

Policy Brief

May 2011

Middle-Skill Jobs

Many people believe that high-skill jobs requiring a college education are the only key to economic success in our economy. This is a myth. The truth is that middle-skill jobs, which require more than a high school education but less than a four-year degree, currently make up the largest segment of jobs in the U.S. economy, and will continue to do so for years to come.

What Does Middle-Skill Mean?

When we say that a job is “middle-skill,” we mean that in order to have the skills necessary to do the job, a person must have some education or training, beyond high school. Specifically they must have more education than a high school diploma, but less than a four-year degree. There are a variety of shorter-term education and training programs that provide this level of education or training. A middle-skill training program could include an associate’s degree, a certificate of some type (these programs are available in a variety of durations and disciplines), or an apprenticeship. Figure 1 below gives a more detailed description of these programs and their attributes.

Figure 1
Types of Middle-Skill Programs

	Associate’s degree	Vocational certificate	Apprenticeship
Time to complete	Two years, full time	Up to a year	Two to four years
Availability	Community college	Community college, community-based organization, technical school, workplace	Partnership between unions and employers
Examples of types of jobs	Radiation therapist, licensed practical nurse, computer specialist	Dental assistant, legal assistant, auto mechanic, firefighter	Electrician, aircraft mechanic, plumber

Source: *Indiana’s Forgotten Middle Skill Jobs: Meeting the Demands of a 21st Century Economy.*

Middle-skill education and training programs are available in a wide variety of venues, for example: employers; community colleges; apprenticeship programs; nonprofit community-based training organizations; and private career schools.

What are Middle-Skill Jobs?

Who are middle-skill workers? They are construction workers, high-tech manufacturing workers, nurses and health care technicians, truckers, biotech workers, police and firefighters, just to name a few. Middle-skill jobs represent the largest share of jobs in Indiana—some 55 percent—and a substantial share of future job openings. Figure 2 below outlines 30 Middle Skill jobs that are in demand in Indiana and are expected to grow.

Figure 2
Projected Indiana Demand for 30 Middle-Skill Occupations, 2006-2016

	Employment		Net Change		Job Openings	Median Earnings 2009
	2006	2016	Number	%		
Computers						
Support Specialists	8,344	9,161	817	9.8%	3,400	\$38,240
Specialists, Other	1,427	1,498	71	5.0%	450	\$67,920
Construction						
Carpenters	34,163	35,424	1,261	3.7%	5,880	\$38,120
Electricians	16,656	17,313	657	3.9%	4,950	\$51,830
Painters	8,301	9,147	846	10.2%	2,330	\$34,010
Operating Engineers	10,263	11,044	781	7.6%	2,770	\$47,530
Plumbers	12,407	13,460	1,053	8.5%	3,610	\$50,160
Healthcare						
Dental Hygienists	3,946	4,994	1,048	26.6%	1,800	\$65,840
Diagnostic Medical Sonographers	1,030	1,228	198	19.2%	340	\$61,010
Licensed Practical Nurses	18,840	21,526	2,686	14.3%	7,830	\$37,410
Medical Lab Technicians	3,621	4,201	580	16.0%	1,130	\$36,910
Radiology Technicians	4,858	5,627	769	15.8%	1,430	\$50,290
Respiratory Therapists	2,801	3,508	707	25.2%	1,120	\$50,700
Surgical Technologists	2,292	2,909	617	26.9%	1,320	\$38,940
Installation, Maintenance, and Repair						
Aircraft Mechanics	1,266	1,464	198	15.6%	330	\$57,280
Auto Mechanics	15,545	17,146	1,601	10.3%	4,720	\$34,040
Bus/Truck Mechanics	7,719	8,556	837	10.8%	2,520	\$38,140
Heating and AC Installers	6,627	7,289	662	10.0%	1,820	\$40,220
Heavy Equipment Mechanics	2,778	3,068	290	10.4%	830	\$40,850
Industrial Machinery Mechanics	10,366	10,981	615	5.9%	2,350	\$44,760
Transportation						
Air Traffic Controllers	672	764	92	13.7%	270	\$126,550
Heavy Truck Driver	59,452	66,052	6,600	11.1%	17,150	\$37,590
Public Safety						
Emergency Medical Technicians	5,023	5,890	867	17.3%	1,440	\$28,540
Fire Fighters	5,751	6,465	714	12.4%	2,810	\$43,800
Police Officers	10,679	11,781	1,102	10.3%	3,960	\$45,530
Other						
Civil Engineering Technicians	735	804	69	9.4%	210	\$45,690

