

INDIANA'S FORGOTTEN MIDDLE-SKILL JOBS: 2013

AN UPDATED LOOK AT EMPLOYMENT AND EDUCATION PATTERNS IN INDIANA



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Largest Portion of Job Openings Projected for Indiana by 2020 in “Middle-Skill” Sector

New labor market data calculated by the National Skills Coalition show that middle-skills jobs remain essential to Indiana’s economy. Half of the job openings in Indiana’s labor market through 2020 will be middle-skill jobs. Yet, the data also suggests that Indiana may not have enough middle-skill workers to meet this demand. While 54 percent of all jobs in Indiana are classified as middle-skill, only 47 percent of Hoosiers likely have the skills and credentials for these jobs.¹ This also raises concerns that the state may not realize its full long-term growth and competitiveness in the global marketplace.

Looking Backing at the 2010 Indiana’s Forgotten Middle-Skill Jobs Report

In October 2010, the Skills2Compete – Indiana Campaign released *Indiana’s Forgotten Middle-Skill Jobs*. The report countered deeply held assumptions that a four-year college degree is the only ticket to success in the labor market. In fact, the report found that the state could expect more than 487,000 openings in middle-skill jobs between 2006 and 2016. Middle-skill jobs require more than a high school diploma, but

less than a four-year degree. Examples of middle-skill jobs include: nurses, electricians, welders, and truck drivers. These are local, hands-on jobs, meaning they are unlikely to be outsourced to other countries. Many of these are good-paying jobs. According to the report, middle-skill job openings (including new and replacement jobs) would account for almost half of all job openings in Indiana during the decade. Low- and high-skill jobs were expected to account for 24 and 26 percent of total openings respectively.

The 2010 report signaled new opportunities for Indiana’s workforce at a time when the “Great Recession” brought much uncertainty to the state’s industries and workers. Yet, the report also cited troubling trends in the state’s education patterns,

which suggested that there would not be an adequate number of skilled Indiana workers to fill these positions. Employers speaking on behalf of the Skills2Compete – Indiana Campaign backed up this finding as they shared their everyday struggles in finding skilled workers to grow and sustain their businesses.

What’s more, the state’s demographic projections over a fifteen year period, as described in the 2010 report, showed that the majority of Indiana’s future workforce is actually working today. That is, two-thirds of Indiana’s workforce in 2025 have already been working as of 2005. This data demonstrated that adults must be part of the solution for closing the middle-skills gap, especially those in low wage, low-skill jobs, who are unemployed or recently laid off, or who do not yet have the basic math and reading skills to enter a training program.



¹ While public policy tracks attainment of traditional high school and college degrees, it tends to ignore most of the middle-skill credentials required for the majority of skilled occupations in today’s economy that are earned outside degree-bearing programs.

In the months after the report’s release, the Skills2Compete – Indiana Campaign grew into the Skills2Compete – Indiana Coalition, a formal partnership of business, community, education, legislative, and workforce development leaders that now serves as an organized voice for “middle skills” in state economic and education policy debates. The Skills2Compete – Indiana Coalition is co-chaired by State Senator Dennis Kruse and the Indiana Institute for Working Families. Because of the Coalition’s efforts to bring attention to the findings of the 2010 report, the Indiana Senate passed Senate Resolution 85 in 2011 which instructed the state’s education and workforce agencies to assess credential standards for Indiana’s major industries and how well existing education and training programs are equipping workers with these needed credentials.² The Coalition’s advocacy and public education efforts were also critical in passing House Enrolled Act 1314 which puts Indiana on track to begin counting the number of skilled credentials Hoosiers earn in publicly funded education and training programs each year.³

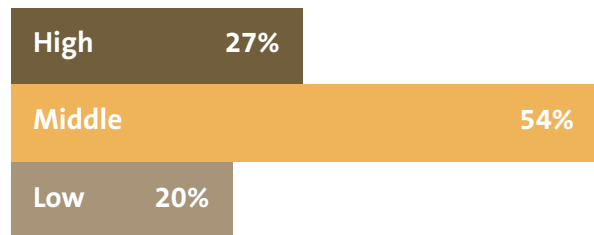
While these actions are significant, it begs a larger question: Has the outlook changed for Indiana’s industries and workers?

