INDIANA'S EDUCATION

ROUNDTABLE

Partnership for Indiana's Future

Economic Growth Region 2

Education and Workforce Data

June 2012

Background

In 2012 Indiana's Education Roundtable provided grants to six regions across the state, including Economic Growth Region 2, with the goal of building a world-class workforce in Indiana. In addition to a collaborative strategic planning process, regions were tasked with measuring the status of students and workers across a variety of demographic and economic categories.

To better understand where our region's workforce has been, and where it is headed, Region 2 presents the following analysis of education and workforce data.

This report is divided into five sections:

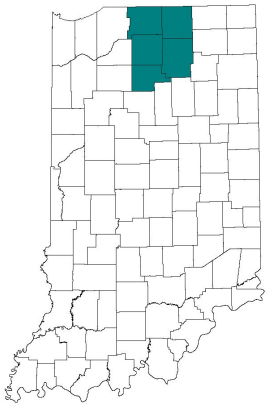
Section 1: Demographics provides a look into Region 2's educational attainment levels, including education by age group as well as the relationship between education and poverty, median earnings, and employment. It concludes by placing Region 2 in an international context of educational attainment, comparing it with Indiana, the Midwest, and nations around the globe.

Section 2: Education Completions examines high schools across Region 2 by diploma type, along with certificate, associate degree and bachelor degree+ completions at the region's postsecondary institutions.

The region's high school student remediation rates are found in **Section 3: Education Performance.** This section also reviews graduation rates of the region's postsecondary institutions, including four-year public and private colleges and universities, 2-year public and for-profit colleges, and certificate -granting institutions.

Section 4: Occupational Requirements provides an in-depth analysis of growing occupations in the health care, manufacturing, and transportation industries and the areas of knowledge, skill, and ability required to build a quality workforce for the coming decade.

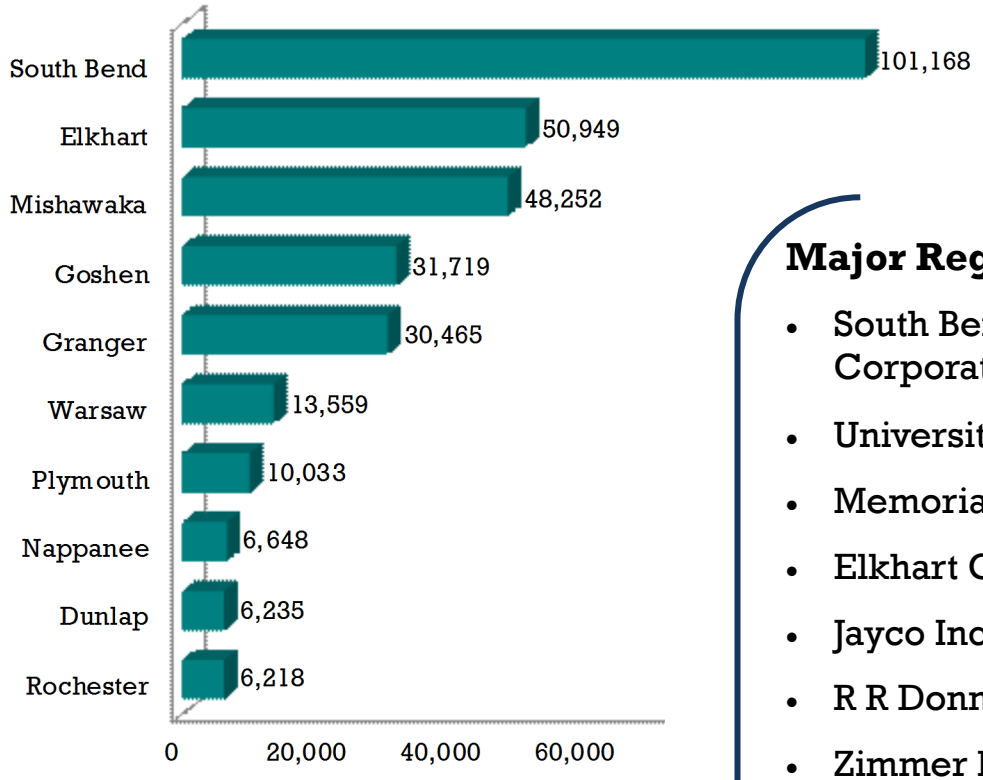
Finally, to achieve the goal that 60% of Indiana's students go on to complete some form of postsecondary education, we must understand **Section 5: The Math of the Big Goal**. That is, if **90%** of Indiana's high school students graduate from high school, roughly **70%** must complete postsecondary education to reach an overall postsecondary achievement rate of **60%.**



About Region 2

Region 2 is in North Central Indiana and is comprised of five counties: Elkhart, Fulton, Kosciusko, Marshall, and St. Joseph. The region has a median wage of $30,141, a median poverty rate of 10.5%, and an average unemployment rate of 10.1%. For adults ages 25 to 34, 31.7% have an Associate's Degree or higher.[β] Key target industries within the region include Manufacturing and Health Care. The average Work Keys required by these industries are 4.0 and 4.1 in Applied Mathematics, 4.5 and 3.7 in Reading for Information, and 4.4 and 3.4 in Locating Information, respectively.

Largest Cities and Towns (2010)
by Population



Major Regional Employers:

- South Bend Community School Corporation
- University of Notre Dame
- Memorial Hospital
- Elkhart General Healthcare System
- Jayco Inc.
- R R Donnelley and Sons Co.
- Zimmer Holdings Inc.
- Henkels & McCoy Inc.
- A M General LLC
- Goshen General Hospital

β Data collected from the 2008-2010 Census

* All other information gathered from the Indiana Department of Workforce Development

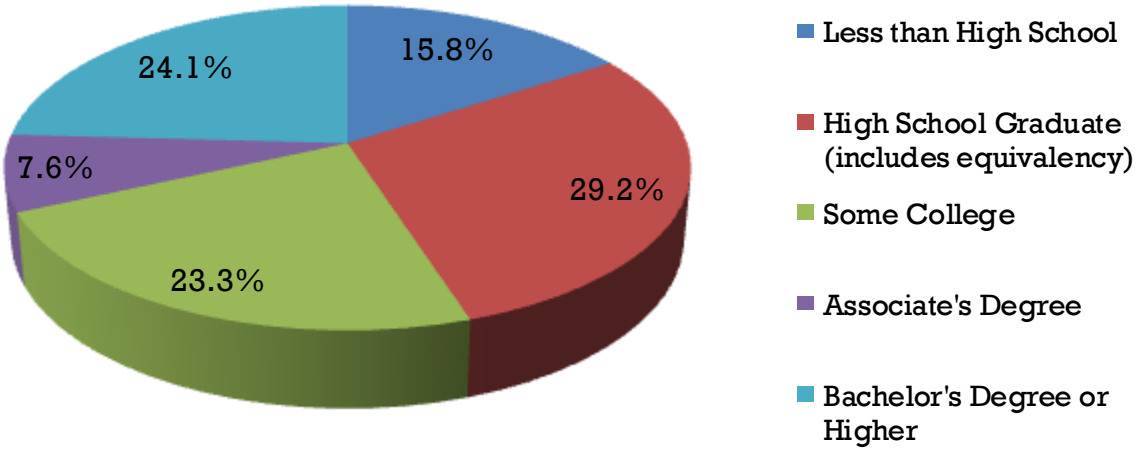
Section 1

Workforce Demographics

Education

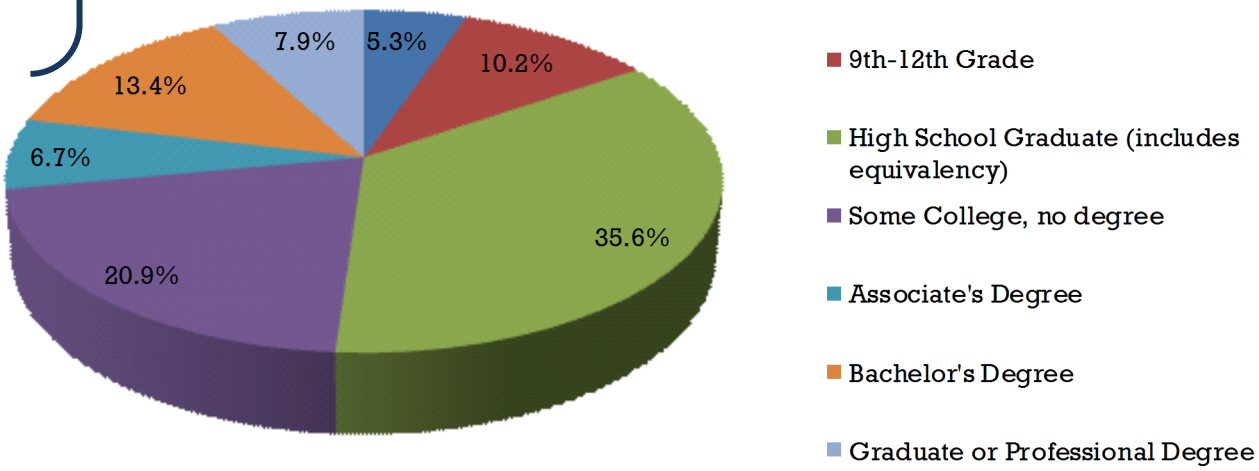
Over **68%** of young adults age 25-34 have not secured a postsec-ondary degree

Population 25-34: Regional Educational Attainment



Only **28.0%** of Indi-viduals 25 and above have attained an Asso-ciate's Degree or Higher

Population 25 and Older: Regional Educational Attainment



* Infor-

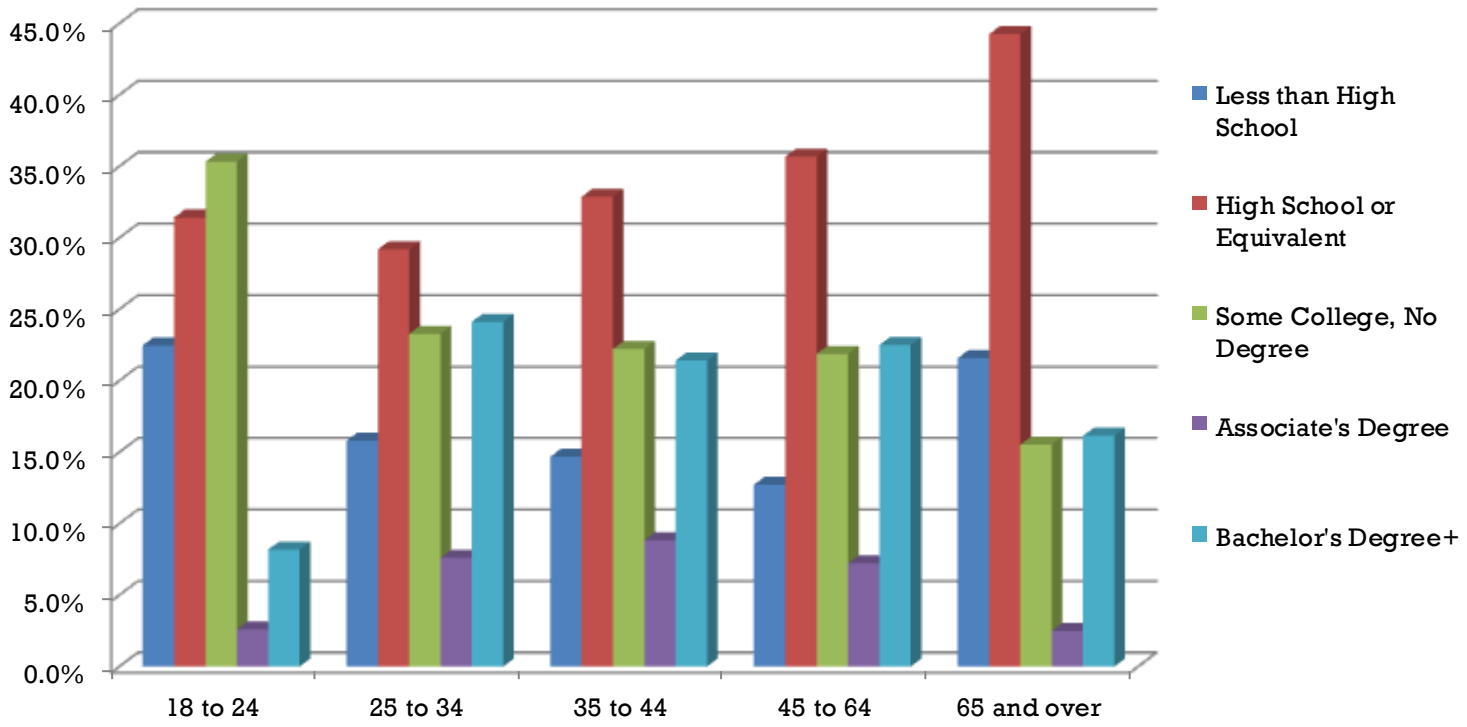
Age

70% of the Region's primary workforce (individuals 25-64) have an educational attainment less than an Associate's Degree

Only 25.6% of individuals 18 and over in Region 2 have completed a postsecondary degree or certificate

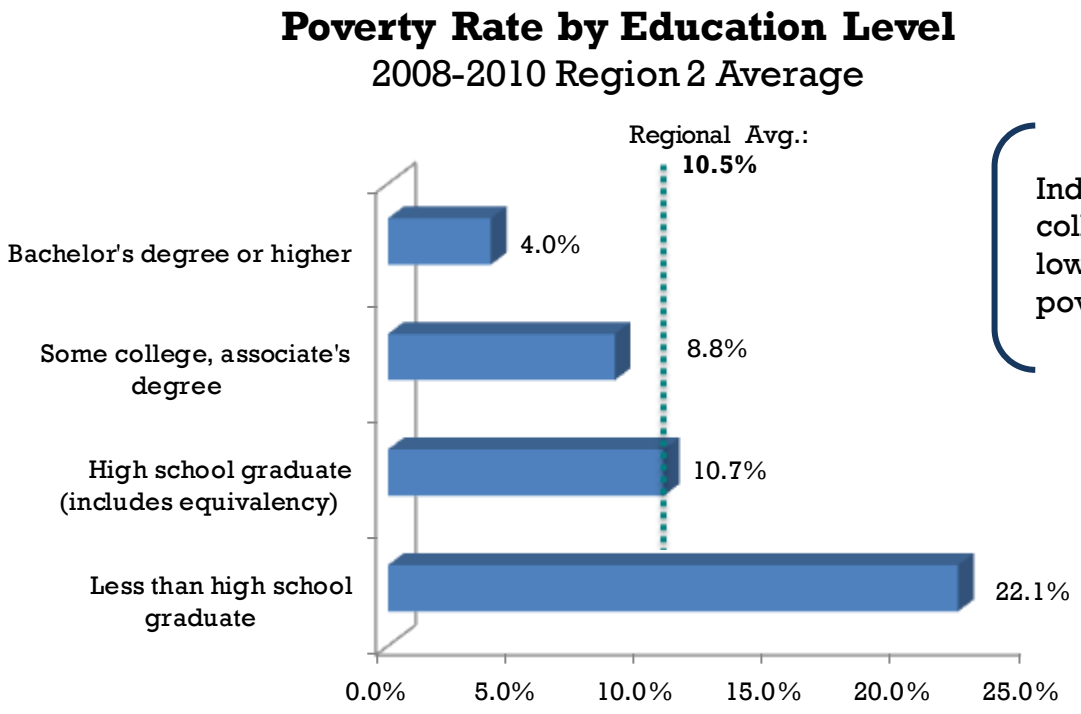
Individuals 25-34 have the highest percent attainment of Associate's Degrees or higher, at 31.7%

