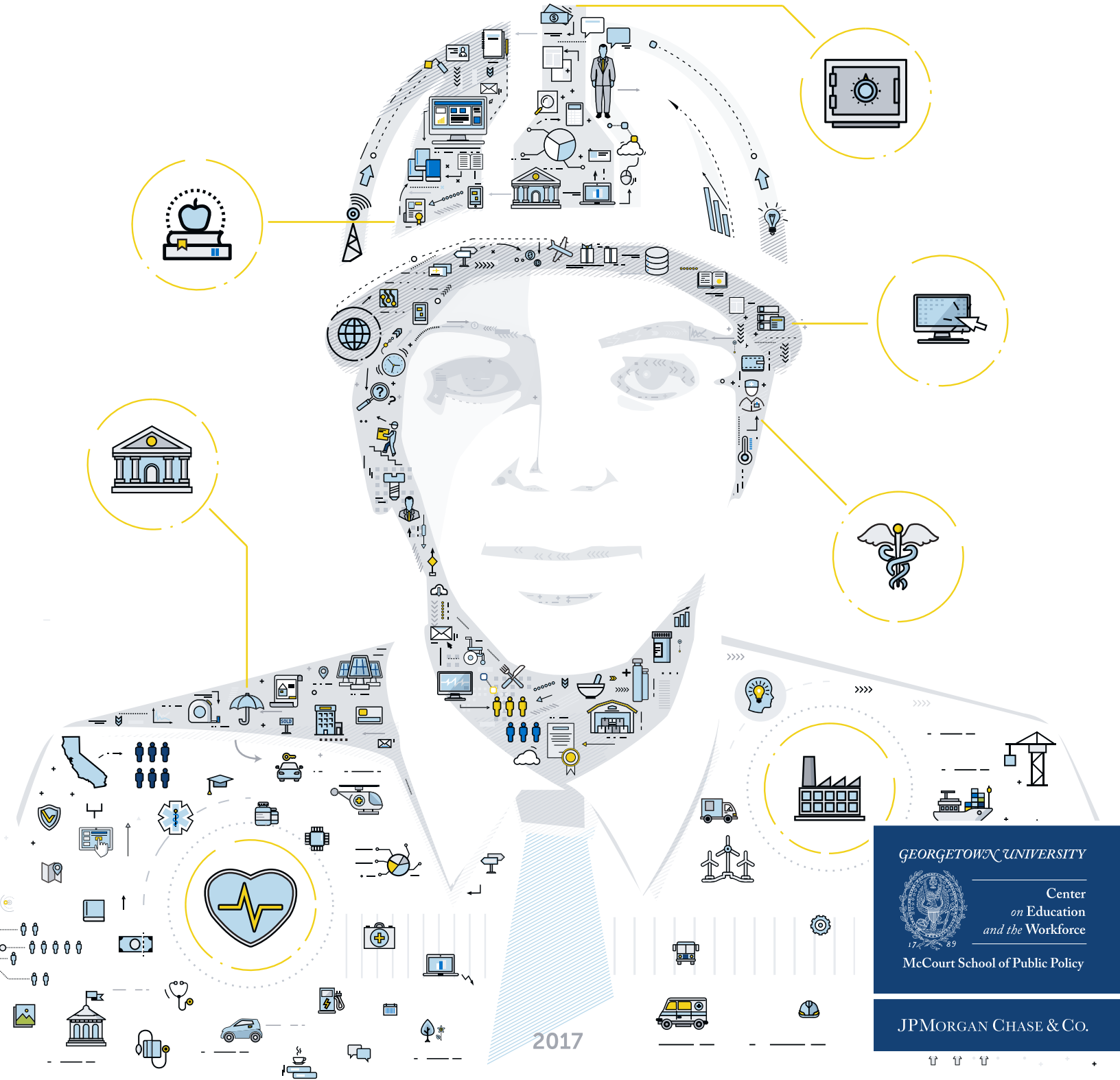
Good Jobs that Pay without a BA

By Anthony P. Carnevale, Jeff Strohl, Ban Cheah, and Neil Ridley



GEORGETOWN UNIVERSITY
Center on Education and the Workforce
McCourt School of Public Policy

JPMORGAN CHASE & CO.

2017

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The views expressed in this publication are those of the authors and do not necessarily represent those of JPMorgan Chase & Co., or its officers or employees.

ABOUT THE GOOD JOBS PROJECT

In the fall of 2017, the Georgetown University Center on Education and the Workforce will launch the Good Jobs Project website, which will show the concentration of good jobs for non-BA workers both nationally and by state. A Good Jobs Index will be created to provide users an interactive way to determine the level of economic opportunity for workers without BAs across the country. The project also focuses on the prevalence of good jobs by industry and occupation, with greater detail about the types of job opportunities that are being generated in the economy. In addition to earnings, we will examine other characteristics that describe the quality of these jobs, such as how many are full-time and how many offer benefits.

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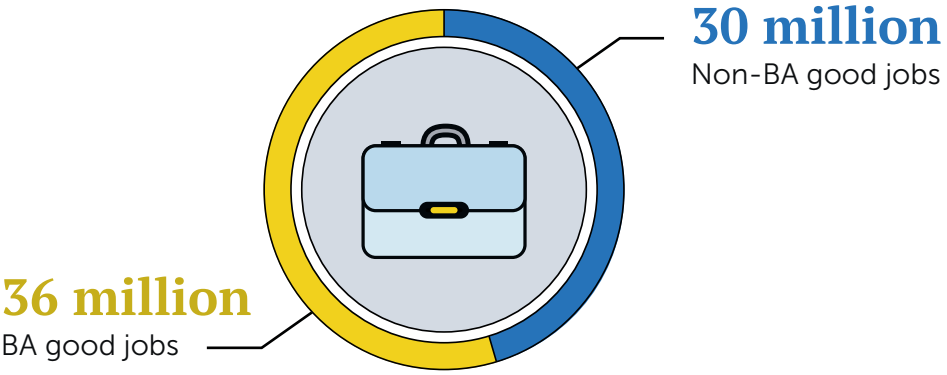
Introduction

The blue-collar economy conjures images of shuttered factories and the disappearance of good jobs. Those images reflect the suffering among blue-collar workers left behind by the shift away from an economy based in manufacturing, but they do not tell the whole story. In fact, we find that there are still 30 million good jobs that do not require a Bachelor's degree. These good jobs pay an average of $55,000 per year, and a minimum of $35,000 annually.[1]

In the past, these good jobs were found almost entirely in manufacturing and other blue-collar industries like transportation and construction. Employment in blue-collar industries, however, has declined primarily because of robots and offshoring of jobs. These industries still hold the majority (55%) of jobs that pay without a BA,[2] but that is changing quickly.

Today we find good jobs in skilled-services industries, such as healthcare, finance, and information technology. These new good jobs have steadily been replacing good jobs lost in traditional blue-collar industries. Twenty-five years ago, a machinist was a typical good manufacturing job paying $44,000 per year.[3] Today, a computer support technician who

Figure 1. There are 30 million good jobs that pay for workers without a BA and 36 million for those with a BA or higher.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 2016.

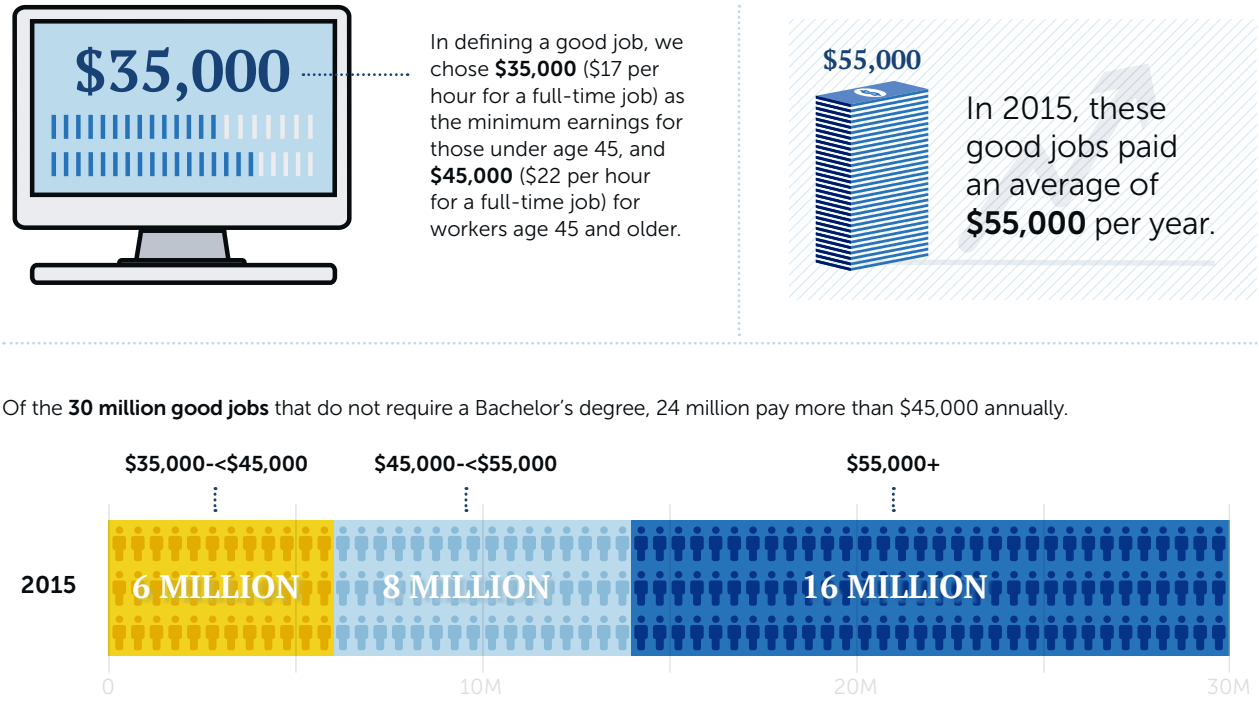
1 While there is no universally accepted or official earnings level that defines self-sustaining earnings, in defining a good job, we have chosen $35,000 ($17 per hour for a full-time job) as a minimum for those under age 45 and $45,000 ($22 per hour for a full-time job) for workers age 45 and older. Jobs that meet these standards pay a median $55,000. The $17-per-hour wage is consistent with living wage levels.
2 In this report, the term BA is used to refer to all Bachelor's degrees.
3 All earnings are reported in 2015 dollars. Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992, 2016.

