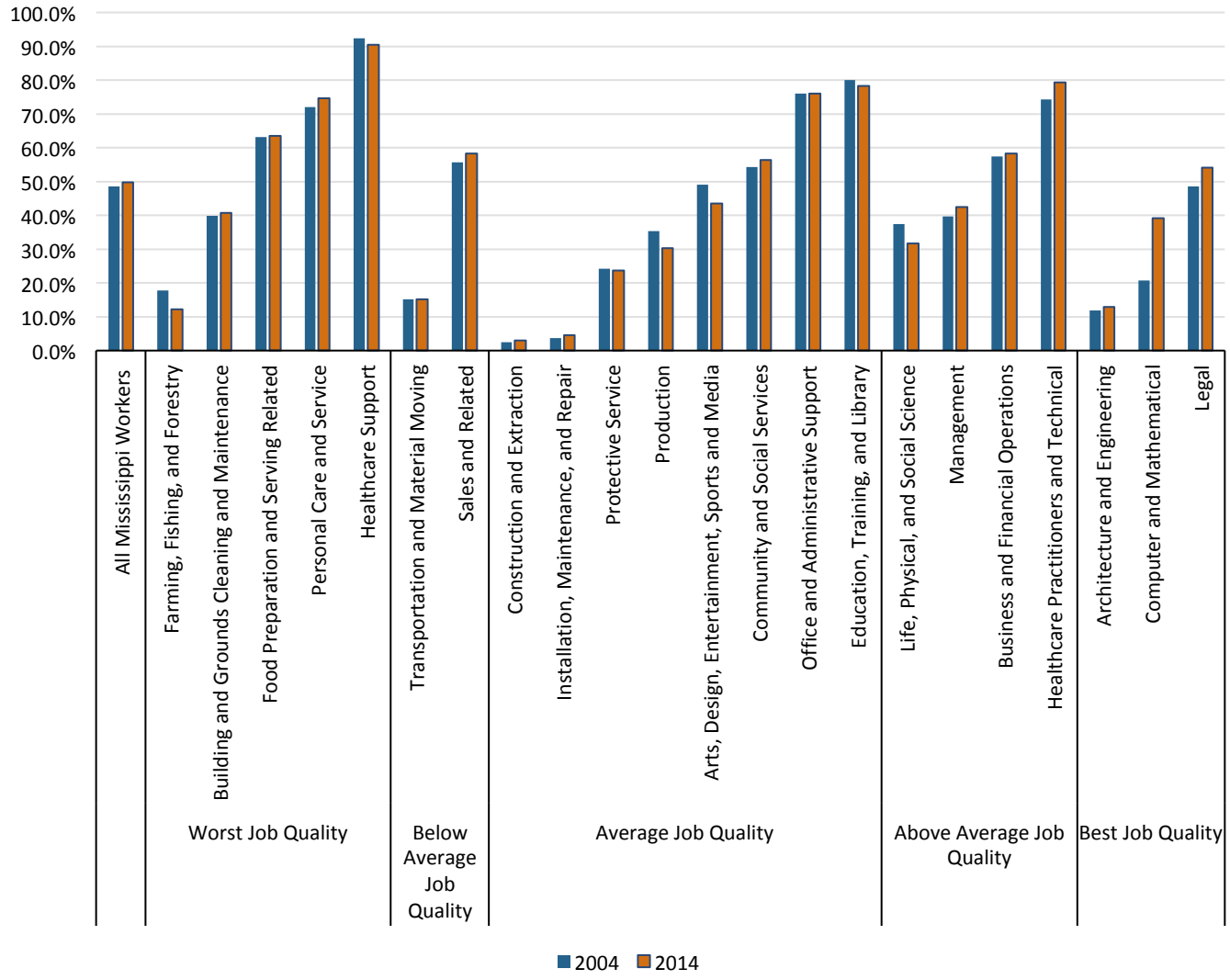
Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. Racial groups are non-Hispanic; Hispanics may be of any race.

## Sex Composition of Jobs by Broad Occupational Groups and by Detailed Occupations

Figure 5.4 shows women's share of all workers in each of the 22 broad occupational groups that make up the five job quality categories in both 2004 and 2014. Two things stand out in this figure: (1) women and men are clearly segregated into different types of work and (2) the broad occupational groups with the highest concentrations of women workers are made up of jobs that mirror work women have historically done in the home without pay.

Within each job quality category women clearly dominate some broad occupational groups and have little presence in others. Women are 90.4 percent of workers in Healthcare Support Occupations, 79.3 percent of workers in Healthcare Practitioners and Technical Occupations, 78.3 percent of workers in Education, Training and Library Occupations, 76.1 percent of workers in Office and Administrative Support Occupations, and 74.7 percent of workers in Personal Care and Service Occupations. Food Preparation and Serving Occupations is less female-dominated at 63.4 percent women. In contrast, women make up just 2.9 percent of workers in Construction and Extraction Occupations, 4.6 percent of workers in Installation, Maintenance, and Repair Occupations, 12.9 percent of workers in Architecture and Engineering, and 23.7 percent of Protective Service Occupations. Life, Physical, and Social Science Occupations and Production Occupations are less male-dominated at 68.3 percent and 69.7 percent men. Only nine of the 22 broad occupational groups are relatively mixed gender, having 40 to 60 percent women.

**Figure 5.4. Mississippi Women's Share of Workers across Broad Occupational Groups by Job Quality Category, 2004 and 2014**




Source: IWPR analysis of 2002-2004 and 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older.

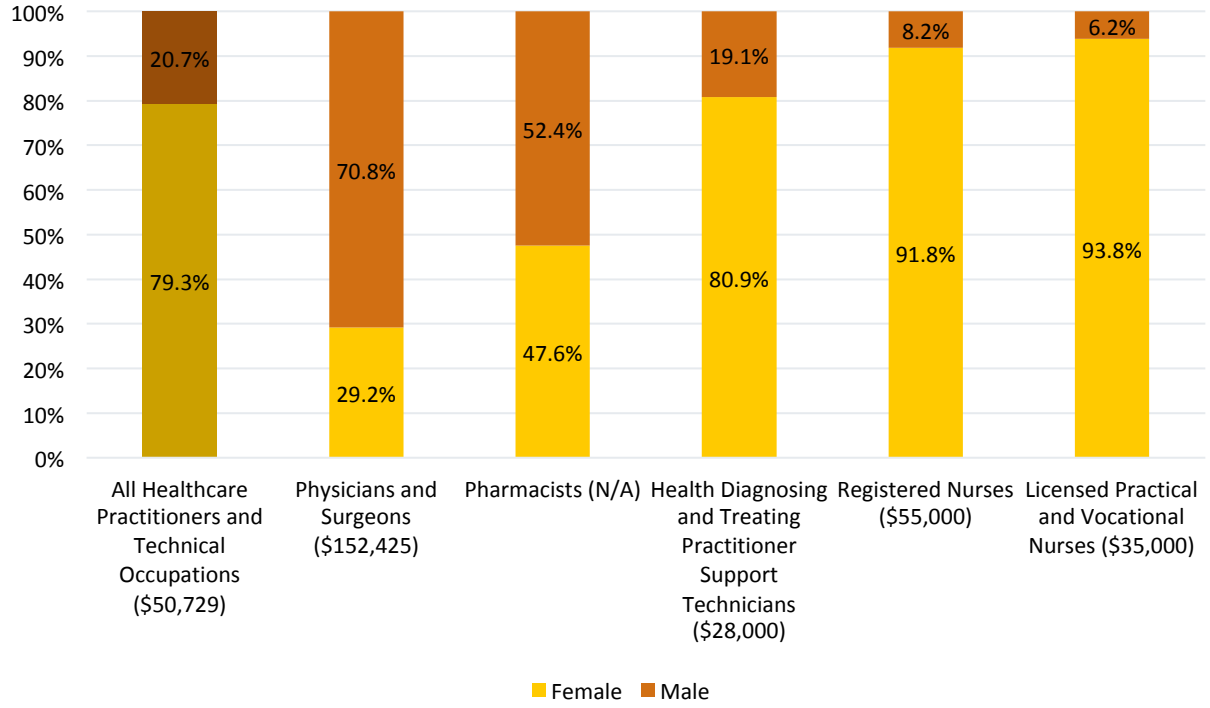
Despite women's greater representation in the above average job quality category, they tend to be concentrated into lower-paying detailed occupations

While some of the broad occupational groups that are female-dominated, such as Healthcare Practitioners and Technical Occupations, include many detailed occupations with relatively high earnings and benefits, there are other detailed occupations that do not have good pay. And despite women's greater representation in the above average job quality category, they tend to be concentrated into lower-paying detailed occupations as Figure 5.5 illustrates.

Figure 5.5 shows women's share of workers in the detailed occupations that make up Healthcare Practitioners and Technical Occupations, a broad occupational group in which 79.3 percent of

workers are women.[19] When considering the detailed occupations that make up this broad occupational group, women make up more than 90 percent of Registered Nurses (median earnings $55,000) and Licensed Practical and Vocational Nurses ($35,000) and more than 80 percent of Health Diagnosing and Treating Practitioner Support Technicians ($28,000).[20] Women's make up less than 30 percent of physicians and surgeons (median earnings $152,425) however.

**FIGURE 5.5. Women's and Men's Share of all Workers in Detailed Healthcare Practitioners and Technical Occupations in Mississippi, 2014**



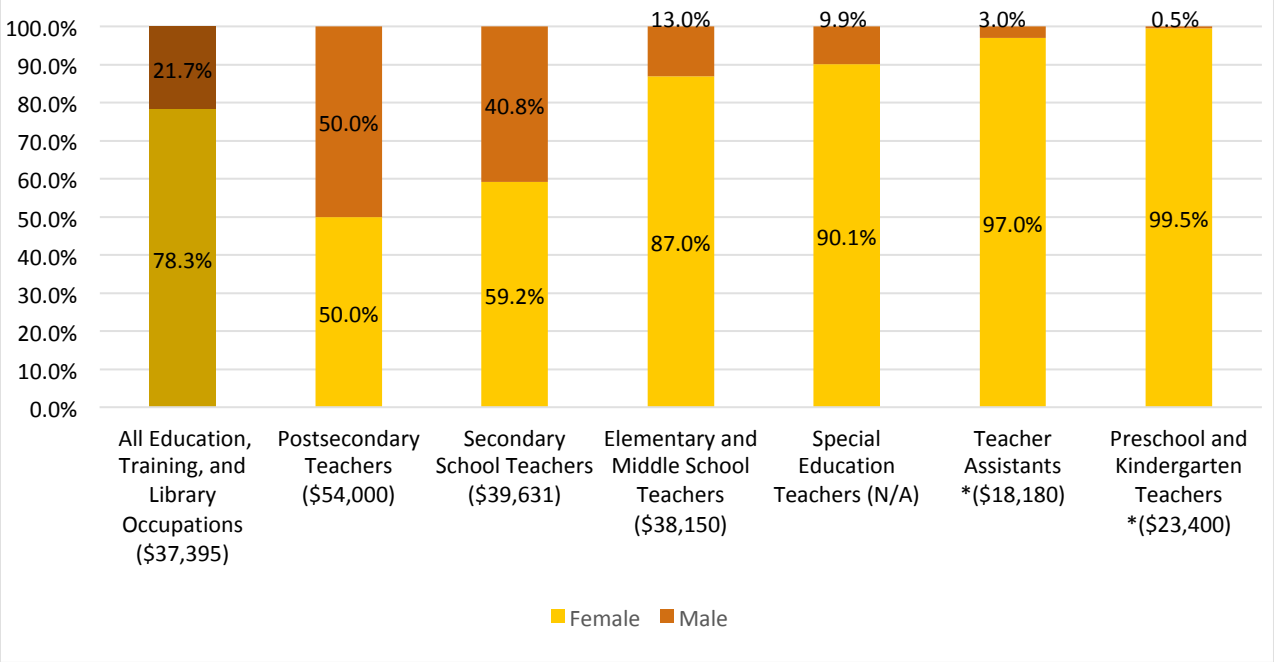

Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. N/A indicates value are not available.

Education, Training, and Library Occupations follow the same pattern (Figure 5.6) with lower wages in those detailed occupations with more women workers. Women are 78.3 percent of all Education, Training, and Library Occupations workers but just 50 percent of postsecondary teachers (median earnings of $54,000) and 59.2 percent of secondary teachers ($39,631).

[19] Large detailed occupations shown are those occupations with enough sample observations to estimate the total number of workers and the total number of women workers. More information about these occupations can be found in Appendix F. To see a list of all detailed occupations within each broad occupational group, see Appendix G).
[20] Occupations in which women (or men) are 75 percent or more of all workers are said to be female-dominated occupations (or male-dominated occupations).

Women are 97 percent of Teacher Assistants and 99.5 percent of Preschool and Kindergarten Teachers, however, both detailed occupations with very low median earnings.[21]

**FIGURE 5.6. Women's and Men's Share of all Workers Detailed Education, Training, and Library Occupations in Mississippi, 2014**




Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. N/A indicates values are not available.
* IWPR was unable to calculate median earnings for these detailed occupations but the Bureau of Labor Statistics reports the 2014 median earnings for preschool teachers in Mississippi as $23,400 and for Mississippi Teacher Assistants as $18,180 (https://www.bls.gov/oes/tables.htm).

It is the segregation of men and women (and White workers and workers of color) by job quality category, broad occupational group, and detailed occupation that produces the wage gaps shown above in Figure 5.2 for the state of Mississippi as well as nationally. Occupational segregation does not, however, fully explain the gender wage gap because even when women work in the same detailed occupations as men, women still earn less than their male counterparts.