Educational Attainment by Age Group



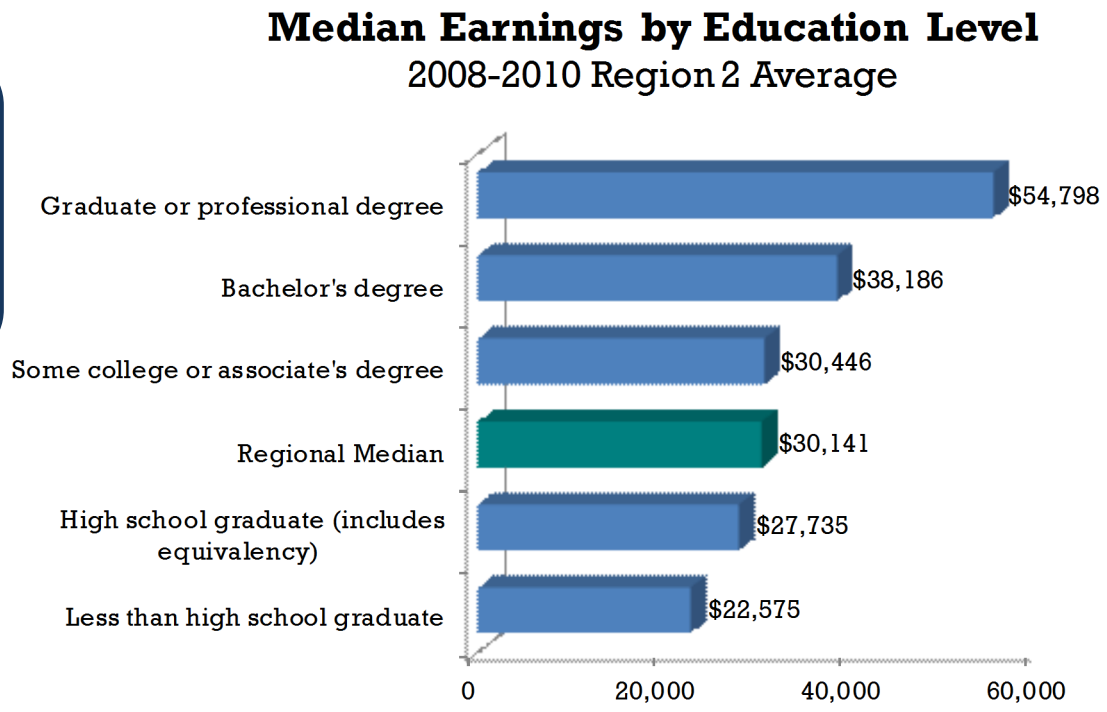
* Information gathered from the 2008-2010 3-year Census Survey

Poverty & Earnings



Individuals with some college or higher are below Region 2's average poverty rate

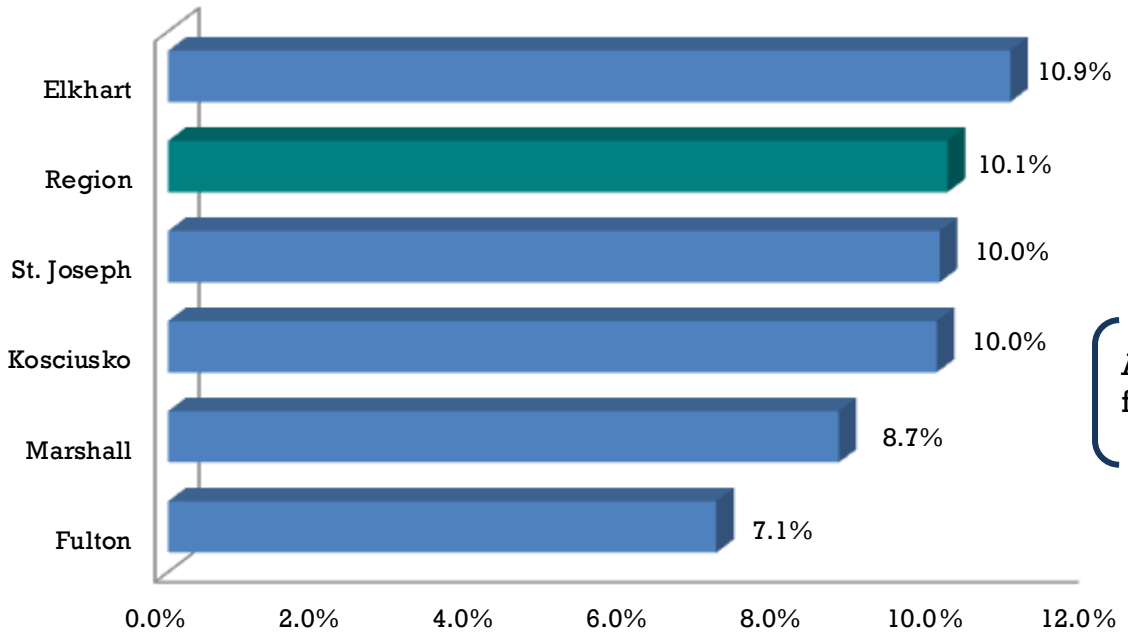
Individuals with some college or higher have median annual earnings above the regional median



* Information gathered from the 2008-2010 3-year Census Survey

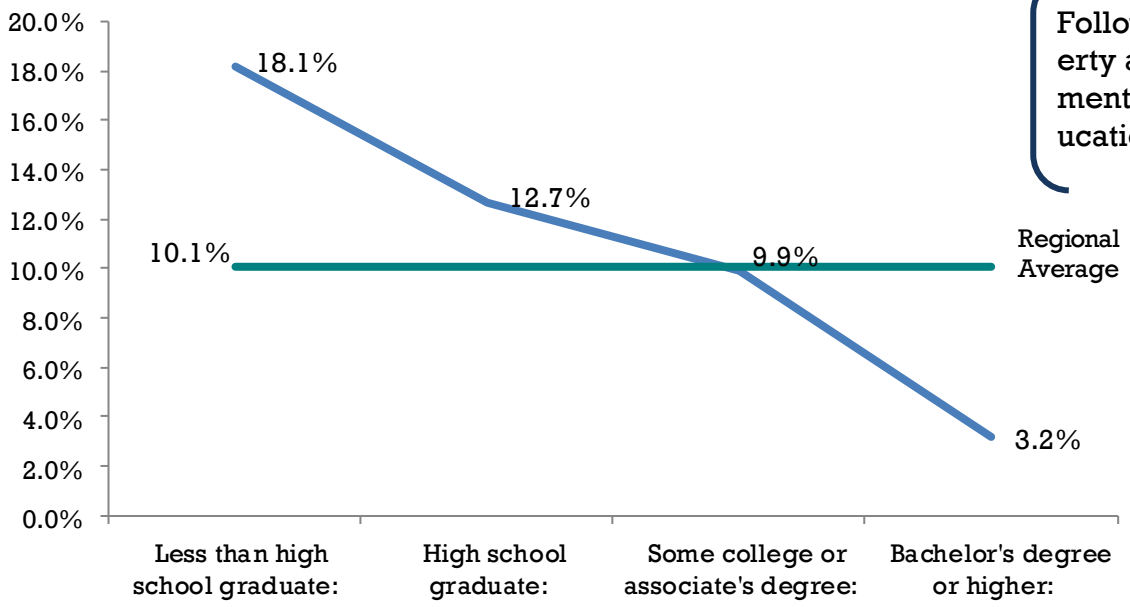
Employment

Unemployment by County



Average unemployment for the region is 10.1%

Unemployment Rate by Education Level

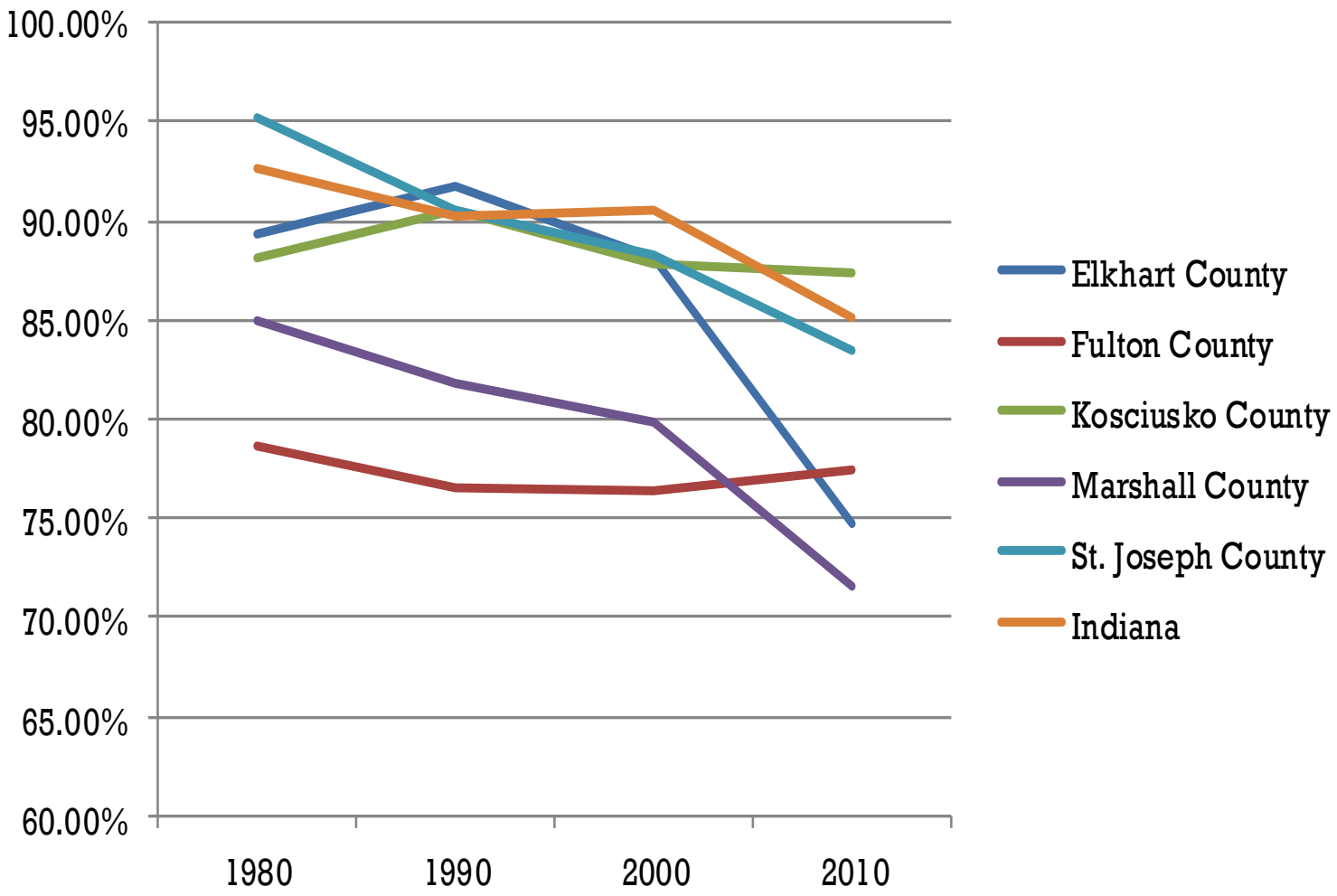


Following the trends in Poverty and Earnings, Unemployment level is impacted by educational attainment level

* Information gathered from the 2008-2010 3-year Census Survey

County Income

Per Capita Income, Percent of US Average (1980-2010)



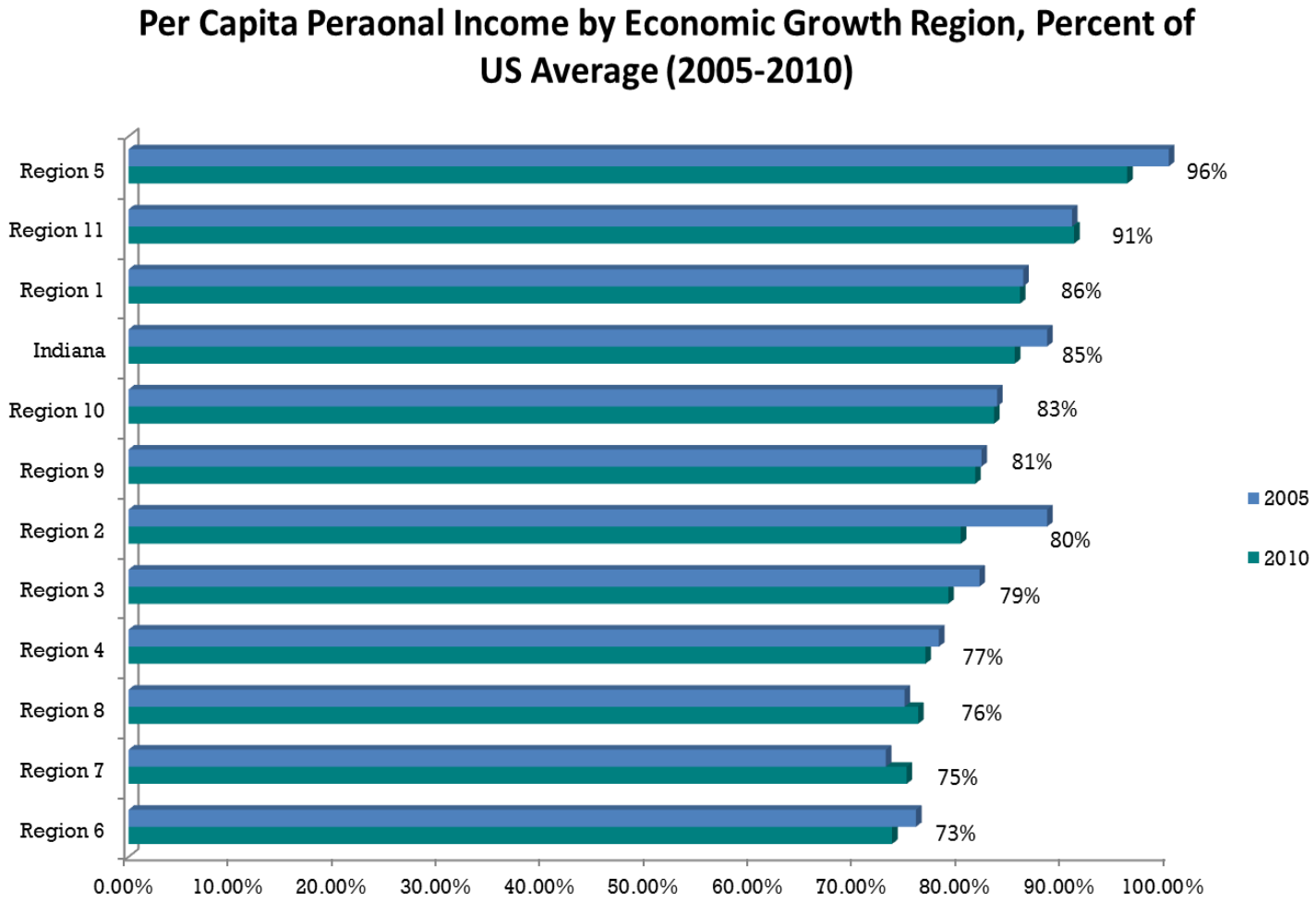
Area	1980	1990	2000	2010
Elkhart County	89.30%	91.80%	88.10%	74.70%
Fulton County	78.70%	76.50%	76.40%	77.40%
Kosciusko County	88.10%	90.60%	87.80%	87.30%
Marshall County	84.90%	81.80%	79.90%	71.60%
St. Joseph County	95.20%	90.50%	88.30%	83.40%
Indiana	92.70%	90.20%	90.60%	85.10%

