

# GOOD JOBS ARE BACK:

## College Graduates Are First in Line

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2015



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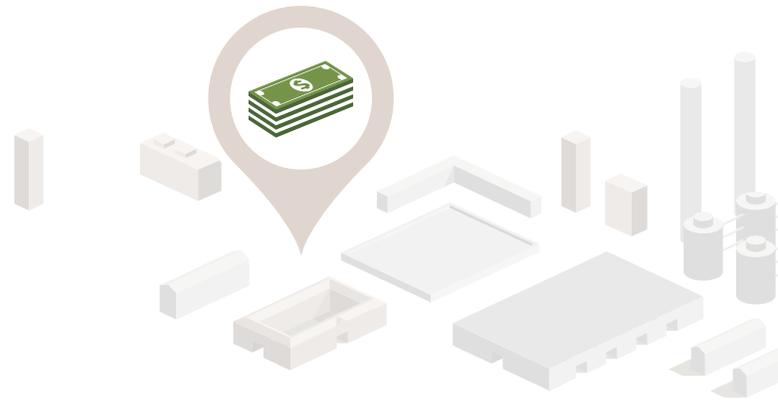
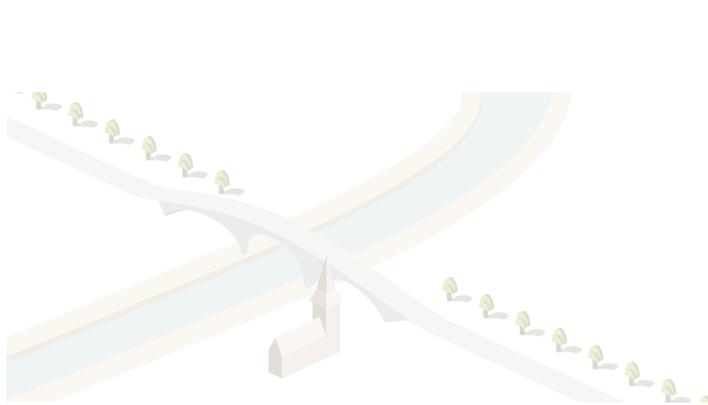
### Good jobs for college graduates are leading the recovery.

After years of slow growth, jobs are back in large numbers. The national unemployment rate is now 5.3 percent, down from the peak of 10 percent in October 2009. The economy added 250,000 jobs per month in 2014, the best year in job growth since the beginning of the millennium. The job growth fell off a bit in 2015, but has continued its deliberate advance, adding on average more than 200,000 jobs per month.

The economic recovery still has a long way to go. After all, this has been the worst recession since the Great Depression, and an unusually weak recovery.<sup>1,2</sup> Yet, the American job machine is producing jobs again, especially for college graduates.<sup>3</sup> But are these good jobs? Many media accounts suggest the nation is flooded with baristas who were trained to create business plans and Uber drivers who can solve differential equations. Certainly such overqualified workers exist, as they would in any economy, but we find they are the exception, not the norm. The surge in hiring is not concentrated in dead-end McJobs. If anything, the surge is concentrated at the other end of the scale: in good, high-paying jobs that provide benefits.

### What do we mean by good jobs?

There is no official definition of a good job. In this report, we define good jobs as those that are in the upper-third by median wages of occupations in which they are classified. These good jobs pay more than \$53,000 annually for a full-time, full-year (FTFY) worker.<sup>4</sup> This pay level is more than 26 percent above the median earnings of all full-time, full-year workers, which is \$42,000 per year.<sup>5</sup> A two-earner household in which both are employed in good jobs would have annual household earnings of more than \$100,000.<sup>6</sup> In addition, a majority of these good jobs are full-time (86 percent), offer health insurance (68 percent), and provide an employer-sponsored retirement plan (61 percent). On average, the employer-provided benefits add more than 30 percent on top of the employees' reported annual wages and salary.<sup>7</sup>



1. Officially, the most recent recession, dubbed the Great Recession by many economists, started in December 2007 and ended in 2009, but the jobs recovery did not start until January 2010. Thus, the terms “Great Recession” and “recession” in this report refer to the period from the beginning of 2008 to 2010. The term “recovery” refers to the 2010-2014 period that followed the recession.
2. The economic recovery remains a good news/bad news story. Jobs are recovering at a steady pace. At the same time, the loss of GDP during the recession has been twice that of any of the previous 10 recessions, and the recovery has been only half as strong. Many prime-age workers, especially men, are still out of the labor market, and the labor-force participation rate for all working-age adults remains 3 percentage points below pre-recession level. For a detailed discussion of historical perspective see Yellen, “A Painfully Slow Recovery for American Workers,” 2013. For a review of factors influencing labor force participation see Pitts, Robertson, and Terry, “Reasons for the Decline in Prime Age Labor Force Participation,” 2014.
3. This finding is also supported by Carnevale, Jayasundera, and Cheah, *The College Advantage*, 2012, and in the job ads data; see Carnevale, Jayasundera, and Repnikov, *The Online College Labor Market*, 2014.
4. The concept of a good job incorporates a variety of other factors, such as job satisfaction, full-time status, access to benefits, job security, working conditions, and job meaningfulness, among others. However, due to data limitations and to be more consistent with other

**Middle-wage jobs**, as defined in this report, are jobs in the middle third by median wages of the occupations in which they are classified. Middle-wage jobs pay \$32,000 to \$53,000 per year for a full-time, full-year worker. Eighty percent of workers in middle-wage jobs are full-time; 54 percent of middle-wage jobs provide health insurance; and 46 percent of middle-wage jobs provide an employer-sponsored retirement plan.

**Low-wage jobs**, as defined in this report, are jobs in the lowest-third by median wages of occupations in which they are classified. Low-wage jobs pay less than \$32,000 per year for an FTFY worker. Sixty-two percent of workers in low-wage jobs are full-time; 33 percent of low-wage jobs provide health insurance; and 25 percent of low-wage jobs include employer-sponsored retirement plans.

	Average annual earnings (FTFY)	Share of workers who are full-time	Share of workers with employer-provided health insurance	Share of workers with employer-provided retirement plan
	2013 \$	%	%	%
Good jobs	more than 53,000	86	68	61
Middle-wage jobs	32,000-53,000	80	54	46
Low-wage jobs	less than 32,000	62	33	25



research, in this report we use annual wages by occupation to identify good jobs. These other factors are positively correlated with wages, as we demonstrate through analysis of full-time employment, health, and retirement benefits. The wages presented here are full-time, full-year (FTFY) equivalents of 2008 median annual occupational wages (in 2013 dollars). The 2008 median annual occupational wages for all workers were used in the analysis. See the Methodological Appendix for more detail.

5. Based on \$802 median weekly earnings of full-time wage and salary workers in 2015 Q1 from the *Current Population Survey*, converted to annual salary (52 weeks) and rounded to the nearest \$1,000. U.S. Bureau of Labor Statistics, "Median usual weekly earnings of full-time wage and salary workers by sex, quarterly averages, seasonally adjusted," <http://www.bls.gov/news.release/wkyeng.to1.htm>.
6. Note that household earnings from wages and salaries differ from household income. Household income is composed of wages and salaries, capital income, retirement income, Social Security payments, child support, disability payments, etc. For 99 percent of tax filers (those with adjusted gross income less than \$500,000), wages and salaries account for about 75 percent or more of all reported income. <http://www.taxpolicycenter.org/UploadedPDF/2000134-composition-of-income-reported-on-tax-returns-in-2012.pdf>.
7. U.S. Bureau of Labor Statistics, "Employer Costs for Employee Compensation," 2014. The total employee compensation includes both wages and salaries and employer-provided benefits such as health insurance, retirement and savings, paid leave and vacation, and other legally required benefits.