Figure 5.7 below shows the median wages for all workers and for women workers in large detailed

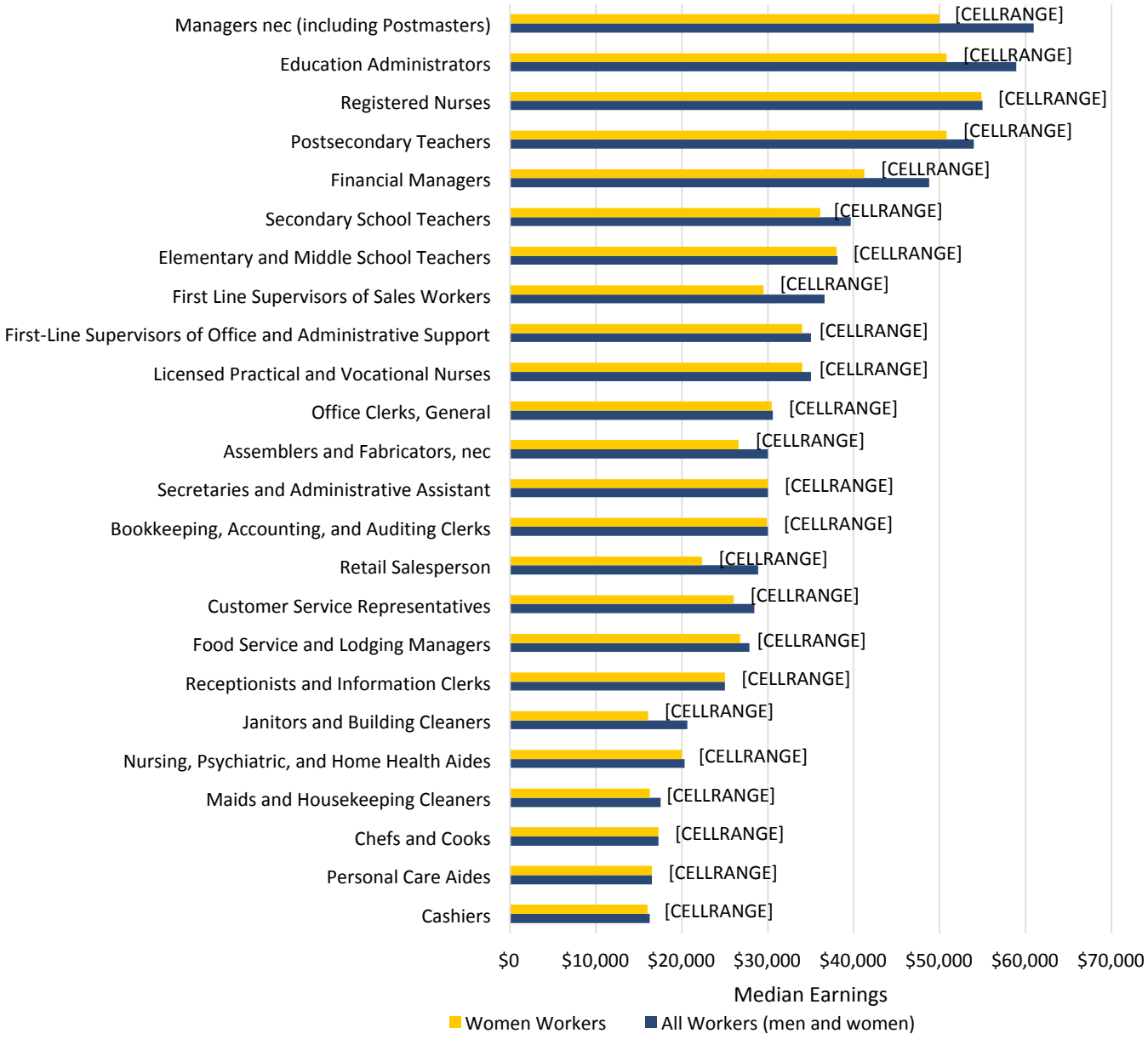
Occupational segregation does not fully explain the gender wage gap because even when women work in the same detailed occupations as men, women still earn less than their male counterparts.

[21]IWPR was unable to calculate median earnings for these detai cs reports the 2014 median annual earnings for preschool teachers Teacher Assistants as $18,180 (https://www.bls.gov/oes/tables.

occupations in Mississippi.[22] Because of the high degree of occupational segregation, many detailed occupations did not contain enough men and enough women to calculate earnings separately for each sex. To illustrate women's lower earnings compared relative to their male counterparts in the same detailed occupation, women's median earnings are compared with the median earnings of all workers (men and women together). Figure 5.7 also shows the dollar amount of the difference in earnings by large detailed occupation: women Managers not elsewhere classified (n.e.c.) in Mississippi earn $10,970 less than all Managers n.e.c., women Education Administrators earn $8,129 less, and women Financial Managers earn $7,533 less than all workers in their respective detailed occupations.

**Figure 5.7. Median Wages for Women Workers Only, for All Workers (women and men), and Median Annual Earnings Losses for Women in Large Detailed Occupations in Mississippi, 2014**

[22] Women are compared with all workers instead of male workers because there were too few detailed occupations containing enough observations to calculate earnings separately for men and women. Because the earnings for all workers include women workers, Figure 5.7 understates the gender-earnings gap.




Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. Wages are in 2014 dollars for full-time, full-year workers. Includes large detailed occupations with enough observations to calculate earnings for all workers and for women workers. Does not include all detailed occupations included in figures 5.5 and 5.6 due to some detailed occupations having too few workers to calculate earnings or too few women workers to calculate earnings separately for women. Women are compared with all workers instead of male workers because too few detailed occupations contained enough observations for both men and women to calculate earnings separately for men and women. Because the earnings for all workers include women workers, Figure 5.7 understates women's earnings losses.

The discussion above shows that despite more than one-half (53.9 percent) of all women in Mississippi being active in the labor force—with rates reaching

In addition to segregation by occupation, wage gaps reflect the devaluation of work that has historically been, and continues to be, done primarily by women, the concentration of women into low-wage occupations, the demands of women's caregiving responsibilities, and discrimination.

almost 60 percent for Black and Asian American women (Anderson et al. 2016)—women earn almost $10,000 less than men (Figure 5.2). Women of color—Black and Hispanic women—earn just 56.5 percent and 54.2 percent of White men's earnings (Figure 5.2). These inequalities stem, at least in part, from occupational segregation with women generally, and women of color in particular, disproportionately working in low wage occupations. This section has also shown, however, that even when women and men work in the same detailed occupations, women earn significantly less than their male counterparts.

In addition to segregation by occupation, wage gaps reflect the devaluation of work that has historically been, and continues to be, done primarily by women, the concentration of women into low-wage occupations, the demands of women's caregiving responsibilities, and discrimination.

# VI. Educational Attainment and Job Quality

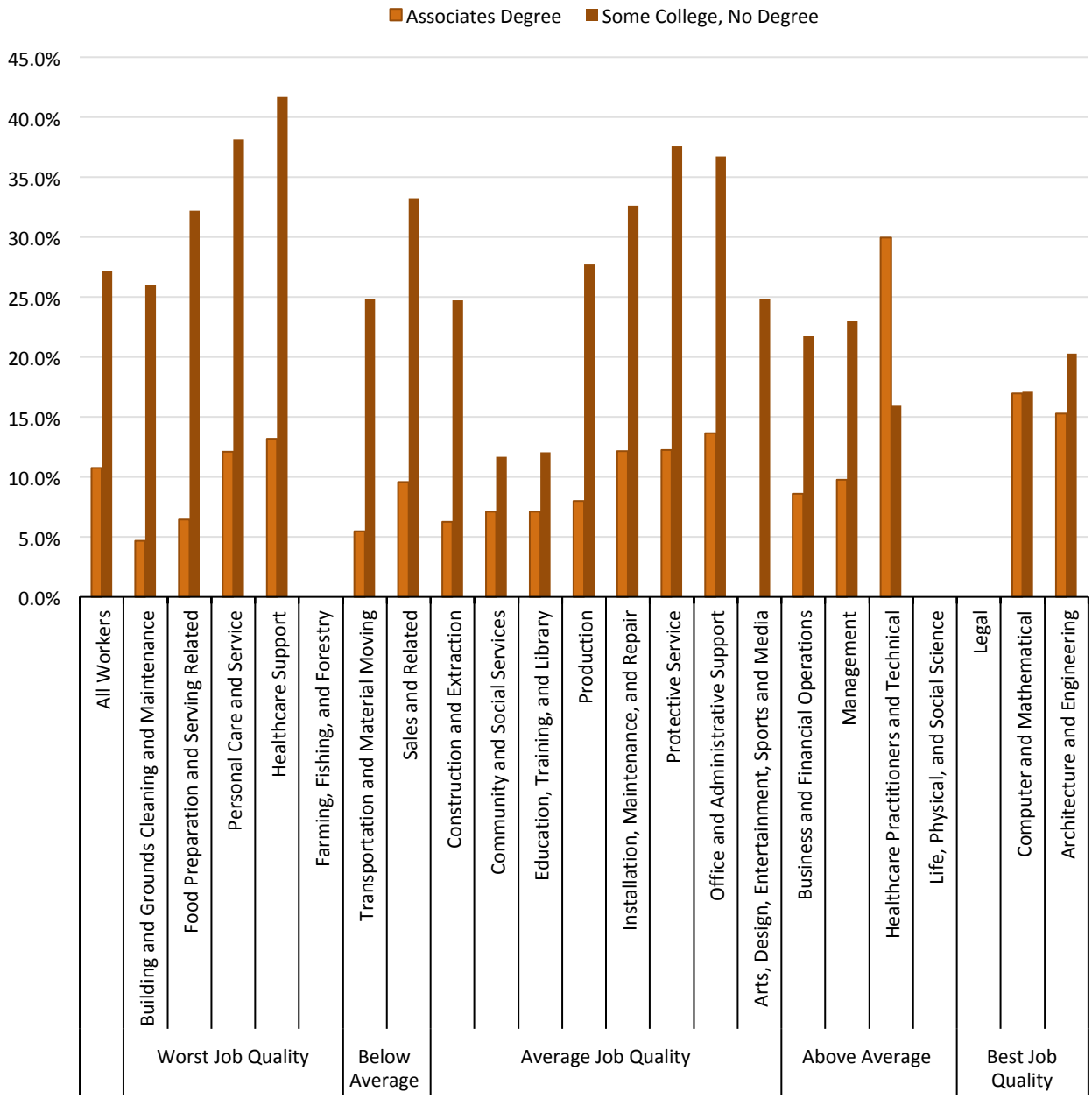
Access to better quality jobs, those with higher pay and benefits, increasingly requires education and training beyond high school (Carnevale, Jayasundera, and Gulish 2015, Carnevale and Rose 2015). This does not necessarily mean a four-year degree, however, as employers, workforce

developers, and policymakers increasingly focus on middle-skill jobs that require education beyond high school but do not require a bachelor's degree (Accenture et al. 2014, Hegewisch et al. 2016), pointing to an increasingly important role for community colleges.

Mississippi has 15 community and junior colleges across the state (Mississippi Community College Board 2016), which together awarded more than 16 thousand (16,170) degrees in the 2013-2014 school year alone. Of these graduates, 46 percent were awarded an Associate of Arts degree, 30 percent were awarded an Associate of Applied Science Degree, and 23 percent received a Career Technical Certificate (Mississippi State University 2016a).

Figure 6.1 shows the share of Mississippi workers across broad occupational groups with an associate's degree and the share with some college but no degree. Figure 6.2 shows the educational attainment of all Mississippi workers in each broad occupational group. Across most broad occupational groups, only small shares of workers have an associate's degree (about 10 percent) but among Healthcare Practitioners and Technical Occupations—jobs rated as above average quality—30 percent of workers have an associate's degree and almost half (46 percent) are middle-skill workers who have either some college or an associate's degree (Figures 6.1 and 6.2). Thirty-six (35.6) percent of workers in Architecture and Engineering Occupations and 34.1 percent of workers in Computer and Mathematical Occupations—both small broad occupational groups—have middle-skilled jobs and are among the 'best' quality occupations.

**Figure 6.1. Share of Mississippi Workers with an Associate's Degrees and Share with Some College but no Degree by Job Quality Category, 2014**



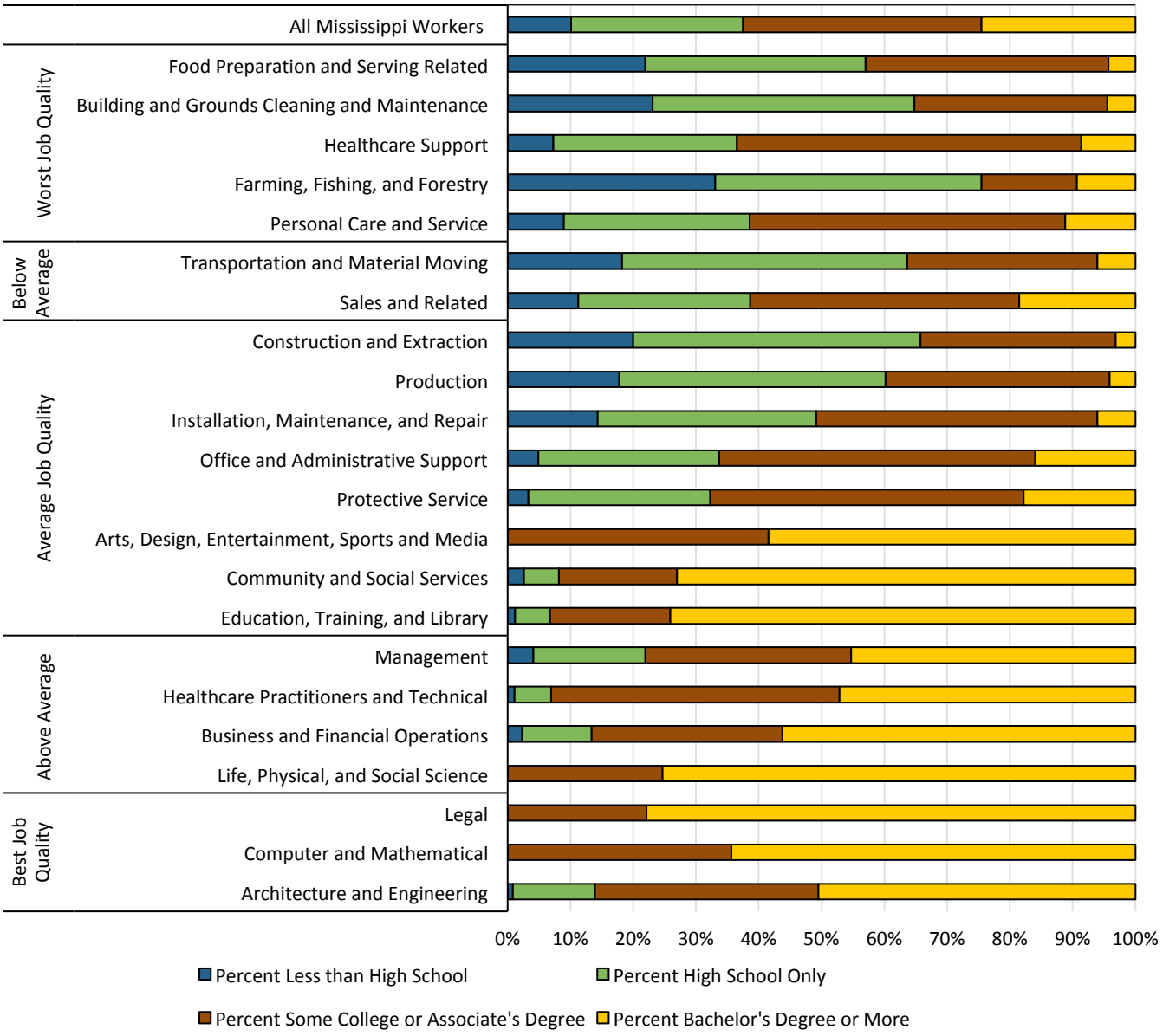

Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Farming, Fishing, and Forestry Occupations; Arts, Design, Entertainment, Sports and Media Occupations; Life, Physical, and Social Science Occupations; and Legal Occupations have too few observations for 'some college' and/or for 'Associate's Degree' to report data for these educational groups separately.