makes $60,000 per year typifies these good jobs in skilled services. Other examples include financial managers, sales representatives, and engineering technicians.[4]

The educational requirements for good jobs that pay without a BA also are shifting. The number of good jobs held by workers with no more than a high school diploma has declined by over 1 million since 1991. Good jobs have shifted primarily to workers with Associate's degrees, who have gained more than 3 million net new jobs during that same period.

Using our age-adjusted earnings standard for good jobs,[5] we find that the number of workers with good jobs that pay without a BA has increased over the past quarter century—from 27 million in 1991 to 30 million today, even with large losses in manufacturing employment. The share of good jobs held by workers without a BA, though, has declined, from 60 percent to 45 percent of all good jobs, as BA holders are taking an increasing share of the good jobs. Workers with BAs now hold 36 million good jobs (Figure 1).

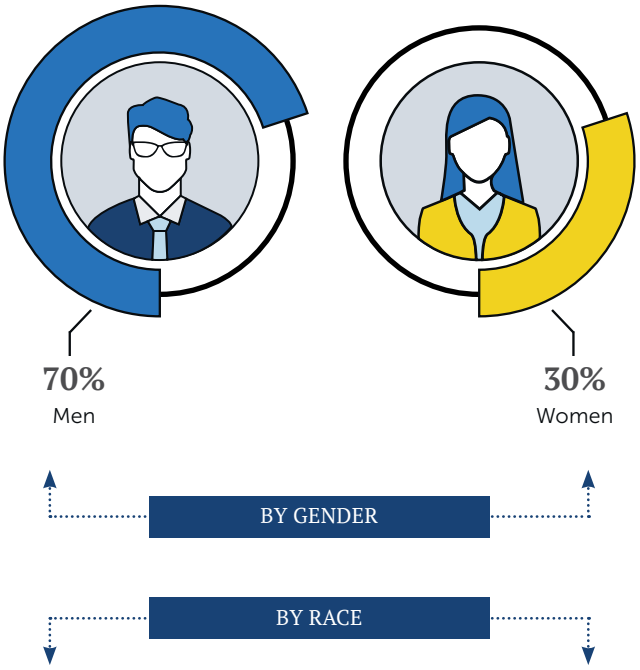
Figure 2. What is a good job?



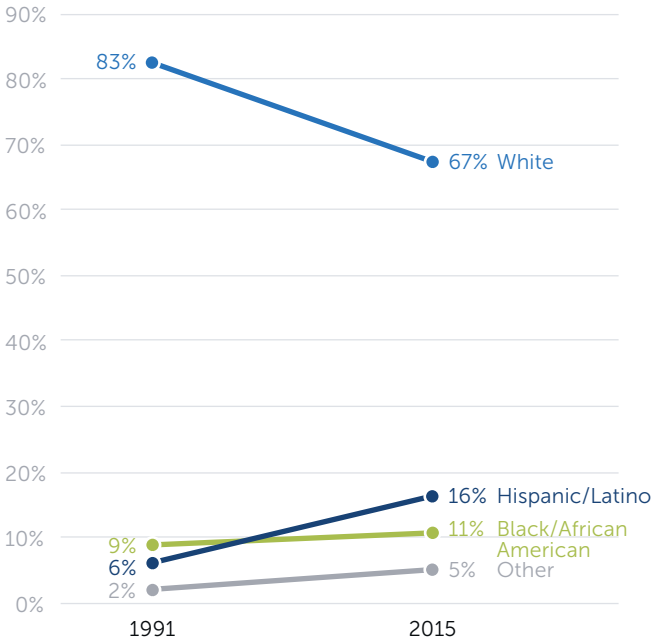
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

4 For examples of good jobs in blue-collar and skilled-services industries, see Appendix C.
5 We presume that higher earnings levels are required for self-sufficiency among older workers. To roughly adjust for this, we raise the threshold to $45,000 for workers age 45 or older. We are studying the development of additional age adjustments.

Figure 3. Who gets good jobs and where are they?

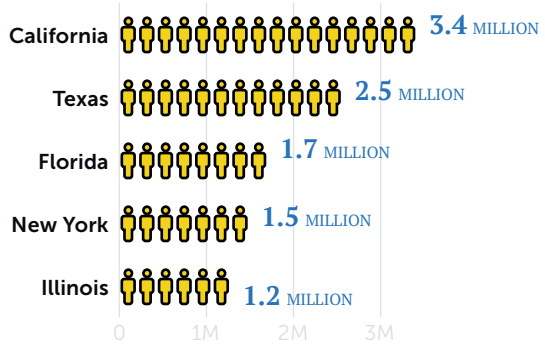


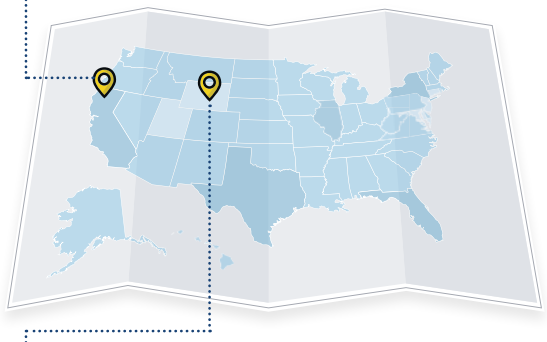
Whites still have the largest share of good jobs, even though their share has declined, while **Latinos** have experienced the largest growth in good jobs. There has been little growth in good jobs for **Blacks**.



TOP FIVE STATES BY NUMBER OF GOOD JOBS

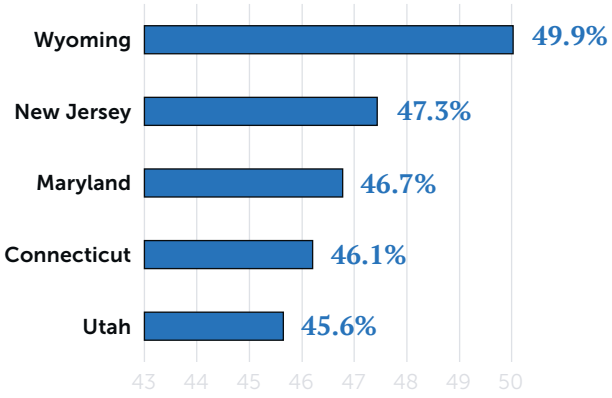
The most populous states—**California, Texas, Florida, New York, and Illinois**—offer the largest number of good jobs for those without a BA .





TOP FIVE STATES BY SHARE OF GOOD JOBS

Wyoming, the least populated state, has the largest share of good jobs, but it is followed by three densely-populated East Coast states—**New Jersey, Maryland, and Connecticut.**



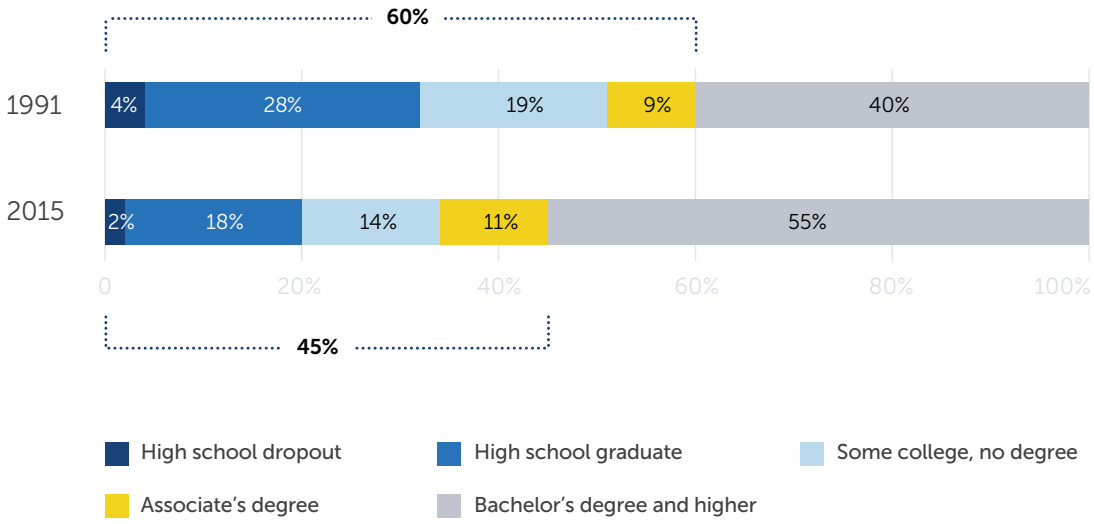
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

The number of good jobs has grown for workers without a BA, but their share of all good jobs has declined.