In this report, we find:



**Good jobs have grown the most in the recovery.** *Of the 6.6 million jobs added during the recovery, 2.9 million were good jobs compared to 1.8 million low-wage jobs and 1.9 million middle-wage jobs.*



**Most of the good jobs are full-time and provide health insurance and retirement plans.** *Eighty-six percent of workers in good jobs are full-time; 68 percent of good jobs provide health insurance; and 61 percent of good jobs include employer-sponsored retirement plans.*



**Almost all good jobs have gone to college graduates.** *Out of the 2.9 million good jobs created since the recovery, 2.8 million have been filled by workers with at least a Bachelor's degree.*



**Jobs for managers; science, technology, engineering, and mathematics (STEM) workers; and healthcare professionals account for the majority of good jobs in the recovery.**



**The middle-wage jobs have not fully recovered from the recession.** *In spite of the 1.9 million middle-wage jobs added in the recovery, middle-wage occupations remain 900,000 jobs below their pre-recession employment levels.*



**Low-wage jobs have recovered all recession job losses (800,000 jobs above their pre-recession employment), but still are growing slower than good jobs.**

The jobs recovery frequently has been described as being overshadowed by a feeling of despair. As a story in *The New York Times* put it, “With joblessness high and job gains concentrated in low-wage industries, hundreds of thousands of Americans have accepted positions that pay less than they used to make, in some cases, sliding out of the middle class and into the ranks of the working poor.”<sup>8</sup> The statement reflects the sentiment in the media that this has been a recovery dominated by low-wage, part-time service jobs.<sup>9</sup> Some media stories have even portrayed the mass of college graduates as having to settle for jobs as baristas and sales clerks.<sup>10</sup> For example, a story in *The Wall Street Journal* asserts, “The recession left millions of college-

educated Americans working in coffee shops and retail stores.”<sup>11</sup>

We find these media stories to be counterintuitive because they disagree with the well-established cyclical patterns of economic behavior. The consensus among economic researchers is that the economy has seen a strong shift toward college-educated workers since the early 1980s. The long-term shift in hiring, the increased economic value added, and the wage premium of college workers have persisted and strengthened for more than 30 years in periods of both recession and recovery. If the reports that the economic recovery was only producing low-wage, low-skill college jobs were

8. Lowrey, “Recovery Has Created Far More Low-Wage Jobs Than Better-Paid Ones,” 2014.  
 9. Lowrey, “Recovery Has Created Far More Low-Wage Jobs Than Better-Paid Ones,” 2014; Cohn, “Next Time Someone Says Fast Food Isn’t a Real Job, Remember This,” 2014; Weissman, “Our Low-Wage Recovery: How McJobs Have Replaced Middle Class Jobs,” 2012. On the other hand, some media stories point out evidence of mixed recovery: Casselman, “There Are Lots of Jobs Available, But Are They Good Jobs?,” 2015; Mancuso, “Are Shifts in Industry Composition Holding Back Wage Growth?,” 2015.  
 10. Casselman, “College Grads May Be Stuck in Low-Skill Jobs,” 2013; Scott, “A Degree in Hand, but a Slow Start,” 2014.  
 11. Casselman, “College Grads May Be Stuck in Low-Skill Jobs,” 2013.

true, they would suggest a profound reversal of structural trends in technology and globalization in place for decades. This seems unlikely given the weight of continued evidence to the contrary.<sup>12</sup>

Usually, less-skilled and lower-paid workers are the first to be fired in recessions and the last hired in recoveries. Conversely, the most-skilled are the last fired in recessions and the first hired in recoveries. The data on the Great Recession certainly seems to support the usual pattern. In the recession between 2008 and 2010, job losses among college-educated workers lagged behind job losses for non-college workers. In the recovery, job gains among college-educated workers have been much greater than those for non-college workers.<sup>13</sup> Data on the pattern of job gains and losses between college and non-college workers in the Great Recession and its recovery conform to this usual pattern.

The prevailing media notion of recovery dominated by low-wage job growth is greatly overstated. When the U.S. workforce is divided into three equal parts based on the median wage of workers' occupations, and then change in employment in each of the three occupational tiers is tracked since the beginning of the recovery, the good jobs (2.9 million) make up 44 percent of all job gains in the recovery. The FTY-equivalent wage for these workers is \$53,000 or more (Figure 1). By comparison, low-wage jobs pay \$32,000 or less but comprise only 27 percent (1.8 million) of the jobs added in the recovery.

Through 2011, the economy created slightly more good jobs than either middle- or low-wage jobs. In 2012, the economy created far more good jobs than either middle- or low-wage jobs. From 2012 through 2014, the gap between good jobs and middle-wage and low-wage jobs has remained. In addition, by the end of 2014, there were more middle-wage jobs created than low-wage jobs.

## Why does our analysis differ from the prevailing stories in the media?

The primary difference between this report and the low-wage recovery stories in the media is that we use occupations to group jobs rather than industries. Industry refers primarily to the employers and the kinds of products and services they produce, whereas occupation classifies a specific set of activities performed on the job. If only the industry average earnings are used to sort jobs, then everyone from the CEO to a janitor who works at the same firm is assigned the same average pay. Yet the skills required and the wages paid are vastly different among workers who are employed in the same industry, but in different occupations.

As Justin Wolfers, a fellow at the Brookings Institution and professor of economics and public policy at the University of Michigan, wrote in his response to the NELP report in *The New York Times*:

*The industry of a job tells you something about the type of building you walk into when you go to work, and not much about the type of work you do or how well you are paid.*<sup>1</sup>

Workers in the same occupation, on the other hand, generally have similar sets of skills and earn similar wages.

In a number of instances, the use of median industry wages can produce misleading classification of high- and middle-wage professionals as low-wage workers. For example, the home health industry is classified as low-wage based on its median wages. The industry employs low-wage nursing, home health, and personal care aides, but it also employs high-wage healthcare professionals such as registered nurses (RNs) and physical therapists, whose employment also grew during the recovery. Another industry often identified in the media as low-wage – restaurant and food services – employs not only low-wage waiters, waitresses, and food-preparation workers, but also middle-wage food service managers, chefs and head cooks, and even high-wage professionals such as accountants and auditors.

Sorting earnings by industry alone, we find, oversimplifies the results, and makes the many types of jobs being created across the economy appear to be lower in quality than they actually are.

Note: For more information on the methodology of this report and how it compares to other studies of job quality and employment change during the current recovery, please see the Methodological Appendix and *Good Jobs Are Back: Technical Report*.

1. Wolfers, "A Low-Wage Recovery? The Evidence Isn't There," 2014.

12. For a historical analysis of the structural factors that have led to the growing economic value of college educated labor see Carnevale and Rose, *The Economy Goes to College*, 2015.

13. Carnevale, Jayasundera, and Cheah, *The College Advantage*, 2012.

Figure 1.1 Out of 6.6 million jobs added in the recovery, 2.9 million (44%) were good jobs compared to just 1.8 million (27%) low-wage jobs. The remaining 1.9 million jobs (29%) created in the recovery were middle-wage jobs.