Source: US Bureau of Economic Analysis; Stats Indiana

Section 1.b

Workforce Comparisons

Indiana's Income



Region	2005	2006	2007	2008	2009	2010
Region 1	$30,471	$32,188	$33,662	$35,342	$33,374	$34,218
Region 2	$31,270	$32,709	$33,826	$34,127	$32,006	$31,944
Region 3	$28,985	$30,375	$31,482	$32,183	$30,848	$31,477
Region 4	$27,582	$28,573	$29,835	$31,367	$29,941	$30,589
Region 5	$36,170	$37,934	$38,439	$39,471	$37,557	$38,328
Region 6	$26,802	$27,581	$28,395	$29,840	$28,946	$29,322
Region 7	$25,781	$26,810	$28,045	$29,804	$29,260	$29,867
Region 8	$26,429	$27,767	$28,969	$30,545	$29,801	$30,327
Region 9	$29,057	$30,654	$31,728	$33,277	$32,182	$32,509
Region 10	$29,567	$31,067	$32,201	$33,363	$32,329	$33,246
Region 11	$32,121	$34,001	$34,628	$36,890	$35,144	$36,307
Indiana	$31,268	$32,827	$33,645	$34,890	$33,363	$34,042

Source: US Bureau of Economic Analysis; Stats Indiana

Per Capita Income

Percentage of Adults 25-34 with an Associate Degree or Higher

Indiana		United States
	68%	District of Columbia
	54%	Massachusetts
	51%	**North Dakota**
	49%	**Minnesota,** New York
	46%	New Jersey, Maryland, New Hampshire, Connecticut, **Iowa**
Region 8 ($30,327)	45%	Rhode Island, **Illinois**
	44%	Vermont, Virgina
	43%	**Nebraska,** Pennsylvania
Region 5 ($38,328)	42%	Colorado, Hawaii, Montana
	41%	**Kansas,** Washington, **Wisconsin**
	40%	**South Dakota**
	39%	**Missouri,** North Carolina
	38%	Califronia, Utah, **Ohio,** Oregon, Maine
Region 11 ($36,307)	37%	Deleware
Region 4 ($30,589)	36%	**Michigan,** Georgia, South Carolina, Florida
Indiana ($34,042)	35%	
	34%	**Kentucky**
Region 1 ($34,218), **Region 3** ($31,477)	33%	Tennessee, Wyoming
Region 2 ($31,944), **Region 9** ($32,509), **Region 10** ($33,246)	32%	Arizona, Alabama, Texas, Oklahoma
	31%	Idaho, Louisiana
	30%	Alaska, West Virgina
	29%	Mississippi, Nevada, New Mexico, Arkansas
Region 7 ($29,867)	28%	
Region 6 ($29,322)	27%	

* Information gathered from College Board's The College Completion Agenda 2011, 2008-2010 3-year Census Survey, and US Bureau of Economic Analysis; Stats Indiana
* Numbers in brackets are 2010 Per Capita Income figures

Per Capita Income

2010 Per Capita Personal Income (rounded to nearest thou-

Region 2 Counties		Indiana Counties (or equivalents)
	$49,000	Hamilton
	$48,000	Boone
	$41,000	Hancock, Porter
	$40,000	Warrick, Floyd
	$38,000	Posey, Dubois
	$37,000	Marion, Vanderburgh
	$36,000	Morgan, Tipton, Benton
Kosciusko	$35,000	Bartholomew, Johnson, Rush, Dearborn, Knox, Brown, Hendricks
	$34,000	Franklin, Ohio, Allen, Jasper, Shelby, Lake, Gibson
St. Joseph	$33,000	Pulaski, Vermillion, Clark, Spencer, Decatur
	$32,000	Union, White, Wabash, Warren, Montgomery, Whitley, Fountain, Martin
Fulton	$31,000	Grant, Howard, Carroll, Harrison, Huntington, Daviess, Wells, Randolph, Jackson, Vigo, Greene
Elkhart	$30,000	LaPorte, Cass, Clinton, Jennings, Pike, Monroe, Tippecanoe, Lawrence, DeKalb, Delaware
Marshall	$29,000	Perry, Newton, Clay, Ripley, Steuben, Orange, Blackford, Owen, Wayne, Jefferson, Madison, Putnam, Sullivan
	$28,000	Adams, Fayette, Washington, Parke
	$27,000	Jay, Henry, Switzerland, Crawford, Noble, Scott
	$26,000	Miami, IN
	$25,000	Starke, IN
	$20,000	LaGrange, IN

Source: US Bureau of Economic Analysis

Regional

Percent of Adults 25 or Older with a H.S. Diploma or More

Region 2 Counties		Indiana Counties (or equivalents)
	96%	Hamilton
	93%	Hendricks, Boone
	91%	Porter, Warrick, Monroe, Hancock, Tippecanoe
	90%	Johnson, Whitley, Benton
	89%	Steuben, Wells, Bartholomew, Posey, Carroll, Gibson, Allen, Dearborn
	88%	Harrison, DeKalb, Clay, Huntington, Jasper, Brown, Tipton
	87%	Floyd, Vanderburgh, Montgomery, White
	86%	
St. Joseph, Fulton	86%	Madison, Howard, Lake, Sullivan, Pulaski, Shelby, Newton, Spencer
Kosciusko	85%	Clark, Franklin, LaPorte, Vermillion, Wabash, Knox, Putnam, Morgan, Ripley, Rush, Union, Vigo, Blackford, Randolph, Decatur, Dubois, Delaware
	84%	Jay, Jackson, Marion, Pike, Jefferson, Henry
Marshall	83%	Grant, Fountain, Greene, Warren, Adams, Wayne, Perry
	82%	Crawford, Cass, Miami, Owen
	81%	Clinton, Jennings, Martin, Noble, Ohio, Lawrence, Parke
Elkhart	80%	Washington
	79%	Starke, Orange
	78%	Switzerland
	77%	Fayette
	75%	Daviess
	74%	Scott
	60%	LaGrange

Source: US Census Bureau, ACS, 2005-2009 5 Year Estimates

Regional

Percent of Adults 25 or Older with a Bachelor's Degree or More

Region 2 Counties		Indiana Counties (or equivalents)
	54%	Hamilton
	43%	Monroe
	38%	Boone
	36%	Tippecanoe
	31%	Hendricks
	27%	Marion, Bartholomew
St. Joseph	26%	Johnson, Allen, Warrick
	25%	Porter
	24%	Hancock
	22%	Delaware, Floyd, Vanderburgh
	21%	Vigo, Brown
Kosciusko	20%	Dubois, Howard
	19%	Lake, Steuben, Posey
	18%	
Elkhart	18%	Jefferson, Clark, Putnam, Montgomery
Marshall	17%	Dearborn, LaPorte, Madison, Whitley, Franklin
	16%	Wabash, Spencer, Wayne, DeKalb
	15%	Grant, Shelby, Union, Carroll, Knox, Decatur, Huntington, Ripley, White
Fulton	14%	Harrison, Gibson, Jasper, Cass, Sullivan, Wells, Morgan, Clay, Henry, Jackson, Benton, Pulaski, Tipton
	13%	Rush, Clinton, Warren, Noble, Parke, Lawrence, Orange
	12%	Vermillion, Adams, Blackford, Daviess, Ohio, Crawford
	11%	Switzerland, Starke, Greene, Fountain, Jay, Washington
	10%	LaGrange, Randolph, Miami, Scott, Newton
	9%	Fayette, Martin
	8%	Owen, Perry, Pike, Jennings

Source: US Census Bureau, ACS, 2005-2009 5 Year Estimates

National

To gain a perspective of Indiana's educational attainment, the percentage of adults ages 25-34 with an Associate's degree or higher were compared with the same age range and educational attainment on a national and regional scale.

Percentage of Adults 25-34 with an Associate Degree or Higher

Indiana		United States
	68%	District of Columbia
	54%	Massachusetts
	51%	**North Dakota**
	49%	**Minnesota,** New York
Region 5	47%	
	46%	New Jersey, Maryland, New Hampshire, Connecticut, **Iowa**
Region 8	45%	Rhode Island, **Illinois**
	44%	Vermont, Virginia
	43%	**Nebraska,** Pennsylvania
	42%	Colorado, Hawaii, Montana
	41%	**Kansas,** Washington, **Wisconsin**
	40%	**South Dakota**
Marion County	39%	**Missouri,** North Carolina
	38%	California, Utah, **Ohio,** Oregon, Maine
Region 11	37%	Delaware
Region 4	36%	**Michigan,** Georgia, South Carolina, Florida
Indiana	35%	
	34%	**Kentucky**
Region 1, Region 3	33%	Tennessee, Wyoming
Region 2, Region 9, Region 10	32%	Arizona, Alabama, Texas, Oklahoma
	31%	Idaho, Louisiana
	30%	Alaska, West Virginia
	29%	Mississippi, Nevada, New Mexico, Arkansas
Region 7	28%	
Region 6	27%	

* Bold states are in the Midwest

* Information gathered from College Board's The College Completion Agenda 2011, and 2008-2010 3-year Census Survey

International

To gain an even wider perspective of Indiana's educational attainment, the percentage of adults ages 25-34 with an Associate's degree or higher were compared with the same age range and educational attainment on an international scale (2009 data).

Percentage of Adults 25-34 with an Associate Degree or Higher

United States		OECD Countries
District of Columbia	68%	
	63%	Korea
	56%	Canada
	56%	Japan
Massachusetts	54%	
North Dakota	51%	
Minnesota, New York	49%	
	48%	Ireland
	47%	Norway, New Zealand
New Jersey, Maryland, New Hampshire, Connecticut, Iowa	46%	
Rhode Island, Illinois	45%	United Kingdom, Australia, Denmark
Vermont, Virginia	44%	Luxembourg
Nebraska, Pennsylvania	43%	France, Israel
Colorado, Hawaii, Montana	42%	Belgium, Sweden
Kansas, Washington, Wisconsin	41%	**United States**
South Dakota	40%	Netherlands, Switzerland
Missouri, North Carolina	39%	Finland
California, Utah, Ohio, Oregon, Maine	38%	Spain
Delaware	37%	OECD average, Estonia
Michigan, Georgia, South Carolina, Florida	36%	Iceland
Indiana	35%	Poland, Chile
Kentucky	34%	
Tennessee, Wyoming	33%	
Arizona, Alabama, **Region 2**, Texas, Oklahoma	32%	
Idaho, Louisiana	31%	
Alaska, West Virginia	30%	Slovenia
Mississippi, Nevada, New Mexico, Arkansas	29%	Greece
	26%	Germany
	25%	Hungary
	23%	Portugal
	21%	Austria, Slovak Republic
	20%	Czech Republic, Mexico, Italy
	17%	Turkey
	12%	Brazil
	6%	China

* Information gathered from OECD Factbook 2011-2012, College Board's The College Completion Agenda 2011, and 2008-2010 3-year Census Survey

Section 2

Education Completions

Data Methodology

Bureau of Labor Statistics and EMSI Analyst

BLS reports the minimum educational requirement for an occupation

To better understand the projections data presented in this report, we provide a brief discussion here on methodology. In this section and the following sections we utilize state and regional data from Economic Modeling Specialists, Inc. ("EMSI"). EMSI utilizes national and state data from the Bureau of Labor Statistics (BLS) when forecasting occupational and skills demand. Like BLS, EMSI reports the minimum educational requirements needed for an individual to hold a specific occupation.

BLS data holds minimum educational demand constant when projecting future demand

In addition to reporting minimal education requirements, BLS also projects occupational data by holding educational demand within occupational classifications constant. BLS assumes that the status-quo of occupation-specific educational demand does not change, or changes very little, over time. Therefore, the occupations that require a post secondary degree in 2012 will be the same ones that require a post secondary degree in 2021. However, BLS and EMSI occupational growth projections do point to a greater need for educational attainment in the aggregate.

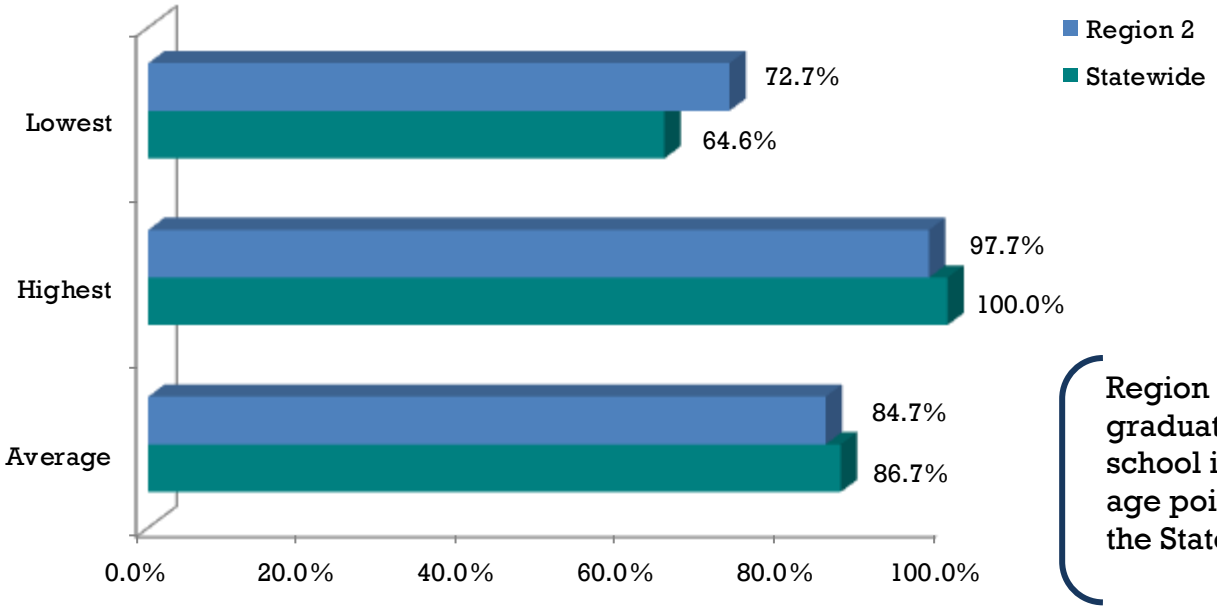
What does this mean?

Other reports, such as the Lumina Foundation's *A Stronger Nation through Higher Education* modify the traditional approach to estimate the change in postsecondary education demand at the individual occupation level. The result is a different—and often higher—estimate of higher education requirements for the coming years.

Either way, the need is clear. We must do better at graduating graduate college or career ready students who move on to postsecondary education and receive a relevant credential more quickly and affordably than before.