While it is important to highlight this segment of the job market, there are still hard truths to face. Workers with BAs have gained far more jobs since the Great Recession of 2007-2009 (8.4 million) than workers with less education (3.2 million).[6] The share of workers with Bachelor's degrees recently outnumbered workers with a high school diploma for the first time.[7]

It is not just the recession that is to blame. Good jobs for workers without a BA have increased from 27 million in 1991 to 30 million in 2015. But, because the size of the workforce expanded so much, the non-BA share of good jobs declined from about 60 percent of workers to 45 percent in 2015 (Figure 4).

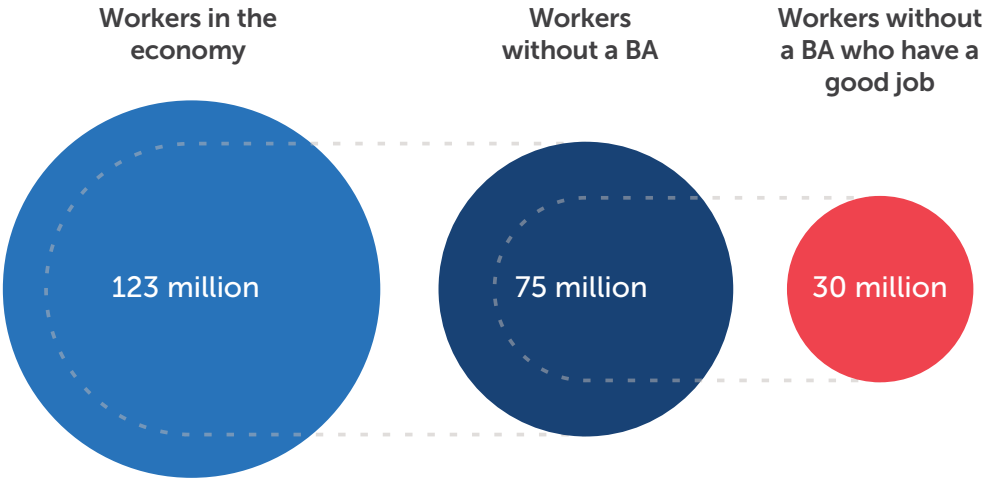
Figure 4. Between 1991 and 2015, the share of good jobs going to workers without a BA fell from 60 percent to 45 percent.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

6 Carnevale et al., *America's Divided Recovery*, 2016.
7 Ibid.

Figure 5. 30 million American workers aged 25 to 64 had good jobs that pay without a BA in 2015.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

To put the workforce in perspective, of the 123 million employed workers aged 25 to 64, 75 million workers do not have a BA. Of these, 30 million workers have good jobs that pay without a BA (Figure 5).

The slower growth in good jobs that pay without a BA can be attributed to the long-term decline of blue-collar jobs in the economy. Industrial production has increased by 60 percent in the U.S. since 1991, but blue-collar employment has declined by 30 percent over the same period.[8] Of the 3 million good jobs for workers without a BA lost, 2.5 million were in manufacturing (Figure 6). But the overall growth of good jobs for workers without a BA in skilled-services sectors has kept the non-BA economy above water. Gains of 4 million good jobs, including 1 million in financial services and 1.4 million in health services, have helped offset the losses of good jobs in manufacturing.

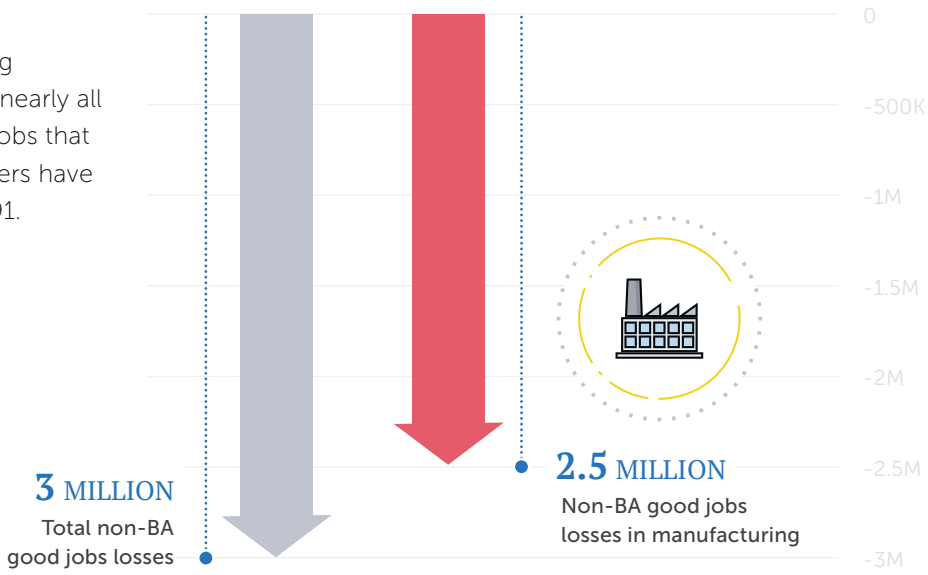
Good jobs in factories at the height of the manufacturing economy in the U.S. only required a high school education or less, but the new good jobs almost all require at least some postsecondary education and training. In fact, the number of workers in good jobs with only a high school diploma has declined by 1 million since 1991. Among good jobs, employers favor those with Associate's degrees or some college, with 3.2 million net new good jobs for Associate's degree holders.

8 Industrial production is from Federal Reserve Economic Data (FRED), Industrial Production Index 1991-2015 and consists of manufacturing, mining and logging, and utilities. Employment in these same industries is obtained from Bureau of Labor Statistics, Current Employment Statistics, 1991-2015.

Shifts in the economy have offset the losses of good jobs in blue-collar sectors with new good jobs in skilled-services industries.

The decline of the manufacturing industry and the broader blue-collar economy was in motion long before the Great Recession. In 1947, more than 30 percent of U.S. employment was in manufacturing. More than 40 percent was in goods-producing industries overall.[9] But automation, globalization, and the rise of a more integrated, networked economy have taken a toll on employment.

Figure 6.
Manufacturing accounts for nearly all of the good jobs that non-BA workers have lost since 1991.