Claims Adjusters	3,997	4,201	204	5.1%	1,220	\$58,470
Legal Secretaries	4,330	4,775	445	10.3%	1,140	\$33,410
Machinists	14,850	15,083	233	1.6%	2,530	\$37,170
Paralegals	3,069	3,721	652	21.2%	1,050	\$36,720

* 2008 median annual earnings for all occupations in Indiana = \$30,630

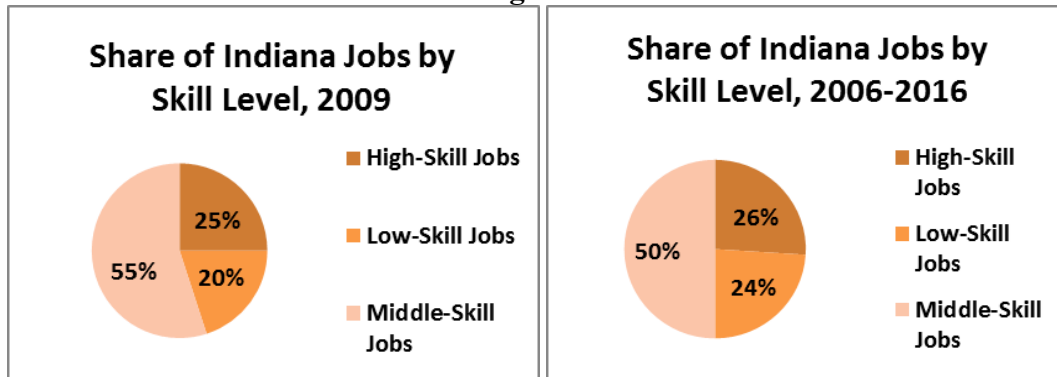
Source: Projections data tabulated using Indiana Department of Workforce Development data. Median Earnings data from the Bureau of Labor Statistics.

Why are Middle-Skill Jobs Important to Indiana’s Economy?

Prior to the recession, Indiana was already experiencing shortages of middle-skill workers in crucial industries. Although the state has lost jobs across all skill levels due to the economic downturn, this has not fundamentally changed the structure of Indiana’s labor market—the majority of all jobs still require more than a high school diploma.

While middle-skill jobs have declined slightly as a portion of total employment nationwide, roughly half of all employment today is still in middle-skill occupations. And nearly half (about 45 percent) of all job openings between 2004 and 2014 will be at the middle-skill level. This compares with one-third of job openings in high-skill occupational categories and 22 percent in occupations requiring no more than a high school diploma. This national picture holds true in Indiana. Over half of all Indiana jobs in 2009—55 percent—were middle-skill jobs, representing more than 1.5 million workers. In the decade between 2006 and 2016, 50 percent of projected job openings will be middle-skill jobs. This far exceeds growth in low- and high-skill jobs, which will account for 24 percent and 26 percent of openings respectively.

Figure 3



Source: *Indiana’s Forgotten Middle Skill Jobs: Meeting the Demands of a 21st Century Economy.*

It is vital to look at these job projections and to take them seriously. Understanding how the economy is expected to grow should lead us to promoting the types of programs that will help put Hoosiers to work and will keep Indiana’s economy thriving. To do this we must also implement policies that will help all Hoosiers receive the education and training they need to be successful in our economy. This means focusing a portion of our efforts toward the education and training of adults already in our workforce. Close to two-thirds of the people who will be in Indiana’s workforce in the year 2020 were already working adults in 2005—long past the traditional high school-to-college pipeline.

Indiana has made significant investments in education and training for its workforce. However, those investments have not kept up with demand for middle-skill workers. Indiana must also make significant investments in programs that will train many more of its residents who are laid off, or working in low-wage jobs, for better middle-skill jobs and careers.

Recommendations

How can Indiana up-skill its workforce, to ensure Hoosier workers are prepared for these middle-skill jobs? The following vision can shape Indiana’s workforce and education policies and investments to meet these 21st-century demands:

Every Hoosier 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, associate’s degree, 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.

Businesses, labor, educators, community-based organizations, and others must work together on this ambitious goal. Policymakers must step in with strong political leadership and commitment to ensure that Indiana has the middle-skill workforce it needs to recover and thrive.

Acknowledgement: *The data for this brief comes from the “Indiana’s Forgotten Middle-Skill Jobs: Meeting the Demands of a 21st Century Economy, published by the Indiana Institute for Working Families, in partnership with the National Skills Coalition, October 2010. Online: <http://www.incap.org/indianaskills2compete.html>.*

Policy Brief Made Possible Through Generous Funding From:



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