Indiana’s Middle-Skill Challenge Today

Since the release of *Indiana’s Forgotten Middle-Skill Jobs*, the recession and subsequent recovery has only amplified the need to invest in the skills of Indiana’s workers. The share of middle-skill jobs in the labor market has held steady. New data shows that in 2012, 54 percent of all jobs were classified as middle-skill (Figure 1), just one percentage point below the 2009 figure of 55 percent.

Demand for Middle-Skills Jobs is Strong

Figure 1. Indiana Jobs by Skill Level, 2012



Percentages may not total to 100% due to rounding

Source: Calculated by National Skills Coalition from the Bureau of Labor Statistics website.

2 Indiana General Assembly. *Senate Resolution 85*. Available at: http://www.in.gov/apps/lisa/session/billwatch/billinfo?year=2011&session=1&request=getBill&docno=0085&doctype=SR#latest_info. (Indianapolis, 2011).

3 Indiana General Assembly. *House Enrolled Act 1314*. Available at: <http://www.in.gov/legislative/bills/2013/HE/HE1314.1.html>. (Indianapolis, 2013).

Table 1. Indiana Jobs by Skill Level, 2012

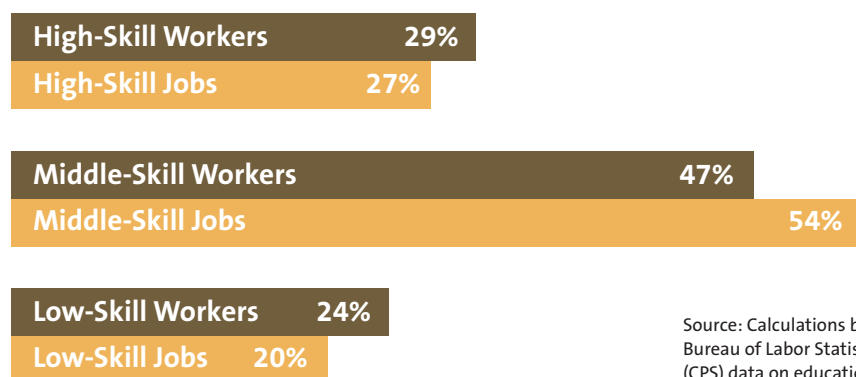
	Employment	Percent
Total, All Occupations	2,811,920	100%
Management	119,150	4.2%
Business & Financial	100,690	3.6%
Professional and Related	527,920	18.8%
Total, High Skill	747,760	26.6%
Sales and Related	284,590	10.1%
Office and Administrative Support	409,140	14.6%
Construction	111,490	4.0%
Installation and Repair	117,580	4.2%
Production	342,050	12.2%
Transportation and Material Moving	243,100	8.6%
Total, Middle Skill	1,507,950	53.6%
Service Occupations	552,890	19.7%
Farming, Fishing, & Forestry Occupations	3,320	0.1%
Total, Low Skill	556,210	19.8%

Source: Calculated by National Skills Coalition from the Bureau of Labor Statistics website.

When the most recently available data on the education attainment of Indiana’s workers is compared to labor market demand, the skills gap is still most pronounced at the middle-skill level. In 2012, only 47 percent of workers have the education and training required to fill middle-skill positions (Figure 2). In reality, the gap is likely even greater in certain industries because many workers trained to the middle-skill level—and even those with bachelor’s degrees—do not have the specific technical skills needed. This means that thousands of well-paid and rewarding jobs are going unfilled in the state, in industries that are essential to Indiana’s economic portfolio.

Indiana’s Skills Mismatch: A Middle-Skill Gap

Figure 2. Indiana’s Jobs and Workers by Skill Level, 2012



Source: Calculations based on occupational estimates for 2012 by the Bureau of Labor Statistics, and June 2012 Current Population Survey (CPS) data on educational attainment by state.

Indiana's Middle-Skill Challenge Tomorrow

Indiana, like most states, was hit hard by the economic downturn. At its worst point, the unemployment rate grew to 10.8 percent, but has dropped steadily to 8.4 percent.⁴ This signals new opportunities, but also a renewed need for middle-skill workers across a range of industries from transportation and logistics to health care, information technology, and manufacturing.

New data on Indiana's future job openings supports the post-recession reality Indiana now faces: a growing demand for skilled workers. **Middle-skill jobs will remain essential to Indiana's economy into the foreseeable future. These jobs account for over 550,000 job openings in Indiana— half of all job openings through 2020** (Table 3). The number of middle-skill job openings has increased by almost 63,000 jobs over the number of middle-skill openings projected from 2006-2016 in the original report. More importantly, from an education policy standpoint, middle-skill jobs will still represent the largest share of openings in Indiana, so public investments for education should proportionately focus on equipping more workers with technical skills for these jobs.