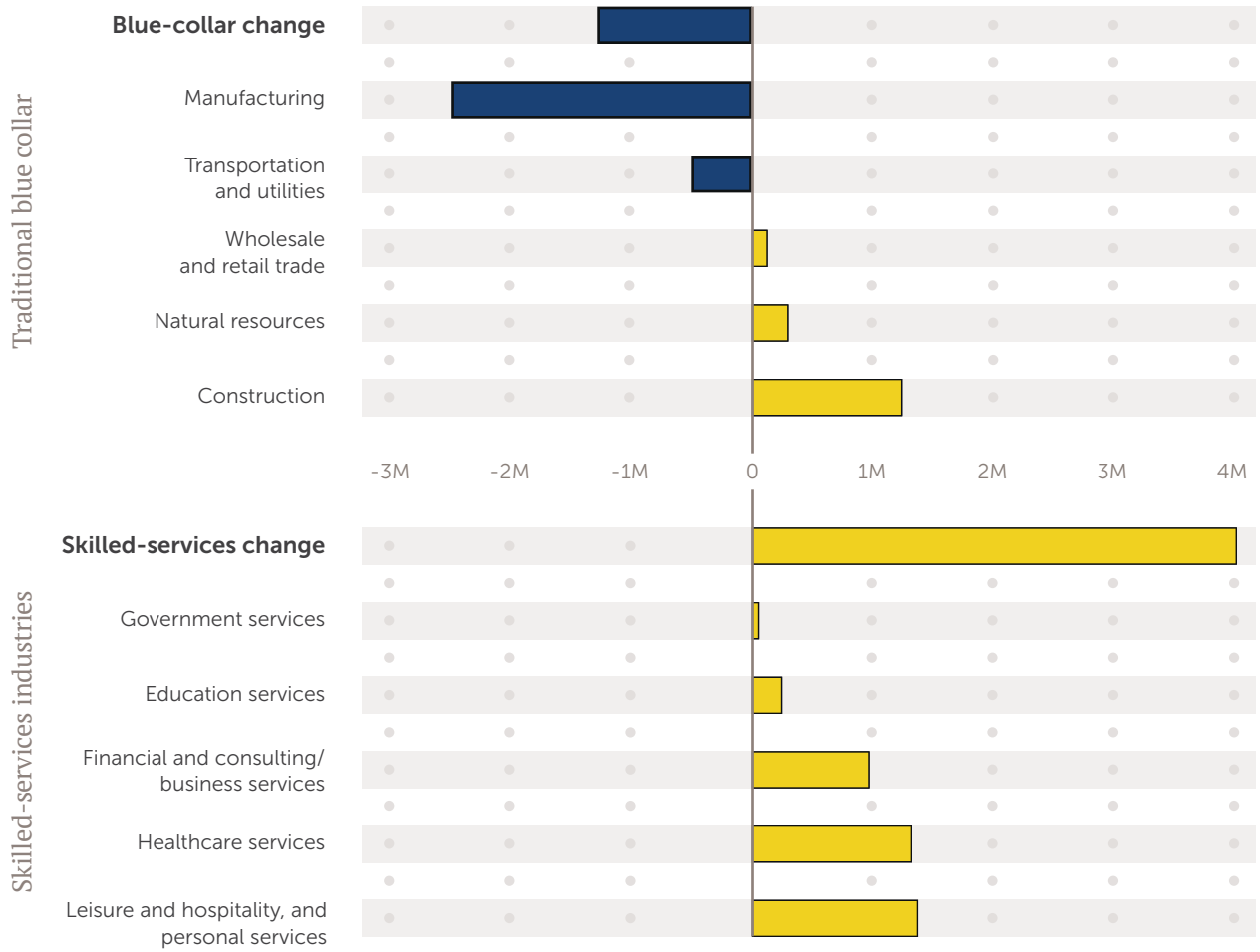


Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

9 Carnevale and Rose, *The Economy Goes to College*, 2015.

At the same time, the growth of jobs in skilled-services industries offset the job losses that workers without BAs suffered in traditional blue-collar industries (Figure 7). The healthcare services, financial services, and education services industries have added employment as the share of income spent by American consumers on food, clothing, and other basic items has shifted toward healthcare, education, and other services.[10]

Figure 7. The growth of good jobs in skilled-services industries has offset losses in traditional blue-collar industries.

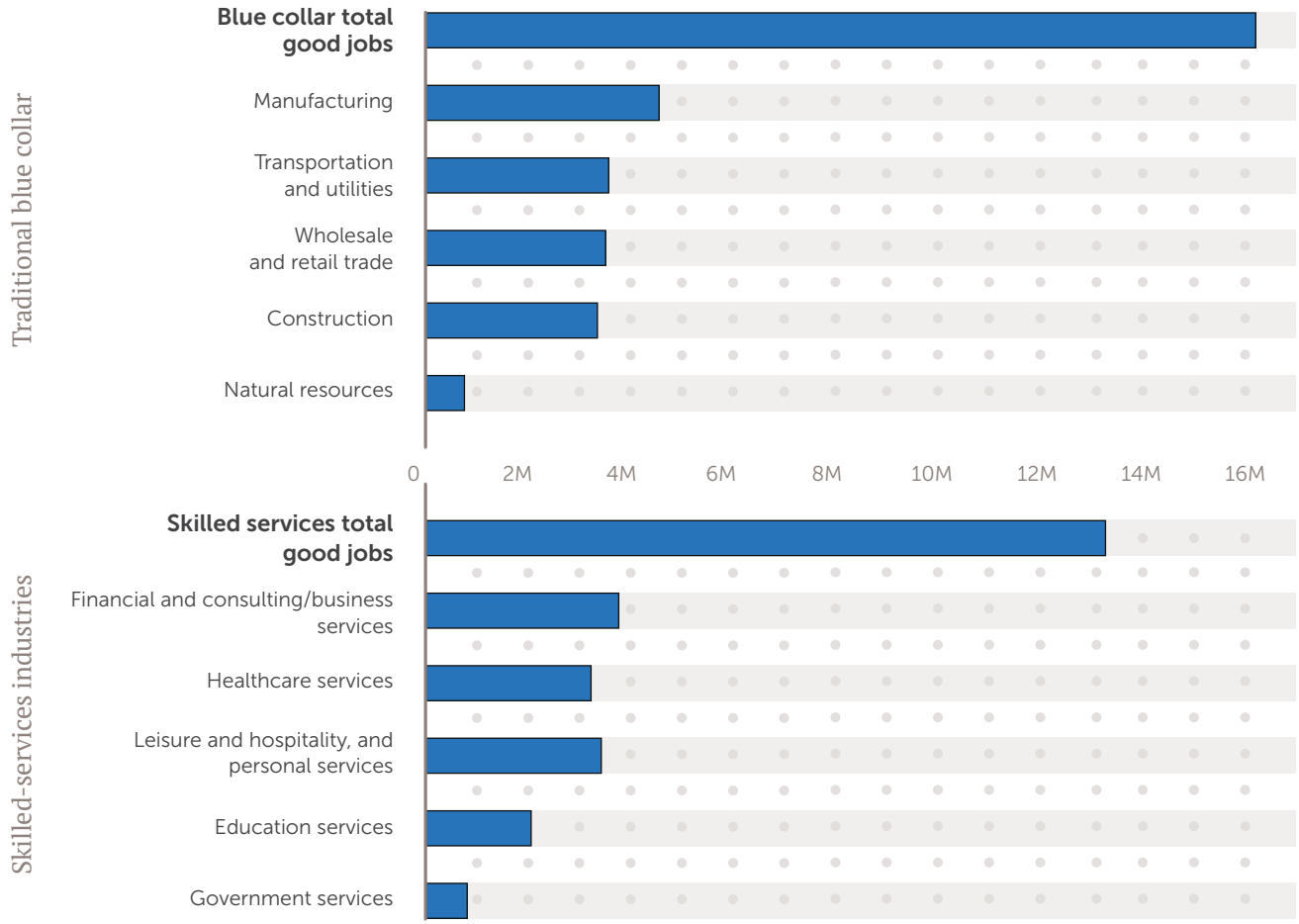


Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

10 Carnevale and Rose, *The Economy Goes to College*, 2015.

In addition to jobs in skilled services, there are still many good jobs for non-BA workers in traditional blue-collar industries. The manufacturing, transportation, and utilities industries remain a major source of good jobs for workers without a BA (Figure 8).

Figure 8. Many good jobs continue to exist in manufacturing and traditional blue-collar industries.



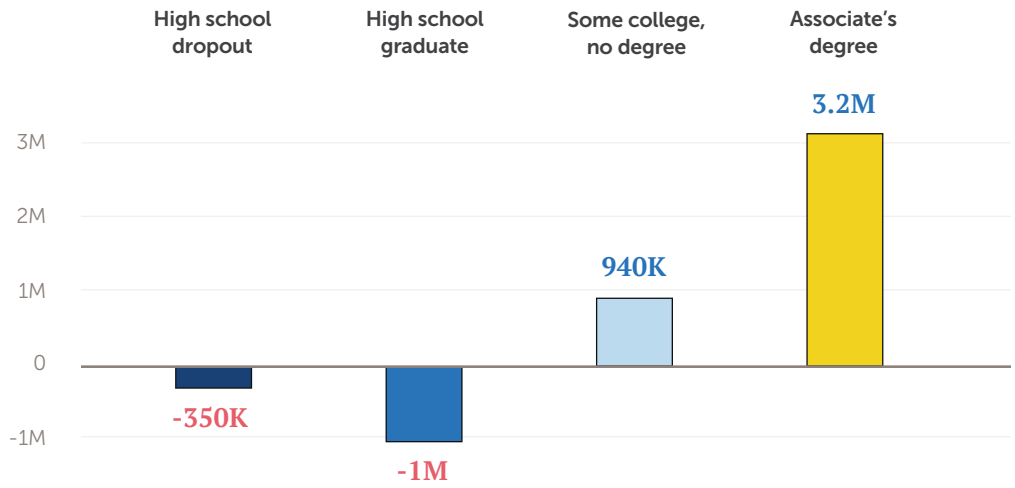
Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

New good jobs are going to workers with some college education and Associate's degrees rather than workers with high school diplomas.

In the heyday of the industrial economy, young people could leave high school and easily find a good job in a nearby factory or mine. If an economic downturn cost them their job, experienced workers could just wait until the economy picked up and then return to a similar job.

Those days are gone. With the decline in traditional blue-collar industries, there has been a shift toward skilled-services industries with higher concentrations of workers who have postsecondary education and training (Figure 9). This transfer of work toward more-educated workers has occurred because the skilled-services industries and even the old blue-collar industries increasingly rely on workers with higher-level skills to meet competitive requirements and to fully exploit evermore flexible technology.[11]

Figure 9. The increase in good jobs for Associate's degree holders (3.2 million) more than offset the job losses suffered by high school graduates (1 million).

