

IN Demand Ranking Methodology

Indiana has established an occupational demand ranking system designated by “Flames.” An occupation will be assigned between 1 and 5 Flames, depending on how “in demand” that occupation is in Indiana. The methodology for the occupational demand ranking system is detailed below.

Each occupation in Indiana is designated a 1-10 score in 5 categories: Total Openings (X2), Growth Openings, Percentage Change, Real Time Labor Market Information, and Wages¹ for both Short Term and Long Term outlook using 2017-2019 Short Term Projections and 2016-2026 Long Term Projections and Bureau of Labor Statistics wage estimates. The scoring method is determined by deciles or, in other words, a percentile system ranging from the 90th percentile and above, down to the 10th percentile and below. The averaged total for each occupation is then divided by 2 to produce an Indiana Demand Ranking in both outlooks. Lastly, both the short term and long term outlook Indiana Demand Ranking scores for each occupation are averaged to calculate the occupation’s final rating.

- 5 Categories for Short Term and Long Term Outlook
 - Total Job Openings X2 (Projected total openings, includes growth and separations)
 - Growth Openings (Occupational growth openings)
 - Percentage Change (Occupational percentage change from base year to projected year)
 - Real time labor market information (Job posting data)
 - Wages (2017 OES Wage Estimates)

- Percentile Scoring System Deciles (point value on left, percentile value on right)
 - Total Job Openings Short Term Outlook
 - 10 ≥ 2065.2
 - 9 ≥ 893.6
 - 8 ≥ 498
 - 7 ≥ 299.8
 - 6 ≥ 196
 - 5 ≥ 129.2
 - 4 ≥ 70.9
 - 3 ≥ 40
 - 2 ≥ 16
 - 1 ≥ 0
 - Total Job Openings Long Term Outlook
 - 10 ≥ 10765.7
 - 9 ≥ 4555.2
 - 8 ≥ 2573.9
 - 7 ≥ 1557.8
 - 6 ≥ 997.5
 - 5 ≥ 652.4
 - 4 ≥ 358.6
 - 3 ≥ 206.2
 - 2 ≥ 70.6
 - 1 ≥ 0
 - Growth Openings Short Term Outlook
 - 10 ≥ 157
 - 9 ≥ 66
 - 8 ≥ 37
 - 7 ≥ 22
 - 6 ≥ 12.5
 - 5 ≥ 7
 - 4 ≥ 3
 - 3 ≥ 1
 - 2 > 0
 - 1 ≤ 0
 - Growth Openings Long Term Outlook
 - 10 ≥ 851.8
 - 9 ≥ 340.6
 - 8 ≥ 176
 - 7 ≥ 93.8
 - 6 ≥ 44.5
 - 5 ≥ 24
 - 4 ≥ 7
 - 3 > 0
 - 2 ≠ 0
 - 1 ≤ 0

¹ As to wages, any occupation scoring 3 or 4 in the wage category cannot score higher than 3 Flames and any occupation scoring 1 or 2 in the wage category cannot score higher than 2 Flames. (Source: National Wages were used for occupations with wages suppressed in Indiana)

- Percentage Change Short Term Outlook

- $10 \geq 3.23$
- $9 \geq 2.62$
- $8 \geq 2.151$
- $7 \geq 1.72$
- $6 \geq 1.42$
- $5 \geq 1.19$
- $4 \geq .91$
- $3 \geq .338$
- $2 > 0$
- $1 \leq 0$

- Percentage Change Long Term Outlook

- $10 \geq 16.646$
- $9 \geq 12.274$
- $8 \geq 10.77$
- $7 \geq 9.162$
- $6 \geq 7.945$
- $5 \geq 6.224$
- $4 \geq 4.242$
- $3 > 0$
- $2 \neq 0$
- $1 \leq 0$

- Real time labor market information (Occupations above the median online job postings in a given geography are awarded scores of 7-10 in the Real Time Data category within the Short Term Outlook. The occupations are split into fourths and scores are distributed by quartiles. The top 25% total postings score 10; the second quartile scores 9; third quartile scores 8; fourth quartile scores 7)

- $10 = 470-10,020$
- $9 = 229-468$
- $8 = 135-226$
- $7 = 74-133$

- Wages (Statewide wage estimates provided by the Bureau of Labor Statistics and the Local Employment and Wage Information System (LEWIS) and are arranged in the 90, 75, 50, 25, 10 percentile format. In order to calculate a decile scoring system for wages, the medians between each percentile were calculated, creating enough percentiles for a decile scoring system.) Median Wage used to determine occupational scores.

- $10 \geq 77650$ (90%)
- $9 \geq 65225$ (82.5%)
- $8 \geq 52800$ (75%)
- $7 \geq 43695$ (62.5%)
- $6 \geq 34590$ (50%)
- $5 \geq 29060$ (37.5%)
- $4 \geq 23530$ (25%)
- $3 \geq 21005$ (17.5%)
- $2 \geq 18480$ (10%)
- $1 \geq 0$ (0%)

- Model Statistics

- 5 Flame Occupations=16
- 4 Flame Occupations=171
- 3 Flame Occupations=301
- 2 Flame Occupations=266
- 1 Flame Occupations=60

- Short Term and Long Term Outlook Model Formula

$$\circ \frac{\{A^1+A^1+B^1+C^1+D+E\}}{6} = \frac{x}{2} = x$$

$$\circ \frac{\{A^2+A^2+B^2+C^2+E\}}{5} = \frac{y}{2} = y$$

$$\circ = \overline{xy}$$

- Short Term Formula

- A¹=Short Term Total Openings (33.33%)
- B¹=Short Term Growth Openings (16.67%)
- C¹=Short Term Percentage Change (16.67%)
- D=Job Postings (16.67%)
- E=Wages (16.67%)
- x=Short Term Score

- Long Term Formula

- A²=Long Term Total Openings (40%)
- B²=Long Term Growth Openings (20%)
- C²=Long Term Percentage Change (20%)
- E=Wages (20%)
- y=Long Term Score

² Overall statistical weight in parentheses

Resources:

National Center for Education Statistics: <https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=55>

Classification of Instructional Programs (CIP)

Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into **occupational** categories for the purpose of collecting, calculating, or disseminating data.