



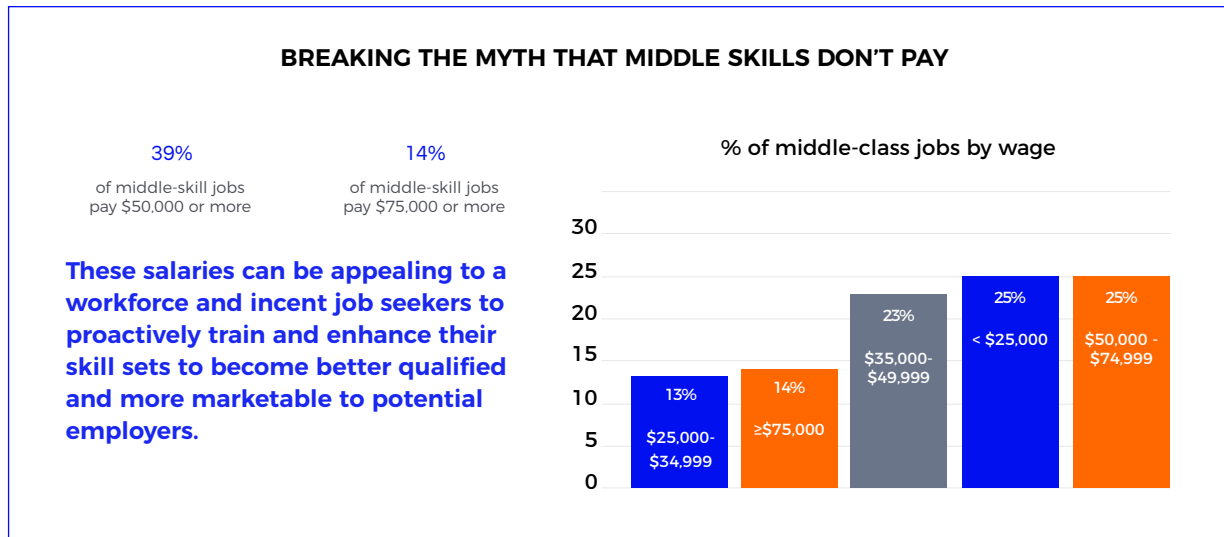
MIDDLE SKILLS  
**Ensuring they don't become  
forgotten skills**

**As the number of available jobs  
increases across the United States,  
employers face growing challenges  
to identify and fill positions  
requiring middle skills.**

There are tens of millions of middle-skill jobs in the United States today.<sup>1</sup> These jobs are defined as those that require education beyond high school but not necessarily a traditional two or four-year degree.

**Middle-skill jobs make up the largest segment, roughly 54%, of today's labor market.<sup>2</sup> However, employers across various industries struggle to find enough skilled workers to fill these vacancies and experience the cost associated with an insufficiently skilled workforce.**

According to a February 2014 survey of 800 human resources executives, more than half find it hard to fill middle-skill jobs, particularly in finance, insurance and healthcare. The largest companies surveyed (those with revenues greater than \$2 billion) indicate their inability to attract and retain middle skills talent frequently affects their performance and undermines the productivity of the workforce.<sup>3</sup>



Unless stakeholders address this important economic and workforce imbalance and move toward a more systematic approach to skills-based hiring, this issue will only become more serious. Over the next five years, it's estimated that as many as 25 million new job openings will require middle skills.<sup>4</sup>



This growth of middle-skill jobs is an attractive opportunity for candidates; these jobs carry an increased earning potential as employers begin to pay higher wages for these in-demand skills. However, it's necessary that individuals acquire the skills needed to be qualified for the projected growth in the number of jobs that require middle skills.

### The real costs of the middle skills gap

When employers cannot fill or maintain positions with qualified workers, they experience material costs to their bottom line. Employee turnover costs employers an average of 21.4% of salaries across all job types, and vacancies are reported to cause revenue losses for 25% of employers.<sup>5</sup>

A company can lose between \$14,000 and \$25,000 for every position that remains vacant for three months or longer.<sup>6</sup>

Further, workforce fatigue also plagues employers, with 60% stating concern about the costs associated with delays in filling their vacant positions. With a 31% increase in the number of employers reporting open positions, between 2011 and 2014 alone, because they cannot find qualified candidates, these costs compound quickly.<sup>7</sup>

### The shift among the industries needing middle skills

Over the last 35 years, there's been a continuing shift in which industries require middle skills. The greatest shift is in the decrease of machine operators, construction and agriculture, transportation and skilled production workers. In fact, in 1980, nearly 30% of middle-skill jobs were held by the manufacturing industry. Today, it's less than half of that.<sup>8</sup>

As the percent of middle-skill jobs that make up the US workforce has remained relatively constant over the last decade, the type of middle-skill jobs that require digital skills has significantly increased. Between 2004 and 2013, the middle-skill jobs classified as digitally intensive, or requiring knowledge of software and computer systems, grew by 12% compared to non-digital middle-skill jobs that increased by only 1.9%.<sup>9</sup> Further, there was 10% higher demand for digital middle-skill jobs than all high-skill jobs over the same period.<sup>10</sup>



It's clear that middle-skill jobs will remain in demand with 47%<sup>11</sup> of all new jobs between now and 2020 being projected to be middle-skill jobs. The trend is consistent across the country, with top metro areas from Texas to Colorado expecting to create the most opportunities.

