

Projections of Idaho Jobs by Industry and Occupation 2012 to 2022

Outline of Presentation

- ▶ Overview of Total Employment



- ▶ Industry Projections



- ▶ Occupations



- ▶ Analysis of sub-group occupations



- ▶ Education Attainment

Projections Concepts:

- Not a prediction of the future.
- Uses the best information about the past and the present.
- A forecast of the labor market a decade from now, if it were to run at full capacity.

Primary Goal:

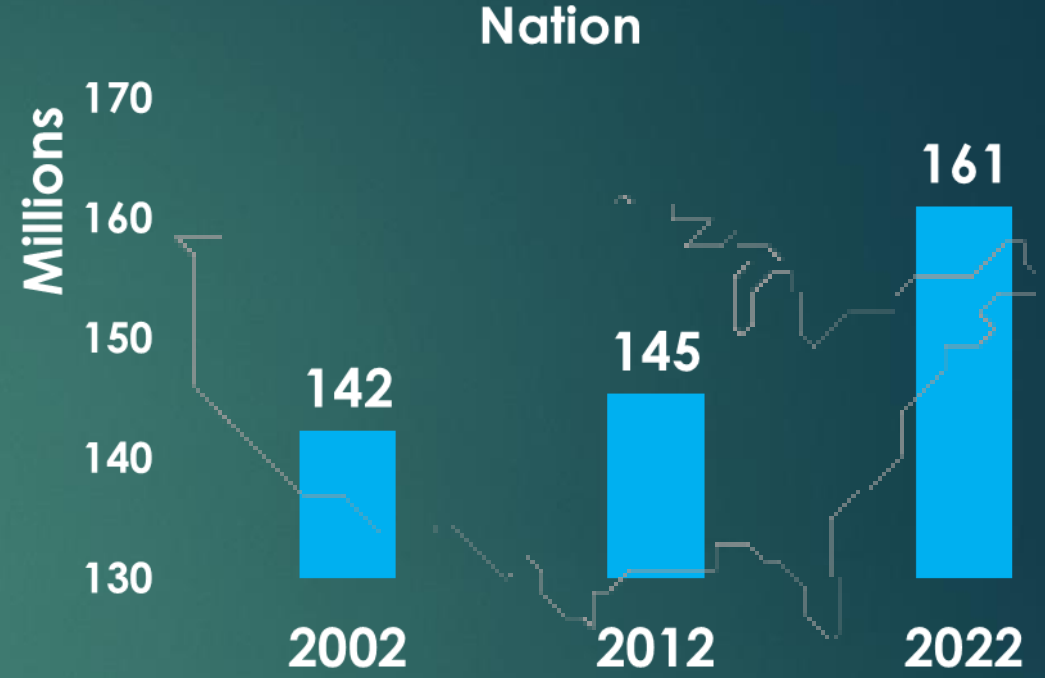
- ▶ Provide information for individuals that are:
 - Entering the job market
 - Seeking to change careers
 - Researching the paths of knowledge and skill building that will lead to job success

Guidelines:

- **Count of jobs, not people**
- **Produced every two years**
- **Decade timeframe projected**
- **Starting point of 2012 for this round**
- **Minimum level of industry projected**
- **Industry jobs projected first, from which occupational projections are developed.**

Projections Results 2012 to 2022

Total Employment



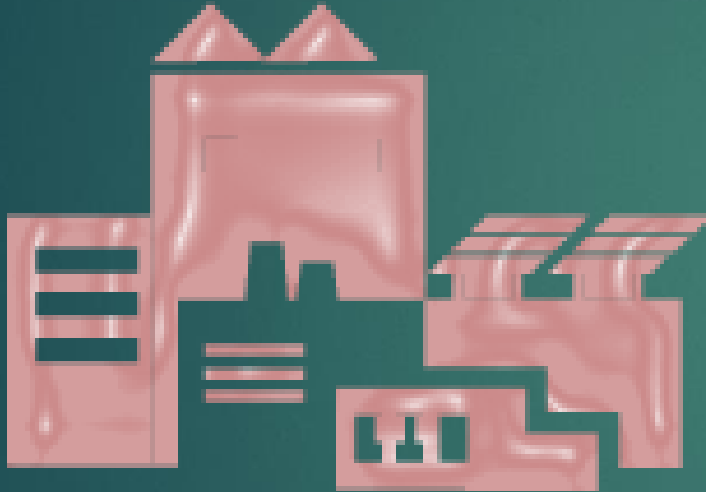
Idaho

- From **2012 to 2022**, projected to add 109,000 jobs, **16% over the decade**, 1.5 % annualized.
- Growth of 37,000 jobs **from 2002 to 2012**, **5.8% increase over the decade**, 0.6% annually.