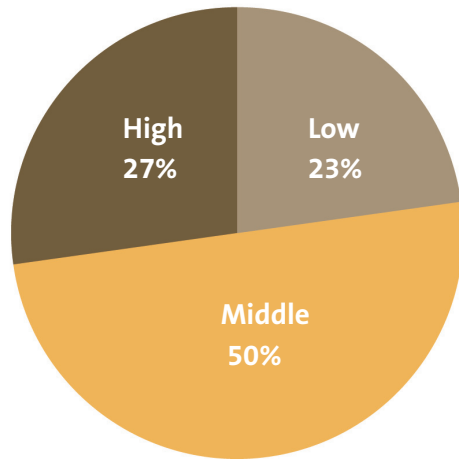
Demand for Middle-Skill Jobs Will Remain Strong in Indiana

Table 3. Indiana Jobs and Total Job Openings by Skill Level, 2010-2020

	Employment		Job Openings	
	2010	2020	Number	%
Total, All Occupations	2,914,033	3,318,650	1,105,260	100.0%
Management	149,773	161,484	44,730	
Business & Financial	101,273	117,905	37,370	
Professional and Related	542,023	645,876	222,520	
Total, High Skill	793,069	925,265	304,620	27.6%
Sales and Related	311,519	347,756	132,160	
Office and Administrative Support	410,491	451,838	135,280	
Construction	129,010	158,098	57,540	
Installation and Repair	121,098	137,619	43,530	
Production	325,214	342,796	84,230	
Transportation and Material Moving	241,536	278,276	97,790	
Total, Middle Skill	1,538,868	1,716,383	550,530	49.8%
Service Occupations	571,905	666,832	246,980	
Farming, Fishing, & Forestry Occupations	10,191	10,170	3,130	
Total, Low Skill	582,096	677,002	250,110	22.6%
Source: Calculated by National Skills Coalition from the Indiana Department of Workforce Development.				

⁴ Indiana Department of Workforce Development. *Hoosiers By The Numbers*. Available at: <http://www.hoosierdata.in.gov/>. (Indianapolis, 2013).

Figure 3. Indiana’s Total Job Openings by Skill Level, 2010-2020



Source: Calculated by National Skills Coalition from the Indiana Department of Workforce Development.

As was the case in the 2010 report, new data suggests that Indiana may not be able to keep pace with the demand for skilled workers. **From 2010-2025, the proportion of high- and low-skill workers is expected to decline. The percentage of middle-skill workers will experience only a small increase, suggesting that there may not be enough workers trained at the middle-skill level to close the gap.** (Figures 4, 5 and 6).

Figure 4. Percentage Change in Indiana’s Educational Attainment for High-Skill jobs: Past and Future



Figure 5. Percentage Change in Indiana’s Educational Attainment for Middle-Skill jobs: Past and Future

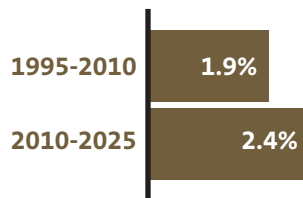


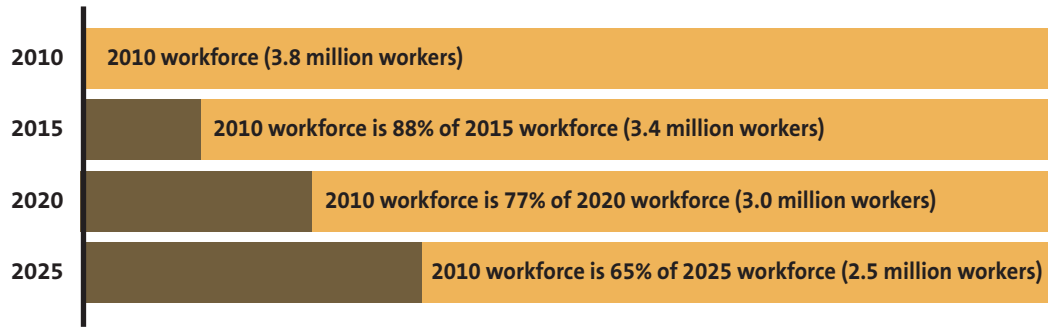
Figure 6. Percentage Change in Indiana’s Educational Attainment for Low-Skill jobs: Past and Future



Sources: 1995-2010 attainment calculated by National Skills Coalition using June 1995 and 2010 CPS data. Current attainment calculated by National Skills Coalition using June 2010 CPS data. 2025 attainment projected by National Skills Coalition using demographic data from the June 2010 CPS and population projections calculated by the Indiana Business Research Center.