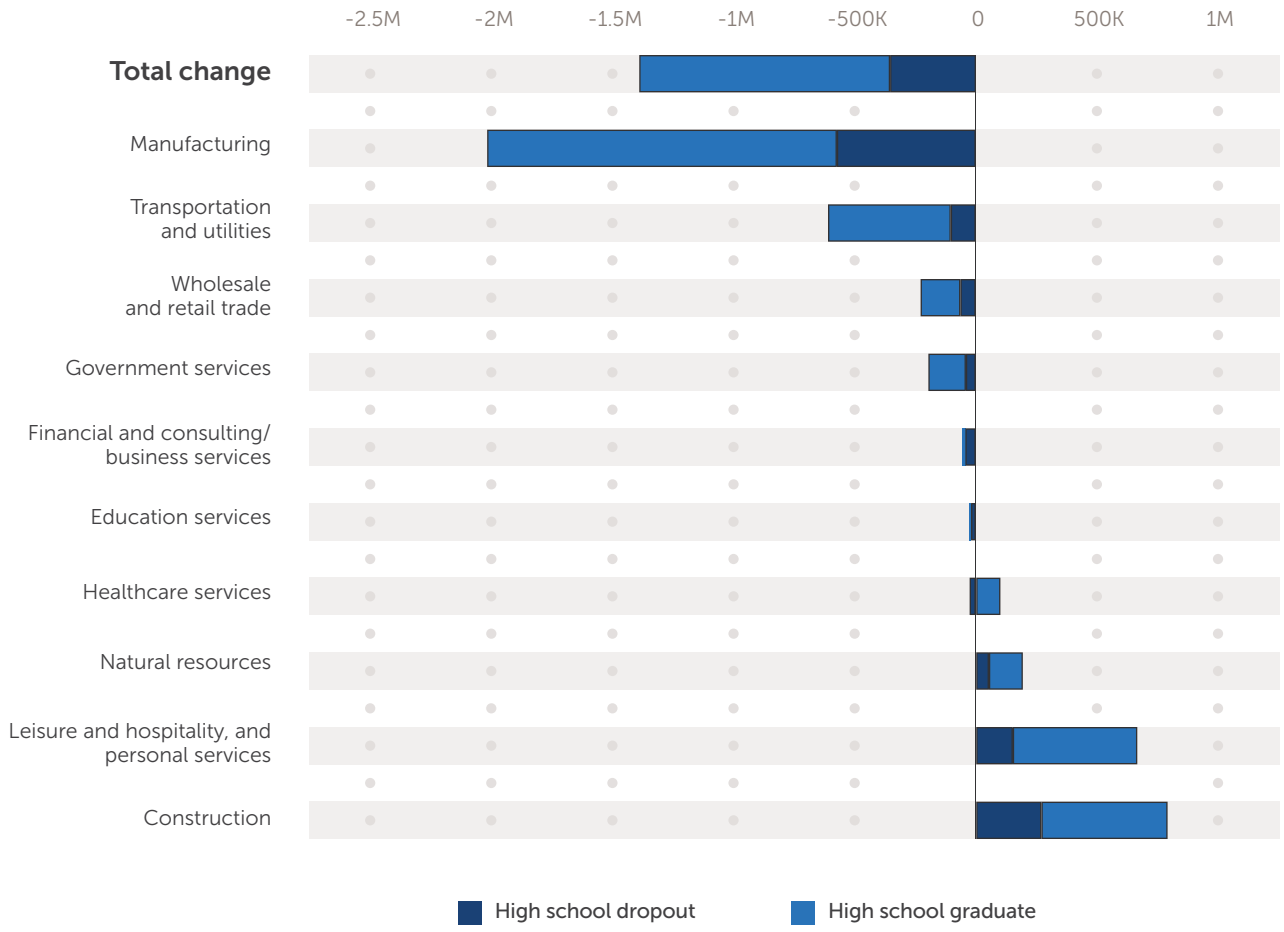


Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

11 Carnevale and Rose, *The Economy Goes to College*, 2015.

High school-educated workers have suffered the most from job losses in traditional blue-collar industries. When factories closed, men and women with no more than a high school education found themselves out of work and with fewer job options (Figure 10).

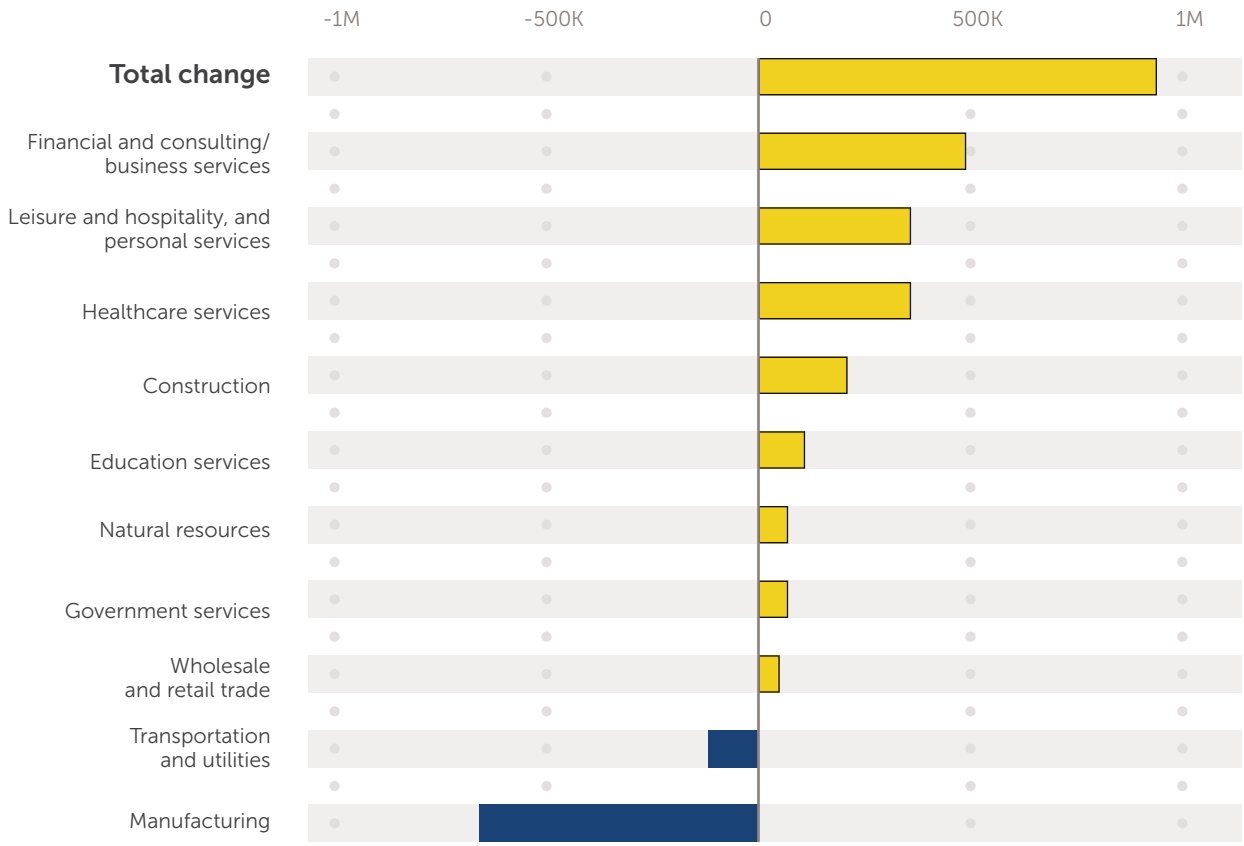
Figure 10. High school graduates and dropouts had the rug pulled out from under them in the job market, losing about 1.4 million total good jobs since 1991.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

Workers with some college but no degree have lost jobs in blue-collar industries, especially manufacturing, but they have gained jobs in skilled-services industries, such as financial services and healthcare (Figure 11).

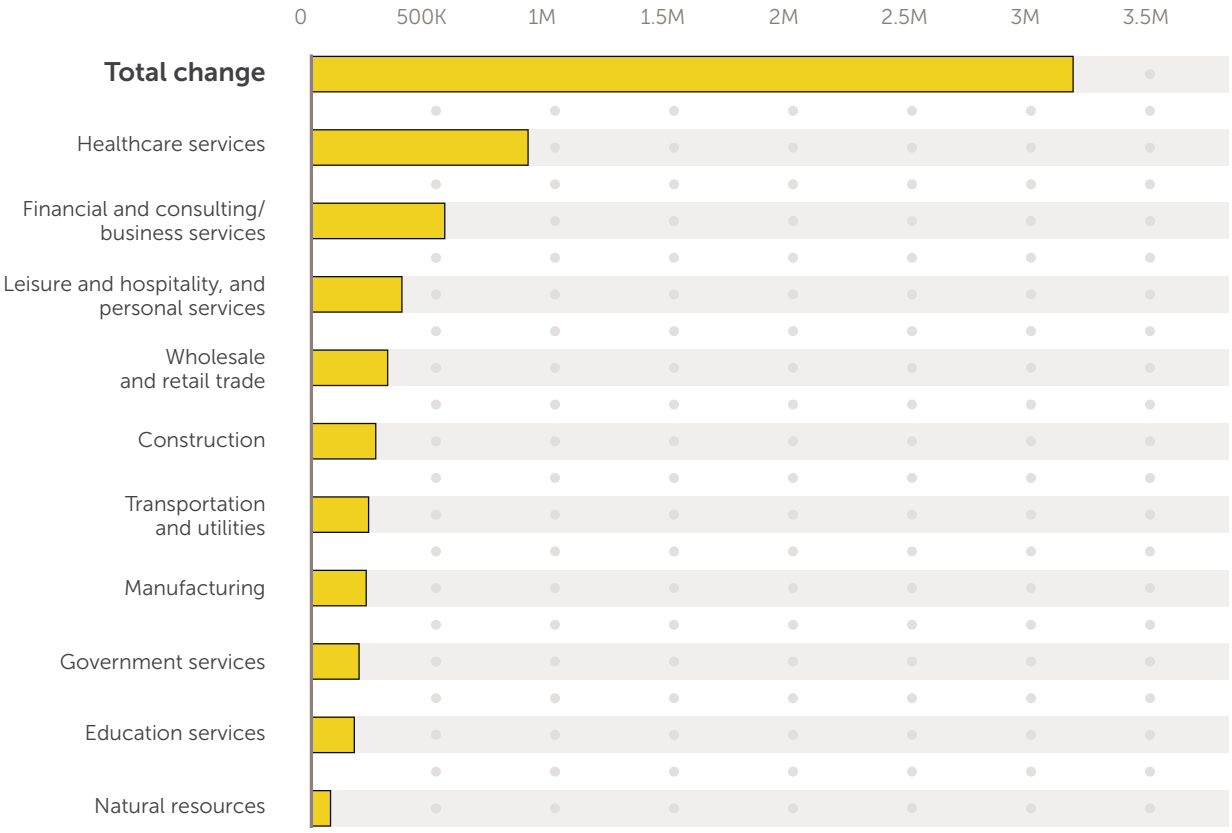
Figure 11. Workers with some college but no degree lost good jobs in traditional blue-collar industries, but they have gained skilled-services jobs.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