Appendix F shows that some detailed occupations within these broad occupational groups employ substantial numbers of middle-skilled workers. Among Computer and Mathematical

Occupations, one-third of Computer Scientists and Systems Analysts have some college or an associate's degree as their highest educational achievement and their median annual earnings in Mississippi are $60,000. Sales Representatives, Wholesale and Manufacturing workers in the Sales and Related Broad Occupational group have median annual earnings of $50,808 and just over one-third of workers—36.0 percent—have some college or an associate's degree. Among Construction and Extraction Occupations, the detailed occupation Electricians has median earnings of $45,368 and more than half—58.6 percent—have some college or an associate's degree. In Production Occupations, Welding, Soldering, and Brazing Workers have median earnings of $39,631 and just over 40 percent of workers have some college or an Associate's degree.

Across most broad occupational groups only small shares of workers have an associate's degree but among Healthcare Practitioners and Technical Occupations—jobs rated as above average quality—30 percent of workers have this level of education. Among Computer and Mathematical Occupations, one-third of Computer Scientists and Systems Analysts have some college or an associate's degree and their median earnings are $60,000.

**Figure 6.2. Educational Attainment across Broad Occupational Groups and Job Quality Categories for Mississippi Workers, 2014.**




Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. Arts, Design, Entertainment, Sports, and Media Occupations, Life, Physical, and Social Science Occupations, and Legal Occupations have too few sample observations to estimate both 'Percent Less Than High School' and 'Percent High School Only. While Farming, Fishing, and Forestry Occupations; Life, Physical, and Social Science Occupations; and Legal Occupations have too few observations separately to report values for 'some college, no degree' and 'associate's degree' in Figure 6.1, when the two educational categories are combined, as in Figure 6.2, they have adequate observations to allow reporting their values.

## Women's Access to Education and Job Training

Ensuring women's access to the education and job training required to obtain and succeed in the full range of job opportunities available in Mississippi is critical and will require that the barriers to girls and women's graduation from high school and their full participation in higher education, apprenticeships, and other means of job preparation be addressed. This means educating girls and young women early about both traditional and nontraditional occupations including job training requirements, occupational responsibilities, and earnings.

Efforts to raise women's earnings and close the gender wage gap will require that more women, especially women of color, move into better-paying nontraditional occupations.

The most recent data on the college majors of women and men in two-year colleges across the Southeast show continuing segregation with women overrepresented in traditionally female fields such as healthcare (40.6 percent of women but 19.9 percent of men) and Education (7.7 percent and 1.9 percent). Men are more likely than women to major in Computer and Information Sciences (10.2 percent and 2.1 percent).[23] Efforts to raise women's earnings and close the gender wage gap will require that more women, especially women of color, move into better-paying occupations that are nontraditional for their sex.

A survey of students from 13 of Mississippi's community colleges indicates that increasing access to higher education and job training for women in Mississippi will also require that women have access to adequate financial aid, affordable childcare, transportation assistance, and health insurance coverage (Hess, Krohn, Reichlin, Roman, and Gault 2014). For example, 31 percent of respondents reported having at least one child under age 18. Respondents also reported family members as the most common source of childcare—65 percent reported grandparents or other relatives—followed by neighbors and friends (21 percent). Only 2.1 percent reported having on-campus childcare (Hess et al., 2014).

Health insurance coverage was also crucial, not just to address physical illness or disability, but also to ensure access to contraception and mental health care. These examples illustrate the interconnected nature of the barriers women face in their efforts to become self-sufficient and provide for their families.

## VII. Changes in Additional Aspects of Job Quality Between 2004 and 2014

[23] Data from the National Postsecondary Student Aid Study, computed using NCES Powerstats Version 1.0. Sample sizes were too small for either men or women for most fields of study. States included in the Southeast include Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia and West Virginia.

Several changes in the characteristics of broad occupational groups are not easily captured by the job quality index but reflect additional aspects of job quality such as earnings growth or decline, change in access to full-time, year-round jobs, and changes in the concentration of poor workers in an occupation.

Between 2004 and 2014, median inflation-adjusted earnings fell in two-thirds (68 percent) of broad occupational groups. Personal Care and Service Occupations and Building and Grounds Cleaning and Maintenance Occupations, both with below average job quality, had some of the largest wage declines, with respective wages dropping by almost $7,000 and more than $3,000 annually.

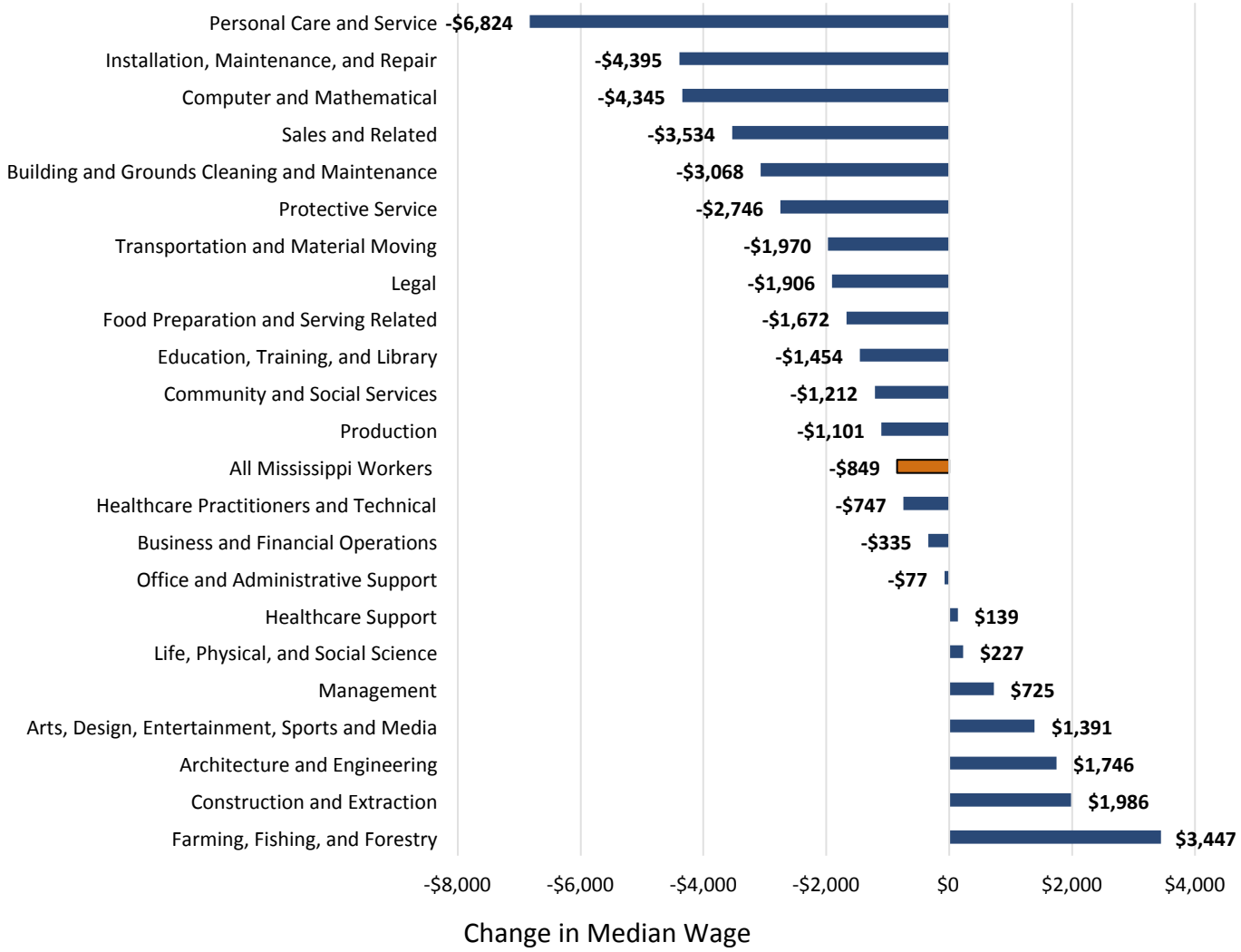
Figure 7.1 shows that between 2004 and 2014, median inflation-adjusted earnings fell in two-thirds (68 percent) of broad occupational groups. Personal Care and Service Occupations and Building and Grounds Cleaning and Maintenance Occupations, both worst job quality occupations, had some of the largest wage declines, with wages dropping by just under $7,000 and just over $3,000, respectively. Wage declines are not limited to broad occupational groups with average, below average, or the worst job quality. Computer and Mathematical Occupations, one of the 'best' quality broad occupational groups, experienced a decline of $4,345 in median earnings annually.

Construction and Extraction Occupations—jobs of average job quality—showed general earnings increases. While the broad occupational group does not fare very well across all job quality indicators, this group of occupations includes the detailed occupations Electricians (median earnings $45,368) and Bus and Truck Mechanics and Diesel Engine Specialists, both of which are growth occupations with above average earnings.[24]

While more than one-half (58.6 percent) of Electricians in Mississippi have some college or an associate's degree, the typical entry-level education and training is a high school degree and an apprenticeship. Similarly with Bus and Truck Mechanics who are not required to have training beyond high school but might benefit from additional training (Bureau of Labor Statistics 2015b). Almost 40 percent (38.9 percent) of current Bus and Truck Mechanics have some college training or an associate's degree (Appendix F).

**Figure 7.1. Change in Median Wages for Full-Time, Full-Year Workers in Mississippi by Broad Occupational Group, 2004 to 2014**.

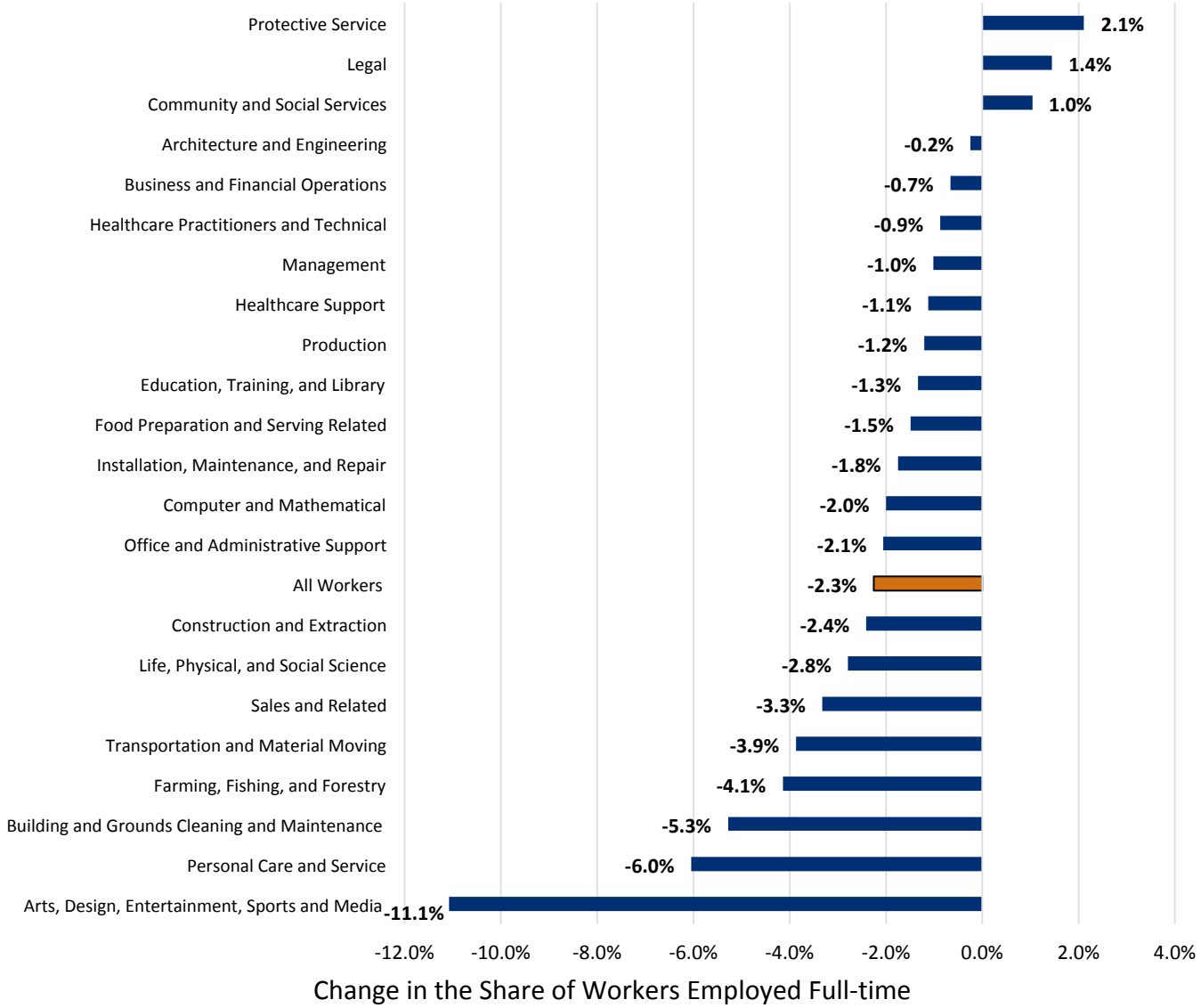
[24] IWPR was unable to calculate median earnings due to small sample sizes but the Bureau of Labor Statistics report the 2014 median earnings in Mississippi for Bus and Truck Mechanics and Diesel Engine Specialists as $33,660 (Bureau of Labor Statistics 2016a).




Source: IWPR analysis of 2002-2004 and 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series, version 6.0).
Note: For workers age 16 and older. Earnings are in 2014 dollars. Full-time, year-round is defined as 35 or more hours per week and 50 or more weeks per year.

A key determinant of annual earnings is whether full-time employment is available or not. Figure 7.2 shows that between 2004 and 2014 only three broad occupational groups increased the share of workers employed full-time, although most changes are small. The largest changes, which are declines in the shares of workers with full-time employment, are for the average job quality group Arts, Design, Entertainment, Sports and Media Occupations—a drop of 11.1 percentage points—and for three of the four worst-quality occupational groups, Personal Care and Service Occupations (a six percentage point decline), Building and Grounds Cleaning and Maintenance (5.3 percentage points) and Farming Fishing and Forestry (4.1 percentage points).