High School

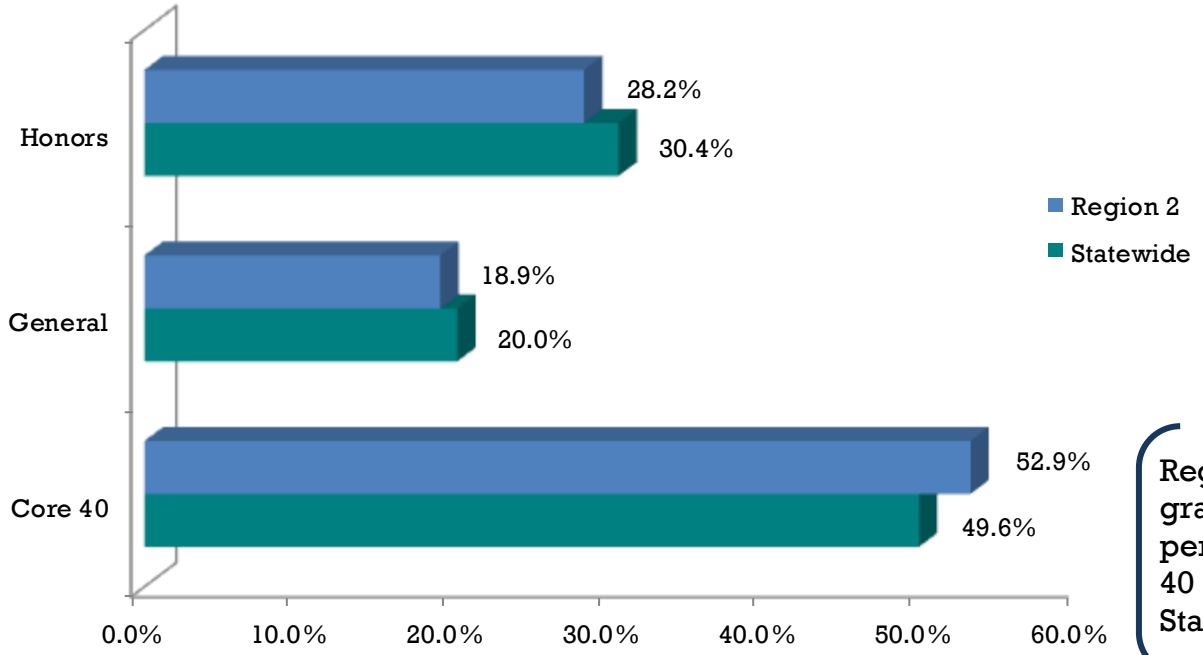
High School Graduation Rates (2010-11)»



Region 2's lowest graduating high school is 8.1 percentage points higher than the State's lowest

» Lowest and Highest refer to the range of school district graduation rates within the State/Region

Graduates by Diploma Type (2010-11)

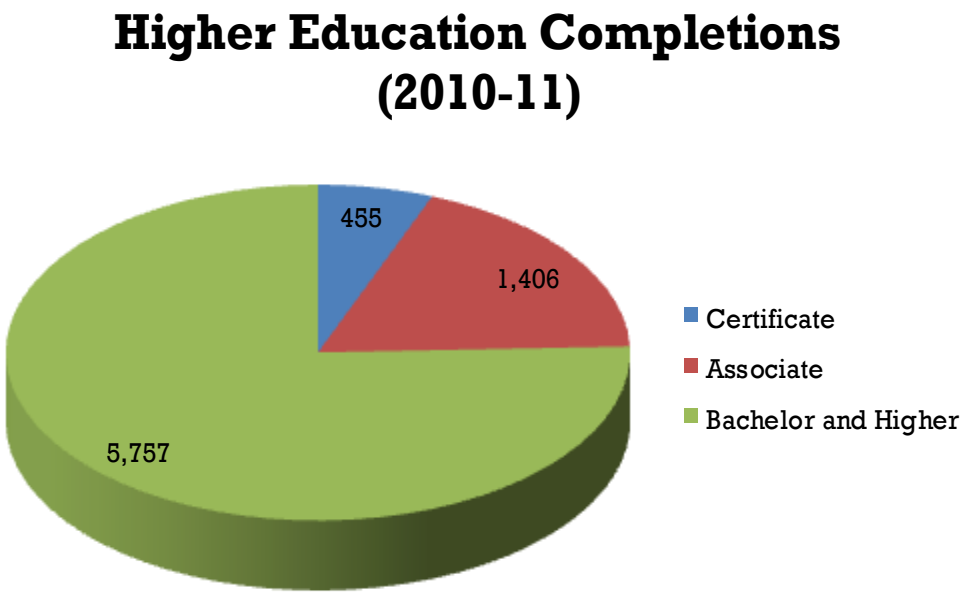


Region 2 schools graduate a larger percentage of Core 40 students than the State average

* Information gathered from Indiana Department of Education 2010-2011 Fact Sheet and include only Public High Schools

Higher Education

Out of 7,618 individuals, over 75% of Higher Education Completions are bachelor's degrees



Higher Education Institutes in Region 2, 2010-2011 School Year

	Associate	Bachelor	Master	Doctor	Certificate	Total
Indiana University-South Bend	126	625	198	0	5	954
Bethel College-Mishawaka	94	385	64	0	0	543
Goshen College	0	230	24	0	0	254
Grace College and Theological Seminary	100	307	55	18	0	480
Holy Cross College	7	61	0	0	0	68
Saint Mary's College	0	401	0	0	0	401
University of Notre Dame	0	2078	951	348	0	3377
Ivy Tech Community College-Northcentral	579	0	0	0	279	858
Brown Mackie College-South Bend	289	12	0	0	0	301
Harrison College-Elkhart	102	0	0	0	4	106
ITT Technical Institute-South Bend	109	0	0	0	0	109
Regency Beauty Institute-South Bend	0	0	0	0	46	46
Ross Medical Education Center-Granger	0	0	0	0	121	121

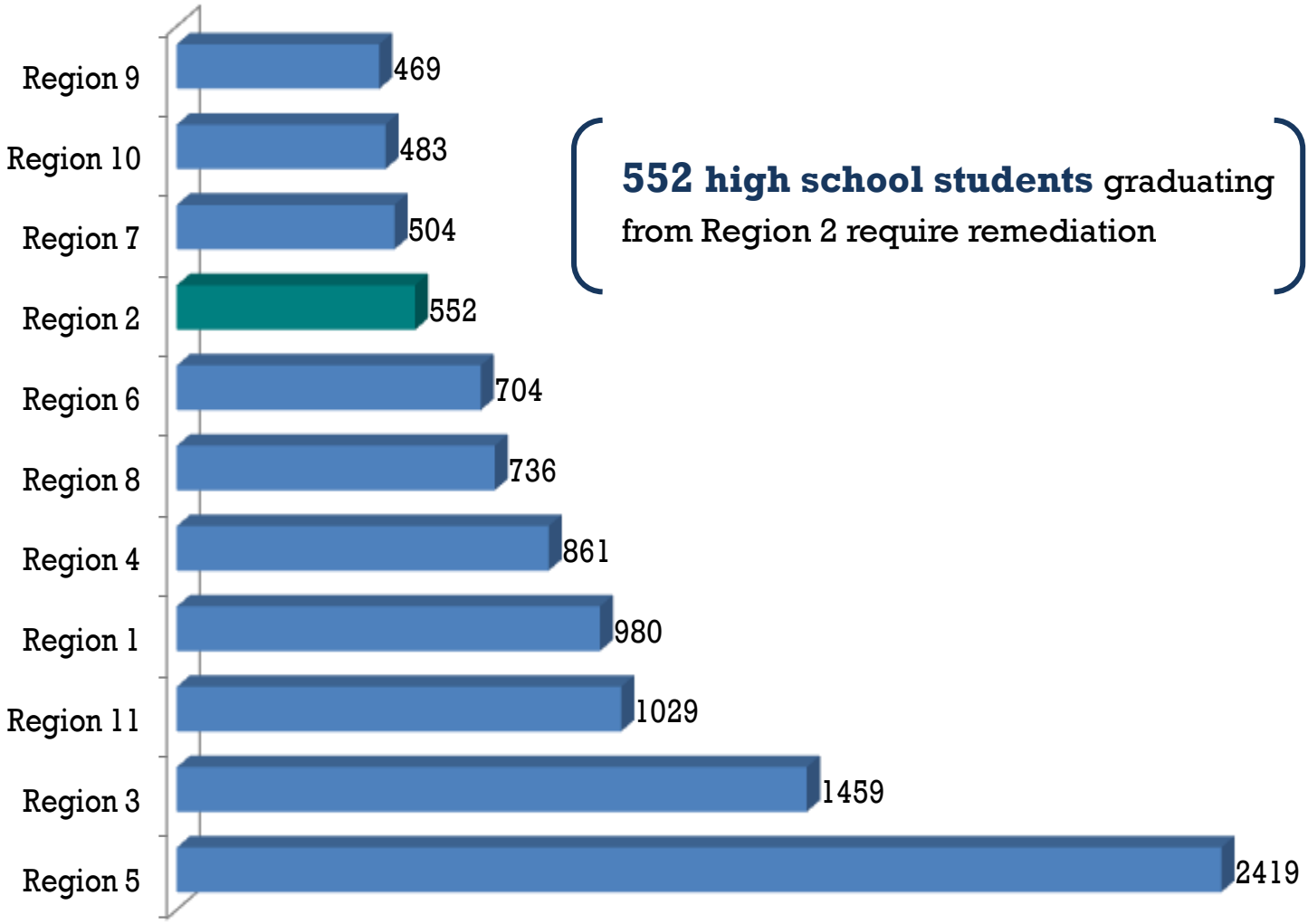
* Information gathered from the National Center for Education Statistics, 2010-2011 School Year

Section 3

Education Performance

High School

Number of High School Graduates Requiring Remediation (2010)



552 high school students graduating from Region 2 require remediation

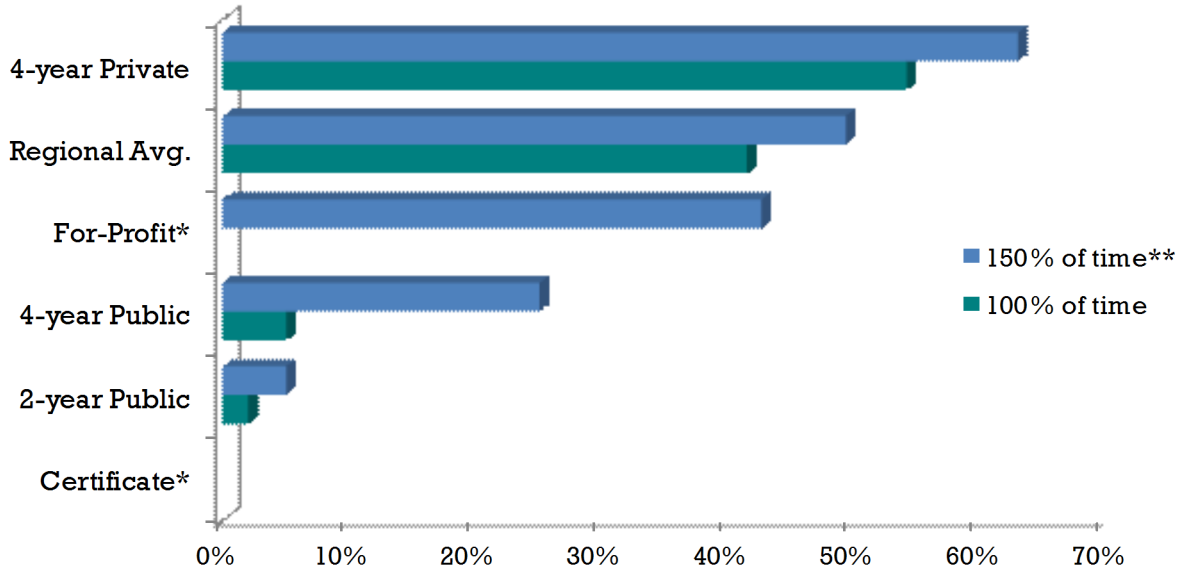
In total, the state of Indiana has **10,196 high school graduates** who require remediation for post secondary education

Includes the raw number of High School graduates by Economic Growth Region requiring Remediation for Postsecondary Education.

* Complete College America, Indiana Education and Workforce Innovation Network

Higher Education

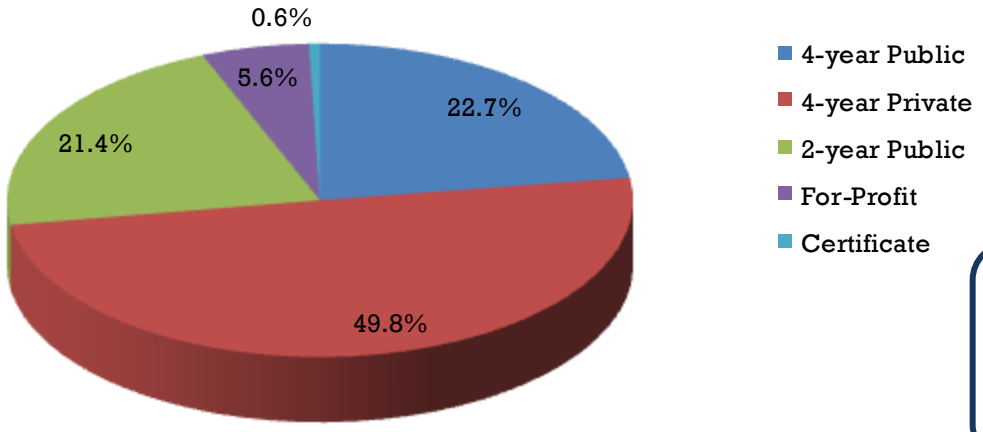
Average Postsecondary Graduation Rates, 2010



**150% of time is defined as within 6 years for a 4-year program and within 3 years for a 2-year program. 100% of time is the advertised, expected length of a full-time program, such as 4 years for a typical bachelor's degree or 2 years for a typical associate's degree.

*On-time graduation rates are not publicly available for certificate and for-profit schools. This means accurate benchmarking is not currently possible.

Postsecondary Enrollment by School Type, 2010



44.1% of Region 2's postsecondary students attend public 4-year or 2-year colleges/universities

* Information gathered from the National Center for Education Statistics, 2010-2011 School Year

Section 4

Occupational Requirements

*All information for this section was gathered from EMSI which collects educational level requirement data from O*Net. O*Net monitors individuals while they work to create a profile for each job description. O*Net sources its data on certificates as "Postsecondary Vocational Awards." For the purpose of this report, all O*Net data originally categorized as "Postsecondary Vocational Awards" have been renamed to "Vocational Certificates" to keep consistency throughout the report.*

Work Keys information was collected from ACT Workforce Resources

Methodology

Knowledge, Skills, and Abilities

To better help education providers and technical institutes prepare individuals for today's workforce needs, several sets of Knowledge, Skills, and Abilities (KSAs) were analyzed. KSAs represent both the soft skills and academic skills required for an individual to perform a specifically defined occupation and are broken apart into 120 subcategories. Breaking down workforce needs into high demand KSAs helps to facilitate the integration of these workforce competencies into current education programs. To more comprehensively understand the current needs of the labor market, two sets of KSAs were examined. KSAs range in level of importance from 1 to 100 for each occupation.

By Industry

KSAs for each target industry were identified for occupations chosen by a combination of their projected growth from 2011 to 2021 and projected 2021 employment. Occupations were separated by each of the two target industries: Manufacturing and HealthCare. Then, for each industry the median wage for all occupations was calculated. Individual occupations which offered wages below 80% of the overall median wage were removed from each of the lists. From these revised tables, ten occupations were chosen for each industry based on the occupations with the highest projected employment and growth. KSA requirements for each of these ten occupations were them compiled using a weighted average that places greater emphasis on the KSA requirements of jobs with the highest growth. The top 10 associated Knowledge requirements and the top 5 Skills and Abilities are examined in this report.

By Level of Education

Next, a different set of KSAs were examined based on the top growth occupations within each education level. First occupations were separated by minimum educational requirement: On-the-Job Training, Vocational, Associate, Bachelor, and Masters or higher degrees. Then, for each education level the median wage for all occupations was calculated. Individual occupations which offered wages below 80% of the overall median wage were removed from each of the lists. From these revised tables, ten occupations were chosen for each education level based on the occupations with the highest projected growth from 2011 to 2021. KSA requirements for each of these ten occupations were them compiled using a weighted average that places greater emphasis on the KSA requirements of jobs with the highest growth. The top 10 associated Knowledge requirements and the top 5 Skills and Abilities are examined in this report.