Nation

- Total employment is projected to grow by 15.6 million jobs from **2012 to 2022**, a percentage change of **10.8%**, or 1.0% annualized.
- From **2002 to 2012**, 3.1 million were added, **2.2% growth over 10 years**, 0.2% annually.

Industry Projections 2012 to 2022



Industry Job Growth: 2012-2022



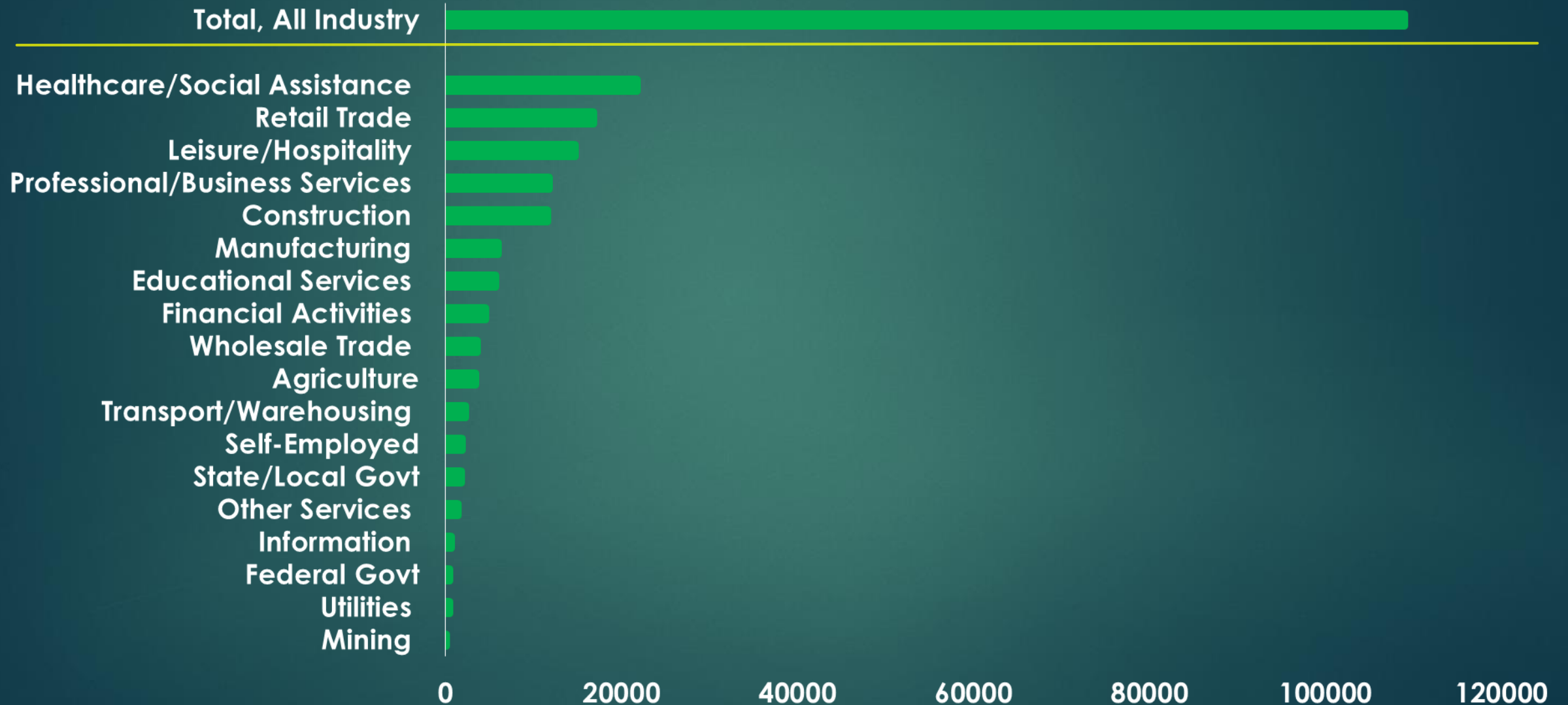
Sources: Idaho Department of Labor and US Bureau of Labor Statistics

