

Indy Big Data Visualization Challenge 2018

Improving Indiana's Talent Pipeline and Workforce

In addressing this data challenge, we set out to answer the following key research questions:

- What will be the top jobs in demand in 10 years?
- What is the education requirement for those top in demand jobs?
- What is the earning potential of those top in demand jobs?
- What is the return on investment on education for those top in demand jobs?

The data below is our attempt at answering these questions and perhaps raising new questions.

Based on the data and information collected, we have 5 recommendations in the second tab.

The data sources are included in the third tab.

What are Indiana's Top Projected Jobs in 10 Years?

Indiana's top projected jobs are primarily in the **healthcare, food service, and business** industries.

Ranking By Expected Numeric Change in Projected Jobs (Hover for More)

1	Combined Food Preparation and Serving Workers, Includ...	12,943
2	Personal Care Aides	10,749
3	Registered Nurses	10,704
4	Laborers and Freight, Stock, and Material Movers, Hand	7,669
5	Home Health Aides	6,578
6	Janitors and Cleaners, Except Maids and Housekeeping C...	4,922
7	General and Operations Managers	4,678
8	Helpers--Production Workers	4,022
9	Heavy and Tractor-Trailer Truck Drivers	3,742
10	Medical Assistants	3,596
11	Nursing Assistants	3,303

Ranking By Expected Percentage Change in Projected Jobs (Hover for More)

1	Wind Turbine Service Technicians	71%
2	Home Health Aides	49%
3	Physician Assistants	40%
4	Nurse Practitioners	39%
5	Personal Care Aides	37%
6	Software Developers, Applications	37%
7	Occupational Therapy Assistants	34%
8	Physical Therapist Assistants	32%
9	Statisticians	31%
10	Physical Therapist Aides	30%
11	Therapists, All Other	30%

What are the Education Level Requirements for Indiana's Top Jobs?

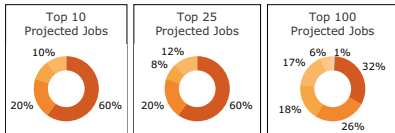
2/3 of all Indiana jobs in 10 years will require a post-secondary credential or higher
While only about **half** of the working population currently have a post-secondary credential

Educational Attainment of General Population



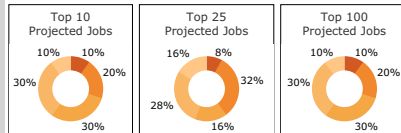
Expected Education by Numeric Change for Indiana's Top Projected Jobs

60% of top 25 projected jobs only require a **high school diploma**



Expected Education by Percentage Change for Indiana's Top Projected Jobs

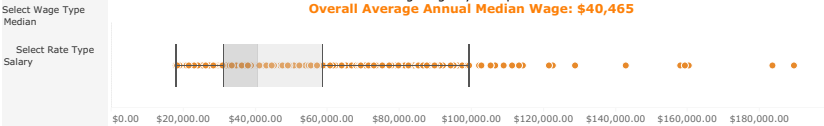
90% of top 25 projected jobs require at least a **post-secondary-credential or higher**



What is the Earning Potential for Indiana's Top Projected Jobs?

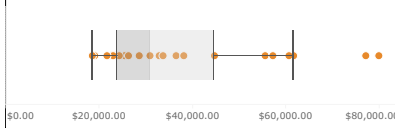
Earning Wage by Occupation Title

Overall Average Annual Median Wage: **\$40,465**



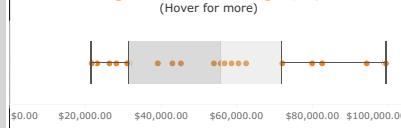
Wages of Top 25 Projected Jobs by Expected Numeric Change

Average Annual Median Wage: **\$30,807**



Wages of Top 25 Projected Jobs by Expected Percentage Change

Average Annual Median Wage: **\$56,635**



What is the Return on Investment for Expected Post-Secondary Education?

The expected average timeframe it takes to pay off the cost of education is about **2.3 years**.
The average expected return on investment for all jobs is **\$1,381,514**.

Years to Payoff Post-Secondary Education and ROI by Job (Hover over headings to select icon to sort rows)

Job	Years to Pay..	ROI
Family and General Practitioners	4.3	\$5,621,717
Pediatricians, General	3.6	\$5,446,590
Nurse Anesthetists	4.3	\$4,748,296
Dentists, General	4.3	\$4,711,614
Podiatrists	6.8	\$4,674,435
Judges, Magistrate Judges, and Magistrat..	6.1	\$4,219,387
Medical Scientists, Except Epidemiologists	7.3	\$3,797,665
Chief Executives	6.5	\$3,634,395
Pharmacists	4.9	\$3,581,630
Economics Teachers, Postsecondary	6.1	\$3,364,047
Architectural and Engineering Managers	3.1	\$3,357,193
Sales Managers	0.7	\$3,330,960
Computer and Information Systems Man...	3.3	\$3,231,410
Administrative Law Judges, Adjudicators...	9.1	\$3,126,663
Airline Pilots, Copilots, and Flight Engine...	4.3	\$3,117,575
Nurse Midwives	5.4	\$3,097,424
Financial Managers	4.3	\$3,046,223
Engineering Teachers, Postsecondary	7.1	\$2,995,335
Physician Assistants	3.8	\$2,930,737

ROI for the Top 25 Projected Jobs (Numeric Change)

Job	Years to Payoff	ROI
1 Combined Food Preparation and Serving Workers, Including...	0.0	\$552,990
2 Personal Care Aides	1.3	\$641,685
3 Registered Nurses	5.7	\$1,779,565
4 Laborers and Freight, Stock, and Material Movers, Hand	0.0	\$852,960
5 Home Health Aides	0.0	\$689,250
6 Janitors and Cleaners, Except Maids and Housekeeping Cle...	0.0	\$724,800
7 General and Operations Managers	1.0	\$2,308,185
8 Helpers--Production Workers	0.0	\$784,830
9 Heavy and Tractor-Trailer Truck Drivers	0.0	\$1,337,100
10 Medical Assistants	0.8	\$920,984
11 Nursing Assistants	0.0	\$761,700
12 Maintenance and Repair Workers, General	0.0	\$1,140,870
13 Software Developers, Applications	4.4	\$2,355,564
14 Waiters and Waitresses	0.0	\$568,140
15 Cooks, Restaurant	0.0	\$675,210
16 Medical Secretaries	0.8	\$1,003,384
17 Landscaping and Groundskeeping Workers	0.0	\$771,240
18 Construction Laborers	0.0	\$1,090,290
19 Customer Service Representatives	0.9	\$982,400
20 Accountants and Auditors	6.5	\$1,807,987
21 Industrial Truck and Tractor Operators	0.0	\$994,080
22 Sales Representatives, Wholesale and Manufacturing, Exce...	1.3	\$1,706,831
23 Packers and Packagers, Hand	0.0	\$696,510
24 First-Line Supervisors of Production and Operating Workers	0.6	\$1,661,424
25 Stock Clerks and Order Fillers	0.0	\$717,960