**Figure 7.2. Percentage Point Change in the Share of Mississippi Workers Who Work Full-Time by Broad Occupational Group, 2004 to 2014**.




Source: IWPR analysis of 2002-2004 and 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series, version 6.0).
Note: For workers age 16 and older, full-time is 35 hours per week, includes all full-time workers, including those who work less than 50 weeks per year (part-year).

Good quality jobs should not leave workers and their families in poverty, especially full-time, year-round workers. Figure 7.3 shows the share of full-time, full-year workers in each broad occupational group



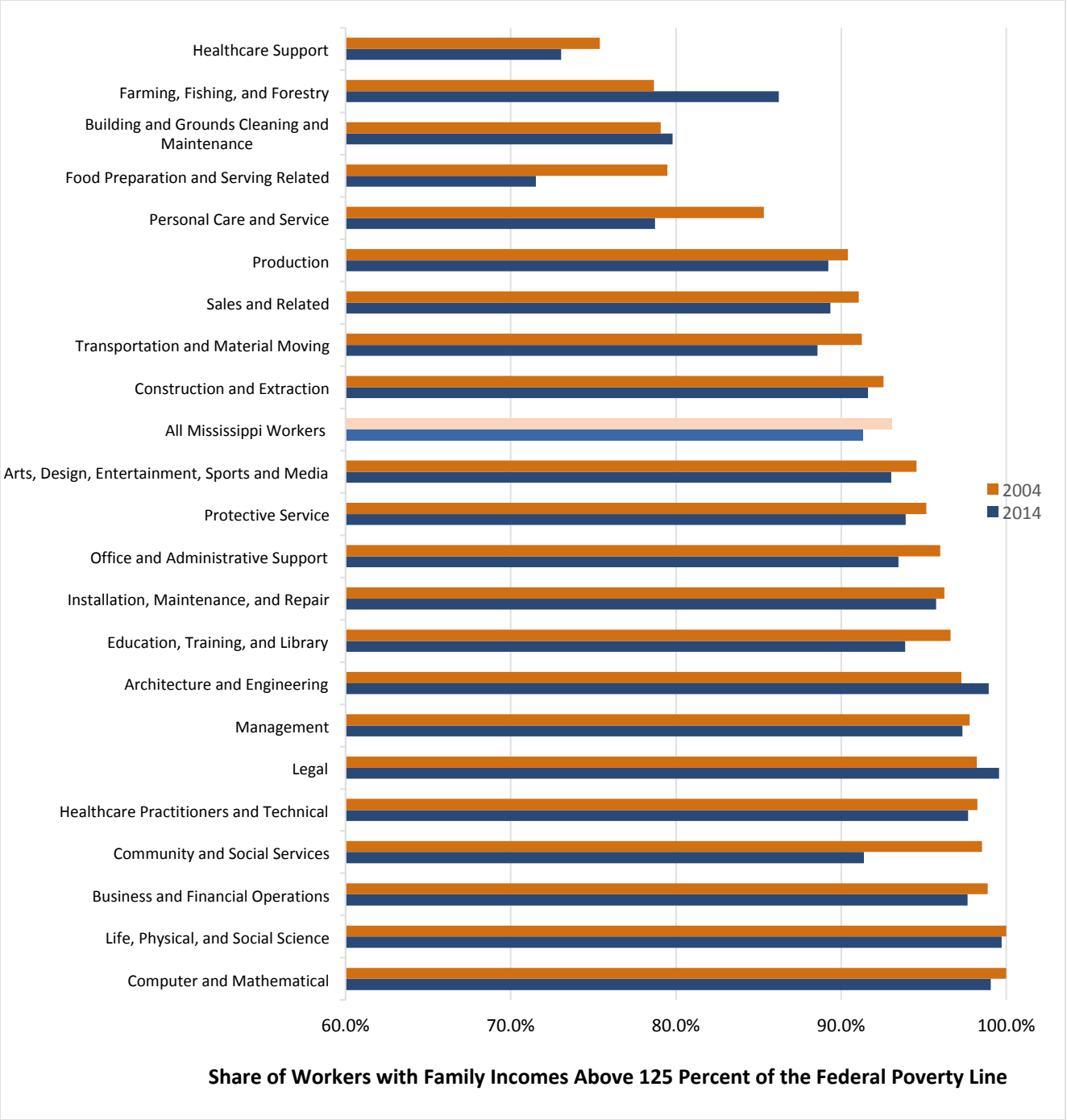
Good quality jobs should not leave workers and their families in poverty… In 2014, ten percent or more of all full-time, year-round workers were below 125 percent of the poverty level in eight of the 22 broad occupational groups.

whose family income is above 125 percent of the poverty line in either 2004 or 2014.[25, 26] In 2004 only Computer and Mathematical Occupations and Life, Physical and Social Science Occupations had no workers with family incomes below 125 percent of the poverty level—all other broad occupational groups had some percentage of workers below this threshold. By 2014, there were no broad occupational groups without at least some workers with family incomes below 125 percent of the poverty line. In 2014, ten percent or more of all workers had family incomes below 125 percent of the poverty level in eight of the 22 broad occupational groups. Because the analysis is focused on those working full-time, year-round, it does not reveal the larger share of part-time and part-year workers whose family incomes are likely below 125 percent of the poverty level. In fact, the 2004 to 2014 changes in all additional job quality variables show the quality of jobs clearly fell on these indicators.

**Figure 7.3. Share of Full-Time, Full-Year Mississippi Workers with Family Incomes above 125 Percent of the Poverty Line by Broad Occupational Group, 2004 and 2014**

[25] Figure 7.3 is based on the official federal definition of poverty. In determining the family poverty status of a worker, family money income before taxes or tax credits is compared to the applicable federal poverty thresholds. Money income includes wages and salaries including tips, commissions and bonuses; interest and dividends; profits from rentals, roomers or boarders; Social Security and/or railroad payments and Supplemental Security Income (SSI); public assistance or welfare payments if received from state or county welfare office; Veterans' Disability Compensation; Veterans Educational Assistance Payments (VEAP), unemployment compensation, child support, or alimony; and all other regular payments from armed forces transfer payments, assistance from private charities, and regular contributions from person not living in the household (Integrated Public Use Microdata (https://usa.ipums.org/usa-action/variables/FTOTINC#questionnaire_text_section), see also Appendix A in Proctor et al. 2016,). Income does not include Capital gains or losses from sale of homes, shares of stock, etc.; Inheritances or insurance settlements or loans; non-cash benefits such as Supplemental Nutrition Assistance Program benefits (SNAP), Medicare, Medicaid or public housing; nor is the value of employer-provided fringe benefits counted. The official poverty thresholds are based on the age of the head of household and number of family members for individuals who live alone or in 2-person households (under age 65 or age 65 and older). For families with 3 or more members, poverty thresholds are based on number size of family unit and number of related children under 18 (http://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf).

[26] Figure 7.3 uses 125 percent of the poverty level because workers whose earnings are within 125 percent of the poverty level—considered "near-poor" share many characteristics with the poor including qualifying for and using public assistance benefits including housing subsidies, energy assistance, SNAP benefits, and the school lunch program. Additionally, when many poor families exit poverty, they generally enter the ranks of the near-poor and many cycle back and forth between being poor and near-poor (Hokayem and Heggeness 2014).




Source: IWPR analysis of 2002-2004 and 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series, version 6.0).
Note: For workers age 16 and older. Full-time, Full-year is defined as 35 or more hours per week for 50 or more weeks per year.

## VIII. How Occupations Are Expected to Grow Through 2022 by Job Quality

To help educators, employers, and policymakers prepare for future workforce needs, federal and state agencies prepare occupational projections to estimate labor market demand and the types of workers needed. Figure 8.1 shows occupational projections for the 22 broad occupational groups that are the focus of this report. The fastest growing occupations include jobs both in some of the 'best' quality broad occupational groups and in some of the worst quality broad occupational groups.

The two broad occupational groups projected to grow the fastest are both in healthcare—Healthcare Support Occupations (below average quality jobs) and Healthcare Practitioners and Technical Occupations (above average quality jobs).

The two broad occupational groups projected to grow the fastest are both in healthcare—Healthcare Support Occupations (below average quality jobs) and Healthcare Practitioners and Technical Occupations (above average quality jobs). At least part of what is driving the growth in these occupations is the demand for healthcare of aging baby boomers, illustrating the importance of these jobs (Bureau of Labor Statistics 2015e, Ortman et al. 2014, United States Bureau of the Census 2014).

**Figure 8.1. Projected Percent Change in Employment for Broad Occupational Groups in Mississippi by Job Quality Category, 2012 through 2022**


Source: IWPR compilation of data from the Mississippi Department of Employment Security (MDES).

Other broad occupational groups with above average job quality projected to grow relatively quickly are Computer and Mathematical Occupations and Community and Social

Computer and Mathematical Occupations and Community and Social Services Occupations are both projected to grow quickly at a rate of 12 percent between 2012 and 2022.

Services Occupations, both projected to grow at a rate of 12 percent between 2012 and 2022. Community and Social Services Occupations include the detailed occupations of Counselors and Social Workers, both female-dominated occupations with women making up 81.7 percent and 86.9 percent of all workers in these occupations in 2014.

Counselors work in a range of settings and areas of expertise including school counselors, career counselors, mental health counselors, and substance abuse and behavior disorders counselors, among others. The typical entry-level educational requirement for counselors can vary with specialty but is a master's degree for many specialties while for substance abuse counselors it is a bachelor's degree (Bureau of Labor Statistics 2015c). Median earnings also vary by specialty with median earnings of $47,070 for educational, guidance, school, and vocational counselors, $43,210 for mental health counselors, but just $27,380 for substance abuse and behavior disorder counselors in Mississippi (Bureau of Labor Statistics 2015g).

The median pay for Social Workers in Mississippi is $32,000, just below the median for all workers. And while Social Workers generally need at least a bachelor's degree (Bureau of Labor Statistics 2015d), some require a master's degree. In Mississippi one-in-five Social Workers have only some college or an associate's degree (Appendix F).

Across the 22 broad occupational groups shown in Figure 8.1, only one—Legal Occupations—is expected to show a decline in jobs between 2012 and 2022. The remaining 21 broad occupational groups are projected to add a net total of 74,730 jobs to the Mississippi economy. Given women's current share of these broad occupational groups, women are expected to fill 58.2 percent of new job openings. This reflects the fact that the broad occupational groups projected to have the most new jobs are female dominated. Healthcare Practitioners and Technical Occupations are 79.3 percent female and are projected to create the largest number of new jobs—13,030—of the 22 broad occupational groups. The broad occupational group with the second largest number of new jobs between 2012 and 2022 is Education, Training, and Library Occupations—78 percent female—and projected to have 10,810 new job openings (see Appendix E for growth rates and women's share of projected growth for all broad occupational groups).

The good news is that, assuming the gender composition of occupations remains the same, women are estimated to be 71.9 percent of workers in new jobs in the above average job quality category. Women are also, however, expected to be more than 70 percent (72.9 percent) of all workers in projected new jobs in the worst job quality category. Women are expected to fill only 28.2 percent of projected new openings in the 'best' job quality category and just more than one-half (50.7 percent) of projected openings in the average job quality category.

# IX. Conclusions and Policy Recommendations

## Conclusions

Workers in average job quality occupations in Mississippi have median earnings of $33,229. Only about three-fourths of these workers have employer provided health insurance (74.5 percent) or full-time, full-year employment (75.5 percent). Less than one-half (47.7 percent) have employer- or union-sponsored retirement benefits and just over six in ten (62.0 percent) have access to paid sick days. More than one of every three (34.2 percent) Mississippi workers, however, are in broad occupational groups with even lower median pay and even smaller shares of workers who receive each of these benefits—workers in the job quality categories rated as below average job quality and worst job quality.

As distressing as these circumstances are, the above analyses show that much of the inequality within the Mississippi labor market falls along gender and racial lines. Women in Mississippi earn just 76 cents for every dollar men earn, and the gaps for Black and Hispanic women are even greater. While the largest share of workers from all racial/ethnic groups—men and women—work in average job quality occupations, women are more likely than men to work in above average job quality occupations, yet in that job quality category women earn nearly $20,000 less per year than men. In fact, across all job quality categories women earn less than men, ranging from almost $20,000 less in the 'best' job quality category to about $4,000 less in the worst quality occupational category. These inequities reflect both occupational segregation—women are more likely to work in lower-paying detailed occupations than men across all job quality categories—and women being paid less than men even when they work in the same detailed occupations.

The research in this report illustrates the pressing case for attention from employers and policymakers to the quality of all jobs in Mississippi. Improving job quality will help all Mississippi workers, but especially women who are most likely to be in the worst quality jobs. It is critical that improving job quality becomes more urgent because job quality appears to be headed in the wrong direction—between 2004 and 2014 median pay has fallen in 15 of the 22 broad occupational groups analyzed and poverty rates among full-time, year-round workers have increased. Further, absent any changes to job quality in Mississippi, job growth will help maintain current inequities and likely lead to an increase in the total number of Mississippi workers with low wages and few benefits. Two of the four fastest growing broad occupational groups—Healthcare Support Occupations and Personal Care and Service Occupations—are among the worst job quality occupations in the state (Figure 8.1) and they are more than 70 percent female (Figure 5.4).

## Policy Recommendations

### Improve the Quality of all Jobs

**Increase the minimum wage**. Raising the minimum wage, which currently stands at $7.25, would disproportionately benefit women, especially women of color, who are over-represented among the lowest wage workers (Shaw, Hegewisch, Williams-Baron, and Gault 2016). Because the real value of the minimum wage nationally is lower than its 1968 value (Cooper 2013), raising the minimum wage would not only help close gender and racial wage gaps, but also help reduce overall inequality and improve the conditions of families living on the income from these jobs.

**Improve workers access to unionization**. Unionization increases the earnings of men and women, especially for workers with low wages (Jones, Schmitt, and Woo 2014). Analysis of data for Mississippi shows that full-time unionized women in Mississippi enjoy a 25 percent wage advantage over non-unionized women, an increase in median weekly earnings of $154—enough to cover the cost of childcare for up to two weeks (Anderson, Hegewisch, and Hayes 2015).

**Increase access to health insurance and retirement benefits**. Close to one-third (30.2 percent) of Mississippi workers lack access to employer-provided health insurance and more than one-half lack access to retirement benefits. These are supports that are crucial for workers and, therefore, part of quality employment. One way to increase worker's access to these benefits is to improve their access to collective bargaining. Beyond higher wages, unionization improves overall job quality. Women in unions are more likely than nonunion women to have employer- or union-provided health insurance—even controlling for education, age, industry and state of residence.