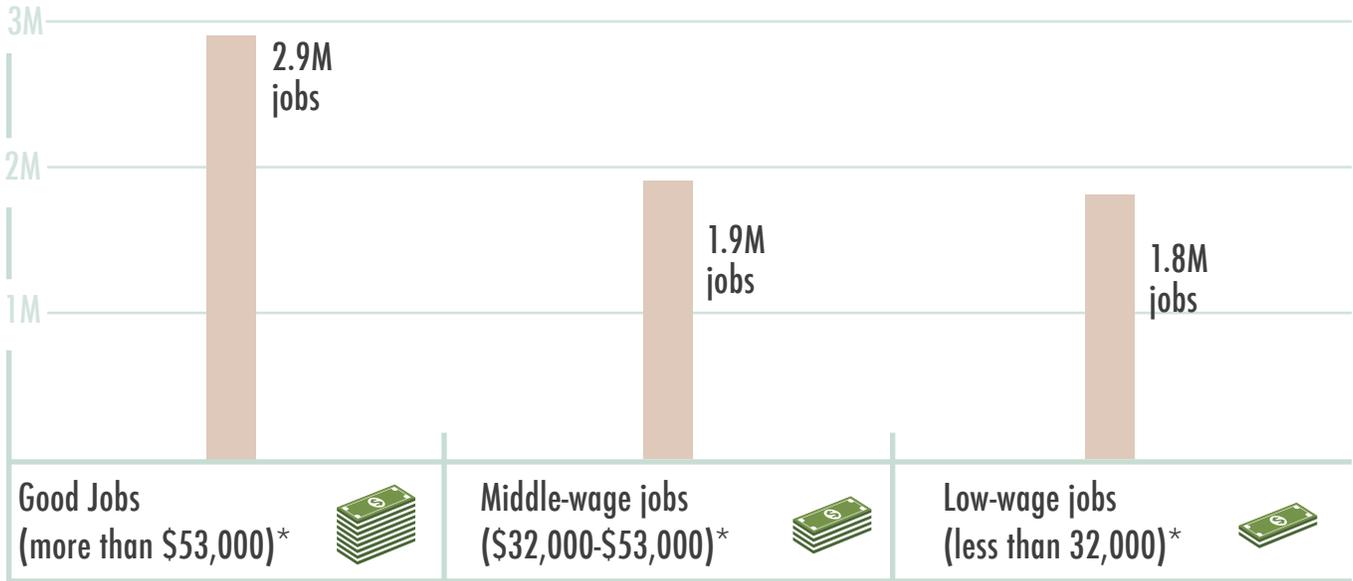
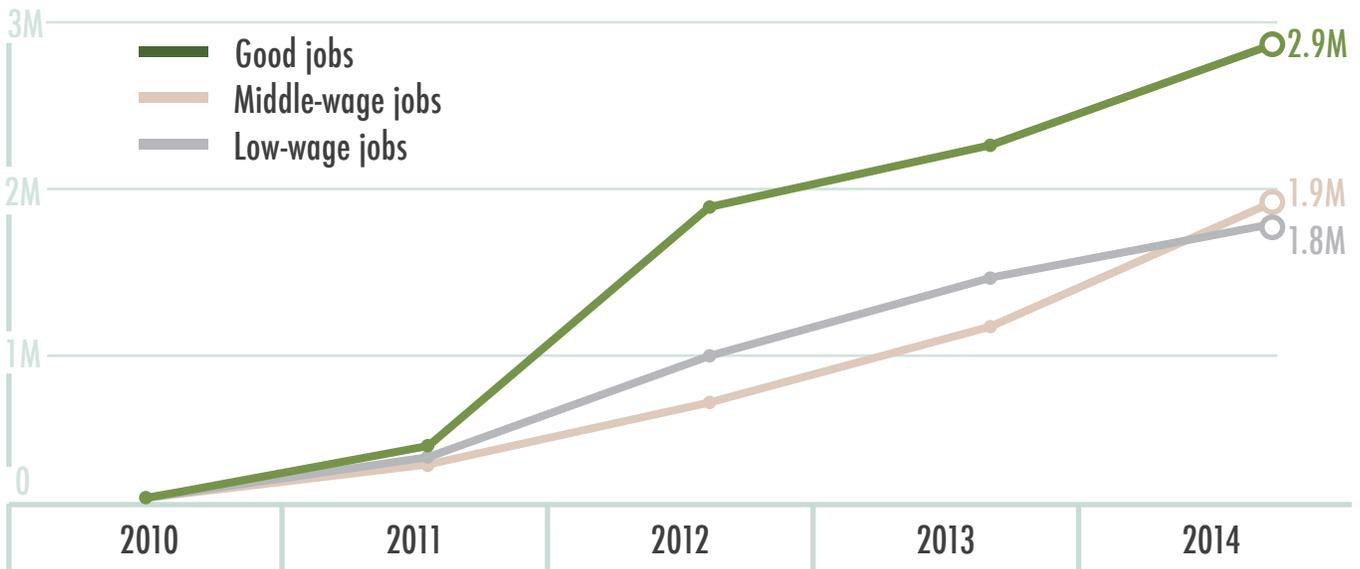


Figure 1.2 Return of good jobs in the recovery accelerated over time.



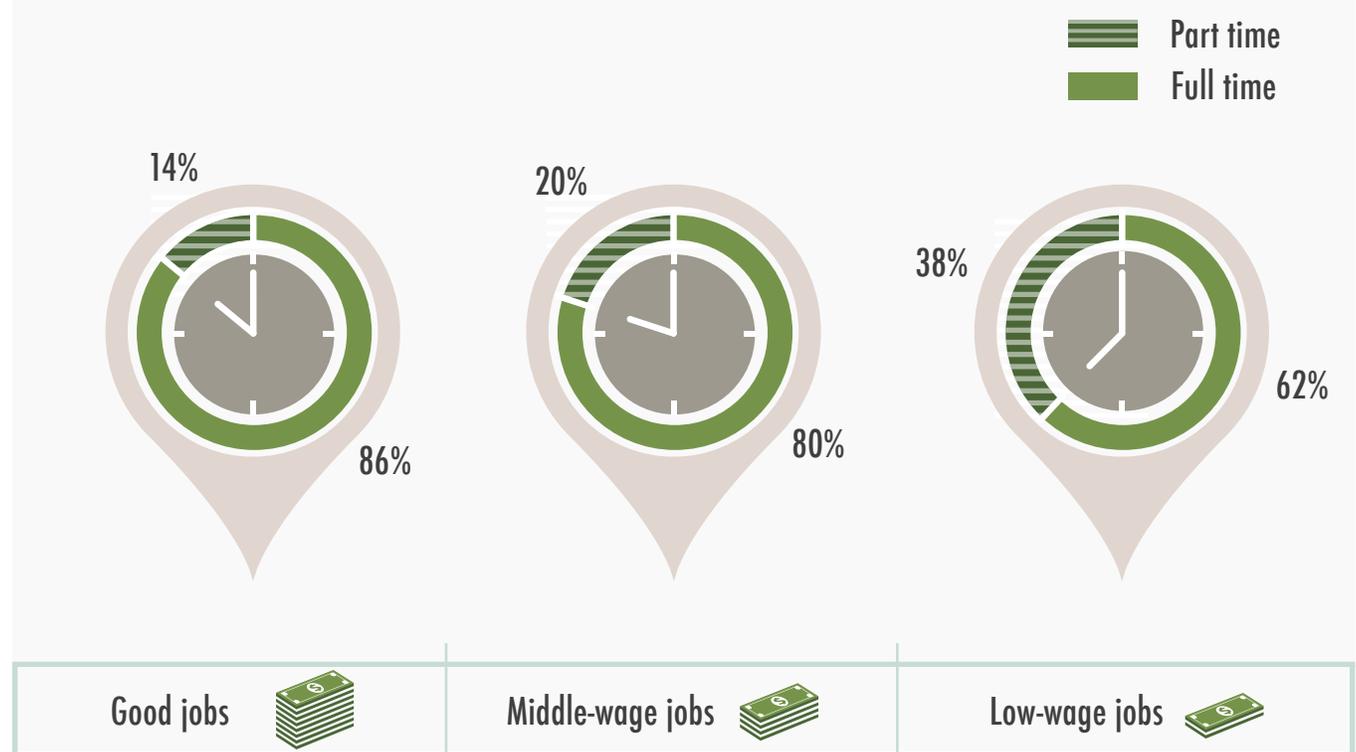
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)* data, 2010-2014.  
 Note: The employment change is for all workers 18 years and older. In the rest of this document all workers refers to workers 18 and older.  
 \*The wages presented here are full-time, full-year (FTFY) equivalents of 2008 median annual occupational wages (in 2013 dollars). The 2008 median annual occupational wages for all workers were used in the analysis.

**Most good jobs are full-time (86%) and include health insurance (68%) and retirement benefits (61%).**

Wages are not the only measure of job quality. Full-time employment status and access to employment benefits are also important. The good news is that the high-wage occupations that have provided the most job growth during this recovery are also the ones most likely to offer full-time status and access to employment benefits such as employer-provided health insurance and employer-sponsored retirement plans (Figure 3).