Industry Job Growth: 2012-2022



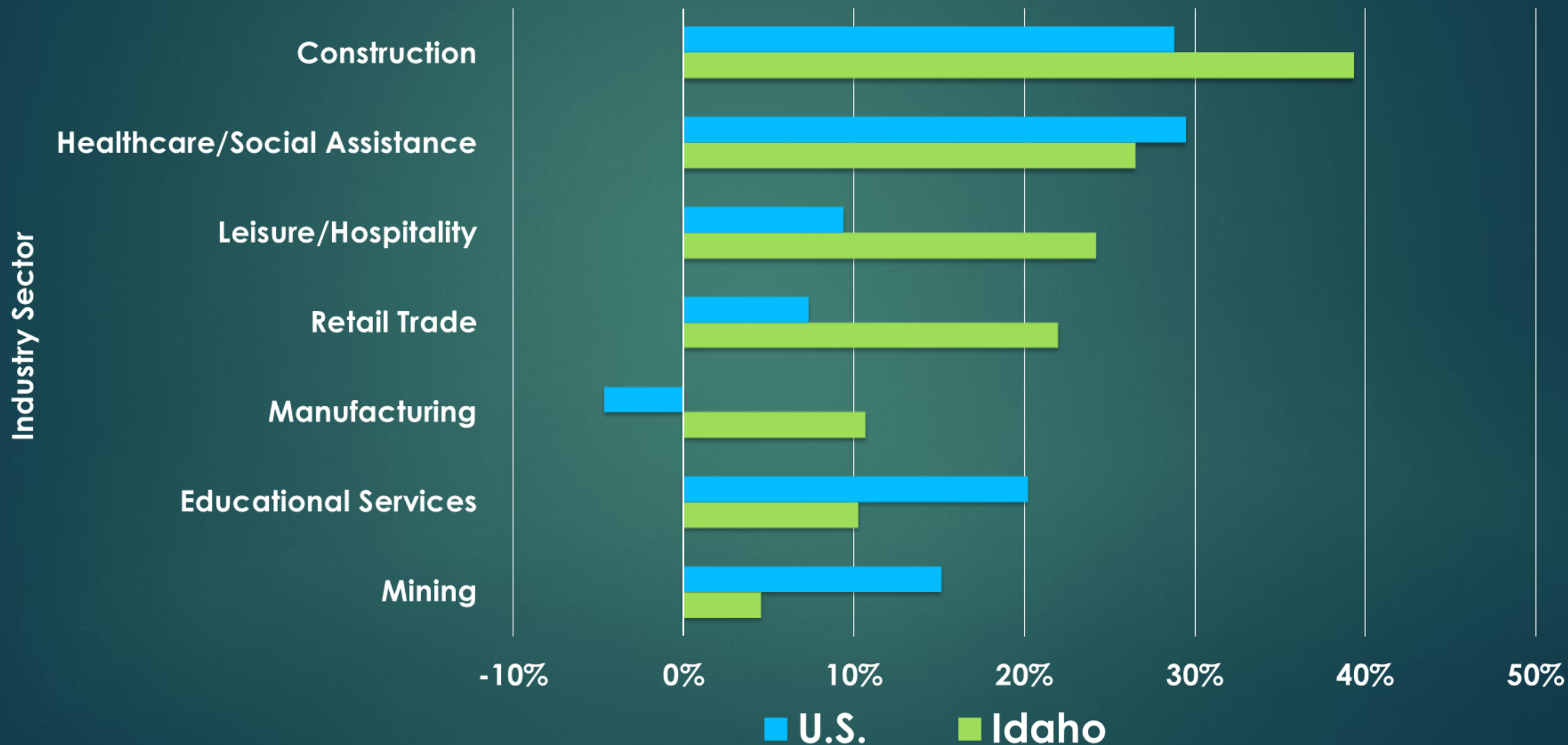
IDAHO
DEPT. OF LABOR

Projected 2022 Net Change



Industry job growth: 2012-2022

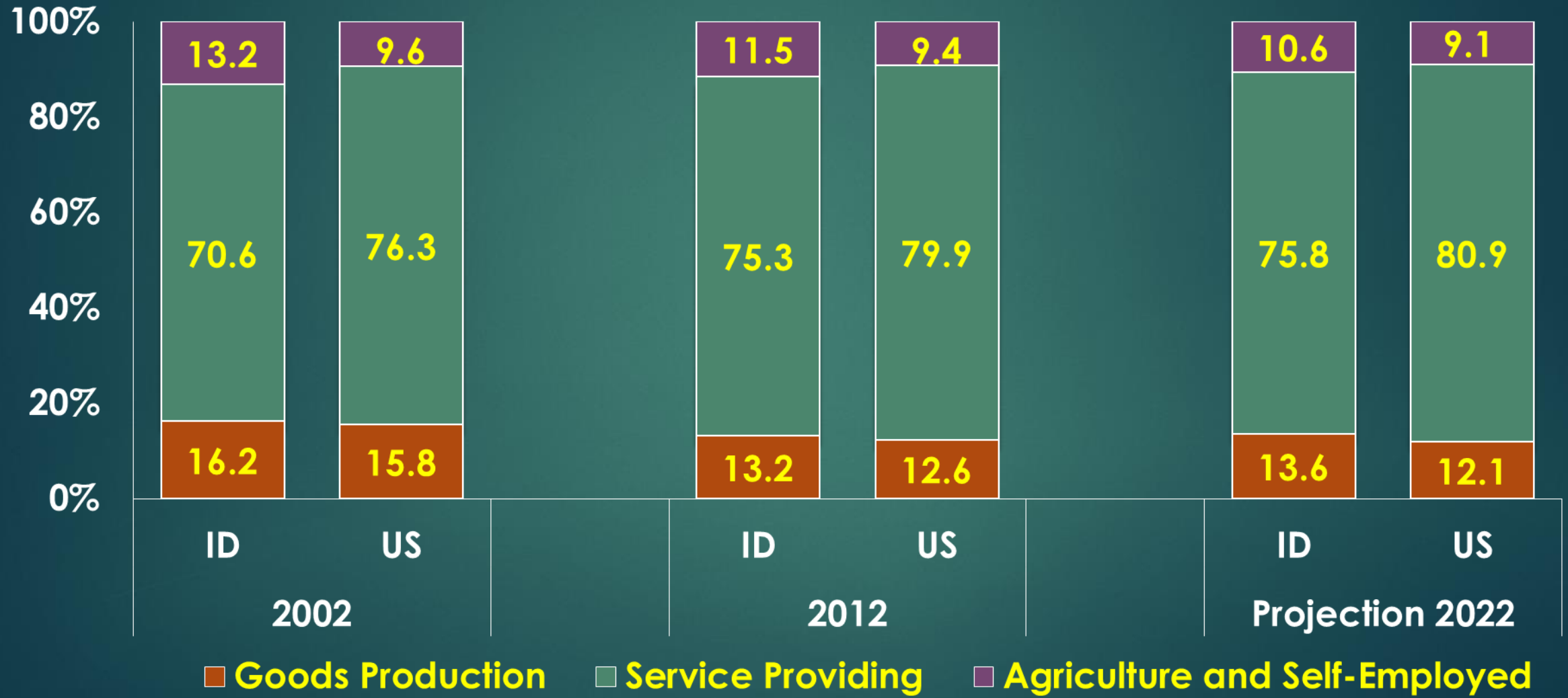
Fastest growing industries



Projected Sector Proportions:



Employment Distribution, Idaho and Nation Compared



Sources: Idaho Department of Labor and US Bureau of Labor Statistics

Occupations 2012 to 2022





Projection of Occupations 2012 to 2022

- ▶ Analysis by Occupational Group



Idaho 2012 Level and Projected Numeric Growth by Occupation

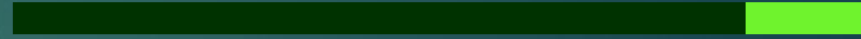
Ranked by Numeric Growth





Idaho 2012 Level and Projected Numeric Growth by Occupation (cont.)