Unionized women are also more likely (53 percent more likely) to have a retirement plan (Jones, Schmitt, and Woo 2014). This means greater economic security in retirement for women, and women of color in particular. Women are less likely than men to have any pension income, and when they do have income from a pension, it is less than that received by men (Fischer and Hayes 2013).

Some states are experimenting with other ways to increase workers' access to retirement supports. Washington State, for example, expects small business owners to have the option of offering their workers retirement plans purchased from financial services firms. Other states, such as Illinois, will require employers to provide their workers with retirement options. Yet other options by-pass the employer altogether but do allow workers to contribute toward retirement accounts including through automatic payroll deductions (Ebeling 2016).

**Ensure all workers have access to paid sick days**. Paid sick days are essential to working women, especially working mothers, across the state of Mississippi. Having access to paid sick days mean that when workers or their children are sick or hurt, they can take care of themselves and their family without losing pay or fearing they will be fired. Despite the importance of paid sick days, far too few workers in Mississippi receive this benefit. Just 59.0 percent of all full-time Mississippi workers have access to paid sick leave, in the worst job quality occupations it's only 34.0 percent. Ensuring that all workers have access to paid sick days would benefit not just working women and their families but also employers and the larger community through reduced

employee turnover and increases in public health and decreases in health care costs (Milli, Xia, and Min 2016).

**Increase the quality of part-time jobs and increase the share of workers with full-time, full-year employment**. For many families, part-time work is a necessity to enable workers to provide family care, while in other cases workers may prefer part-time work to allow school attendance. All of these workers need access to better-quality part-time jobs. Policies that improve the quality of part-time work include ensuring that all workers, especially part-time and other contingent workers, have hourly pay on par with full-time workers and ensuring that they receive prorated access to the same employment benefits as full-time workers.

Some policymakers are also seeking to provide workers subject to the worst scheduling abuses with increased stability at work and in their family lives. Having predictable schedules would make combining work and school or work and family care easier to manage.

Other lawmakers are trying to increase access to full-time employment for those who would like to work full-time by requiring employers to give current part-time workers the first choice of filling new full-time positions or to take extra shifts that become available (Nagele-Piazza 2016).

In addition to these policies, successfully increasing women's access to full-time, year-round employment will require that affordable childcare be made available to women who want to work more hours to provide more income for their families.

## Reduce Occupational Segregation and Gender and Racial Wage Gaps

**Reduce discrimination.** Enforcement of anti-discrimination laws which prohibit the use of sex, race, ethnicity, national origin, and religion in decisions about recruiting, hiring, firing, job placement, promotions, steering, etc. is critical to ensuring equal employment opportunity. This includes policies such as requiring employers to provide aggregate pay data by sex, race, and ethnicity and making it illegal to prohibit workers from sharing information about their salaries. More transparency in employer decision-making around hiring, pay, and promotion can help reduce occupational segregation and close gender wage gaps. Just closing the gender wage gap for similar men and women could, by itself, could cut the poverty rate among working women in Mississippi in half (Milli, Huang, Hartmann, and Hayes 2017).

**Increase access to training and education**. Reducing levels of occupational segregation is a crucial step in closing the gender wage gap. Increasing women's access to better quality jobs in Mississippi will require that high school graduation rates improve and will likely require additional education and training beyond high school. According to data from Mississippi Lifetracks, just 69.7 percent of public high school students in 2015 were graduating within four years of becoming high school freshmen. That number is just 67.8 percent for students who are economically disadvantaged and 67.6 percent for students who are English language learners (Mississippi State University 2016b).

Beyond high school, many young women (and men) in Mississippi will need to obtain some postsecondary education including associate's degrees and non-degree awards. Key policies to increase postsecondary educational attainment include increasing financial aid and/or making tuition free, especially at Mississippi's community colleges (Hess et al, 2014).

Partnering with employers and unions to provide apprenticeships for low-wage workers, especially for jobs that are nontraditional for women, can raise women's earnings and help increase occupational integration. Employers and unions can also explore other career paths in addition to apprenticeships that allow progress into better paying jobs (Hegewisch et al. 2016).

These policies can increase access to better-paying jobs for women in poorly paid jobs across job quality categories, but especially for women in below average and worst job quality occupations. Full access to, and success in, training and employment can be increased if childcare is adequately funded and supports for transportation and healthcare are made available (Hess et al, 2014).

## Support Women Workers' Efforts to Balance the Demands of Family Work, and Education.

**Ensure all workers have access to paid family leave**. Having or adopting a child, facing a serious injury or illness, or having a family member with a serious illness can be costly in terms of employment and earnings without access to paid family leave. Ideally, paid family leave plans would allow workers—men as well as women—to take time off work without worrying about losing their job to care for themselves, a child, or other family member while still receiving some portion of their salary. Because the federal Family and Medical Leave Act (FMLA) is not sufficient for workers nationally or in Mississippi—nationally just 59% of workers are covered by this law which provides *unpaid* job protected leave for workers meeting very specific requirements—Mississippi should craft its own state legislation to cover all Mississippi workers.

**Ensure availability of affordable childcare**. The average annual cost of full-time infant care in a childcare center in the state of Mississippi was $5,496 in 2013, 17 percent of the median earnings of nonunion women (Anderson, Hegewisch, and Hayes 2015). Many families are forced to rely on family and friends to provide childcare while they work or attend school or job training because of the high costs (Hess et al 2014). This can be an unreliable source of childcare, however, and result in lost wages or job loss. Universal Pre-K, greater state investment in childcare subsidies, and funding for on-campus childcare centers can help women workers, particularly those in average, below average, and worst job quality occupations.

**Ensure workers have access to affordable elder and disability care**. Women often have primary responsibility for caregiving for other adults—parents or other adult relatives—who are sick, frail, or disabled. Policies aimed at reducing the costs of elder care facilities or increasing support for in-home care can increase women's ability to balance work and family demands, remain in the labor force, and not be penalized by losing promotions, work shifts, or merit raises.

These types of changes would improve the quality of jobs available to workers in Mississippi and, as a consequence, increase worker's earnings while helping them balance the demands of work and family.

# Appendix A: Job Quality Index for Broad Occupational Groups, 2014

| Intermediate Occupations | Percent of all Workers with Paid Sick Days, 2014 | | Median Earnings for Full-time, Year-round Workers by Occupation, 2014 | | Percent of all Workers with Health Insurance 2014 | | Percent of all Workers with Employer-Supported Retirement Benefits, 2014 | | Perc Empl |
|---|---|---|---|---|---|---|---|---|---|
| | Percent | Standardized Ratio | Median Earnings (Dollars) | Standardized Ratio | Percent | Standardized Ratio | Percent | Standardized Ratio | Perce |
| Food Preparation and Serving Related | 22.4% | 0.38 | $17,631 | 0.50 | 40.8% | 0.58 | 30.7% | 0.71 | 39.8% |
| Personal Care and Service | 30.6% | 0.52 | $22,000 | 0.63 | 50.9% | 0.73 | 30.7% | 0.71 | 54.8% |
| Building and Grounds Cleaning and Maintenance | 41.7% | 0.71 | $20,622 | 0.59 | 52.3% | 0.75 | 30.7% | 0.71 | 60.9% |
| Farming, Fishing, and Forestry | 29.9% | 0.51 | $28,453 | 0.81 | 41.5% | 0.59 | 37.9% | 0.87 | 68.7% |
| Healthcare Support | 60.4% | 1.02 | $20,730 | 0.59 | 64.9% | 0.93 | 30.7% | 0.71 | 70.1% |
| Sales and Related | 49.6% | 0.84 | $32,000 | 0.91 | 59.3% | 0.85 | 25.0% | 0.58 | 62.0% |
| Transportation and Material Moving | 47.8% | 0.81 | $30,932 | 0.88 | 64.7% | 0.93 | 39.8% | 0.92 | 70.3% |
| Construction and Extraction | 39.2% | 0.66 | $37,119 | 1.06 | 62.1% | 0.89 | 37.9% | 0.87 | 74.4% |
| Production | 53.4% | 0.90 | $30,485 | 0.87 | 75.0% | 1.08 | 39.8% | 0.92 | 80.1% |
| Protective Service | 77.3% | 1.31 | $32,000 | 0.91 | 78.3% | 1.12 | 30.7% | 0.71 | 80.5% |
| Office and Administrative Support | 64.3% | 1.09 | $30,000 | 0.86 | 73.4% | 1.05 | 51.6% | 1.19 | 71.8% |
| Installation, Maintenance, and Repair | 65.1% | 1.10 | $40,647 | 1.16 | 74.9% | 1.07 | 37.9% | 0.87 | 85.1% |
| Arts, Design, Entertainment, Sports, and Media | 66.6% | 1.13 | $41,663 | 1.19 | 72.2% | 1.03 | 55.6% | 1.28 | 63.1% |
| Community and Social Services | 73.9% | 1.25 | $37,395 | 1.07 | 70.7% | 1.01 | 55.6% | 1.28 | 76.3% |
| Education, Training, and Library | 79.9% | 1.35 | $37,395 | 1.07 | 85.3% | 1.22 | 55.6% | 1.28 | 71.5% |
| Business and Financial Operations | 78.9% | 1.34 | $45,728 | 1.30 | 82.9% | 1.19 | 51.3% | 1.18 | 85.7% |
| Healthcare Practitioners and Technical | 77.3% | 1.31 | $50,707 | 1.45 | 85.5% | 1.22 | 55.6% | 1.28 | 78.6% |
| Management | 76.8% | 1.30 | $56,000 | 1.60 | 77.4% | 1.11 | 51.3% | 1.18 | 88.8% |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Life, Physical, and Social Science | 78.3% | 1.33 | $51,554 | 1.47 | 88.0% | 1.26 | 55.6% | 1.28 | 80.9% |
| Legal | 78.3% | 1.33 | $67,020 | 1.91 | 81.3% | 1.17 | 55.6% | 1.28 | 89.1% |
| Computer and Mathematical | 86.5% | 1.47 | $60,000 | 1.71 | 89.1% | 1.28 | 55.6% | 1.28 | 87.8% |
| Architecture and Engineering | 84.8% | 1.44 | $60,970 | 1.74 | 88.2% | 1.26 | 55.6% | 1.28 | 90.1% |
| State Means | **59** | | **$35,056** | | **69.8** | | **43.5** | | **72.2** |

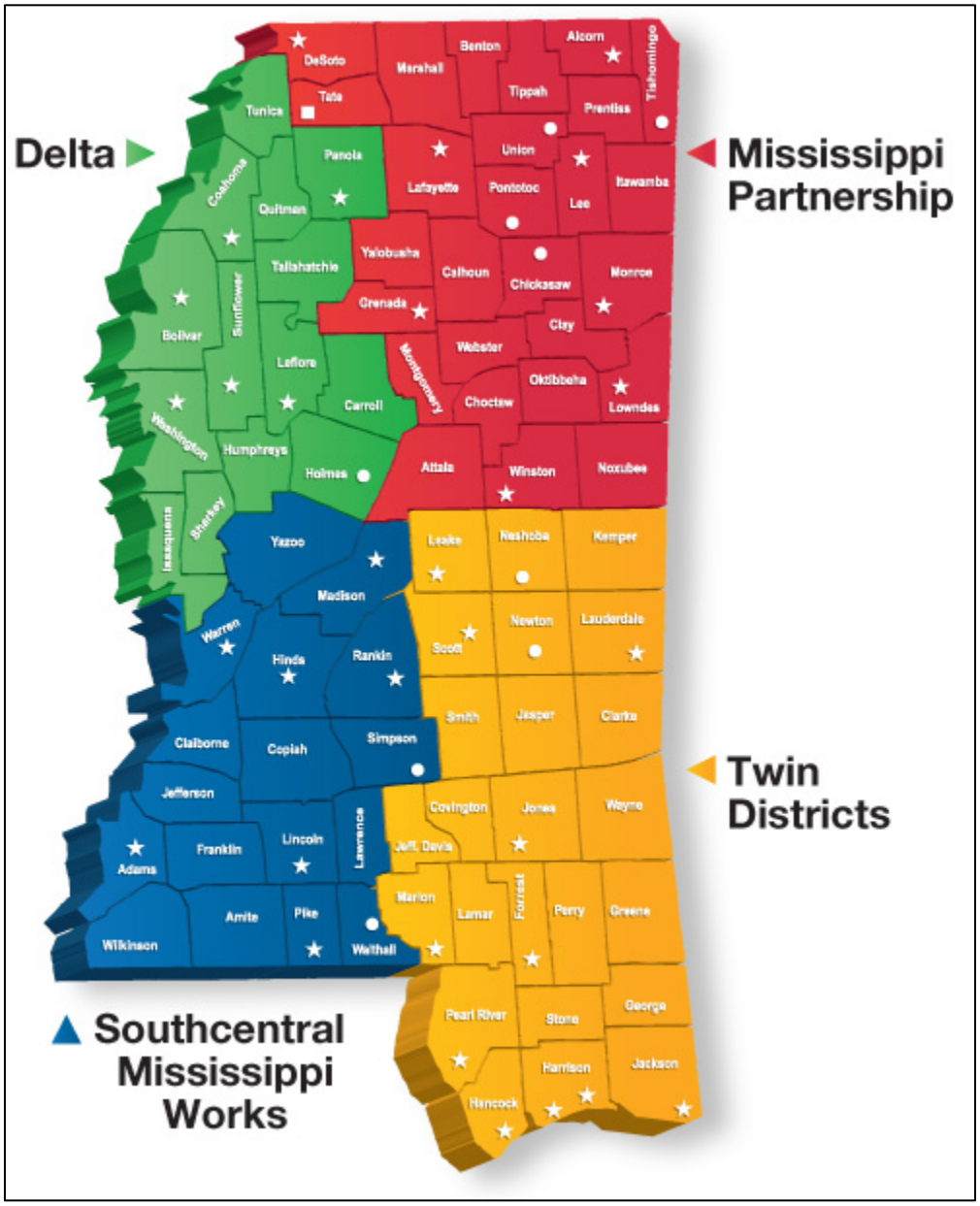
IWPR analysis of 2012-2014 American Community Survey, 2012-2014 Current Population Survey, and 2014 Integrated Health Interview Series, all from the Integrated Public Use Microdata Series (IPUMs).
Note: All workers are aged 16 or older.