Associate's degree holders have gained the most good jobs in both blue-collar and skilled-services industries (Figure 12).

Figure 12. Associate's degree holders have secured good jobs in both blue-collar and skilled-services industries.

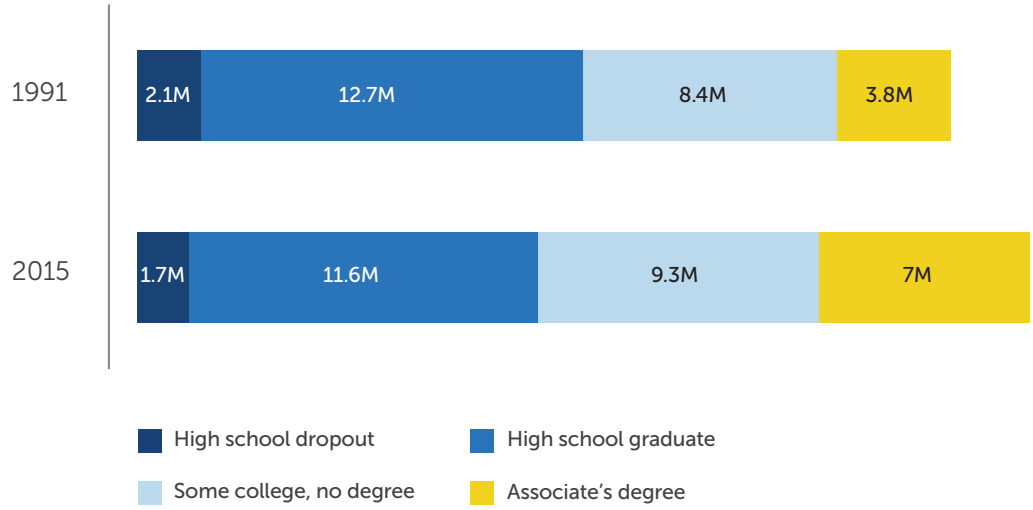


Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

High school-educated workers, men, and Whites still hold the most good jobs among those without a BA.

High school-educated workers continue to hold the largest share of good jobs among those without a BA. But good high school jobs have lost ground since 1991, declining by 8 percent, while good jobs for workers with some college grew by 11 percent and good jobs for Associate's degree holders grew by 83 percent (Figure 13).

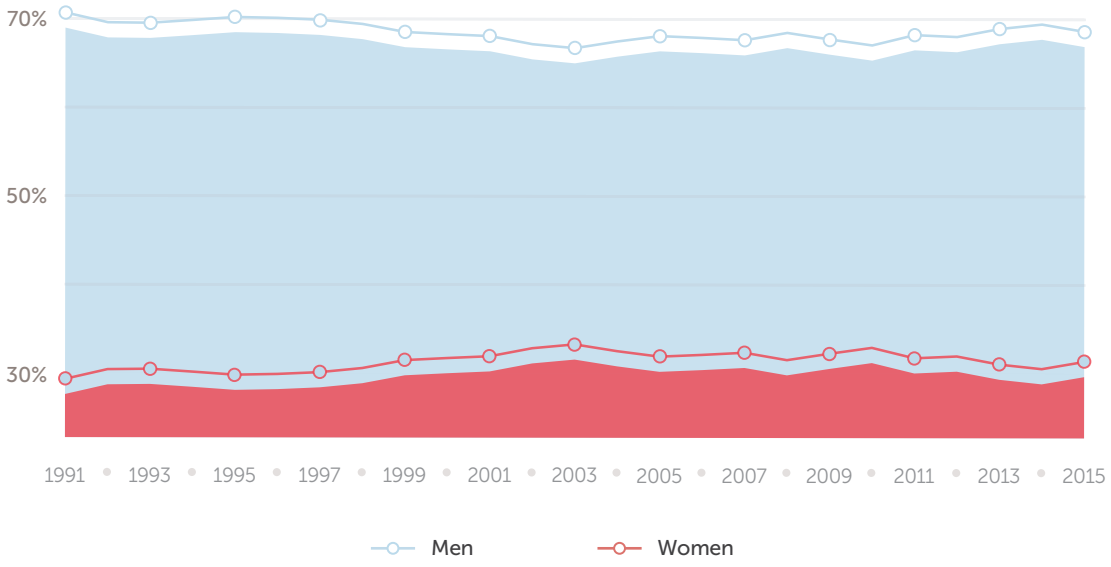
Figure 13. High school graduates have the largest share of good jobs without a BA, but their share has declined.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

Manufacturing and other blue-collar industries have historically generated jobs that went mostly to high school-educated men. Even with the shift in employment toward healthcare and other skilled-services industries, women have not been able to attain a greater share of good jobs (Figure 14).

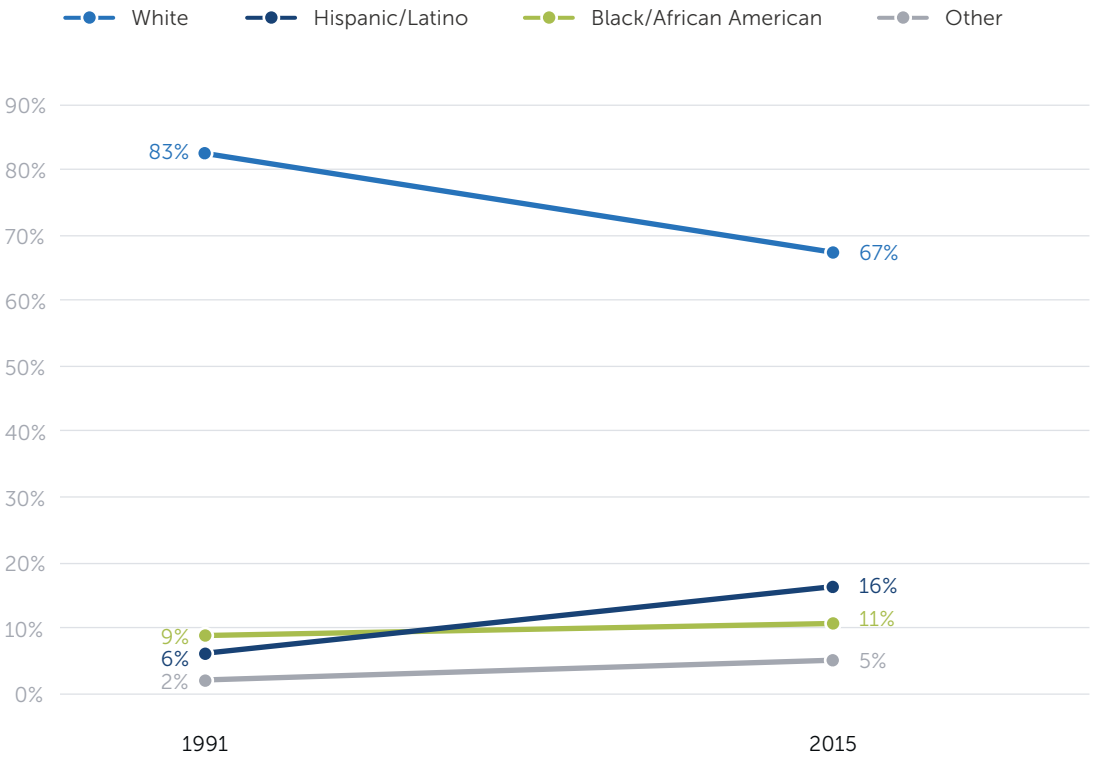
Figure 14. Men have long dominated good jobs without a BA.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

In 1991, Whites held most of the good jobs going to workers without a BA. They continue to hold most of those jobs, but their share has declined somewhat. The rapidly growing workforce of Latinos[12] has claimed a rising share of good jobs. The percentage of good jobs held by Blacks has been almost flat (Figure 15).