Eighty-six percent of workers in high-wage occupations work full-time and only 14 percent work part-time (Figure 2). By contrast, in low-wage occupations, fully 38 percent of workers work part-time. This difference has major consequences for the workers in terms of access to employment benefits and employer-provided training. For example, 74 percent of full-time workers in the private sector have access to a retirement plan compared to 37 percent of part-time workers.<sup>14</sup> Full-time workers are also more likely to have access to paid sick leave.<sup>15</sup> In addition, full-time workers receive three times more employer-provided formal training and five times more employer-provided informal training than part-time workers.<sup>16</sup>

**Figure 2. Eighty-six percent of good jobs are full-time compared to 62 percent of low-wage jobs.**



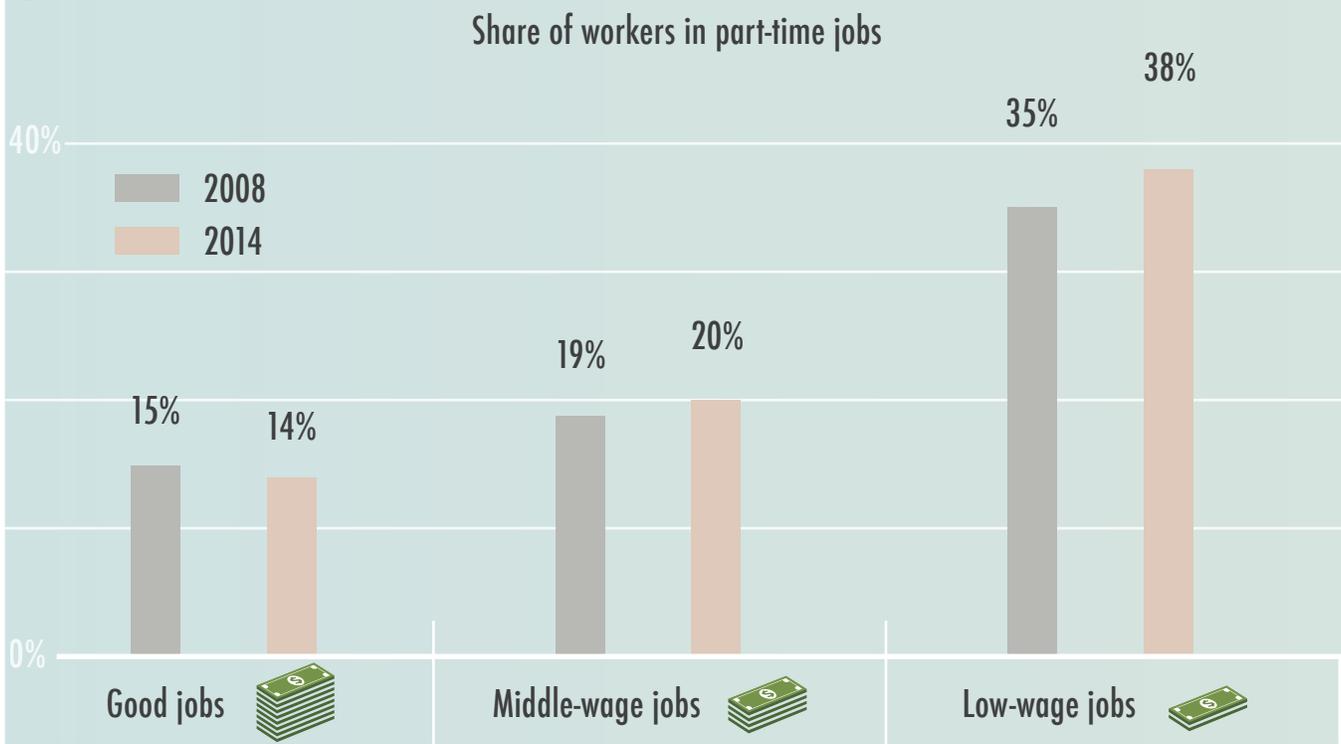
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)* data, 2014.

14. U.S. Bureau of Labor Statistics, "Employee Benefits in the United States," 2014.  
 15. Ibid.  
 16. U.S. Bureau of Labor Statistics, "1995 Survey of Employer Provided Training – Employee Results," 1996.

**The share of part-time workers in good jobs has returned to pre-recession levels, but not in low-wage and middle-wage jobs.**

During the recession, part-time employment increased for all tiers (good jobs, middle-wage jobs, and low-wage jobs).<sup>17</sup> However, while the increase in part-time employment has persisted among low-wage jobs, the share among middle-wage and good jobs has declined to near pre-recession levels. Low-wage jobs are more likely now to be part-time than they were prior to the Great Recession. While the share of part-time good jobs has dropped below where it was prior to the Great Recession, the share of part-time employment in low-wage jobs is still 3 percentage points higher than it was in 2008 (Figure 3).

**Figure 3. The share of part-time employment in good jobs has dropped to below the 2008 level, but part-time employment in low-wage jobs is still 3 percentage points higher than its pre-recession level.**



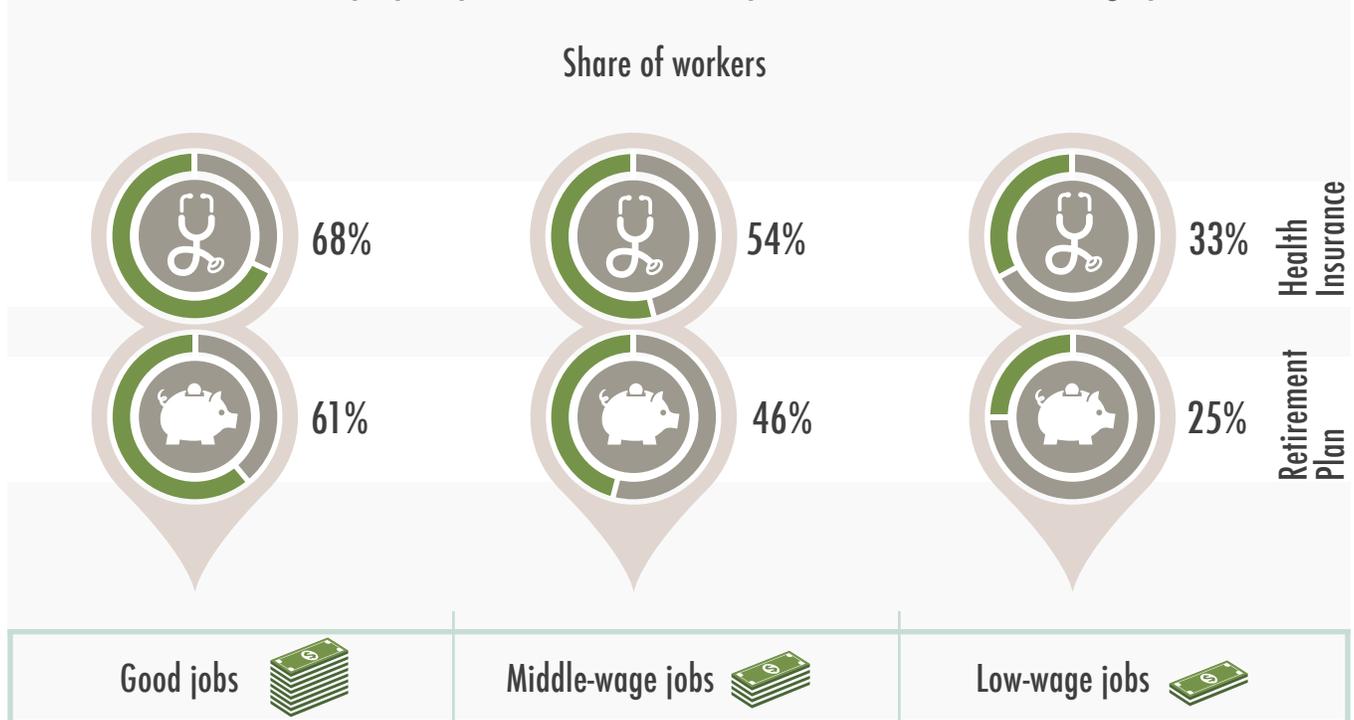
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)* data, 2008-2014.

17. Change in part-time employment during the recovery is one of the subjects of the upcoming Georgetown University Center on Education and the Workforce report on part-time employment.