## Appendix B: Employment by Broad Occupational Group, Change in Numbers of Workers and Percent Change in Employment

| Jobs Quality Index Rating | Occupation | Occupational Size (number of workers, 2014) | Difference in Occupational Employment, 2004 to 2014 | Percent Growth/ Decline 2004 to 2014 |
|---|---|---|---|---|
| **Average Job Quality** | Office and Administrative Support | 154831 | -14999 | -8.8 |
| **Below Average Job Quality** | Sales and Related | 123507 | -1968 | -1.6 |
| **Average Job Quality** | Production | 103575 | -19531 | -15.9 |
| **Above Average Job Quality** | Management | 87148 | 6301 | 7.8 |
| **Below Average Job Quality** | Transportation and Material Moving | 85908 | 2570 | 3.1 |
| **Average Job Quality** | Education, Training, and Library | 77141 | 8609 | 12.6 |
| **Above Average Job Quality** | Healthcare Practitioners and Technical | 76732 | 13580 | 21.5 |
| **Worst Job Quality** | Food Preparation and Serving Related | 67296 | 6466 | 10.6 |
| **Average Job Quality** | Construction and Extraction | 62202 | -175 | -0.3 |
| **Average Job Quality** | Installation, Maintenance, and Repair | 45199 | -2992 | -6.2 |
| **Worst Job Quality** | Building and Grounds Cleaning and Maintenance | 40550 | 2527 | 6.6 |
| **Above Average Job Quality** | Business and Financial Operations | 37223 | 5911 | 18.9 |
| **Worst Job Quality** | Personal Care and Service | 35328 | 1594 | 4.7 |
| **Average Job Quality** | Protective Service | 31085 | 2604 | 9.1 |
| **Worst Job Quality** | Healthcare Support | 28022 | 3927 | 16.3 |
| **Average Job Quality** | Community and Social Services | 21782 | 5333 | 32.4 |
| **Best Job Quality** | Architecture and Engineering | 13808 | -1554 | -10.1 |
| **Best Job Quality** | Computer and Mathematical | 12942 | 2333 | 22.0 |
| **Average Job Quality** | Arts, Design, Entertainment, Sports, and Media | 10472 | -1057 | -9.2 |
| **Worst Job Quality** | Farming, Fishing, and Forestry | 8902 | -3613 | -28.9 |
| **Best Job Quality** | Legal | 8044 | -440 | -5.2 |
| **Above Average Job Quality** | Life, Physical, and Social Science | 6740 | 299 | 4.6 |
| | Total | 1,138,437 | 15,725 | 1.4 |

Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Data are for workers aged 16 and older.

## Appendix C: Local Workforce Development Areas




Source: Mississippi Department of Employment Security (MDES).
http://mdes.ms.gov/i-need-a-job/job-searching-resources/workforce-investment-act/wia-partners/local-workforce-investment-areas/

## Appendix D: Educational Composition of Broad Occupational Groups by Job Quality Category, 2014

| | | Percent Less than High School | Percent High School Only | Percent Some College or Associate's Degree | Percent Bachelor's Degree or More |
|---|---|---|---|---|---|
| | **All Mississippi Workers** | **10.1%** | **27.4%** | **38.0%** | **24.6%** |
| **Worst Job Quality** | Food Preparation and Serving Related | 21.9% | 35.1% | 38.7% | 4.3% |
| | Building and Grounds Cleaning and Maintenance | 23.1% | 41.7% | 30.7% | 4.5% |
| | Healthcare Support | 7.3% | 29.2% | 54.9% | 8.6% |
| | Farming, Fishing, and Forestry | 33.1% | 42.4% | 15.2% | 9.3% |
| | Personal Care and Service | 9.0% | 29.6% | 50.3% | 11.2% |
| **Below Average Job Quality** | Transportation and Material Moving | 18.2% | 45.4% | 30.3% | 6.1% |
| | Sales and Related | 11.2% | 27.4% | 42.8% | 18.5% |
| **Average Job Quality** | Construction and Extraction | 20.0% | 45.8% | 31.0% | 3.2% |
| | Production | 17.8% | 42.4% | 35.7% | 4.1% |
| | Installation, Maintenance, and Repair | 14.3% | 34.8% | 44.8% | 6.1% |
| | Office and Administrative Support | 4.9% | 28.7% | 50.4% | 16.0% |
| | Protective Service | 3.3% | 29.0% | 49.9% | 17.8% |
| | Arts, Design, Entertainment, Sports and Media | N/A | N/A | 36.3% | 51.0% |
| | Community and Social Services | 2.6% | 5.6% | 18.8% | 73.0% |
| | Education, Training, and Library | 1.1% | 5.6% | 19.2% | 74.1% |
| **Above Average Job Quality** | Management | 4.1% | 17.8% | 32.8% | 45.3% |
| | Healthcare Practitioners and Technical | 1.1% | 5.8% | 45.9% | 47.1% |
| | Business and Financial Operations | 2.3% | 11.1% | 30.4% | 56.3% |
| | Life, Physical, and Social Science | N/A | N/A | 22.2% | 68.0% |
| **Best Job Quality** | Legal | N/A | N/A | 20.6% | 72.5% |
| | Computer and Mathematical | N/A | N/A | 34.1% | 61.5% |
| | Architecture and Engineering | 0.9% | 13.1% | 35.6% | 50.5% |

Source: IWPR analysis of 2012-2014 American Community Survey Microdata (Integrated Public Use Microdata Series).
Note: Workers aged 16 and older. Arts, Design, Entertainment, Sports, and Media Occupations, Life, Physical, and Social Science Occupations, and Legal Occupations have too few sample observations to estimate both 'Percent Less Than High School' and 'Percent High School Only.

## Appendix E: Women's Share of Projected Job Growth by Broad Occupational Group and Job Quality Classification, 2012 to 2022.

| Broad Occupational Groups | Job Quality Classification | Percent female, 2014 | 2012 Employment | 2022 Projected Employment | Projected Growth | Number of Female Jobs | Number of Male Jobs |
|---|---|---|---|---|---|---|---|
| Management | Above Average Job Quality | 42.5% | 51,000 | 52,340 | 1,340 | 570 | 771 |
| Business and Financial Operations | Above Average Job Quality | 58.3% | 25,950 | 28,470 | 2,520 | 1469 | 1051 |
| Computer and Mathematical | Best Job Quality | 39.2% | 9,640 | 10,800 | 1,160 | 455 | 705 |
| Architecture and Engineering | Best Job Quality | 12.9% | 15,930 | 16,580 | 650 | 84 | 566 |
| Life, Physical, and Social Science | Above Average Job Quality | 31.7% | 7,410 | 7,940 | 530 | 168 | 362 |
| Community and Social Services | Average Job Quality | 56.4% | 16,740 | 18,750 | 2,010 | 1134 | 876 |
| Legal | Best Job Quality | 54.2% | 5,040 | 4,930 | -110 | -60 | -50 |
| Education, Training, and Library | Average Job Quality | 78.3% | 79,420 | 90,230 | 10,810 | 8464 | 2346 |
| Arts, Design, Entertainment, Sports and Media | Average Job Quality | 43.5% | 9,490 | 10,240 | 750 | 326 | 424 |
| Healthcare Practitioners and Technical | Above Average Job Quality | 79.3% | 76,880 | 89,910 | 13,030 | 10333 | 2697 |
| Healthcare Support | Worst Job Quality | 90.4% | 44,690 | 52,280 | 7,590 | 6861 | 729 |
| Protective Service | Average Job Quality | 23.7% | 25,910 | 28,750 | 2,840 | 673 | 2167 |
| Food Preparation and Serving Related | Worst Job Quality | 63.4% | 95,720 | 97,760 | 2,040 | 1293 | 747 |
| Building and Grounds Cleaning and Maintenance | Worst Job Quality | 40.8% | 33,760 | 37,240 | 3,480 | 1420 | 2060 |
| Personal Care and Service | Worst Job Quality | 74.7% | 24,480 | 27,910 | 3430 | 2562 | 868 |
| Sales and Related | Below Average Job Quality | 58.2% | 115,310 | 120,310 | 5000 | 2910 | 2090 |
| Office and Administrative Support | Average Job Quality | 76.1% | 166,440 | 169,940 | 3500 | 2664 | 837 |
| Farming, Fishing, and Forestry | Worst Job Quality | 12.2% | 4,530 | 4,670 | 140 | 17 | 123 |
| Construction and Extraction | Average Job Quality | 2.9% | 45,650 | 48,080 | 2430 | 70 | 2360 |
| Installation, Maintenance, and Repair | Average Job Quality | 4.6% | 48,390 | 50,920 | 2530 | 116 | 2414 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Production | Average Job Quality | 30.3% | 102600 | 106,650 | 4050 | 1227 | 2823 |
| Transportation and Material Moving | Below Average Job Quality | 15.1% | 86,970 | 91,980 | 5010 | 757 | 4253 |
| Total | | 49.9% | 1,091,950 | 1,166,680 | 74,730 | 43513 | 31217 |

Source: Job Quality Classification and percent female are based on IWPR analysis of 2012-2014 American Community Survey, Current Population Survey, and the 2014 Integrated Health Interview Series, all from the Integrated Public Use Microdata Series (IPUMs). Occupational employment in 2012 and projected 2022 employment based on IWPR compilation of data from the Mississippi Department of Employment Security (MDES).

## Appendix F: Typical Entry-Level Requirements, Percent Female, Earnings, and 2004 to 2014 Growth Rates for Large Detailed Occupations, 2014.