## Identifying the middle skills that create a qualified workforce

There's a mismatch between the supply and demand of skills – part of the problem is that job requirements can be unclear.

For example, nearly 34,000 medical coding students graduated in 2013, while only about one third took and passed the medical coding certifications necessary to secure a full-time coding position, which suggests they didn't fully understand the requirements for the position.<sup>12</sup> As employer demand for middle skills grows, the amount of available workers who have those skills is wanting. For example, 75% of manufacturers experience a moderate to severe shortage of talent,<sup>13</sup> with 600,000 manufacturing sector jobs remaining vacant consistently.<sup>14</sup>

	METRO	% OF NEW JOBS THAT WILL BE MIDDLE-SKILL
<b>Cities with top middle-skill job growth</b>	> Phoenix	42%
	> Houston	40%
<b>Top metro areas expected to create the most middle-skill jobs over the next few years.</b>	> Seattle	40%
	> Dallas	38%
	> Atlanta	35%
	> Boston	35%
	> Denver	35%
	> Washington	33%
	> Los Angeles	26%
	> New York	26%



These examples demonstrate a clear need for better identification of the skills needed for successful job placement and for identifying a clear pathway for developing those skills among the workforce.

For the last few decades, we have witnessed the trend of young people pursuing higher education but not always developing the vital skills needed to manage the productivity and success of many industries that drive the US economy.

William Symonds of Harvard Graduate School of Education notes that this societal push for all young people to get four-year degrees contributes to a shortage of skilled workers.<sup>15</sup> Further, over the last 30 years, many high schools across the nation have discontinued vocational and technical programs, eliminating an opportunity for young people to be introduced to and learn middle skills early on.<sup>16</sup>

**We must continue to encourage our young people to pursue post-secondary training; it will remain critical, as 63% of US jobs will require some form of post-secondary education or training by 2018.<sup>17</sup> We must ensure, however, that such education and training teaches the right middle skills to develop competitive candidates and successful employees.**

To achieve this objective, employers must engage in the workforce development process, and a necessary first step is for them to be clear about the skills they need in vacant positions. This information will then drive educators to provide the right courses to produce the talent to match this employer demand.

Joe Fuller of Harvard Business School is an advocate for such a model. He has publicly recommended that employers develop long-term relationships with suppliers of middle skills talent, such as community colleges or other third-party providers, to help them approach the market for middle skills talent as they would any other part of their supply chain.<sup>18</sup>

Many colleges, like Monroe Community College in Rochester, NY, are already responding to the ebb and flow of job demand by offering fast-track, non-degree courses that get trained students into the workforce faster, but also can be easily scaled back or dismantled when the supply of workers meets demand.<sup>19</sup>

**The talent is out there,  
it just needs to be  
trained.**

**1.1 MILLION**  
Americans have  
been without  
work for 27  
weeks or more

**While companies report  
a lack of available talent,  
millions of americans  
remain unemployed or  
underemployed, while the  
number of job openings are  
at a 13-year high.**

## Middle skills can unlock employer success

In 2013, nearly one-third of all online postings were for middle-skill jobs, a record number of 7.3 million.<sup>20</sup> Approximately 600,000 jobs are posted each month requiring middle skills, ranging in average compensation due to education and training required beyond a high school degree and the content of the work itself.<sup>21</sup>

Companies who have implemented skills-based hiring have experienced success in acquiring the right talent to match their needs. Specifically, they have seen performance improvements such as: 25-75% reductions in turnover, 40-70% reductions in time to hire, 70% reductions in cost to hire, and 50% reductions in time to train.<sup>22</sup>

**The future of job placement will shift from traditional recruiting methods of job descriptions and resumes to more practical workforce development and skills-based hiring. Companies who adapt and proactively approach workforce development will experience the benefits of a larger talent pool, more highly qualified employees, greater employee performance and increased savings.**

The results of skills-based hiring are not insignificant. In one example, Inova Health System of Northern Virginia used skills-based hiring for its Care Team Assistants and Clinical Technicians openings and experienced a 73% decrease in turnover, equating to \$1.8 million in savings,<sup>23</sup> while patient care increased.<sup>24</sup>

When Covidien Healthcare used skills-base hiring to acquire skilled production workers for its manufacturing plant in Macon, GA, it experienced a savings of \$1,500 per-person hired and improved employee efficiency and productivity.<sup>25</sup>



**- Mike Rowe, TV host, writer, narrator, producer, actor and skills advocate**

**“To close the gap, you have to start at the beginning... which is the definition of a good job. If we can’t agree on that, blue collar and white collar will always be apart... STEM and skilled will always be apart. Those things aren’t opposites, they’re two sides to the same coin.”<sup>26</sup>**

To meet growing demand, all employers must be willing to participate in developing a continuity of skills held by the workforce and commit to evolving towards skills-based hiring. Improving the candidate pool starts with employers more clearly defining the competencies and skills needed and connecting to third-party providers that can match their needs to market supply, as Fuller recommends, to either hire existing talent or create a pipeline of future talent through training and educational opportunities.