Work Keys

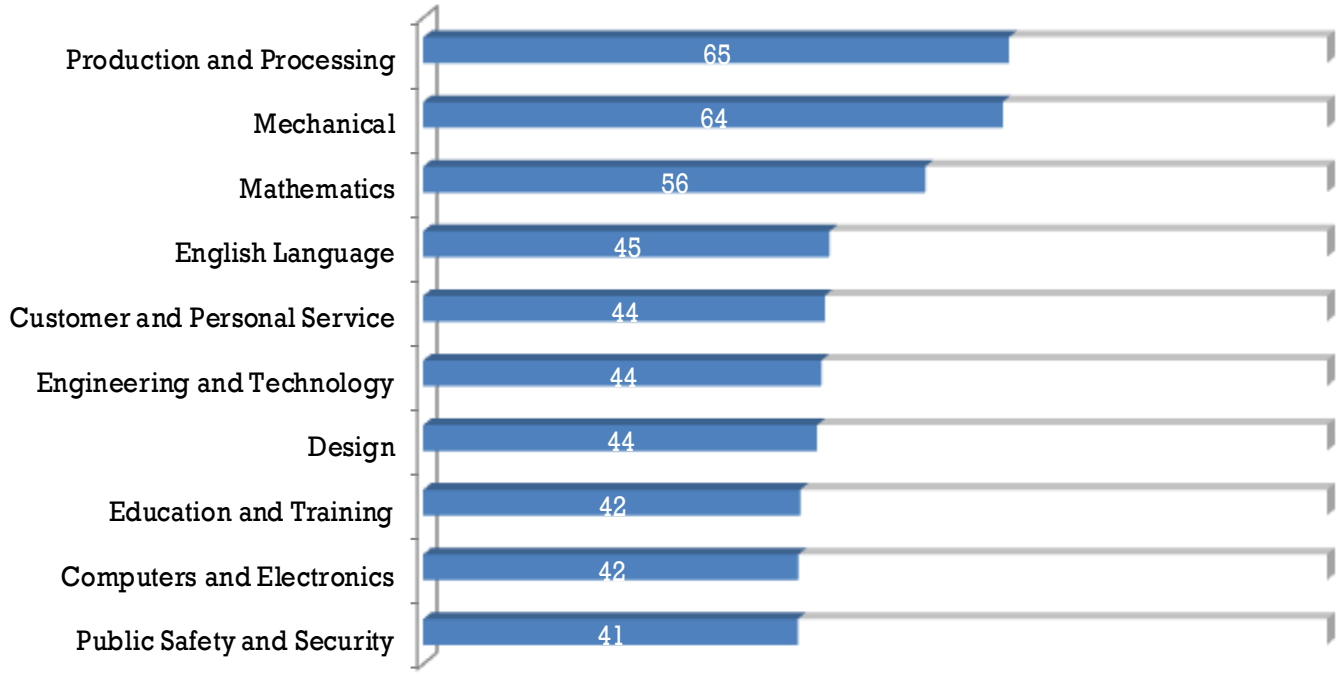
To examine competency requirements, Work Keys scores in Applied Mathematics, Reading for Information, and Locating Information were gathered for each of the occupations identified in KSA analysis. For both categories, "By Level of Education" and "By Industry", Work Keys scores were compiled using a weighted average that places greater emphasis on the score requirements of occupations with the highest growth from 2012 to 2021.

* Information gathered from EMSI and ACT Workforce Resources

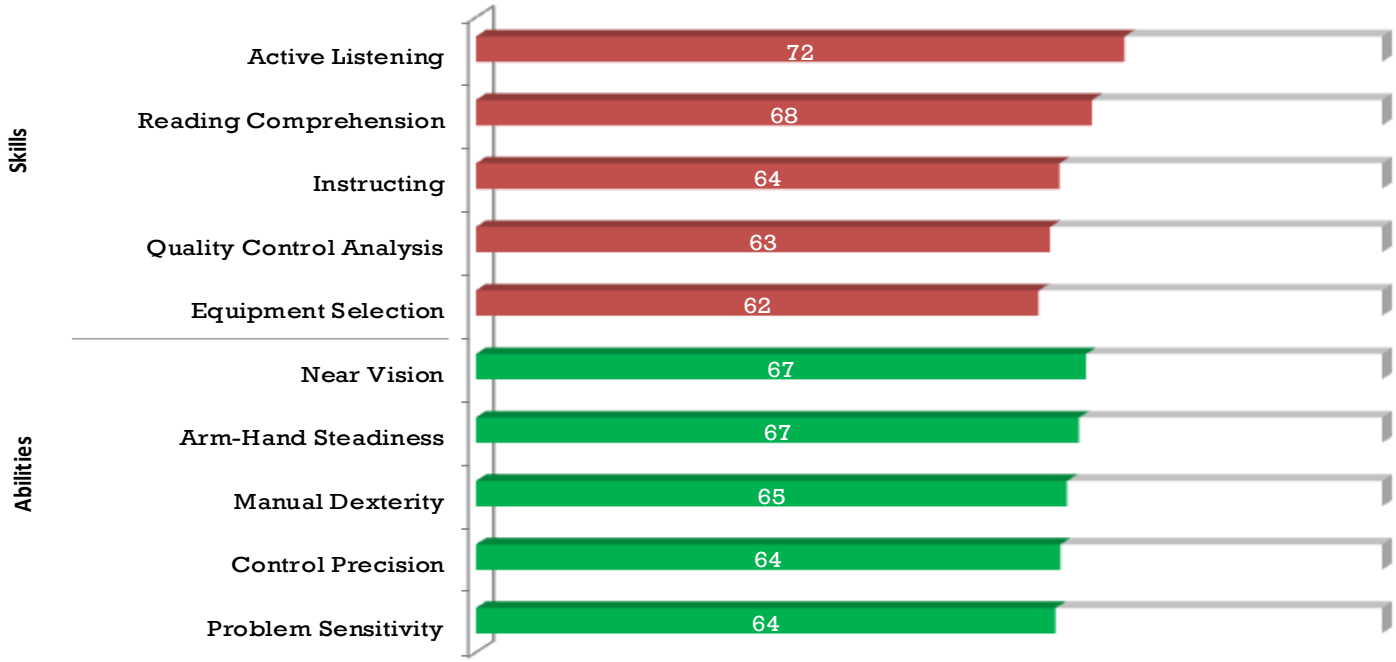
Target Industry

Manufacturing– Knowledge, Skills, and Abilities

Average Required Knowledge for Top Ten Manufacturing Occupations

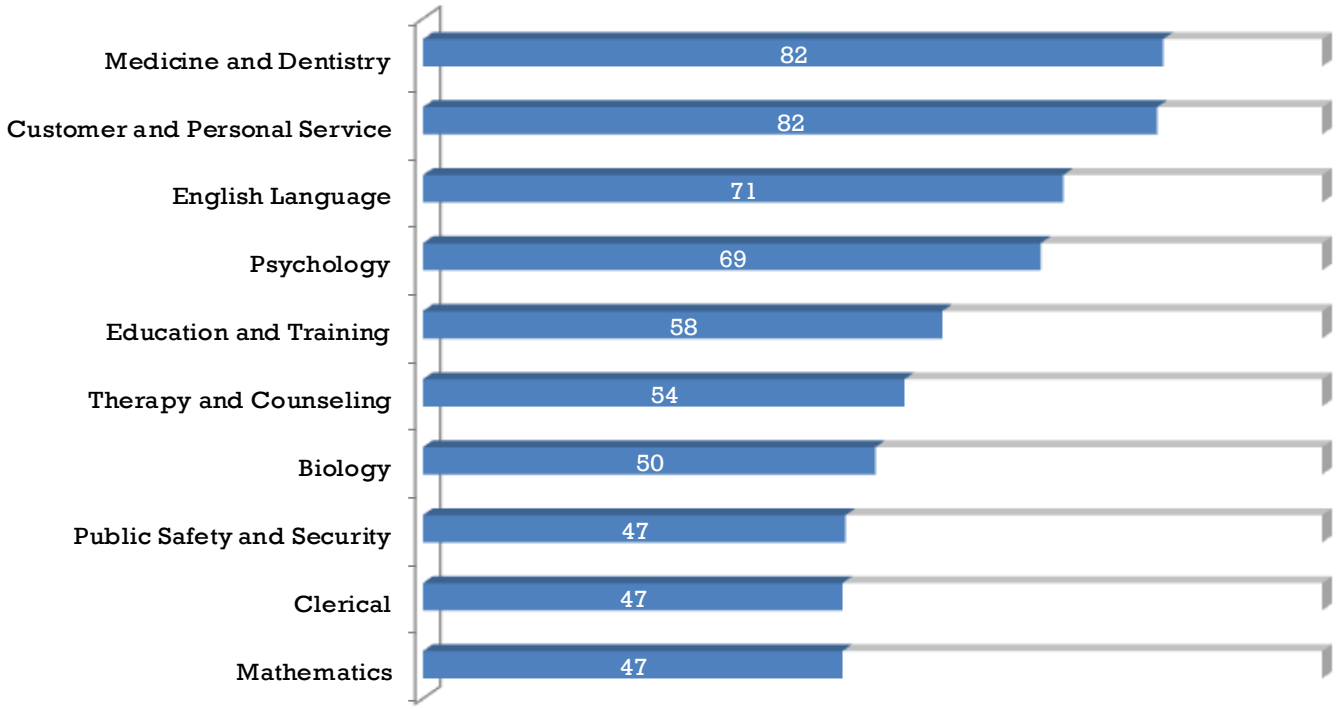


Average Required Competency Levels for Top Ten Manufacturing Occupations

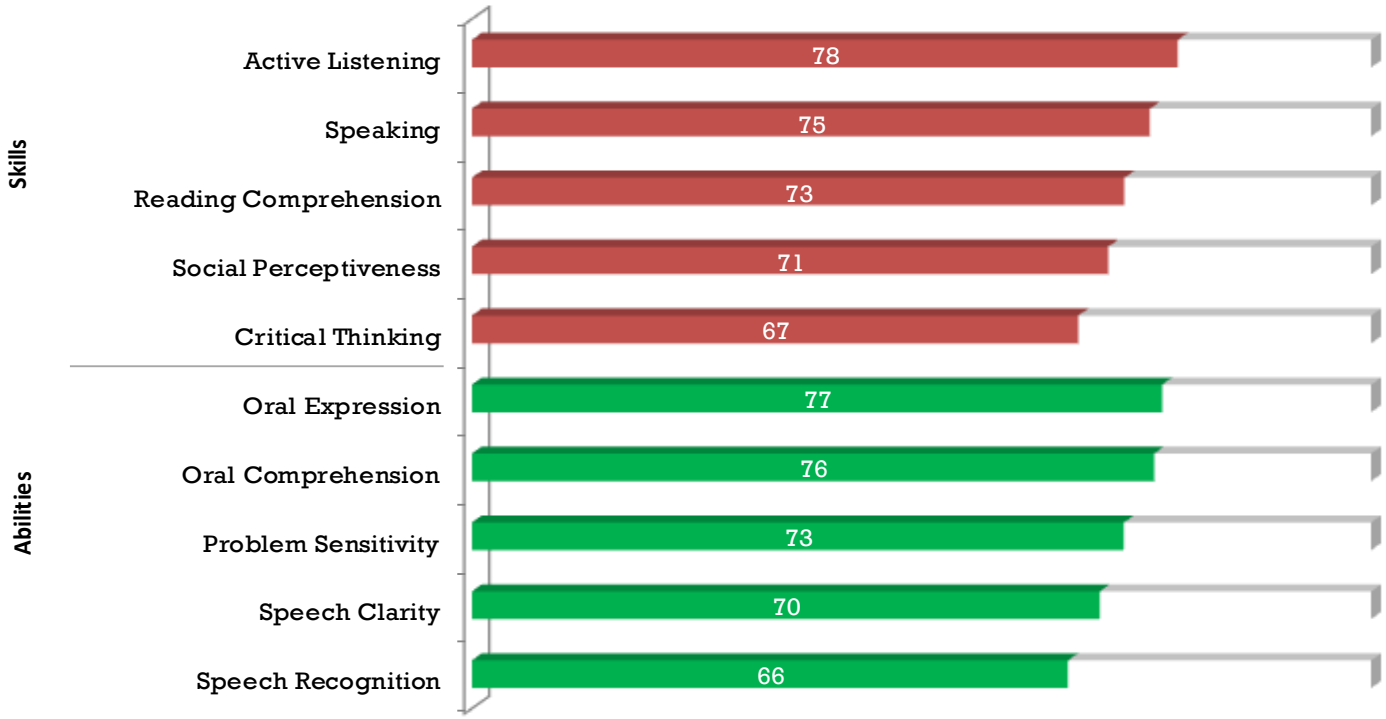


Health Care – Knowledge, Skills, and Abilities

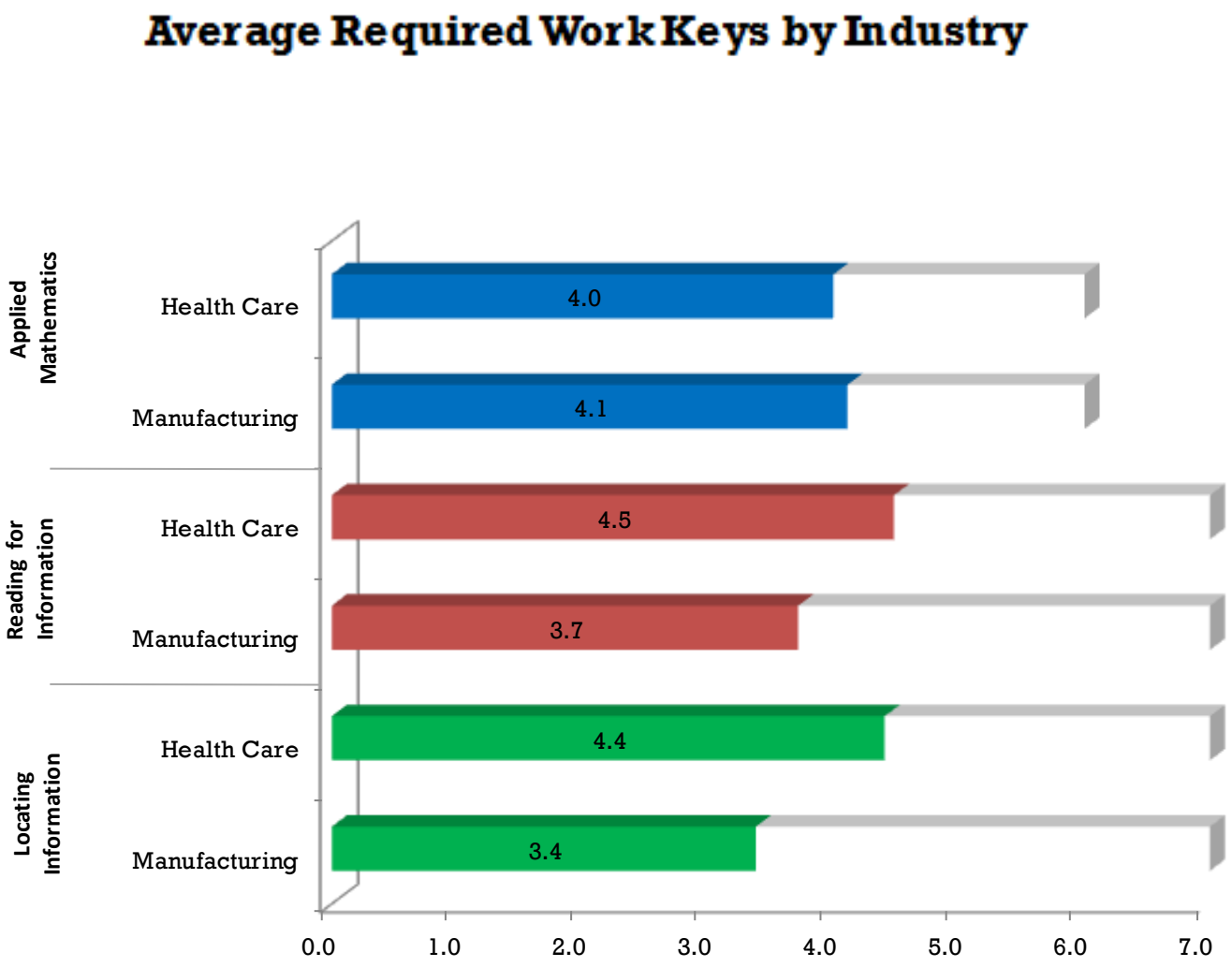
Average Required Knowledge for Top Ten Health Care Occupations