Another important aspect of job quality is employment benefits. Total compensation for workers with benefits is much greater than the wages they receive. Benefits make up nearly a third (31%) of total employee compensation.<sup>18</sup> Again, workers in good jobs have a clear advantage. Sixty-eight percent of all workers in

good jobs have access to employer-provided health insurance and 61 percent have access to an employer-sponsored retirement plan. By comparison, only a third (33%) of workers in low-wage jobs have access to health insurance at work, and only a quarter (25%) have access to a retirement plan (Figure 4).

**Figure 4. Workers in good jobs are more than twice as likely to be covered by employer-provided health insurance and employer-sponsored retirement plan as workers in low-wage jobs.**



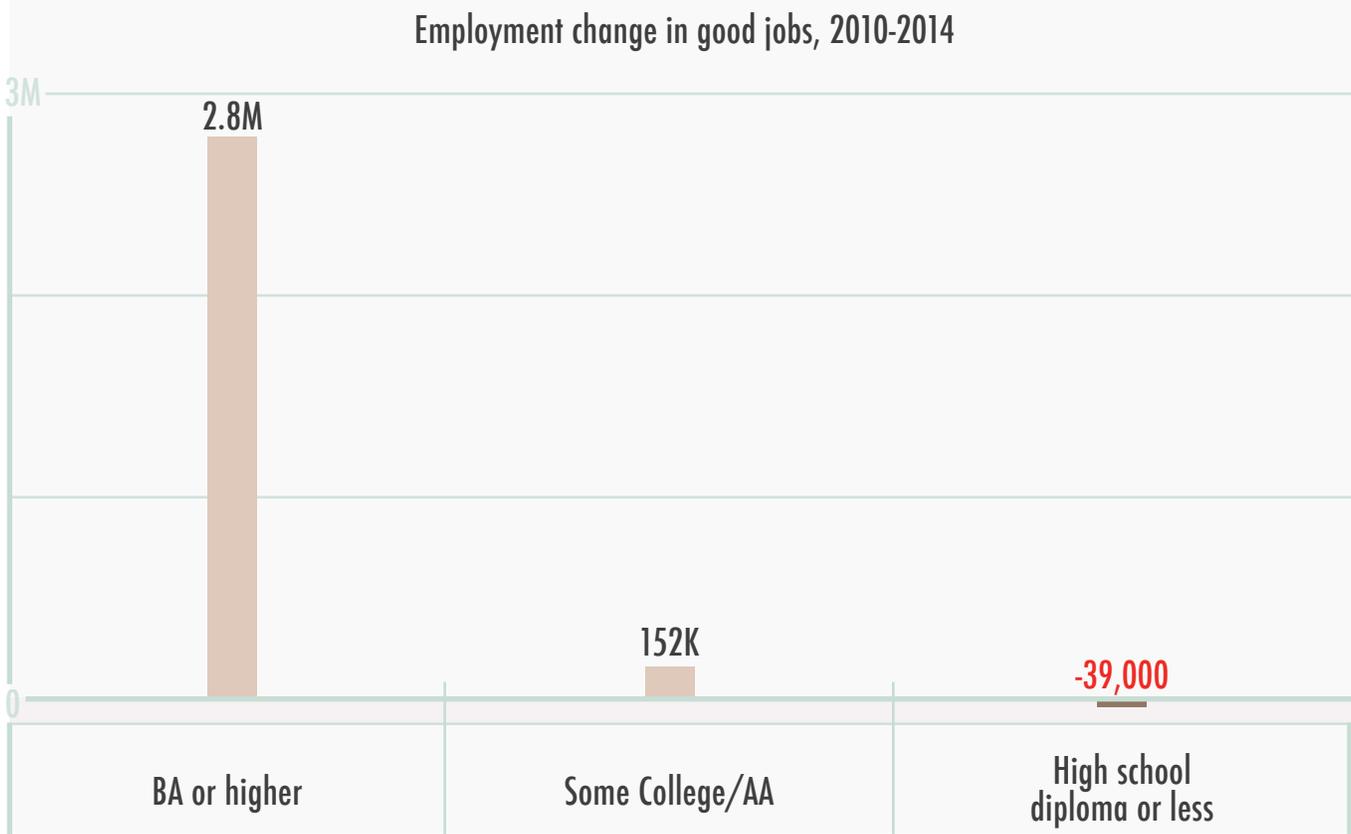
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)* data, 2008.

18. U.S. Bureau of Labor Statistics, “Employer Costs for Employee Compensation,” 2014. The total employee compensation includes both wages and salaries and employer-provided benefits such as health insurance, retirement and savings, paid leave and vacation, and other benefits typically provided to regular, full-time employees.

**A college degree and a good job go hand in hand (97% of good jobs added in the recovery went to college graduates).**

Who is getting all these high-quality jobs? The majority – 2.8 million of 2.9 million good jobs added in the recovery – went to college graduates. By contrast, workers with a high school diploma or less have continued to lose good jobs, forfeiting 39,000 good jobs since the beginning of the recovery (Figure 5).

**Figure 5. College-educated workers filled the overwhelming majority of good jobs created in the recovery, while less educated workers lost good jobs.**

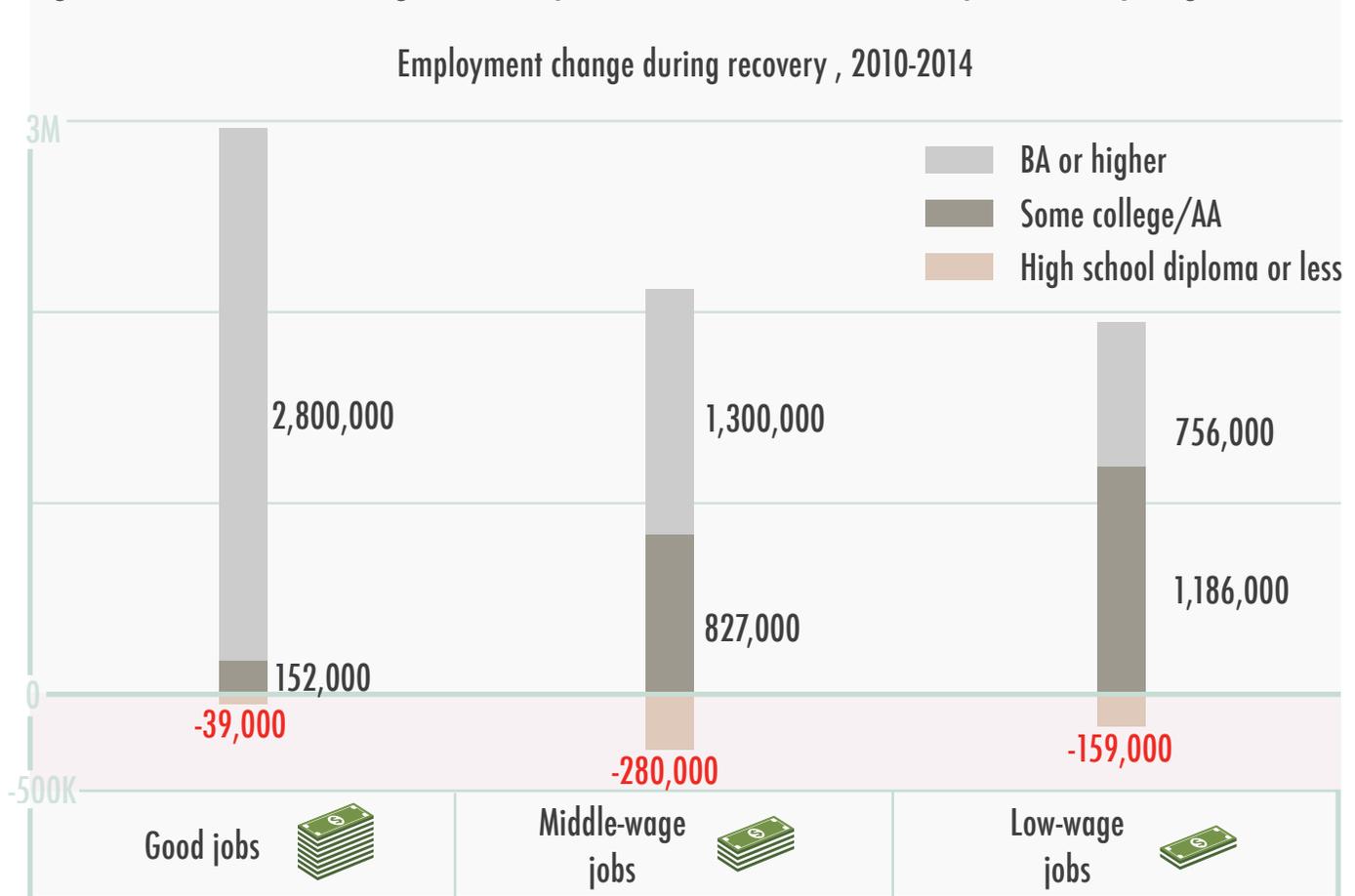


Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)* data 2010-2014.