| Large Detailed Occupations | Percent Female (2014) | Median Earnings (2014) | Percent Growth/ Decline in Number of Workers 2004 to 2014 | Percent with Some College or Associates Degree (2014) | Typical Entry-Level Education (2014) | Work Experience in a Related Occupation | Typical on-the-job Training |
|---|---|---|---|---|---|---|---|
| **Management** | | | | | | | |
| Chief executives and legislators/public administration | 24.0% | $86,611 | -5.8% | 18.3% | Bachelor's degree | 5 years or more | None |
| General and Operations Managers | 31.2% | $60,970 | -14.0% | 40.6% | Bachelor's degree | 5 years or more | None |
| Financial Managers | 65.4% | $48,776 | 7.5% | 38.1% | Bachelor's degree | 5 years or more | None |
| Human Resources Managers | 55.1% | N/A | -31.2% | N/A | Bachelor's degree | 5 years or more | None |
| Constructions Managers | N/A | N/A | -1.6% | N/A | Bachelor's degree | None | Moderate-term on-the-job training |
| Education Administrators | 59.9% | $58,938 | 12.8% | N/A | Master's degree | 5 years or more | None |
| Food Service and Lodging Managers | 62.6% | $27,839 | 32.5% | 47.0% | High school diploma or equivalent | Less than 5 years | None |
| Medical and Health Services Managers | 70.3% | $57,922 | 5.7% | 34.6% | Bachelor's degree | Less than 5 years | None |
| Property, Real Estate, and Community Association Managers | 62.1% | N/A | 24.3% | N/A | High school diploma or equivalent | Less than 5 years | None |
| Managers, n.e.c (including Postmasters) | 33.6% | $60,970 | 34.9% | 32.4% | Bachelor's degree | Less than 5 years | None |
| **Business and Financial Operations** | | | | | | | |
| Human Resources, Training, and Labor Relations Specialists | 71.5% | $46,399 | 12.0% | 33.6% | Bachelor's degree | None | None |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Accountants and Auditors | 71.6% | $48,461 | 24.3% | 18.4% | Bachelor's degree | None | None |
| **Computer and Mathematical** | | | | | | | |
| Computer Scientists and Systems Analyst | 46.1% | $60,000 | 63.0% | 32.6% | Bachelor's degree | None | None |
| **Community and Social Services Occupations** | | | | | | | |
| Counselors | 81.7% | N/A | 15.8% | N/A | Master's degree | None | None |
| Social Workers | 86.9% | $32,000 | 86.6% | 19.5% | Bachelor's degree | None | None |
| **Legal** | | | | | | | |
| Lawyers, and judges, magistrates, and other judicial workers | 34.9% | $94,000 | -9.4% | N/A | Doctoral or professional degree | None | None |
| **Education, Training, and Library** | | | | | | | |
| Postsecondary Teachers | 50.0% | $54,000 | 32.4% | 8.4% | Doctoral or professional degree | None | None |
| Preschool and Kindergarten Teachers | 99.5% | N/A | 22.9% | 39.7% | Associate's degree | None | None |
| Elementary and Middle School Teachers | 87.0% | $38,150 | 14.8% | 8.9% | Bachelor's degree | None | Internship/residency |
| Secondary School Teachers | 59.2% | $39,631 | 2.7% | N/A | Bachelor's degree | None | Internship/residency |
| Special Education Teachers | 90.1% | N/A | 5.1% | N/A | Bachelor's degree | None | Internship/residency |
| Other Teachers and Instructors | 58.8% | N/A | 40.3% | 46.1% | N/A | N/A | N/A |
| Teacher Assistants | 97.0% | $13,500 | -14.0% | 52.8% | Some college, no degree | None | None |
| **Healthcare Practitioners and Technical** | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pharmacists | 47.6% | N/A | 68.8% | N/A | Doctoral or professional degree | None | None |
| Physicians and Surgeons | 29.2% | $152,425 | 4.4% | N/A | Doctoral or professional degree | None | Internship/residency |
| Registered Nurses | 91.8% | $55,000 | 33.4% | 45.7% | Bachelor's degree | None | None |
| Health Diagnosing and Treating Practitioner Support Technicians | 80.9% | $28,000 | 21.5% | 58.3% | Master's degree | None | None |
| Licensed Practical and Licensed Vocational Nurses | 93.8% | $35,000 | 13.8% | 85.4% | Postsecondary nondegree award | None | None |
| **Healthcare Support** | | | | | | | |
| Nursing, Psychiatric, and Home Health Aides | 91.2% | $20,323 | 16.3% | 52.7% | Postsecondary nondegree award | None | None |
| Medical Assistants and Other Healthcare Support Occupations, nec | 91.8% | $25,000 | 7.2% | 66.9% | Postsecondary nondegree award | None | None |
| **Protective Service** | | | | | | | |
| Firefighters | N/A | N/A | 44.0% | 60.9% | Postsecondary nondegree award | None | Long-term on-the-job training |
| Police Officers and Detectives | N/A | $37,119 | 4.7% | 48.4% | High school diploma or equivalent | None | Moderate-term on-the-job training |
| **Food Preparation and Serving Related** | | | | | | | |
| Chefs and Cooks | 48.9% | $17,275 | 22.8% | 33.0% | High school diploma or equivalent | 5 years or more | None |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Food Preparation Workers | 66.8% | N/A | 38.3% | N/A | No formal educational credential | None | Short-term on-the-job training |
| Waiters and Waitresses | 79.0% | $15,141 | 14.6% | 45.1% | No formal educational credential | None | Short-term on-the-job training |
| Food preparation and serving related workers, nec | 70.8% | N/A | -12.7% | N/A | No formal educational credential | None | Short-term on-the-job training |
| **Building and Grounds Cleaning and Maintenance** | | | | | | | |
| Janitors and Building Cleaners | 33.7% | $20,622 | 9.5% | 33.0% | No formal educational credential | None | Short-term on-the-job training |
| Maids and Housekeeping Cleaners | 87.8% | $17,528 | 2.5% | 23.7% | No formal educational credential | None | Short-term on-the-job training |
| Grounds Maintenance Workers | N/A | $22,000 | 8.3% | 25.7% | No formal educational credential | None | Short-term on-the-job training |
| **Personal Care and Service** | | | | | | | |
| Childcare Workers | 95.8% | N/A | -6.4% | 54.3% | High school diploma or equivalent | None | Short-term on-the-job training |
| Personal Care Aides | 91.7% | $16,497 | 142.8% | 51.0% | No formal educational credential | None | Short-term on-the-job training |
| Recreation and Fitness Workers | 57.3% | N/A | -5.2% | N/A | High school diploma or equivalent | None | Short-term on-the-job training |
| **Sales and Related** | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| First-Line Supervisors of Sales Workers | 44.3% | $36,582 | -7.3% | 43.3% | High school diploma or equivalent | Less than 5 years | None |
| Cashiers | 84.8% | $16,259 | 18.0% | 42.3% | No formal educational credential | None | Short-term on-the-job training |
| Retail Salespersons | 53.5% | $28,870 | -7.9% | 47.3% | No formal educational credential | None | Short-term on-the-job training |
| Sales Representatives, Wholesale and Manufacturing | 29.3% | $50,808 | -11.0% | 36.0% | High school diploma or equivalent | None | Moderate-term on-the-job training |
| **Office and Administrative Support** | | | | | | | |
| First-Line Supervisors of Office and Administrative Support Workers | 66.6% | $35,057 | -38.3% | 42.4% | High school diploma or equivalent | Less than 5 years | None |
| Bookkeeping, Accounting, and Auditing Clerks | 93.2% | $30,000 | -31.2% | 56.6% | Some college, no degree | None | Moderate-term on-the-job training |
| Bank Tellers | 86.2% | $24,000 | 27.7% | 51.7% | High school diploma or equivalent | None | Short-term on-the-job training |
| Customer Service Representatives | 77.4% | $28,453 | 54.6% | 55.0% | High school diploma or equivalent | None | Short-term on-the-job training |
| Receptionists and Information Clerks | 96.6% | $25,000 | -0.9% | 55.9% | High school diploma or equivalent | None | Short-term on-the-job training |
| Postal Service Mail Carriers | 55.1% | N/A | -25.8% | 52.4% | High school diploma or equivalent | None | Short-term on-the-job training |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Shipping, Receiving, and Traffic Clerks | 27.8% | $30,000 | -4.9% | 44.8% | High school diploma or equivalent | None | Short-term on-the-job training |
| Stock Clerks and Order Fillers | 36.1% | $24,000 | -5.9% | 34.1% | No formal educational credential | None | Short-term on-the-job training |
| Secretaries and Administrative Assistants | 96.9% | $30,000 | -11.2% | 55.5% | High school diploma or equivalent | None | Short-term on-the-job training |
| Office Clerks, General | 86.0% | $30,587 | -12.0% | 56.3% | High school diploma or equivalent | None | Short-term on-the-job training |
| Office and administrative support workers, nec | 87.8% | N/A | 24.8% | 54.2% | High school diploma or equivalent | None | Short-term on-the-job training |
| | | | | | | | |
| **Construction and Extraction** | | | | | | | |
| First-Line Supervisors of Construction Trades and Extraction Workers | N/A | $51,554 | 27.9% | 33.5% | High school diploma or equivalent | 5 years or more | None |
| Carpenters | N/A | N/A | -42.2% | N/A | High school diploma or equivalent | None | Apprenticeship |
| Construction Laborers | N/A | $27,437 | 10.3% | 22.5% | No formal educational credential | None | Short-term on-the-job training |
| Construction equipment operators except paving, surfacing, and tamping equipment operators | N/A | N/A | -9.1% | N/A | N/A | N/A | N/A |
| Electricians | N/A | $45,368 | 63.7% | 58.6% | High school diploma or equivalent | None | Apprenticeship |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pipelayers, Plumbers, Pipefitters, and Steamfitters | N/A | N/A | -30.3% | 27.3% | High school diploma or equivalent | None | Apprenticeship |
| **Installation, Maintenance, and Repair** | | | | | | | |
| Automotive Service Technicians and Mechanics | N/A | $36,088 | -28.6% | 41.0% | Postsecondary nondegree award | None | Short-term on-the-job training |
| Bus and Truck Mechanics and Diesel Engine Specialists | N/A | N/A | 32.1% | 38.9% | High school diploma or equivalent | None | Long-term on-the-job training |
| Industrial and Refractory Machinery Mechanics | N/A | $46,399 | -25.6% | 46.1% | High school diploma or equivalent | None | Long-term on-the-job training |
| Maintenance and Repair Workers, General | N/A | $32,000 | 20.7% | 49.3% | High school diploma or equivalent | None | Long-term on-the-job training |
| **Production** | | | | | | | |
| First-Line Supervisors of Production and Operating Workers | 13.0% | $46,399 | -25.2% | 41.6% | High school diploma or equivalent | Less than 5 years | None |
| Assemblers and Fabricators, nec | 37.9% | $30,000 | 27.0% | 37.8% | High school diploma or equivalent | None | Moderate-term on-the-job training |
| Butchers and Other Meat, Poultry, and Fish Processing Workers | 53.0% | N/A | 13.4% | 27.7% | No formal educational credential | None | Long-term on-the-job training |
| Welding, Soldering, and Brazing Workers | N/A | $39,631 | -8.8% | 40.4% | High school diploma or equivalent | None | Moderate-term on-the-job training |
| Metal workers and plastic workers, nec | 39.8% | $30,000 | -18.1% | 36.6% | High school diploma or equivalent | None | Moderate-term on-the-job training |
| Sewing Machine Operators | 95.5% | N/A | -62.0% | N/A | No formal educational credential | None | Short-term on-the-job training |
| **Transportation and Material Moving** | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Laborers and Freight, Stock, and Material Movers, Hand | 17.6% | $25,777 | -1.1% | 27.5% | No formal educational credential | None | Short-term on-the-job training |

Source: IWPR analysis of the 2012-2014 American Community Survey and the 2012-2014 Current Population Survey from the Integrated Public Use Microdata Series (IPUMs); and the compilation of data from the Bureau of Labor Statistics < https://www.bls.gov/ooh/>.
Note: N/A = insufficient sample sizes. Data are for workers aged 16 and older. Wages are in 2014 dollars.

# Appendix G: Detailed Occupations Making Up Broad Occupational Groups

## Management

Chief executives and legislators/public administration
General and Operations Managers
Managers in Marketing, Advertising, and Public Relations
Administrative Services Managers
Computer and Information Systems Managers
Financial Managers
Human Resources Managers
Industrial Production Managers
Purchasing Managers
Transportation, Storage, and Distribution Managers
Farmers, Ranchers, and Other Agricultural Managers
Constructions Managers
Education Administrators
Architectural and Engineering Managers
Food Service and Lodging Managers
Funeral Directors
Gaming Managers
Medical and Health Services Managers
Natural Science Managers
Property, Real Estate, and Community Association Managers
Social and Community Service Managers
Managers, nec (including Postmasters)

## Business and Financial Operations Occupations

Agents and Business Managers of Artists, Performers, and Athletes
Buyers and Purchasing Agents, Farm Products
Wholesale and Retail Buyers, Except Farm Products
Purchasing Agents, Except Wholesale, Retail, and Farm Products
Claims Adjusters, Appraisers, Examiners, and Investigators
Compliance Officers, Except Agriculture
Cost Estimators
Human Resources, Training, and Labor Relations Specialists
Logisticians
Management Analysts
Meeting and Convention Planners
Other Business Operations and Management Specialists
Accountants and Auditors
Appraisers and Assessors of Real Estate
Budget Analysts
Credit Analysts

Financial Analysts
Personal Financial Advisors
Insurance Underwriters
Financial Examiners
Credit Counselors and Loan Officers
Tax Examiners and Collectors, and Revenue Agents
Tax Preparers
Financial Specialists, nec

## Computer and Mathematical Occupations

Computer Scientists and Systems Analysts/Network systems Analysts/Web Developers
Computer Programmers
Software Developers, Applications and Systems Software
Computer Support Specialists
Database Administrators
Network and Computer Systems Administrators
Actuaries
Operations Research Analysts
Mathematical science occupations, nec

## Community and Social Services Occupations

Counselors
Social Workers
Community and Social Service Specialists, nec
Clergy
Directors, Religious Activities and Education
Religious Workers, nec

## Legal Occupations

Lawyers, and judges, magistrates, and other judicial workers
Paralegals and Legal Assistants
Legal Support Workers, nec

## Architecture and Engineering Occupations

Architects, Except Naval
Surveyors, Cartographers, and Photogrammetrists
Aerospace Engineers
Chemical Engineers
Civil Engineers
Computer Hardware Engineers

Electrical and Electronics Engineers
Environmental Engineers
Industrial Engineers, including Health and Safety
Marine Engineers and Naval Architects
Materials Engineers
Mechanical Engineers
Petroleum, mining and geological engineers, including mining safety engineers
Engineers, nec
Drafters
Engineering Technicians, Except Drafters
Surveying and Mapping Technicians

**Life, Physical, and Social Science Occupations**

Agricultural and Food Scientists
Biological Scientists
Conservation Scientists and Foresters
Medical Scientists, and Life Scientists, All Other
Atmospheric and Space Scientists
Chemists and Materials Scientists
Environmental Scientists and Geoscientists
Physical Scientists, nec
Economists and market researchers
Psychologists
Urban and Regional Planners
Social Scientists, nec
Agricultural and Food Science Technicians
Biological Technicians
Chemical Technicians
Geological and Petroleum Technicians, and Nuclear Technicians
Life, Physical, and Social Science Technicians, nec

**Education, Training, and Library Occupations**

Postsecondary Teachers
Preschool and Kindergarten Teachers
Elementary and Middle School Teachers
Secondary School Teachers
Special Education Teachers
Other Teachers and Instructors
Archivists, Curators, and Museum Technicians
Librarians
Library Technicians

Teacher Assistants
Education, Training, and Library Workers, nec

## Arts, Design, Entertainment, Sports, and Media Occupations

Artists and Related Workers
Designers
Actors, Producers, and Directors
Athletes, Coaches, Umpires, and Related Workers
Dancers and Choreographers
Musicians, Singers, and Related Workers
Entertainers and Performers, Sports and Related Workers, All Other
Announcers
Editors, News Analysts, Reporters, and Correspondents
Public Relations Specialists
Technical Writers
Writers and Authors
Media and Communication Workers, nec
Broadcast and Sound Engineering Technicians and Radio Operators, and media and communication equipment workers, all other
Photographers
Television, Video, and Motion Picture Camera Operators and Editors

## Healthcare Practitioners and Technical Occupations

Chiropractors
Dentists
Dieticians and Nutritionists
Optometrists
Pharmacists
Physicians and Surgeons
Physician Assistants
Podiatrists
Registered Nurses
Audiologists
Occupational Therapists
Physical Therapists
Radiation Therapists
Recreational Therapists
Respiratory Therapists
Speech Language Pathologists
Therapists, nec
Veterinarians
Clinical Laboratory Technologists and Technicians

Dental Hygienists
Diagnostic Related Technologists and Technicians
Emergency Medical Technicians and Paramedics
Health Diagnosing and Treating Practitioner Support Technicians
Licensed Practical and Licensed Vocational Nurses
Medical Records and Health Information Technicians
Opticians, Dispensing
Health Technologists and Technicians, nec
Healthcare Practitioners and Technical Occupations, nec

## Healthcare Support Occupations

Nursing, Psychiatric, and Home Health Aides
Occupational Therapy Assistants and Aides
Physical Therapist Assistants and Aides
Massage Therapists
Dental Assistants
Medical Assistants and Other Healthcare Support Occupations, nec

## Protective Service Occupations

First-Line Supervisors of Correctional Officers
First-Line Supervisors of Police and Detectives
First-Line Supervisors of Fire Fighting and Prevention Workers
Supervisors, Protective Service Workers, All Other
Firefighters
Fire Inspectors
Sheriffs, Bailiffs, Correctional Officers, and Jailers
Police Officers and Detectives
Animal Control
Private Detectives and Investigators
Security Guards and Gaming Surveillance Officers
Crossing Guards
Law enforcement workers, nec

## Food Preparation and Serving Related Occupations

Chefs and Cooks
First-Line Supervisors of Food Preparation and Serving Workers
Food Preparation Workers
Bartenders
Combined Food Preparation and Serving Workers, Including Fast Food
Counter Attendant, Cafeteria, Food Concession, and Coffee Shop
Waiters and Waitresses

Food Servers, Nonrestaurant
Food preparation and serving related workers, nec
Dishwashers
Host and Hostesses, Restaurant, Lounge, and Coffee Shop

## Building and Grounds Cleaning and Maintenance Occupations

First-Line Supervisors of Housekeeping and Janitorial Workers
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers
Janitors and Building Cleaners
Maids and Housekeeping Cleaners
Pest Control Workers
Grounds Maintenance Workers

## Personal Care and Service Occupations

First-Line Supervisors of Gaming Workers
First-Line Supervisors of Personal Service Workers
Animal Trainers
Nonfarm Animal Caretakers
Gaming Services Workers
Ushers, Lobby Attendants, and Ticket Takers
Entertainment Attendants and Related Workers, nec
Funeral Service Workers and Embalmers
Barbers
Hairdressers, Hairstylists, and Cosmetologists
Personal Appearance Workers, nec
Baggage Porters, Bellhops, and Concierges
Tour and Travel Guides
Childcare Workers
Personal Care Aides
Recreation and Fitness Workers
Residential Advisors
Personal Care and Service Workers, All Other

## Sales and Related Occupations

First-Line Supervisors of Sales Workers
Cashiers
Counter and Rental Clerks
Parts Salespersons
Retail Salespersons
Advertising Sales Agents
Insurance Sales Agents

Securities, Commodities, and Financial Services Sales Agents
Travel Agents
Sales Representatives, Services, All Other
Sales Representatives, Wholesale and Manufacturing
Models, Demonstrators, and Product Promoters
Real Estate Brokers and Sales Agents
Sales Engineers
Telemarketers
Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
Sales and Related Workers, All Other