Average Required Competency Levels for Top Ten Health Care Occupations



Work Keys

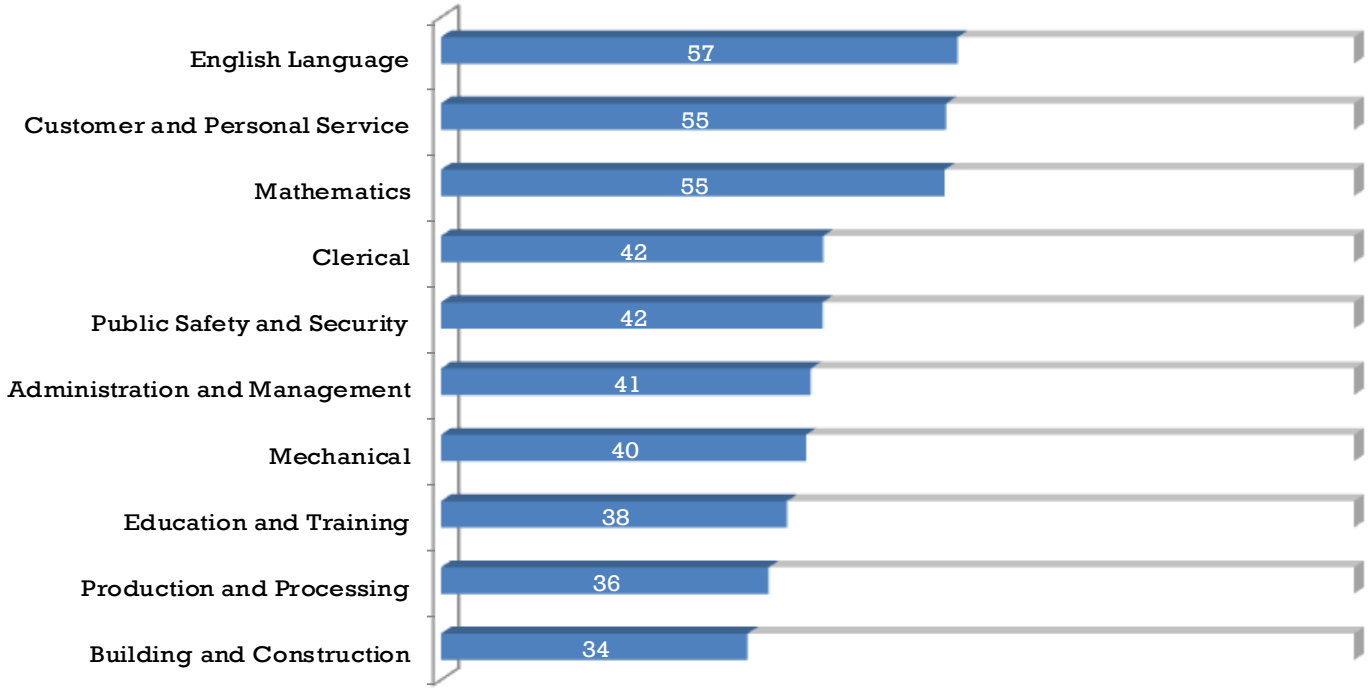


Reading for Information and Locating Information are both rated on a scale from 0-7. Applied Mathematics is rated on a scale from 0-6.