On the other hand, the majority of low-wage jobs added during the recovery – 61 percent – went to workers with an Associate’s degree or some college. While this may seem discouraging for workers with some college, they still have better employment outcomes than workers with a high school diploma or less, who continued to lose jobs at every wage tier. Workers with a high school

diploma or less even lost low-wage jobs (159,000) between 2010 and 2014 (Figure 6). The numbers are clear: postsecondary education is important for gaining access to job opportunities in the current economy, and job seekers with Bachelor’s degrees or higher have the best odds of securing good jobs

Figure 6. Workers with a high school diploma or less continue to lose jobs at every wage tier.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)*, data, 2010-2014.

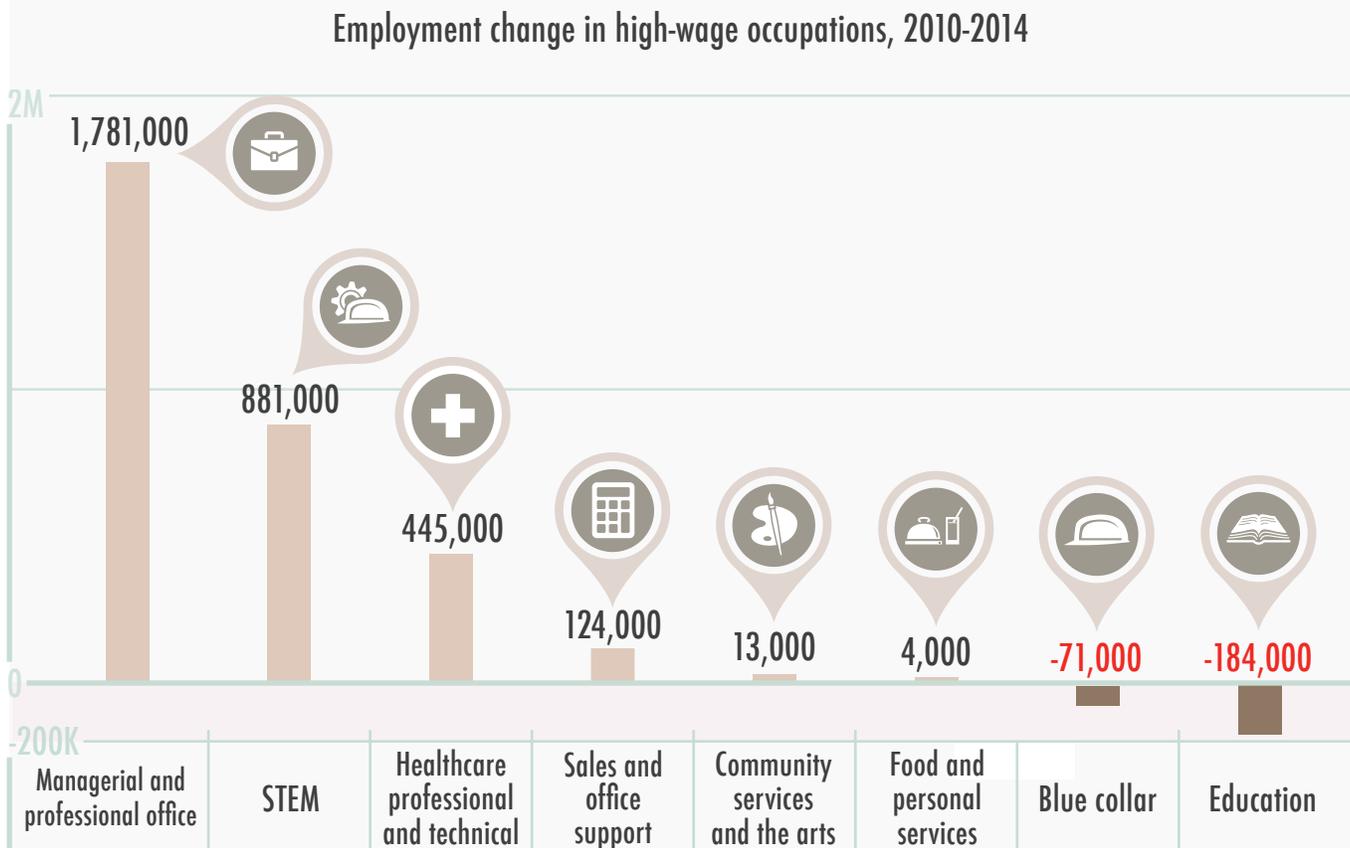
## Managerial, STEM, and healthcare professionals account for the majority of good jobs.

Of the 2.9 million good jobs added during the recovery, 1.8 million were in managerial and professional office occupations. Science, technology, engineering, and mathematics (STEM) occupations and healthcare professional and technical occupations were the other two major areas of growth in good jobs. By contrast,

education occupations lost 184,000 good jobs during the recovery, reflecting continued tight budgets in school districts, colleges, and universities (Figure 7).

The largest growth of good jobs has been in the category “managers, all other,” a broad grouping used by the U.S. Census Bureau and the Bureau of Labor Statistics for administrative professionals, including such positions as regulatory-affairs managers, security managers, investment-fund managers, and supply-chain managers.<sup>19</sup> Since 2010, the economy has added 1.2 million jobs to this group of management professionals.

**Figure 7. Managerial and professional office, STEM, and healthcare professional and technical occupations account for the majority of growth in good jobs.**



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)*, data, 2010-2014.

19. U.S. Department of Labor, Occupational Information Network (O\*Net) OnLine, <https://www.onetonline.org/link/summary/11-9199.00>.

Other occupations that experienced strong growth in good jobs during the recovery include: management analyst, with a growth of 195,000 jobs; software developer, with a growth of 180,000 jobs; computer occupations, all other, with a growth of 175,000 jobs; and registered nurse, with a growth of 141,000 jobs. Physicians and surgeons, with a median annual salary of \$140,000, earn the highest annual wages among the top 10 detailed occupational groups, with the largest job growth in good jobs during the recovery (Table 1).

**Table 1. Management, IT, and healthcare occupations were among high-wage occupations with the largest growth during the recovery.**

Detailed occupation group	Job growth, 2010-2014 (in thousands)	Median annual wages (2013\$)
Managers, all other	1,201	65,000
Management analysts	195	75,000
Software developers, applications and systems software	180	90,000
Computer occupations, all other	175	58,000
Registered nurses	141	55,000
Computer support specialists	133	50,000
Market research analysts and marketing specialists	133	60,000
Financial analysts	129	55,000
Physicians and surgeons	126	140,000
Computer and information systems managers	109	95,000