**Office and Administrative Support Occupations**

First-Line Supervisors of Office and Administrative Support Workers
Switchboard Operators, Including Answering Service
Telephone Operators
Communications Equipment Operators, All Other
Bill and Account Collectors
Billing and Posting Clerks
Bookkeeping, Accounting, and Auditing Clerks
Gaming Cage Workers
Payroll and Timekeeping Clerks
Procurement Clerks
Bank Tellers
Financial Clerks, nec
Brokerage Clerks
Court, Municipal, and License Clerks
Credit Authorizers, Checkers, and Clerks
Customer Service Representatives
Eligibility Interviewers, Government Programs
File Clerks
Hotel, Motel, and Resort Desk Clerks
Interviewers, Except Eligibility and Loan
Library Assistants, Clerical
Loan Interviewers and Clerks
New Account Clerks
Correspondent clerks and order clerks
Human Resources Assistants, Except Payroll and Timekeeping
Receptionists and Information Clerks
Reservation and Transportation Ticket Agents and Travel Clerks
Information and Record Clerks, All Other
Cargo and Freight Agents
Couriers and Messengers

Dispatchers
Meter Readers, Utilities
Postal Service Clerks
Postal Service Mail Carriers
Postal Service Mail Sorters, Processors, and Processing Machine Operators
Production, Planning, and Expediting Clerks
Shipping, Receiving, and Traffic Clerks
Stock Clerks and Order Fillers
Weighers, Measurers, Checkers, and Samplers, Recordkeeping
Secretaries and Administrative Assistants
Computer Operators
Data Entry Keyers
Word Processors and Typists
Insurance Claims and Policy Processing Clerks
Mail Clerks and Mail Machine Operators, Except Postal Service
Office Clerks, General
Office Machine Operators, Except Computer
Proofreaders and Copy Markers
Statistical Assistants
Office and administrative support workers, nec

## Farming, Fishing, and Forestry Occupations

First-Line Supervisors of Farming, Fishing, and Forestry Workers
Agricultural Inspectors
Graders and Sorters, Agricultural Products
Agricultural workers, nec
Fishing and hunting workers
Forest and Conservation Workers
Logging Workers

## Construction and Extraction Occupations

First-Line Supervisors of Construction Trades and Extraction Workers
Boilermakers
Brickmasons, Blockmasons, and Stonemasons
Carpenters
Carpet, Floor, and Tile Installers and Finishers
Cement Masons, Concrete Finishers, and Terrazzo Workers
Construction Laborers
Paving, Surfacing, and Tamping Equipment Operators
Construction equipment operators except paving, surfacing, and tamping equipment operators
Drywall Installers, Ceiling Tile Installers, and Tapers

Electricians
Glaziers
Insulation Workers
Painters, Construction and Maintenance
Paperhangers
Pipelayers, Plumbers, Pipefitters, and Steamfitters
Plasterers and Stucco Masons
Roofers
Sheet Metal Workers, metal-working
Structural Iron and Steel Workers
Helpers, Construction Trades
Construction and Building Inspectors
Elevator Installers and Repairers
Fence Erectors
Hazardous Materials Removal Workers
Highway Maintenance Workers
Rail-Track Laying and Maintenance Equipment Operators
Construction workers, nec
Derrick, rotary drill, and service unit operators, and roustabouts, oil, gas, and mining
Earth Drillers, Except Oil and Gas
Explosives Workers, Ordnance Handling Experts, and Blasters
Mining Machine Operators
Extraction workers, nec

**Installation, Maintenance, and Repair Occupations**

First-Line Supervisors of Mechanics, Installers, and Repairers
Computer, Automated Teller, and Office Machine Repairers
Radio and Telecommunications Equipment Installers and Repairers
Avionics Technicians
Electric Motor, Power Tool, and Related Repairers
Electrical and electronics repairers, transportation equipment, and industrial and utility
Electronic Equipment Installers and Repairers, Motor Vehicles
Electronic Home Entertainment Equipment Installers and Repairers
Security and Fire Alarm Systems Installers
Aircraft Mechanics and Service Technicians
Automotive Body and Related Repairers
Automotive Glass Installers and Repairers
Automotive Service Technicians and Mechanics
Bus and Truck Mechanics and Diesel Engine Specialists
Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics
Small Engine Mechanics
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers, nec

Control and Valve Installers and Repairers
Heating, Air Conditioning, and Refrigeration Mechanics and Installers
Home Appliance Repairers
Industrial and Refractory Machinery Mechanics
Maintenance and Repair Workers, General
Maintenance Workers, Machinery
Millwrights
Electrical Power-Line Installers and Repairers
Telecommunications Line Installers and Repairers
Precision Instrument and Equipment Repairers
Coin, Vending, and Amusement Machine Servicers and Repairers
Locksmiths and Safe Repairers
Manufactured Building and Mobile Home Installers
Riggers
Helpers--Installation, Maintenance, and Repair Workers
Other Installation, Maintenance, and Repair Workers Including Wind Turbine Service Technicians, and Commercial Divers, and Signal and Track Switch Repairers

**Production Occupations**

First-Line Supervisors of Production and Operating Workers
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
Electrical, Electronics, and Electromechanical Assemblers
Engine and Other Machine Assemblers
Structural Metal Fabricators and Fitters
Assemblers and Fabricators, nec
Bakers
Butchers and Other Meat, Poultry, and Fish Processing Workers
Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
Food Batchmakers
Food Cooking Machine Operators and Tenders
Food Processing, nec
Computer Control Programmers and Operators
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
Forging Machine Setters, Operators, and Tenders, Metal and Plastic
Rolling Machine Setters, Operators, and Tenders, metal and Plastic
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
Machinists
Metal Furnace Operators, Tenders, Pourers, and Casters

Model Makers and Patternmakers, Metal and Plastic
Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic
Tool and Die Makers
Welding, Soldering, and Brazing Workers
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
Tool Grinders, Filers, and Sharpeners
Metal workers and plastic workers, nec
Bookbinders, Printing Machine Operators, and Job Printers
Prepress Technicians and Workers
Laundry and Dry-Cleaning Workers
Pressers, Textile, Garment, and Related Materials
Sewing Machine Operators
Shoe and Leather Workers and Repairers
Tailors, Dressmakers, and Sewers
Textile bleaching and dyeing, and cutting machine setters, operators, and tenders
Textile Knitting and Weaving Machine Setters, Operators, and Tenders
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
Upholsterers
Textile, Apparel, and Furnishings workers, nec
Cabinetmakers and Bench Carpenters
Furniture Finishers
Sawing Machine Setters, Operators, and Tenders, Wood
Woodworking Machine Setters, Operators, and Tenders, Except Sawing
Woodworkers including model makers and patternmakers, nec
Power Plant Operators, Distributors, and Dispatchers
Stationary Engineers and Boiler Operators
Water Wastewater Treatment Plant and System Operators
Plant and System Operators, nec
Chemical Processing Machine Setters, Operators, and Tenders
Crushing, Grinding, Polishing, Mixing, and Blending Workers
Cutting Workers
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
Inspectors, Testers, Sorters, Samplers, and Weighers
Jewelers and Precious Stone and Metal Workers
Medical, Dental, and Ophthalmic Laboratory Technicians
Packaging and Filling Machine Operators and Tenders
Painting Workers and Dyers
Photographic Process Workers and Processing Machine Operators
Adhesive Bonding Machine Operators and Tenders
Etchers, Engravers, and Lithographers
Molders, Shapers, and Casters, Except Metal and Plastic

Paper Goods Machine Setters, Operators, and Tenders
Tire Builders
Helpers--Production Workers
Other production workers including semiconductor processors and cooling and freezing equipment operators

**Transportation and Material Moving Occupations**

Supervisors of Transportation and Material Moving Workers
Aircraft Pilots and Flight Engineers
Air Traffic Controllers and Airfield Operations Specialists
Flight Attendants and Transportation Workers and Attendants
Bus and Ambulance Drivers and Attendants
Driver/Sales Workers and Truck Drivers
Taxi Drivers and Chauffeurs
Motor Vehicle Operators, All Other
Locomotive Engineers and Operators
Railroad Brake, Signal, and Switch Operators
Railroad Conductors and Yardmasters
Subway, Streetcar, and Other Rail Transportation Workers
Sailors and marine oilers, and ship engineers
Ship and Boat Captains and Operators
Parking Lot Attendants
Automotive and Watercraft Service Attendants
Transportation Inspectors
Transportation workers, nec
Crane and Tower Operators
Dredge, Excavating, and Loading Machine Operators
Conveyor operators and tenders, and hoist and winch operators
Industrial Truck and Tractor Operators
Cleaners of Vehicles and Equipment
Laborers and Freight, Stock, and Material Movers, Hand
Machine Feeders and Offbearers
Packers and Packagers, Hand
Pumping Station Operators
Refuse and Recyclable Material Collectors
Material moving workers, nec

## Appendix H: Data Sources for Indicators in the Basic Economic Security Tables

| US BEST Data Sources | | | |
|---|---|---|---|
| **BEST Component** | **Expense/Savings Component** | **Data Date** | **Source** |
| Housing | Rent | October 2013 | US Department of Housing and Urban Development. "Final FY 2014 Fair Market Rent Documentation System." *Huduser.* October 2013. |
| | Utilities | October 2013 | US Department of Housing and Urban Development and the American Community Survey. *Utility Ratios (Unpublished).* Washington, DC: Huduser, 2000. |
| Food | Low-Cost Food Plan | March 2014 | US Department of Agriculture. *Official USDA Food Plans: Cost of Food at Home at Four Levels, US Average, March 2014.* Washington, DC: US Department of Agriculture, 2014. |
| Transportation | Driving Costs | December 2013 | American Automobile Association. "Your Driving Costs: 2014 Edition." 2010. |
| | Gasoline Prices | March 2014 | US Department of Energy. "US Retail Historical Gasoline Prices." *US Retail Historical Gasoline Prices.* 2014. |
| | Auto Insurance Costs | December 2011 | National Association of Insurance Commissioners. "Auto Insurance: Average Expenditures for Auto Insurance by State 2007-2011." *Insurance Information Institute.* 2013. |
| | Miles Driven | 2009 | US Department of Transportation. "Online Table Designer." *National Housing Travel Survey.* 2009. |
| Child Care | Child Care | Varies | State Local Child Care Market Rate Studies |
| Personal and Household Items | Personal and Household Items | December 2007 | Bureau of Labor Statistics. *Consumer Expenditure Survey.* 2007. |
| Healthcare | ESI Costs | December 2012 | US Department of Health and Human Services. "Table II: USA, Private Sector Data by Firm Size, 2012." *Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey.* 2013. |
| | NESI Costs | 2014 | State exchanges |
| | Out of Pocket Expenses | December 2011 | US Department of Health and Human Services. "Table 1: Total Health Services- Median and Mean Expenses Per Person with Expense and Distribution of Expenses by Source of Payment: United States, 2011." *Center for Financing, Access and Cost Trends, Agency for Healthcare Research and Quality: Medical Expenditure Panel Survey, 2011.* 2013. |
| Taxes and Tax Credits | Federal Taxes and Credits | 2014 | IRS. *Revenue Procedure 2013-35.* 2013. |

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| | State Taxes | 2013 | State income tax forms |
| Emergency Savings | Median Unemployment Spell | 2008 | Bureau of Labor Statistics. "Table 30: Unemployed Total and Full-Time Workers by Duration of Employment." *Current Population Survey*. 2008b. |
| | Median Employee Tenure | 2008 | Bureau of Labor Statistics. "Employee Tenure." *Current Population Survey*. September 26, 2008a. |
| | UI replacement rate | 2014 | US Department of Labor. *Unemployment Insurance Data Summary*. Washington, DC: US Department of Labor, 2014. |
| | UI Maximum Benefits | 2014 | US Department of Labor. *Comparison of State Unemployment Laws: Monetary Entitlement*. Washington, DC: US Department of Labor, 2014. |
| | Rate of Return for a 4-week Treasury Bill | 2010 | "Selected Interest Rates." *Federal Reserve Statistical Release*. 2010. |
| Retirement Savings | National Elder Index | January 2014 | *The Economic Security Database*. Wider Opportunities for Women. Calculation by the Gerontology Institute, University of Massachusetts, Boston. |
| | Life Expectancy | 2005 | Bell, Felicitie C., and Michael L. Miller. *Life Tables for the United States Social Security Area 1900-2100*. Washington, DC: US Social Security Administration, 2005. |
| | Employer-match for savings | 2007 | Dworak-Fisher, Keenan. "Employer generosity in employer-matched 401(k) plans, 2002-03." *Monthly Labor Review*, 2007: 11-19. |
| | Average Social Security Benefits | 2013 | US Social Security Administration. *Annual Statistical Supplement to the Social Security Bulletin, 2014*. Washington, DC: US Social Security Administration, 2014. |
| | Average Social Security Benefits | 2012 | US Social Security Administration. *OASDI Beneficiaries by State and County, 2012*. Washington, DC: US Social Security Administration, 2013. |
| | Needed Future Amount | 2009 | *Present Value Tables for a Series of Future Payments*. |
| Education Savings | 2 year college tuition and fees | December 2013 | National Center for Education Statistics. *Digest of Education Statistics, 2013*. Washington, DC: US Department of Education, National Center for Education Statistics, 2014. |
| | 4 year college tuition, fees, room, and board | December 2013 | National Center for Education Statistics. *Digest of Education Statistics, 2013*. Washington, DC: US Department of Education, National Center for Education Statistics, 2014. |
| | Transportation and book costs | October 2012 | College Board. *Trends in College Pricing, 2013*. Washington, DC: College Board, 2013. |

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| | Grant Ratios | 2007 | National Center for Education Statistics. *National Postsecondary Student Aid Study, 2007-2008*. Washington, DC: US Department of Education, National Center for Education Statistics, 2010. |
| | 529 Savings Plans | 2005 | Clancy, Margaret, Reid Cramer, and Leslie Parrish. *Section 529 Savings Plans, Access to Postsecondary Education, and Universal Asset Building*. Washington, DC: New America Foundation, 2005. |
| Homeownership Savings | Lower Quartile Home Prices | 2012 | US Census Bureau. "Detailed Tables: B25076 Lower Value Quartile (Dollars)- Universe: Owner- Occupied Housing Units." *2012 American Community Survey, 1-year Estimates*. 2013. |
| | Lower Quartile home prices by bedroom ratios | 2012 | US Census Bureau. *2012 American Community Survey: 1 year estimates*. 2013. |
| | National Housing Price Index | 2014 | Federal Housing Finance Agency. *House Price Indexes*. 2014. |
| | Average Closing Costs | 2013 | Bankrate. *2013 State-by-State Closing Costs*. 2013. |
| | Interest Rates | 2010 | "Selected Interest Rates." *Federal Reserve Statistical Release*. 2010. |
| All | Inflation Rates | March 2014 | Bureau of Labor Statistics. "Consumer Price Index- All Urban Consumers (Current Series)." *Bureau of Labor Statistics*. March 2014. |

Source: The Basic Economic Security Tables: United States Methodology and Supplemental Data. http://www.basiceconomicsecurity.org/more-info.aspx

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