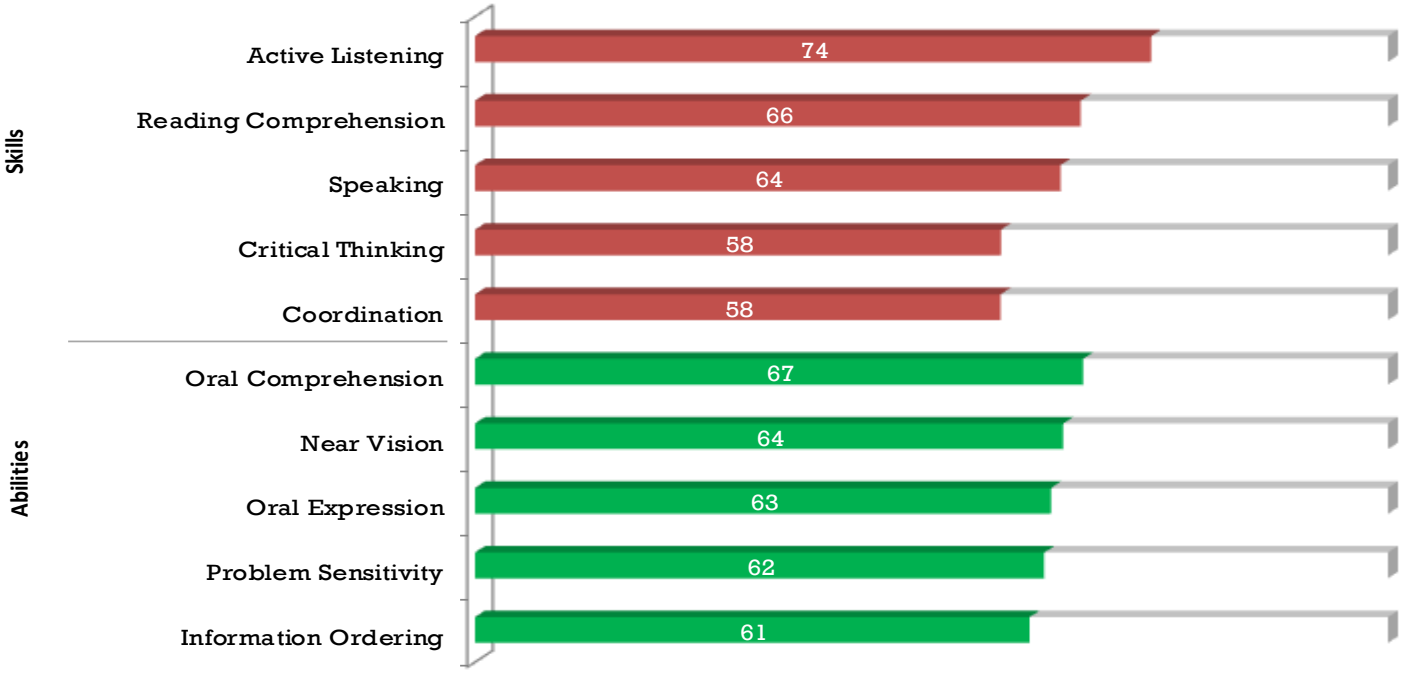
Educational Attainment

On-the-Job Training – Knowledge, Skills, and Abilities

Average Required Knowledge for Top Ten OJT Occupations

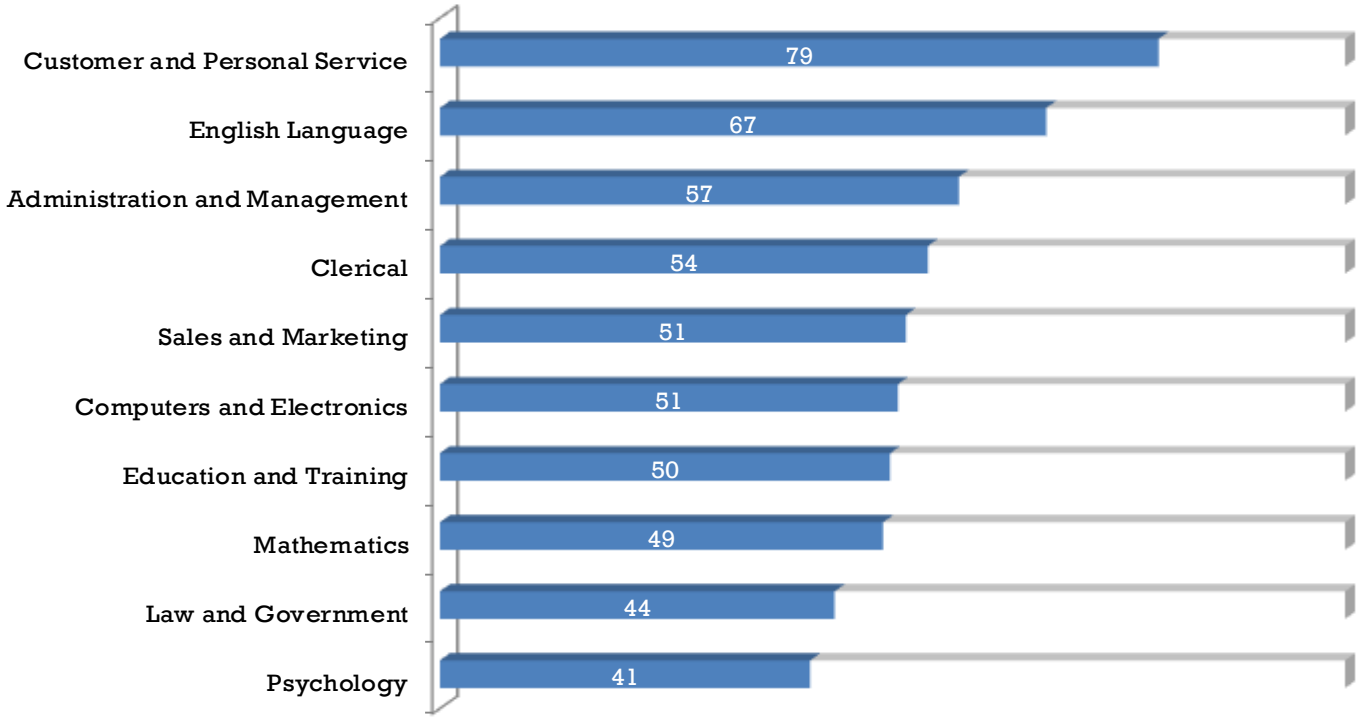


Average Required Competency Levels for Top Ten OJT Occupations

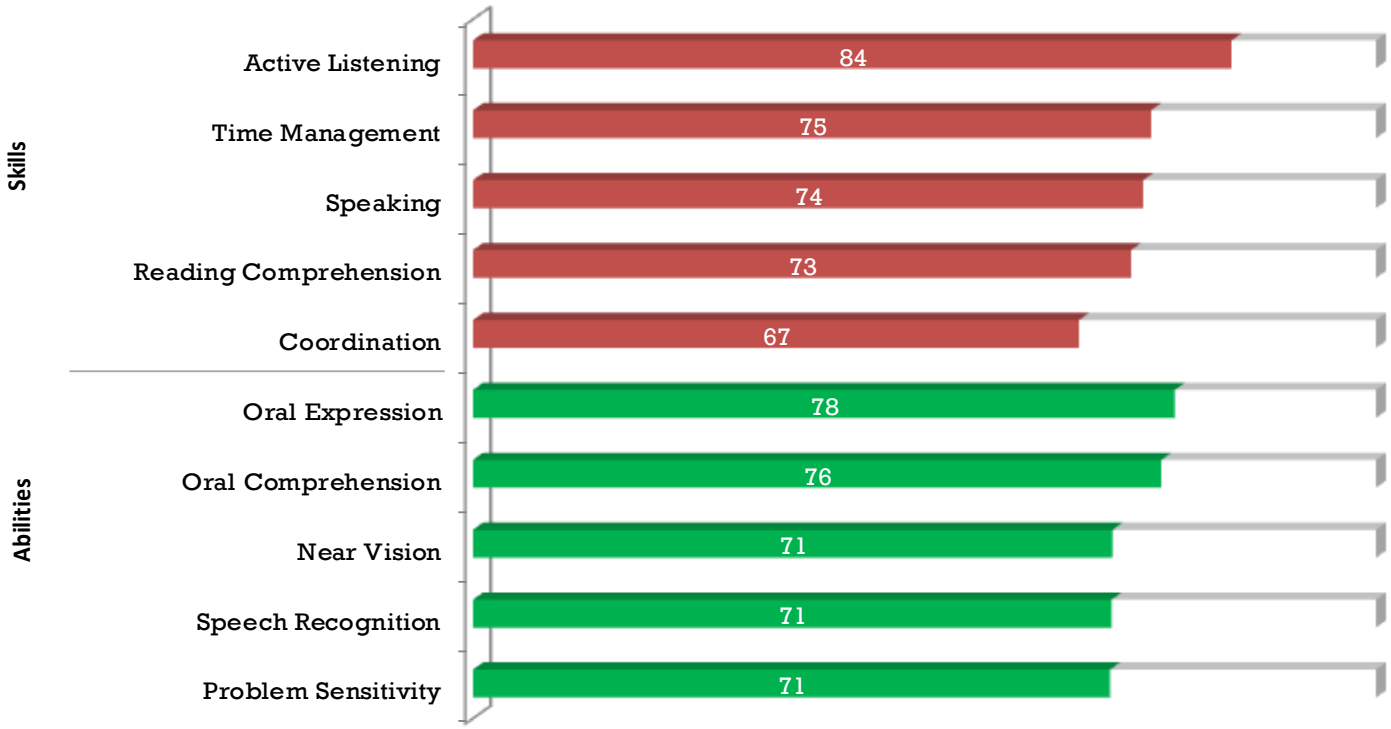


Vocational Certificate – Knowledge, Skills, and Abilities

Average Required Knowledge for Top Ten Vocational Occupations

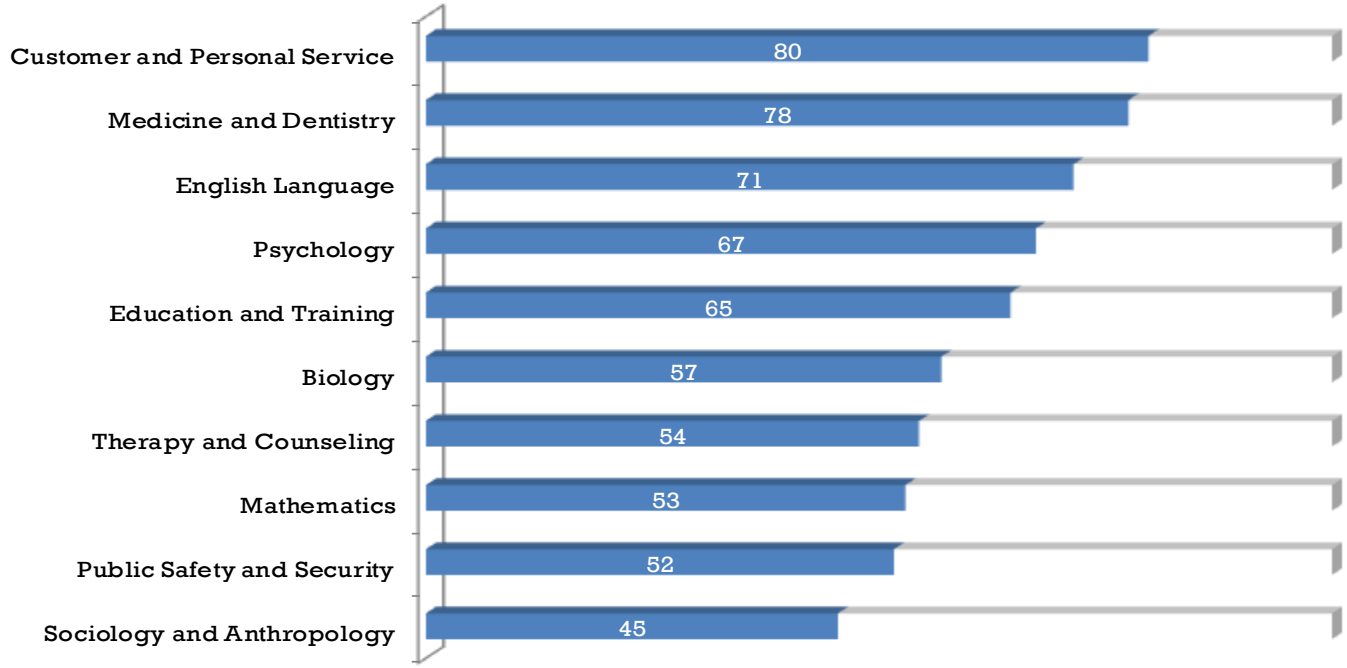


Average Required Competency Levels for Top Ten Vocational Occupations

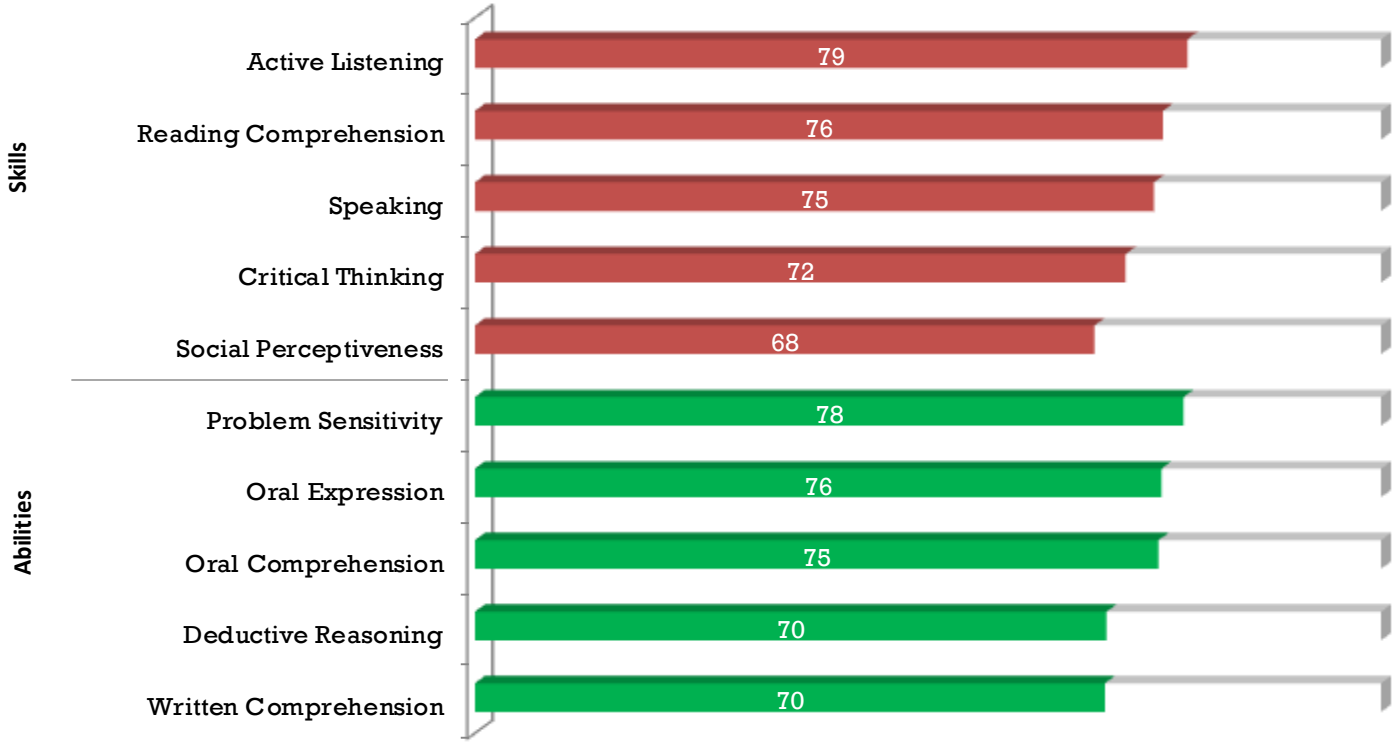


Associate Degree – Knowledge, Skills, and Abilities

Average Required Knowledge for Top Ten Associate Occupations

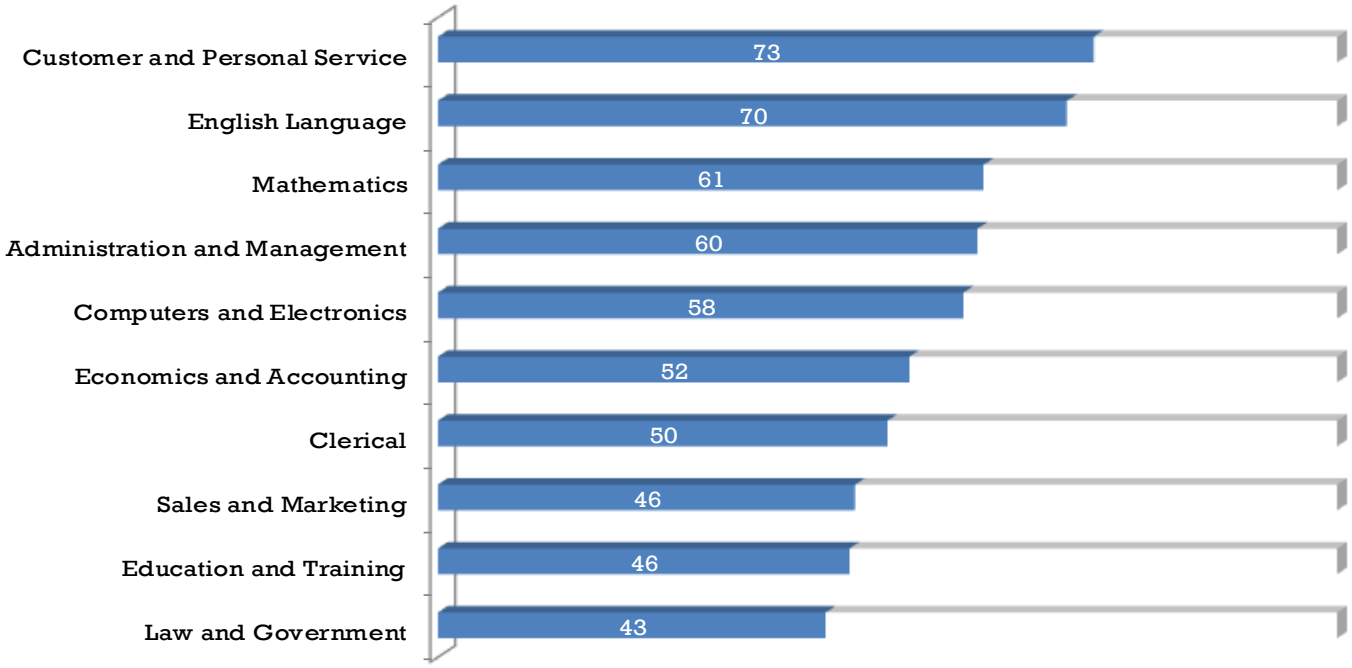


Average Required Competency Levels for Top Ten Associate Occupations

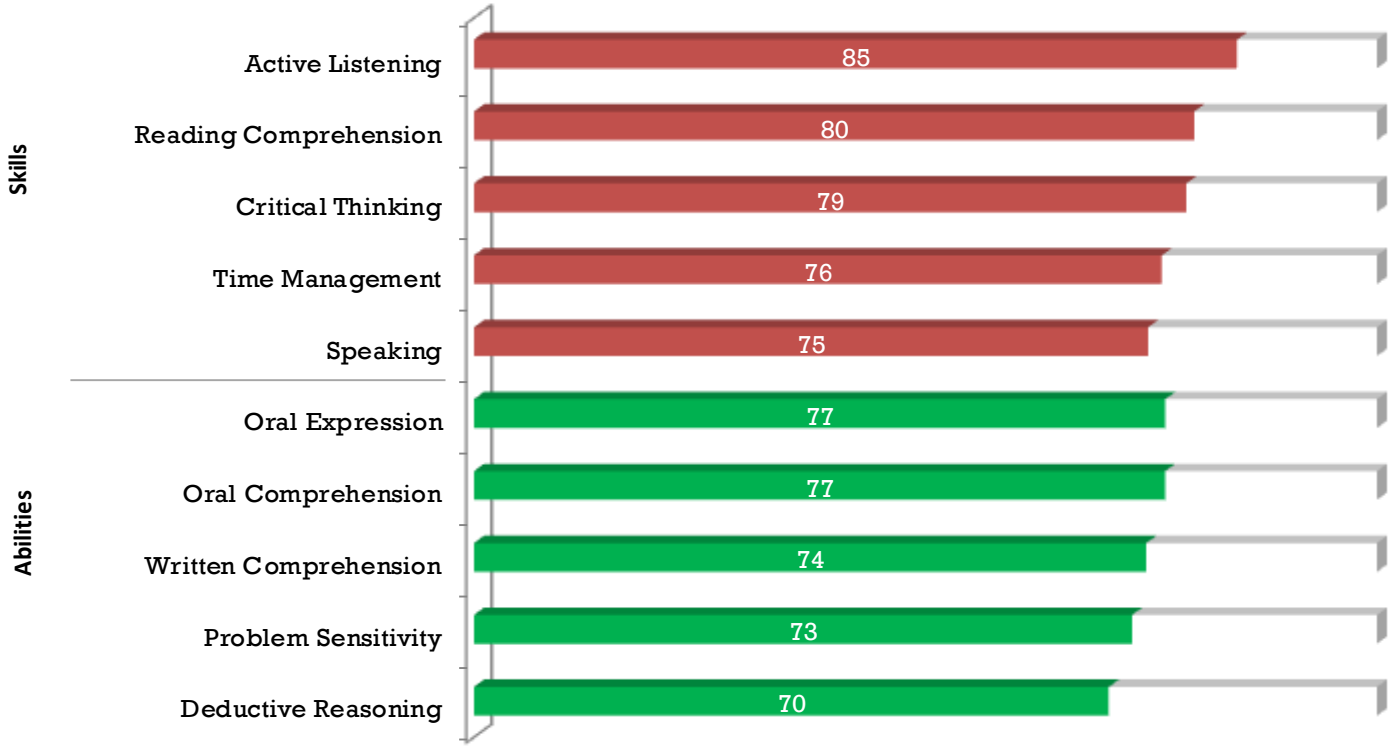


Bachelor's Degree – Knowledge, Skills, and Abilities

Average Required Knowledge for Top Ten Bachelor's Occupations

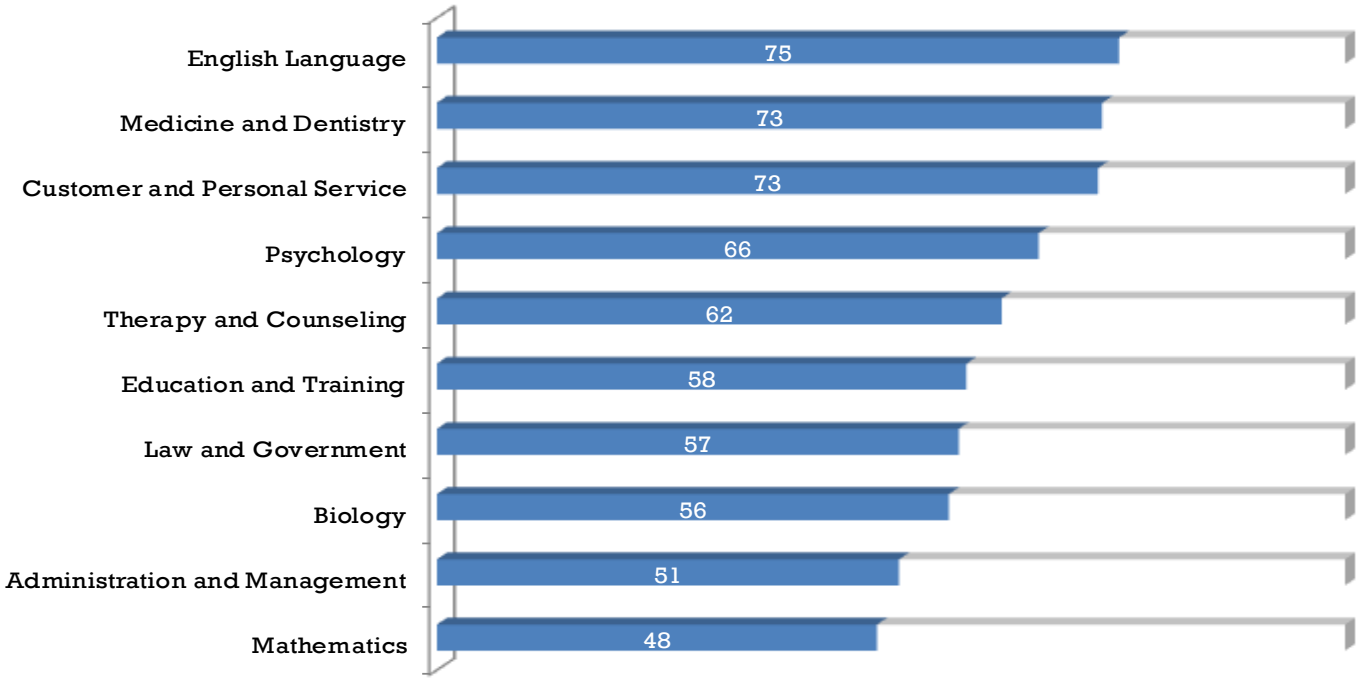


Average Required Competency Levels for Top Ten Bachelor's Occupations

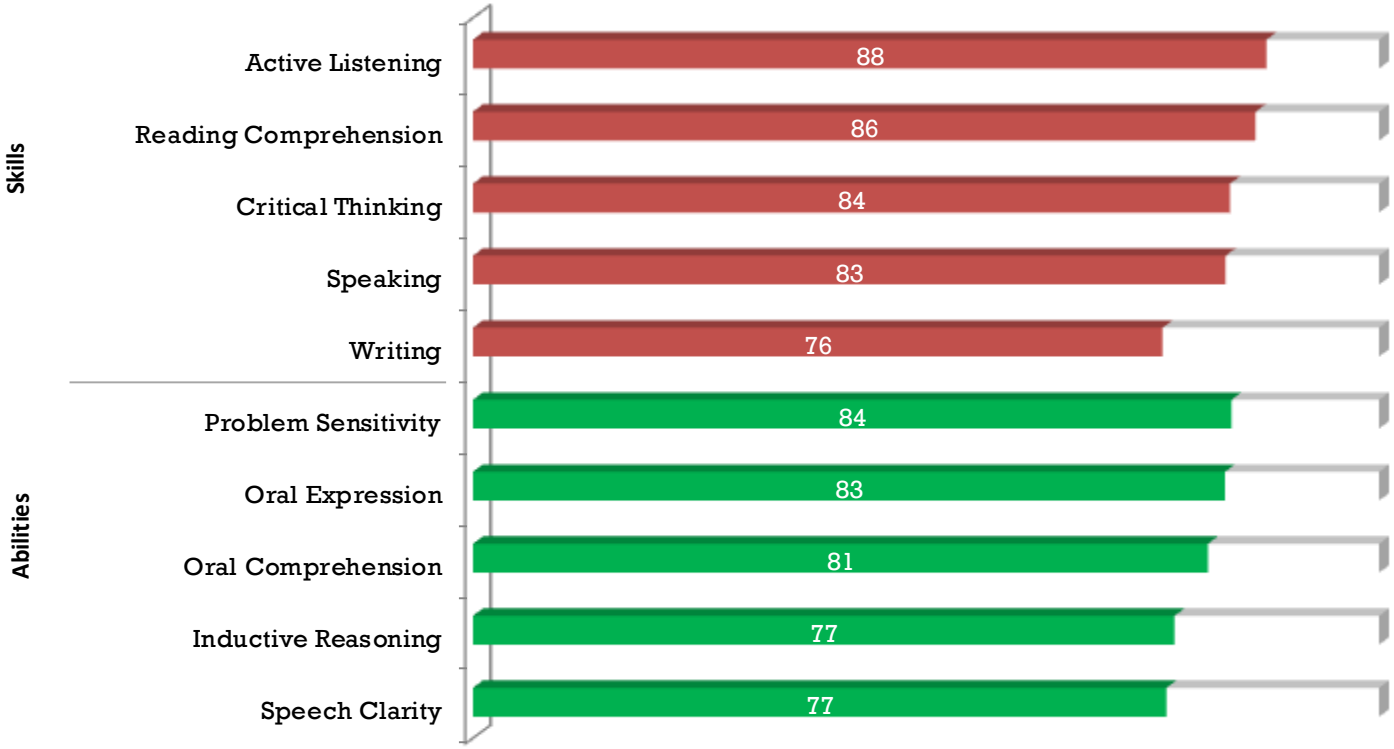


Master's Degree+ – Knowledge, Skills, and Abilities

Average Required Knowledge for Top Ten Master's or Higher Occupations

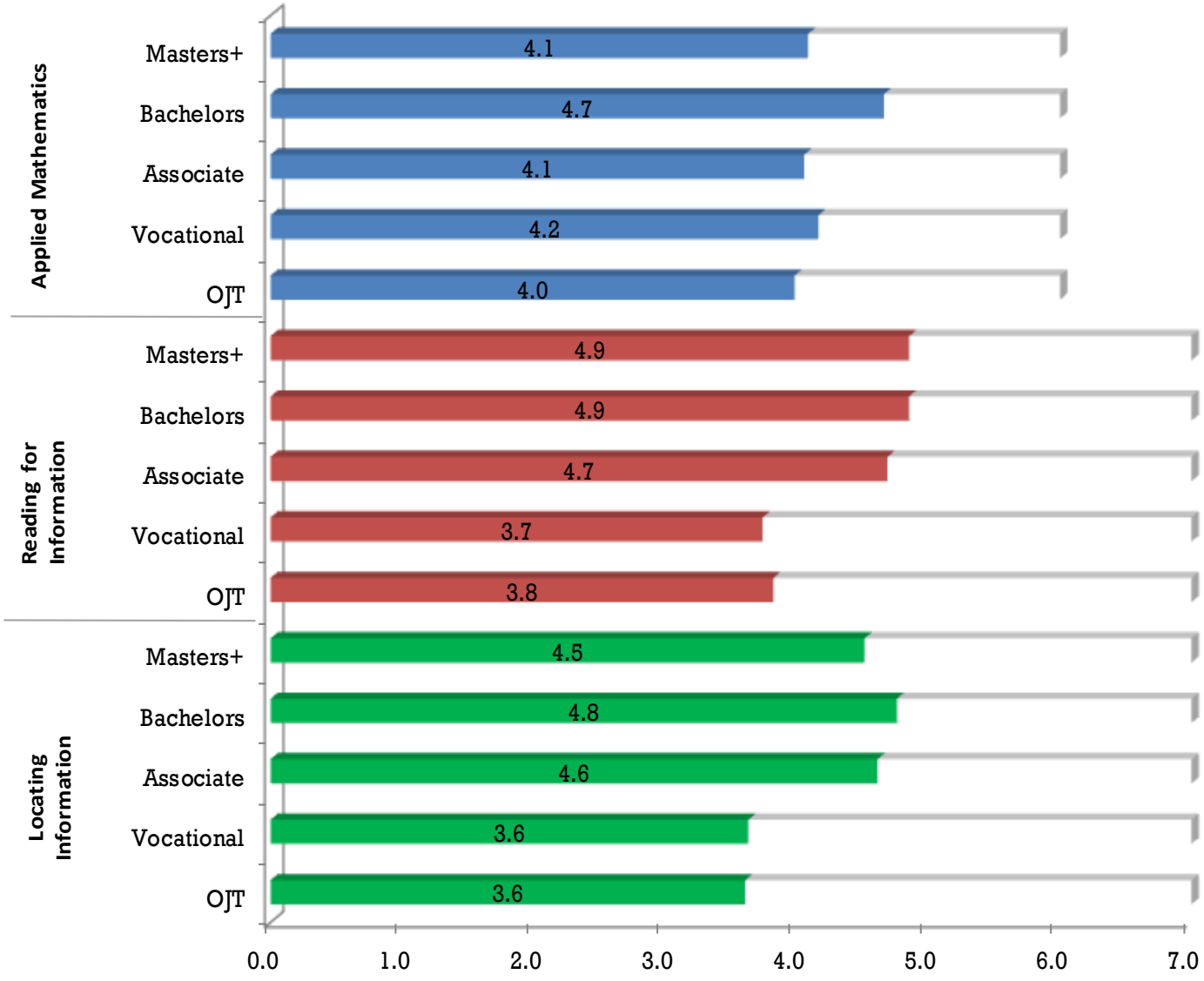


Average Required Competency Levels for Top Ten Master's or Higher Occupations



Work Keys

Average Required Work Keys by Education



Reading for Information and Locating Information are both rated on a scale from 0-7. Applied Mathematics is rated on a scale from 0-6.

Section 5

The Math of a World-Class Workforce

Data Methodology

Georgetown University Center on Education and the Workforce

The Center estimates all educational requirements for an occupation

To better understand the data presented within this section of the report, a brief discussion on data methodology is provided here. This section describes the Big Goal of 60% of Indiana's Labor Force with High-Quality Degrees and Credentials by 2025 as calculated by the **Georgetown University Center on Education and the Workforce,** here after called "the Center". The Center's use of data and projection estimates are very different than that of BLS and EMSI. Unlike the approach of using minimal educational requirements, the Center uses an estimation of the distribution of educational requirements within each occupation.

The Center uses a dynamic model for educational projections

An additional difference is, while BLS holds minimum educational demand constant while creating projections, the Center uses a dynamic model for estimating future educational requirements. **Key assumptions made by the Center when using this dynamic model include, changing educational requirements within occupations and changing educational demand from changes in employment composition.** These assumptions of dynamic occupations and employment composition stem from the following reasoning:

- Economic growth tends toward industries and occupations that require more education
- Upskilling - or the changes in requirements for existing occupational categories

Information for this section gathered from Projections of Jobs and Education Requirements Through 2018, from the Georgetown University Center on Education and the Workforce Appendix 4

The Big Goal

60% of Indiana's Labor Force with High-Quality Degrees and Credentials by 2025

Out of every **100 students** currently in secondary education

⇨

At least **90** must graduate from high school and are college or career ready€

⇨

At least **70** of these individuals must complete postsecondary education

=

At least **60** achieve a postsecondary certificate or higher

€ College or career ready is defined as an individual who does not require remediation after high school

Attachments

A.Occupational Projections

B. Data Sources

A: Growth Occupations

Target Industry Staffing Patterns

Manufacturing					
Occupation	**Employed in Industry (2012)**	**Employed in Industry (2021)**	**Change**	**% Change**	**2011 Median Hourly Wage**
Biomedical Engineers	115	186	81	77%	$25.65
Cabinetmakers and Bench Carpenters	821	1,171	389	50%	$14.69
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	787	905	105	13%	$13.44
Computer-Controlled Machine Tool Operators, Metal and Plastic	870	1,052	160	18%	$15.07
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	418	461	33	8%	$15.11
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	353	405	35	9%	$16.09
Industrial Engineers	583	678	89	15%	$30.90
Industrial Machinery Mechanics	581	681	87	15%	$19.83
Mixing and Blending Machine Setters, Operators, and Tenders	449	574	125	28%	$15.88
Packaging and Filling Machine Operators and Tenders	890	1,062	196	23%	$13.87

Health Care					
Occupation	**Employed in Industry (2012)**	**Employed in Industry (2021)**	**Change**	**% Change**	**2011 Median Hourly Wage**
Dental Assistants	519	730	243	50%	$16.18
Dental Hygienists	476	635	183	40%	$28.86
Licensed Practical and Licensed Vocational Nurses	1,397	1,655	298	22%	$17.78
Medical and Health Services Managers	286	328	49	18%	$32.49
Medical and Public Health Social Workers	163	206	51	33%	$18.55