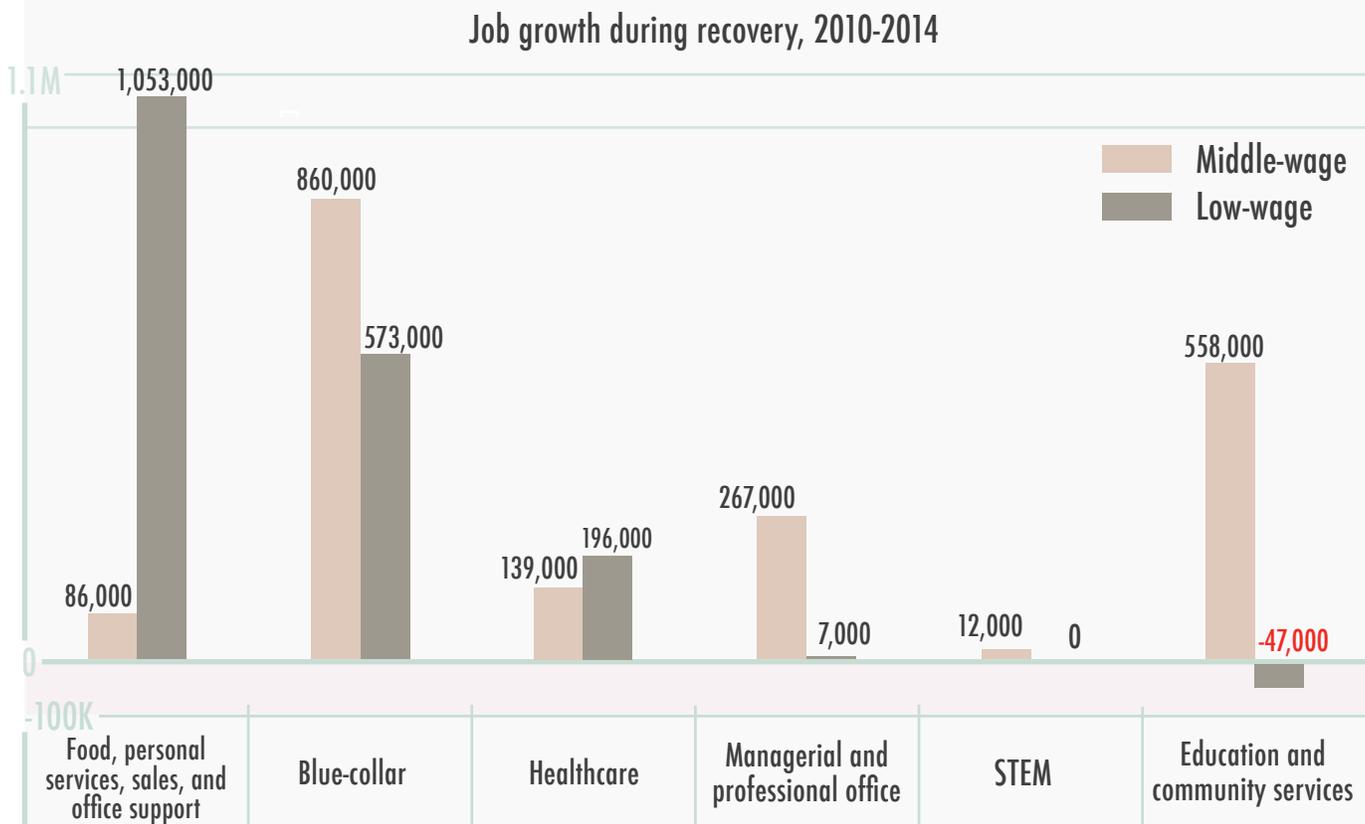
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)* data, 2010-2014.

Note: These wage data are 2013 median annual wages for all workers. They are not the 2008 full-time, full-year equivalent wages (in 2013\$) used to indicate ranges for high-wage, middle-wage, and low-wage occupations in Figure 1. As a result, in some cases, the wages in this table are lower than the annual wages for high-wage occupations presented in Figure 1.

The quality of jobs is broadly reflective of the level of educational attainment. Jobs in managerial and professional office and STEM occupations make up the majority of new good jobs. Blue-collar jobs, which frequently require less education, had the fastest

growth in middle-wage jobs and one of the fastest areas in low-wage jobs.<sup>20</sup> Food, personal services, sales, and office support showed the strongest growth among low-wage jobs (Figure 8).

**Figure 8. Blue-collar and education and community services jobs account for the majority of growth in middle-wage jobs during the current recovery, while food, personal services, sales and office support, and blue-collar jobs account for the majority of growth in low-wage occupations.**



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)* data, 2010-2014.

20. Blue-collar middle-wage occupation groups with strong job growth during the recovery include: truck drivers; welding, soldering, and brazing workers; automotive service technicians and mechanics; and highway maintenance workers, among others. Blue-collar low-wage occupation groups with strong job growth during the recovery include: construction laborers; miscellaneous assemblers and fabricators; freight, stock and material movers; and packers and packagers, among others.

Food, personal services, and sales and office support together account for more than half (58%) of all jobs added in the low-wage occupational tier. So, baristas, retail sales clerks, and fast-food workers have certainly been a part of this recovery. However, these types of jobs are the main story only if one focuses on low-wage jobs. Low-wage food, personal services, and sales and office support occupations have added more than a million jobs in this recovery, but good jobs in managerial, professional office, STEM, and healthcare occupations have added twice that number: more than 2 million jobs.

### Middle-wage jobs have yet to achieve full recovery (still 900,000 jobs short of pre-recession employment level).

Middle-wage jobs accounted for a respectable 29 percent (1.9 million jobs) of jobs gained in the recovery. However, middle-wage jobs have not regained all the jobs lost during the Great Recession (Figure 9). Good jobs and low-wage jobs fully recovered from their recession losses. Good jobs now have 1 million more workers than in 2008, while low-wage jobs have 800,000 more workers. Middle-wage jobs, on the other hand, have declined by 900,000 workers from pre-recession employment levels.

Middle-wage jobs are more likely to be full-time than low-wage jobs (Figure 2), and offer better access to employment benefits than low-wage jobs, but lag behind good jobs in this regard (Figure 3). Eighty percent of workers in middle-wage jobs are working full-time. Employer-provided health plans are available to 54 percent of all workers in middle-wage jobs, while employer-sponsored retirement plans are available to 46 percent of workers in this group. Occupations that make up the blue-collar cluster added the most jobs among the middle-wage jobs tier during the recovery (860,000 jobs).

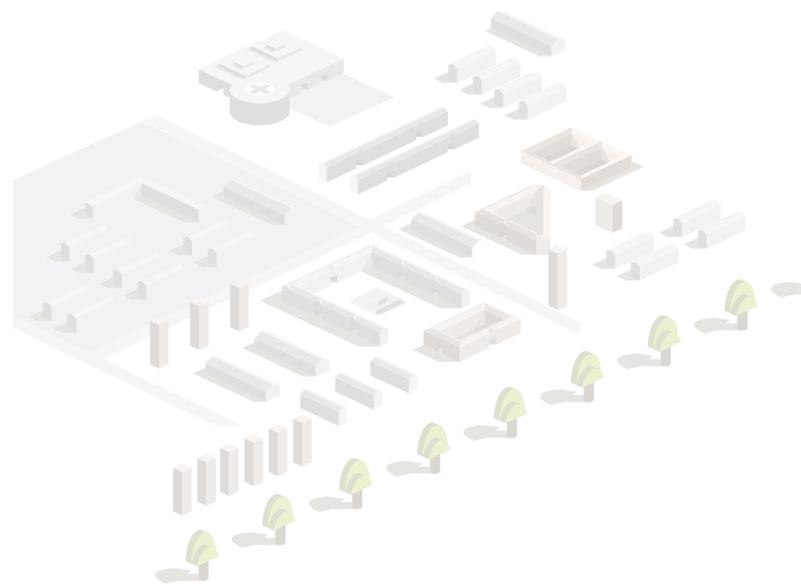


Figure 9. Middle-wage occupations are still 900,000 jobs short of their pre-recession employment level.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey (CPS)* data, 2008-2014.

## **Low-wage jobs have fully recovered (800,000 jobs above their pre-recession employment), but are still growing slower than good jobs (1 million jobs above pre-recession employment).**

Low-wage jobs accounted for 27 percent of jobs gained in the recovery (1.8 million jobs). The low-wage tier has regained all the jobs lost during the recession and added another 800,000 workers compared to pre-recession employment levels. While this represents healthy growth, these jobs are not growing as quickly as good jobs. There are 1 million more good jobs now than there were before the recession began.

Low-wage jobs are the least likely (62%) to be full-time among the three wage tiers. (Figure 2). They are also the least likely to offer access to employment benefits (Figure 3). Employer-provided health plans are available to only a third of all low-wage workers, and employer-sponsored retirement plans are available to just a quarter of workers in this group. Food, personal services, sales and office support occupations added the most jobs among the low-wage jobs tier during the recovery (1,053,000 jobs).