Demographic projections of Indiana’s workforce still show that 65 percent of the people who will be in Indiana’s workforce in the year 2025 were already working adults in 2010—long past the traditional high school to college pipeline (Figure 7). For this reason, training and education must be targeted towards people who are working or could be working today.

Figure 7. Current Working Age Indiana Adults in the Current and Projected Population, 2010-2025



Source: Calculated by National Skills Coalition using population projections from the Indiana Business Research Center.

Investments in Middle-Skills Are Crucial to Indiana’s Economic Future

With Indiana’s economy revving up, this is precisely the time to ensure workers are being trained for middle-skill jobs that are critical to the state’s long-term success. It is these jobs that the Skills2Compete-Indiana Coalition wants to lift up in the state’s policy debates to ensure that Indiana has the workforce to compete in a 21st-century economy.

When newly trained medical researchers find cures for illnesses, an even larger number of laboratory technicians, pharmacy technicians, and nurses are needed to produce and administer those remedies. When newly trained computer engineers develop advanced means to produce goods, even more skilled technicians are necessary to harness and maintain this technology on evolving production and logistics platforms. Middle-skill workers are highly skilled technical and trade workers at the heart of the state’s economy.

For all of these reasons, the Skills2Compete-Indiana Coalition is re-issuing the call it put before the state in October 2010. If Indiana is to realize its full economic potential, educational access must reflect the demands of a 21st-century economy and the realities of the 21st-century workforce. The following vision can shape the state’s workforce and education policies and investments to meet these 21st-century realities:

Every Indiana worker should have access to the equivalent of at least two years of education or training past high school—leading to a vocational credential, industry certification, or one’s first two years of college—to be pursued at whatever point and pace makes sense for individual workers and industries. Every person must also have access to the basic skills needed to pursue such education.

The good news is that Indiana has taken several important actions to realize this vision:

- **Building More Career Pathways** - The Indiana Department of Education transferred the state’s adult education programs and services from its purview to the Department of Workforce Development to ensure working adults, especially those with the lowest skills, receive basic education that will lead to success in the labor market. After the transfer, the Department of Workforce Development launched WorkINDiana, which gives these adults the opportunity to build basic skills and enter technical training programs at the same time. Adults can earn occupational certificates, and college credit that can be used towards the degree programs of Ivy Tech Community College.⁵

5 Indiana Department of Workforce Development. *Indiana Adult Education*. Available at: http://www.in.gov/dwd/adulted_workin.htm

- **Measuring Credential Attainment** - House Enrolled Act 1314, recently passed by the General Assembly and signed into law by Governor Mike Pence, authorizes the Indiana Department of Workforce Development to produce an annual report on the number of credentials and industry certifications awarded across the state's education and workforce programs in collaboration with the Commission on Higher Education, Department of Education, and Department of Social Services. As a result of doing this work, policymakers will be able to set meaningful goals for raising the skills of their workforce, and ensure that they are best using every available education and training dollar to close persistent skill gaps.
- **Stronger Leadership for Closing Skill Gaps** - Legislation championed by Governor Mike Pence and passed by the General Assembly, creates the Indiana Career Council which is charged with the responsibility of aligning Indiana's education and workforce development programs to current and projected skill demands of the labor market. The Governor leads the Council's efforts and both public and private stakeholders serve on the council.⁶
- **Greater Capacity to Deliver Skills Training at the Local Level** - Legislation passed and signed into law creates regional councils in each of the state's economic growth regions for the purposes of directing more high school students toward skills training. Each regional Indiana Works Council is required to submit an evaluation of technical education opportunities currently available to high school students and then develop alternative career, technical or vocational educational curriculum, subject to the approval of the Indiana State Board of Education, to help more students earn skilled certificates or credits towards associate degrees.⁷

Indiana is moving ever closer towards this ambitious goal, but more work still needs to be done. The Skills2Compete – Indiana Coalition urges policymakers to continue their leadership in advancing policy and marshaling resources to build the middle-skill workforce that Indiana needs to drive growth and foster prosperity for all Hoosiers.