Figure 15. Whites have the largest share of good jobs, while the share held by Latinos has increased and the share held by Blacks has been almost flat.

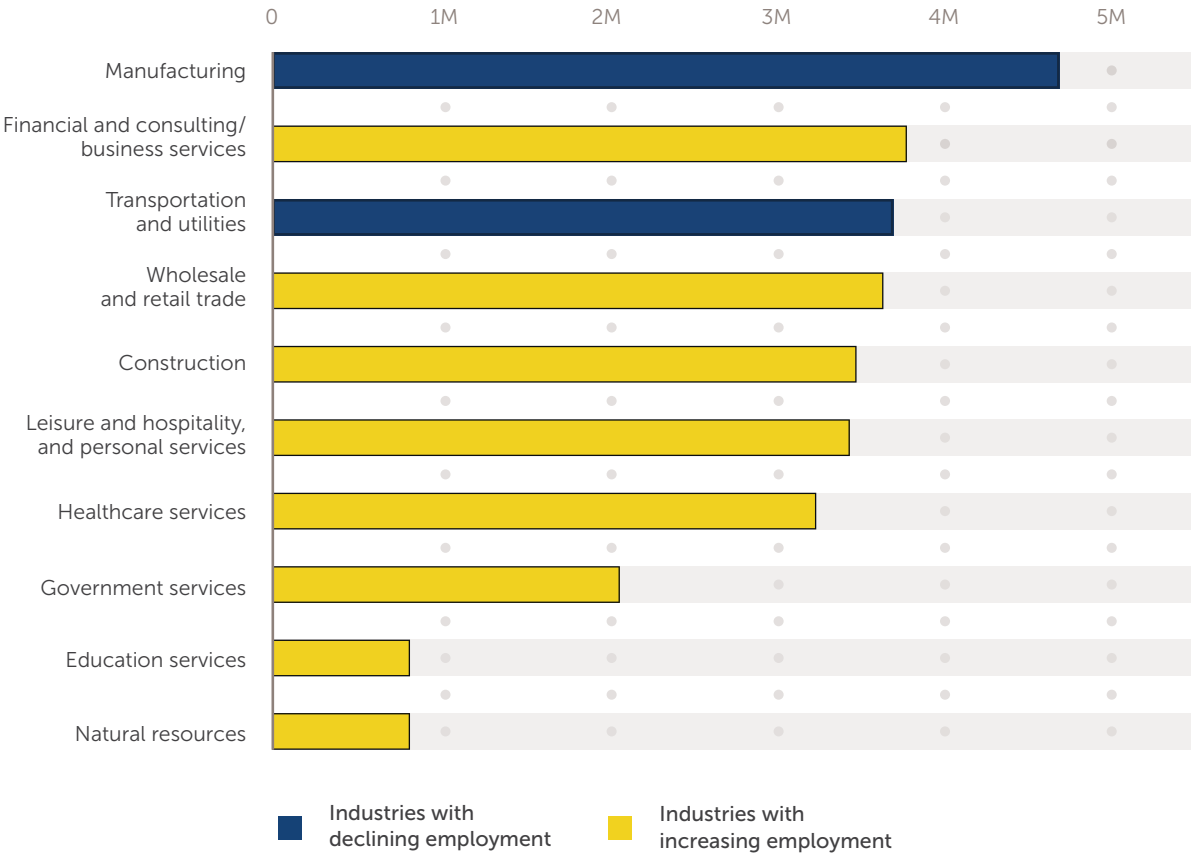


Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

12 In this report, we use the term Latino to refer to people who identify as Hispanic or Latino, and we use Black to refer to people who identify as Black or African American. Most of the Center's research relies on surveys that do not differentiate between these groups. We use single terms—White, Black, and Latino—to alleviate ambiguity and enhance clarity. In charts and tables, we use White, Black/African American, Hispanic/Latino, and Other.

The 30 million good jobs that pay without a BA are spread unevenly across industries. The manufacturing industry still comprises the largest number of good jobs, but the share of good jobs in manufacturing has dropped from 27 percent in 1991 to 16 percent in 2015. In the modern economy, good jobs that pay without a BA are also located in skilled-services industries such as financial services (Figure 16).

Figure 16. Good jobs are spread across many skilled-services industries in addition to the declining traditional blue-collar industries.

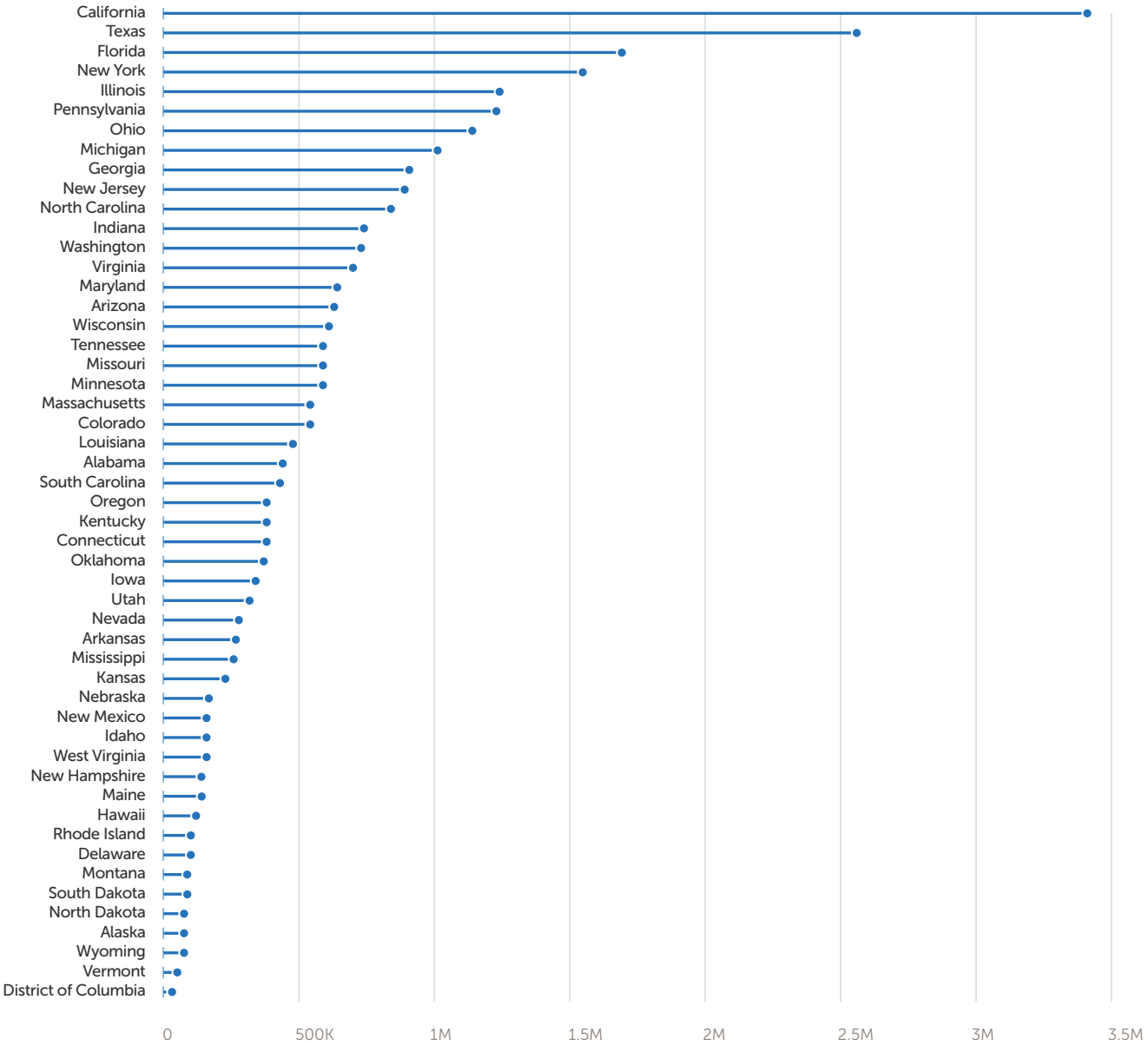


Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

Big states yield plenty of good jobs, but size does not always tell the whole story.