Total, All Occupations



Ranked by Numeric Growth



■ 2012 Employment Level

■ Numeric Change



Projected Numeric Job Growth in Idaho 2012-2022

Total, All Occupations

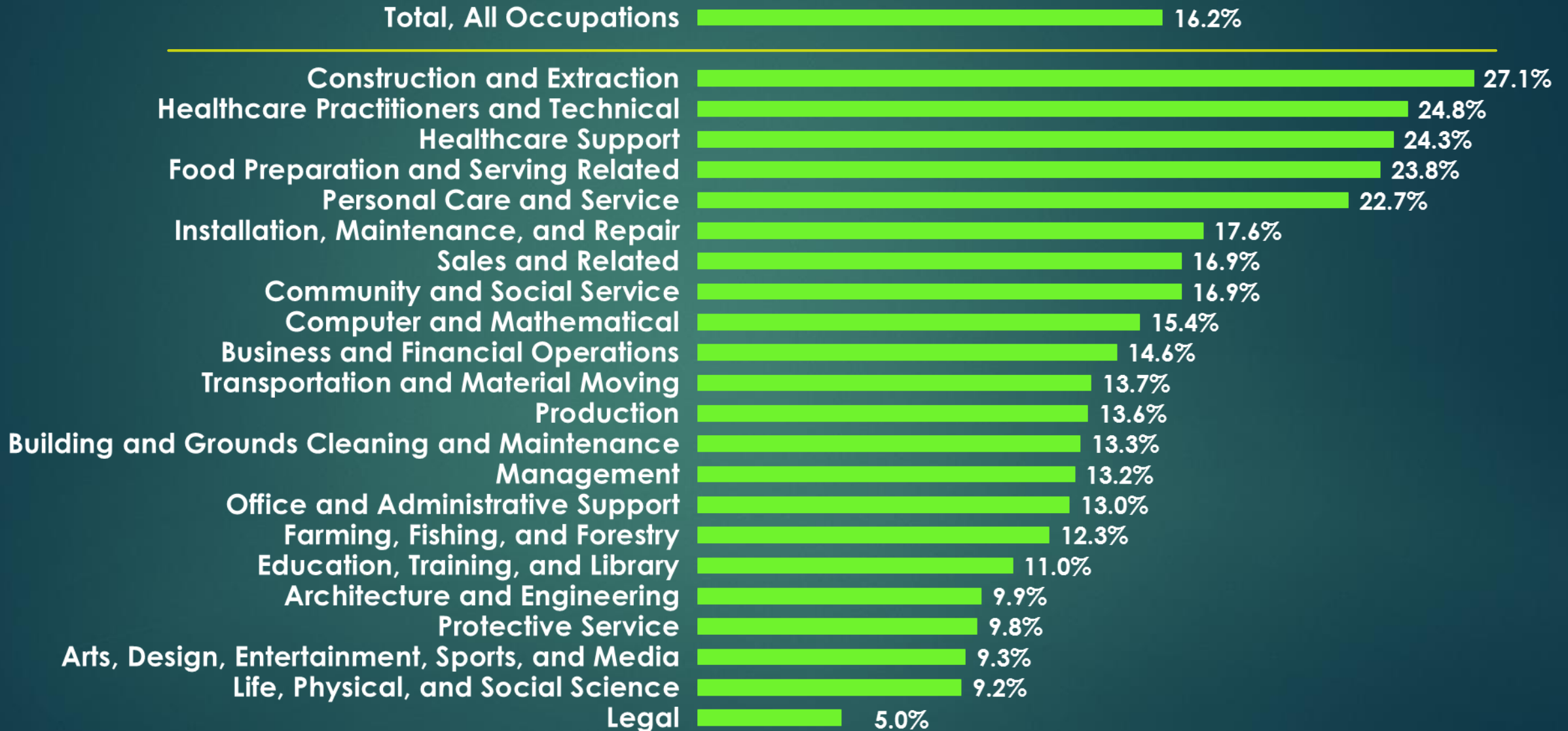
109,000

| | |
|--|--------|
| Office and Administrative Support | 12,900 |
| Food Preparation and Serving Related | 12,400 |
| Sales and Related | 11,300 |
| Construction and Extraction | 9,000 |
| Healthcare Practitioners and Technical | 8,800 |
| Management | 7,000 |
| Transportation and Material Moving | 6,000 |
| Production | 5,500 |
| Personal Care and Service | 5,300 |
| Installation, Maintenance, and Repair | 4,800 |
| Education, Training, and Library | 4,400 |
| Healthcare Support | 4,300 |
| Business and Financial Operations | 3,400 |
| Building and Grounds Cleaning and Maintenance | 3,200 |
| Farming, Fishing, and Forestry | 2,100 |
| Community and Social Service | 2,100 |
| Computer and Mathematical | 1,900 |
| Protective Service | 1,300 |
| Architecture and Engineering | 1,300 |
| Life, Physical, and Social Science | 900 |
| Arts, Design, Entertainment, Sports, and Media | 900 |
| Legal | 200 |