Medical Secretaries	567	736	195	36%	$13.56
Mental Health and Substance Abuse Social Workers	248	305	69	29%	$15.96
Physical Therapists	229	273	49	22%	$37.39
Radiologic Technologists and Technicians	367	430	73	20%	$23.85
Registered Nurses	3,968	4,841	994	26%	$25.46

* All occupations use O*Net data collected from EMSI

A: Growth Occupations

Education Level Staffing Patterns

On-the-Job Training						
Description	**2012 Jobs**	**2021 Jobs**	**Change**	**% Change**	**Annual Openings**	**Median Wage***
Bookkeeping, Accounting, and Auditing Clerks	4,678	4,929	251	5%	91	$14.46
Cabinetmakers and Bench Carpenters	874	1,227	353	40%	58	$14.69
Carpenters	3,570	4,026	456	13%	97	$15.59
Construction Laborers	2,123	2,639	516	24%	71	$14.65
Customer Service Representatives	3,137	3,588	451	14%	151	$14.17
Maintenance and Repair Workers, General	3,879	4,252	373	10%	107	$16.56
Medical Assistants	929	1,203	274	29%	40	$12.54
Office Clerks, General	6,588	7,315	727	11%	176	$10.81
Team Assemblers	13,540	13,933	393	3%	442	$14.22
Truck Drivers, Heavy and Tractor-Trailer	5,257	5,652	395	8%	150	$17.10

Vocational Certificate						
Description	**2012 Jobs**	**2021 Jobs**	**Change**	**% Change**	**Annual Openings**	**Median Wage**
Automotive Service Technicians and Mechanics	1,491	1,613	122	8%	43	$14.21
Emergency Medical Technicians and Paramedics	545	583	38	7%	16	$13.67
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	529	618	89	17%	19	$20.34
Insurance Sales Agents	1,947	2,048	101	5%	58	$18.19
Licensed Practical and Licensed Vocational Nurses	1,660	1,965	305	18%	84	$17.78
Massage Therapists	345	439	94	27%	15	$12.69
Medical Transcriptionists	309	344	35	11%	7	$14.50
Real Estate Sales Agents	5,054	5,583	529	10%	140	$16.22
Surgical Technologists	161	194	33	20%	8	$18.28
Telecommunications Equipment Installers and Repairers, Except Line Installers	347	381	34	10%	10	$23.99

* Defined as 2011 Median Hourly Wage

Education Level Staffing Patterns

Associate Degree

Description	2012 Jobs	2021 Jobs	Change	% Change	Annual Openings	Median Wage
Appraisers and Assessors of Real Estate	748	819	71	9%	21	$18.20
Dental Hygienists	501	661	160	32%	28	$28.86
Industrial Engineering Technicians	212	246	34	16%	9	$21.86
Medical and Clinical Laboratory Technicians	263	301	38	14%	9	$17.12
Medical Equipment Repairers	81	171	90	111%	12	$17.98
Occupational Therapist Assistants	132	169	37	28%	6	$17.70
Paralegals and Legal Assistants	332	363	31	9%	8	$15.11
Radiologic Technologists and Technicians	419	483	64	15%	13	$23.85
Registered Nurses	4,779	5,797	1,018	21%	195	$25.46
Respiratory Therapists	245	297	52	21%	10	$21.37

Bachelor's Degree

Description	2012 Jobs	2021 Jobs	Change	% Change	Annual Openings	Median Wage
Accountants and Auditors	2,391	2,703	312	13%	75	$23.82
Construction Managers	919	1,067	148	16%	23	$19.48
Elementary School Teachers, Except Special Education	3,050	3,260	210	7%	97	$22.36
Employment, Recruitment, and Placement Specialists	456	584	128	28%	26	$18.40
Industrial Engineers	732	869	137	19%	35	$30.90
Management Analysts	938	1,140	202	22%	38	$29.44
Network Systems and Data Communications Analysts	639	880	241	38%	38	$24.61
Personal Financial Advisors	1,283	1,566	283	22%	45	$25.05
Property, Real Estate, and Community Association Managers	1,673	1,844	171	10%	47	$18.50
Securities, Commodities, and Financial Services Sales Agents	1,117	1,320	203	18%	55	$20.33

Master's Degree+

Description	2012 Jobs	2021 Jobs	Change	% Change	Annual Openings	Median Wage
Anesthesiologists	122	144	22	18%	5	$88.16
Family and General Practitioners	204	246	42	21%	8	$67.46
Lawyers	753	823	70	9%	22	$35.19
Obstetricians and Gynecologists	105	141	36	34%	6	$62.31
Occupational Therapists	195	232	37	19%	8	$31.10
Pharmacists	749	804	55	7%	23	$52.21
Physical Therapists	290	352	62	21%	10	$37.39
Speech-Language Pathologists	202	216	14	7%	6	$26.80
Surgeons	100	117	17	17%	4	$88.87
Veterinarians	146	171	25	17%	5	$39.51

B: Data Sources

EMSI Analyst provides in-depth and current local employment data, updated it four times per year. To extrapolate data to the county and ZIP code level where it is otherwise unavailable, EMSI 2012.1 relies on more than 90 data sources, including the following: Bureau of Economic Analysis and U.S. Census Bureau from the U.S. Department of Commerce; Bureau of Labor Statistics and Employment and Training Administration (ETA) from the U.S. Department of Labor; and Integrated Postsecondary Education Data System (IPEDS), Common Core of Data (CCD), and Characteristics of Private Schools in the United States from the U.S. Department of Education, National Center for Education Statistics.

Additional Resources:

- ACT Workforce Resources
- College Board's The College Completion Agenda 2011
- Indiana Commission for Higher Education, Indiana College Readiness Reports 2012
- Indiana Department of Education 2010-2011 Fact Sheet
- Indiana Department of Workforce Development
- Lumina Foundation, Goal 2025
- National Center for Education Statistics, 2010-2011 School Year
- Organization for Economic and Co-operative Development (OECD) Factbook 2011-2012: Economic, Environmental and Social Statistics
- U.S. Census Bureau 2008-2010 3-year American Community Survey