## **Conclusion**

The Great Recession was a major hit to the U.S. labor market, and the slow pace of economic recovery has left many people apprehensive about embracing any positive news on the jobs front. The prevailing narrative in the early months of the recovery described young people graduating from college and being unable to find positions in their fields of study. They sometimes settled for low-paying, part-time jobs, often in retail and food services industries, because such positions were all they could find. But that is just a small part of the story.

The larger picture shows that as the recovery accelerated, more high-quality, good jobs were created, and for the most part, they were filled by high-skilled professionals with postsecondary education. A more accurate description of the common experience in this jobs recovery is of college graduates finding good jobs with benefits.

## Methodological Appendix

Our analysis uses earnings as the primary indicator to categorize jobs into good jobs, middle-wage, and low-wage tiers. As discussed in the report, pay has strong positive correlation with other aspects of job quality, such as whether a job is full-time and provides health insurance or retirement benefits.<sup>21</sup>

In our report, *Good Jobs Are Back*, we take the following approach to ranking good jobs:

We use two data sets from the U.S. Census Bureau’s *Current Population Survey (CPS)* in the analysis: the *CPS Basic Monthly*, 2008-2014, and *CPS Annual Social and Economic Supplement* (the “March Supplement”), 2008-2014.

We group jobs into 485 detailed occupations based on the primary occupation of the worker, as reported in the 2008 *CPS Basic Monthly* (12-month pooled data).<sup>22</sup>

We sort these detailed occupations by median annual earnings (2008) from the 2009 *CPS Annual Social and Economic Supplement*.<sup>23</sup> We then divide the detailed occupations into three equal employment tiers, weighted by 2008 average monthly employment from 2008 *CPS Basic Monthly* (12-month pooled data).<sup>24</sup>

The median annual earnings (in 2013 dollars) of all workers for the three tiers are:

- Good jobs: more than \$42,700;
- Middle-wage jobs: \$25,800 to \$42,700;
- Low-wage jobs: less than \$25,800.

The median annual earnings (in 2013 dollars) of full-time, full-year (FTFY) workers for the three tiers are:

- Good jobs: more than \$53,000;
- Middle-wage jobs: \$32,000 to \$53,000;
- Low-wage jobs: less than \$32,000.

We used annual rather than hourly or weekly earnings because annual earnings provide a more consistent metric of the pay that individuals can expect throughout the year from performing a particular type of job. Some occupations – such as tax preparers and seasonal construction jobs – have high hourly earnings, but do not provide employment throughout the year.

We calculate the change in employment during the recent recovery (2010-2014) for the 485 detailed occupations, using annual employment averages from *CPS Basic Monthly*, and aggregate the employment change totals across the three wage tiers. Due to changes in occupation codes, minor recoding was necessary to maintain consistency in the analysis. Thus, we recode all detailed occupation groups in 2009-2014 to 2008 occupation codes.

We then compare employment change by tiers from 2010 to 2014 (for good, middle-wage, and low-wage jobs).

To evaluate the quality of jobs in each wage tier on dimensions beyond earnings, we compare rates of full-time employment, employer-provided health insurance, and employer-sponsored retirement plans across the three wage tiers from the *CPS March Supplement*.

We separate out employment in each detailed occupation group by three educational attainment levels: high school diploma or less, some college or Associate’s degree, and Bachelor’s degree or higher. We then analyze employment change during the recovery (2010-2014) for each educational attainment level within each of the three wage tiers.

For more details on the research methodology, see *Good Jobs Are Back: Technical Report*.

21. Similar findings are reported in Schmitt and Jones, *Where Have All the Good Jobs Gone?*, 2012.

22. The *Current Population Survey* is a nationally representative monthly survey of about 60,000 households in the United States that gathers a range of demographic and labor force information, including occupation.

23. The *CPS* monthly survey does not collect annual wages and salary information from the workers. Thus, the detailed occupations were matched with the *CPS March Supplement* data to obtain the median annual earnings of these occupations.

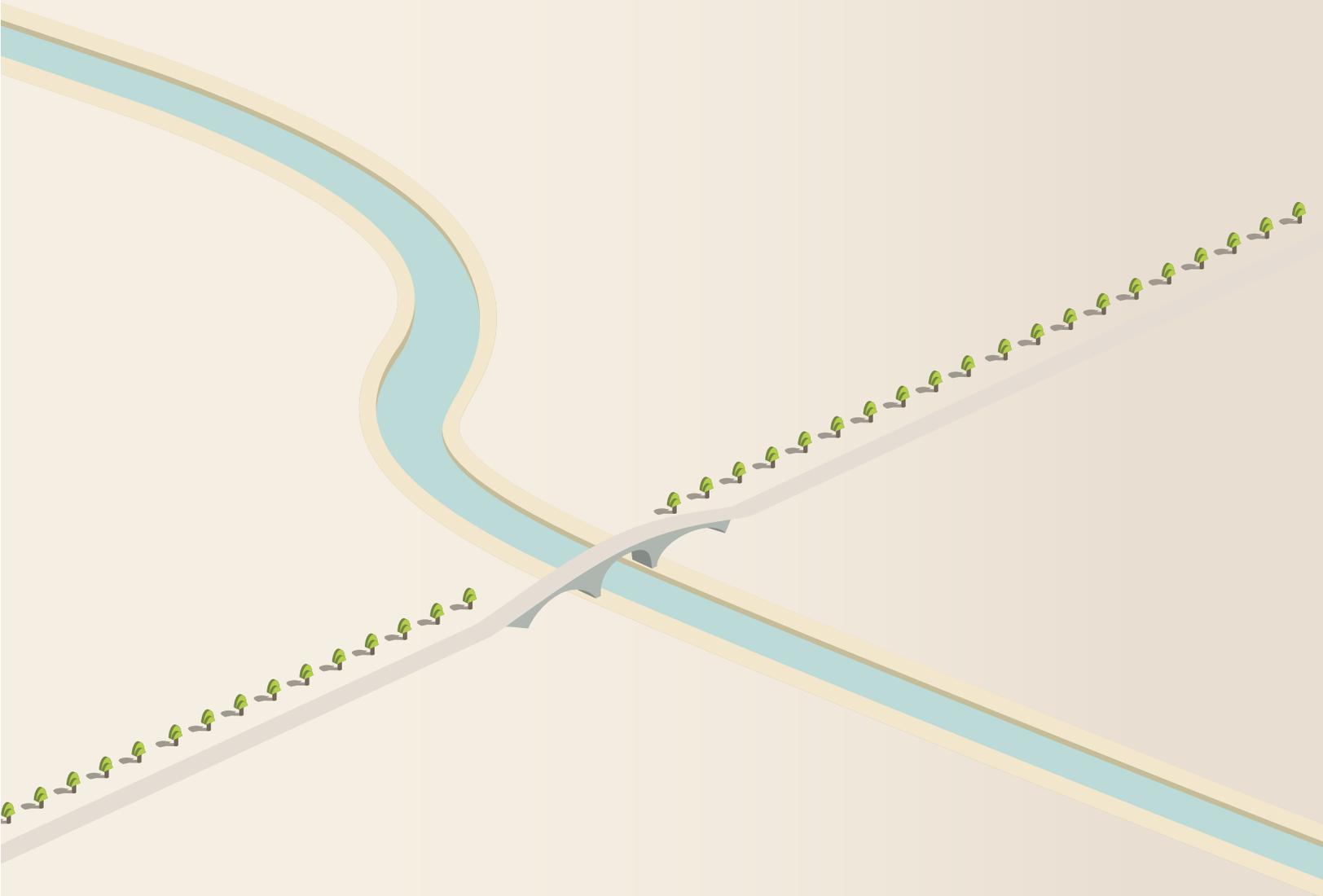
24. The tendency among respondents to report the wage information to the nearest hundred or thousand dollars creates lumping in the wage data. However, this did not affect cutoffs for the wage tiers in our analysis.

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*Good Jobs Are Back* comprises a full report and a technical report.  
Both can be accessed online at [cew.georgetown.edu/goodjobsareback](http://cew.georgetown.edu/goodjobsareback)



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