## SOURCES

1. Career and Technical Education – 5 Ways that Pay. Georgetown Center for Education and the Workforce. September 2012.
2. NSC Analysis of Bureau of Labor Statistics Occupational Employment Statistics by State. May 2012.: American Community Survey Data. 2012.
3. Bridge the Gap: Rebuilding America’s Middle Skills. Harvard Business School, Accenture, Burning Glass. November 2014.
4. Who Can Fix the Middle Skills Gap? Thomas Kochan, David Finegold, Paul Osterman. Harvard Business Review. December 2012.
5. Companies Losing Money to the Skills Gap. CareerBuilder Study. March 6, 2014.
6. Ibid.
7. Ibid.
8. The Changing Nature of Middle-Class Jobs. Gergor Aisch, Robert Gebeloff. The New York Times. February 22, 2015.
9. Crunched by the Numbers: The Digital Skills Gap in the Workforce. Burning Glass, Capital One. March 2015.
10. Ibid.
11. Who Can Fix the Middle Skills Gap? Thomas Kochan, David Finegold, Paul Osterman. Harvard Business Review. December 2012.
12. Burning Glass Technologies Analysis.
13. Out of Inventory: Skill Shortage Threatens Growth for U.S. Manufacturing. Accenture, The Manufacturing Institute. 2014.
14. Capital Briefing. National Association of Manufacturers. May 3, 2012.
15. Where the Jobs Are: The New Blue Collar. MaryJo Webster. USA Today. September 30, 2014.
16. Ibid.
17. The Economy’s New Rules: Go Glocal. Rana Foroohar. TIME Magazine. August 20, 2012.
18. How to Fix the Broken Market for Middle-Class Jobs. Chris Matthews. Fortune. November 12, 2014.
19. Where the Jobs Are: The New Blue Collar. MaryJo Webster. USA Today. September 30, 2014.
20. Bridge the Gap: Rebuilding America’s Middle Skills. Harvard Business School, Accenture, Burning Glass. November 2014.
21. Job Polarization and Rising Inequality in the Nation and New York. Jaison R. Abel, Richard Deitz. Federal Reserve Bank of New York. Current Issues in Economics and Finance, Second District Highlights, Volume 18, Number 1702. 2012.
22. The U.S. Skills Gap. Innovate Educate. [http://www.innovate-educate.org/files/uploads/Skills-based\\_Hiring\\_v7.pdf](http://www.innovate-educate.org/files/uploads/Skills-based_Hiring_v7.pdf).
23. Ibid.
24. WorkKeys Helps Inova Health System Measure Vital Signs of Entry-Level Care Assistants and Technicians. ACT. Case Study. <http://www.act.org/workforce/case/inova.html>.
25. Covidien Healthcare. ACT. Case Study. <http://www.act.org/workforce/case/covidien.html>.
26. Mike Rowe Suggests a Solution for the Skills Gap. Engineering.com. <http://www.engineering.com/Videos/LearningSeriesChannel/Videoid/3360/Mike-Rowe-Suggests-A-Solution-For-The-Skills-Gap.aspx>.

### INFORMATION BOXES:

PAGE 2. Career and Technical Education – 5 ways that pay. Sept. 2012. Georgetown Center for Education and the Workforce.

PAGE 4. Where the jobs are: The new blue collar. MaryJo Webster. USA Today Analysis of EMS/CareerBuilder Data. USA Today. September 30, 2014.

PAGE 7. How to Fix the Broken Market for Middle-Class Jobs. Chris Matthews. Fortune. November 12, 2014.: Job Openings Hit 13-Year High in August. Josh Mitchell. The Wall Street Journal. October 7, 2014.





## About SkillSmart

SkillSmart's platform provides a single source of connectivity between employers, job seekers and educators. We equip users with a deeper understanding of their existing skills, market demand for those skills, and a clear pathway to gaining new skills. We help people become better qualified and more marketable by analyzing their skill sets to provide career development.

For employers, we help them identify and recruit new talent, and nurture and grow existing talent. Our leadership team combines years of experience in human resources, education, technology, data analytics, software development and public administration. Our strong relationships with industry leaders throughout the nation provide the foundation for necessary partnerships to develop the country's workforce to fill the demand-driven needs of employers.

Learn more about us and our technology product suite at [www.skillsmart.us](http://www.skillsmart.us).