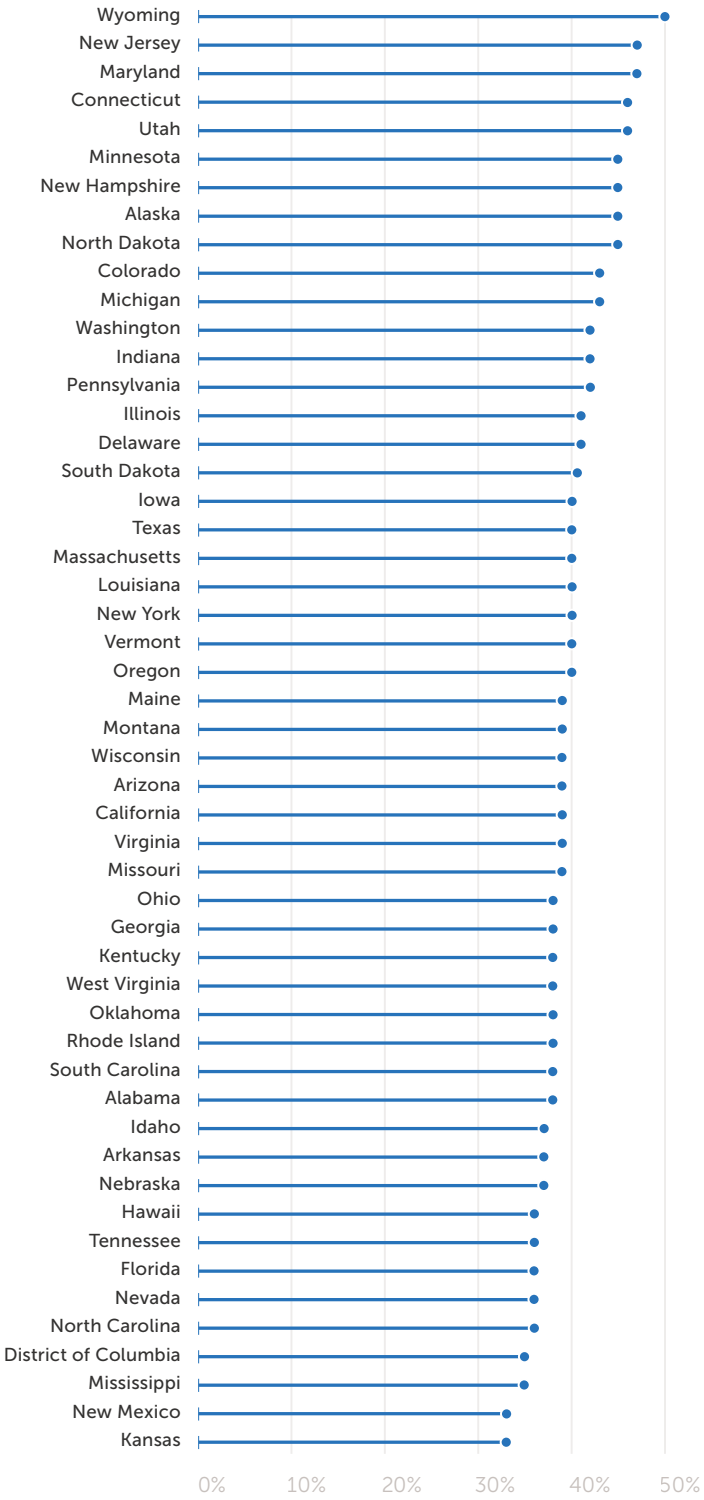
When looking at the geographic distribution of good jobs, it is not surprising that California, the most populous state, provides the largest number of good jobs for those without a BA (Figure 17). The most populous states—California, Texas, Florida and New York—offer the largest number of these jobs.

Figure 17. California and other states with large populations provide the largest number of good jobs for workers without a BA.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

Figure 18. Wyoming has the largest share of good jobs for workers without a BA.



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

However, when we look at the share of good jobs rather than the raw number, Wyoming comes out on top and California falls to the middle of the pack. Wyoming, though a small state, provides good jobs for less-educated workers in industries such as mining (Figure 18). Interestingly, Wyoming is followed by three densely populated states on the East Coast—New Jersey, Maryland, and Connecticut.

Conclusion

In the golden era of manufacturing, the pathways to good jobs were straightforward. A young person could leave high school and, with modest additional training, land a good job on the factory floor or in a mine. In today's labor market, the pathways to good jobs have become more complex. The brightest economic prospects for workers without BAs are found more and more in skilled-services industries, such as healthcare and financial services, in which some college education has become much more important. To compete effectively, workers need some level of postsecondary education and training. In addition, a variety of non-degree credentials are sometimes necessary to get those jobs, or to advance in them.

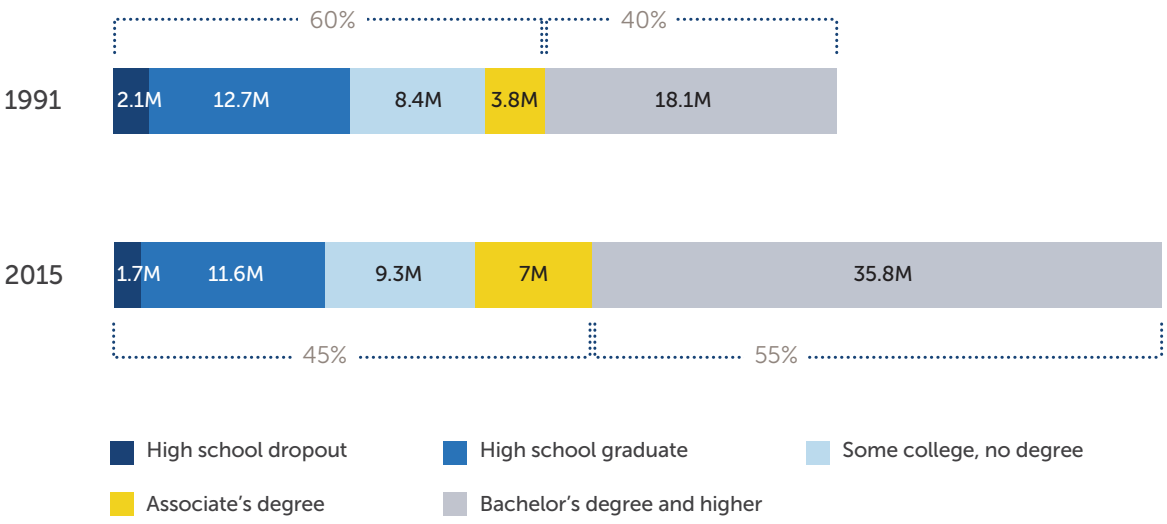
If policymakers want to get serious about restoring the health of the middle class, mapping this education and workforce landscape—both the educational pathways and the occupational pathways available to workers at different levels—is crucial.

APPENDIX

Appendix A. Distribution of good jobs, 1991-2015

Number of good jobs by level of education

A good job pays at least $35,000 and at least $45,000 to those aged 45 or older



Source: Georgetown University Center on Education and the Workforce analysis of *Current Population Survey Annual Social and Economic Supplement (March)*, 1992-2016.

Appendix B. Data sources and methodology

This report uses data from the *Current Population Survey (CPS) Annual Social and Economic Supplement* (ASEC, also known as the March Supplement), 1992-2016, an annual survey administered by the U.S. Census Bureau on behalf of the U.S. Bureau of Labor Statistics (BLS). The survey reports information from the previous year, so the report refers to the period of 1991 to 2015. In some places, we supplement that data with other data sources, as indicated in specific sections of the report. The CPS surveys from 1992-2016 for workers aged 25 to 64 are used to estimate the employment by state, level of educational attainment, industry, and occupation. This report uses the 1992 survey as the first year because it is the first time some college but no degree can be separately identified from Associate's degrees. Workers' educational attainment level is presented using four levels: high school dropout; high school graduate; some college, no degree; and Associate's degree.

Where relevant, additional statistics are based on data from the U.S. Bureau of Labor Statistics (BLS) Current Employment Statistics survey and from Federal Reserve Economic Data (FRED), hosted by the Federal Reserve Bank of St. Louis.

The industry analysis uses 10 major industry groups based on the North American Industry Classification System. For the purposes of this analysis, we further group industries into two categories: traditional blue-collar and skilled services. Traditional blue-collar industries include manufacturing; transportation and utilities; construction; and natural resources. Skilled-services industries include financial and consulting/ business services; education services; and healthcare services. The following are also included with skilled services: leisure and hospitality, and personal services; and government services.

Appendix C. Good jobs occupations

These are some examples of occupations—in both blue-collar and skilled-services industries—that pay without a BA.

BLUE COLLAR	SKILLED SERVICES
Automotive service technicians and mechanics	Applications and systems software developers
Carpenters	Bailiffs, correctional officers, and jailers
Computer, automated teller, and office machine repairers	Bookkeeping, accounting, and auditing clerks
Construction workers	Computer and information systems managers
Driver/sales workers and truck drivers	Computer support specialists
Electricians	Customer service representatives
Heating and air conditioning mechanics	Diagnostic related technologists and technicians
Heavy vehicle and mobile equipment service technicians and mechanics	Engineering technicians
Industry machinery operators	Financial managers
Machine operators, assemblers, and fabricators	Firefighters
Maintenance and repair workers, general	Food service managers
Metalworkers and plastic workers	Human resources workers
Operating engineers and other construction equipment operators	Industrial production managers
Pipelayers, plumbers, pipefitters, and steamfitters	Licensed practical and licensed vocational nurses
Production workers	Managers
Radio and telecommunications equipment installers and repairers	Marketing and sales managers
Welding, soldering, and brazing workers	Nursing, psychiatric, and home health aides
	Police officers
	Property, real estate, and community association managers
	Registered nurses
	Sales representatives
	Secretaries and administrative assistants
	Security guards

Note: Not all workers in these occupations make a minimum of $35,000 per year.

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