Indiana Graphs and Tables Methodology

Table 1 and Figure 1: Data from the Bureau of Labor Statistics.⁸ Occupational categories (high, middle, low skill) based on the methodology used in Holzer and Lerman, 2007.⁹

Figure 2: Based on occupational estimates for 2012 by the Bureau of Labor Statistics, and June 2012 Current Population Survey (CPS) data on educational attainment by state.¹⁰ Occupational and worker categories (high, middle, low skill) based on the methodology used in Holzer and Lerman, 2007. Only workers in the labor market and at least 25 years of age (ie., past traditional school age) are counted.

Table 3 and Figure 3: Based on occupational projections for 2010-2020 by the Indiana Department of Workforce Development.¹¹ Occupational categories (high, middle, low skill) based on the methodology used in Holzer and Lerman, 2007.

6 Indiana General Assembly. *House Enrolled Act 1002*. Available at: <http://www.in.gov/legislative/bills/2013/PDF/HE/HE1002.1.pdf>

7 Indiana General Assembly. *House Enrolled Act 465*. Available at: <http://www.in.gov/legislative/bills/2013/PDF/SE/SE0465.1.pdf>

8 Bureau of Labor Statistics. *State Occupational Employment and Wage Estimates May 2012*. Available at: <http://data.bls.gov/oes/>. (Washington, 2013).

9 Holzer, Harry and Robert Lerman. *America's Forgotten Middle-Skill Jobs: Education and Training Requirements in the Next Decade and Beyond*. National Skills Coalition (formerly The Workforce Alliance). (Washington DC, 2007).

10 U.S. Census Bureau, *Current Population Survey*. Available at: <http://www.census.gov/cps/>. (Washington DC, 2012).

11 Stats Indiana and the Indiana Department of Workforce Development. *Occupational Projections (Long-Term) 2020*. Available at: http://www.hoosier-data.in.gov/dpage.asp?id=39&page_path=&path_id=&menu_level=smenu4&panel_number=2&view_number=3. (Indianapolis, 2012).

Figures 4, 5, and 6: Based on Current Population Survey (CPS) data for June 1995 and 2010¹² along with population projection data¹³ by the Indiana Business Research Center and labor force estimates by the Bureau of Labor Statistics.

- **1995, 2010 and 2025 Educational Attainment:** Past years educational attainment data reported only for workers in labor force and aged 25 and over, using CPS data. Projections for 2025 were calculated using static educational attainment model presented in Hanak and Baldassarre, 2005.¹⁴ In that model, educational attainment figures are calculated for the state’s current workers (workers aged 25-49 in 2010) for each of 8 different race, ethnicity, gender and age cohorts. Educational attainment for these cohorts is assumed to be static over the ensuing 15 years (2025), and educational attainment for new cohorts of workers (ie, younger than 25 years in 2010) is assumed to mirror that of similar age-race-gender groups today. As such, changing educational attainment throughout the state’s population is calculated based on projected demographic changes in the composition of the working population, and does not take into account possible changes in behavior, immigration, et.al.

Figure 7: Data from long-term population projections (2015 to 2030) by age cohorts, as calculated by the Indiana Business Research Center.¹⁵ Each cohort was either classified as a “current working age adult” or “not a current working age adult” based solely on age. Current working age was defined as ages 20 to 64.

12 U.S. Census Bureau, 2012.

13 The Indiana Business Research Center at Indiana University’s School of Business. *Population Projections: State Data by Age, Race, and Hispanic Origin: 2005-2040*. Available at: <http://www.stats.indiana.edu/topic/projections.asp>. (Bloomington, 2012).

14 Ellen Hanak and Mark Baldassarre, *California 2025: Taking on the Future*. Public Policy Institute of California. (San Francisco, 2005).

15 The Indiana Business Research Center at Indiana University’s School of Business. *Population Projections: State Data by Age, Race, and Hispanic Origin: 2005-2040*. Available at: <http://www.stats.indiana.edu/topic/projections.asp/>. (Bloomington, 2012).

Indiana’s Forgotten Middle-Skill Jobs: 2013 was written for the Skills2Compete-Indiana Coalition by National Skills Coalition, Washington, DC. To learn more about the Skills2Compete-Indiana Coalition, go to <http://www.nationalskillscoalition.org/states/state-coalitions/indiana/>.

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