Ranked by net change



Projection of Idaho Occupations – Percent Growth from 2012 to 2022

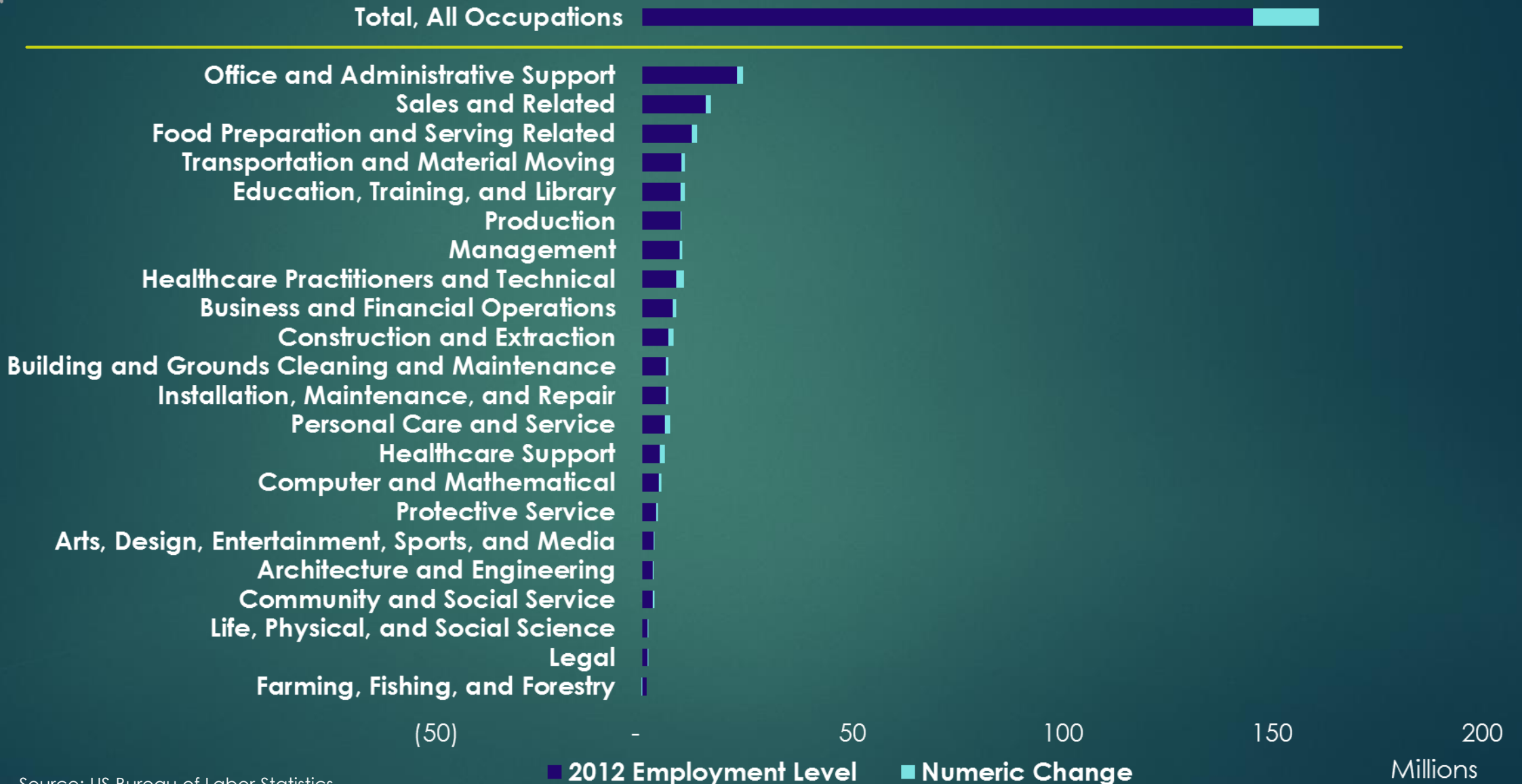




National Occupations

2012 Job Level and Projected 2022 Numeric Growth

Ranked by Numeric Growth



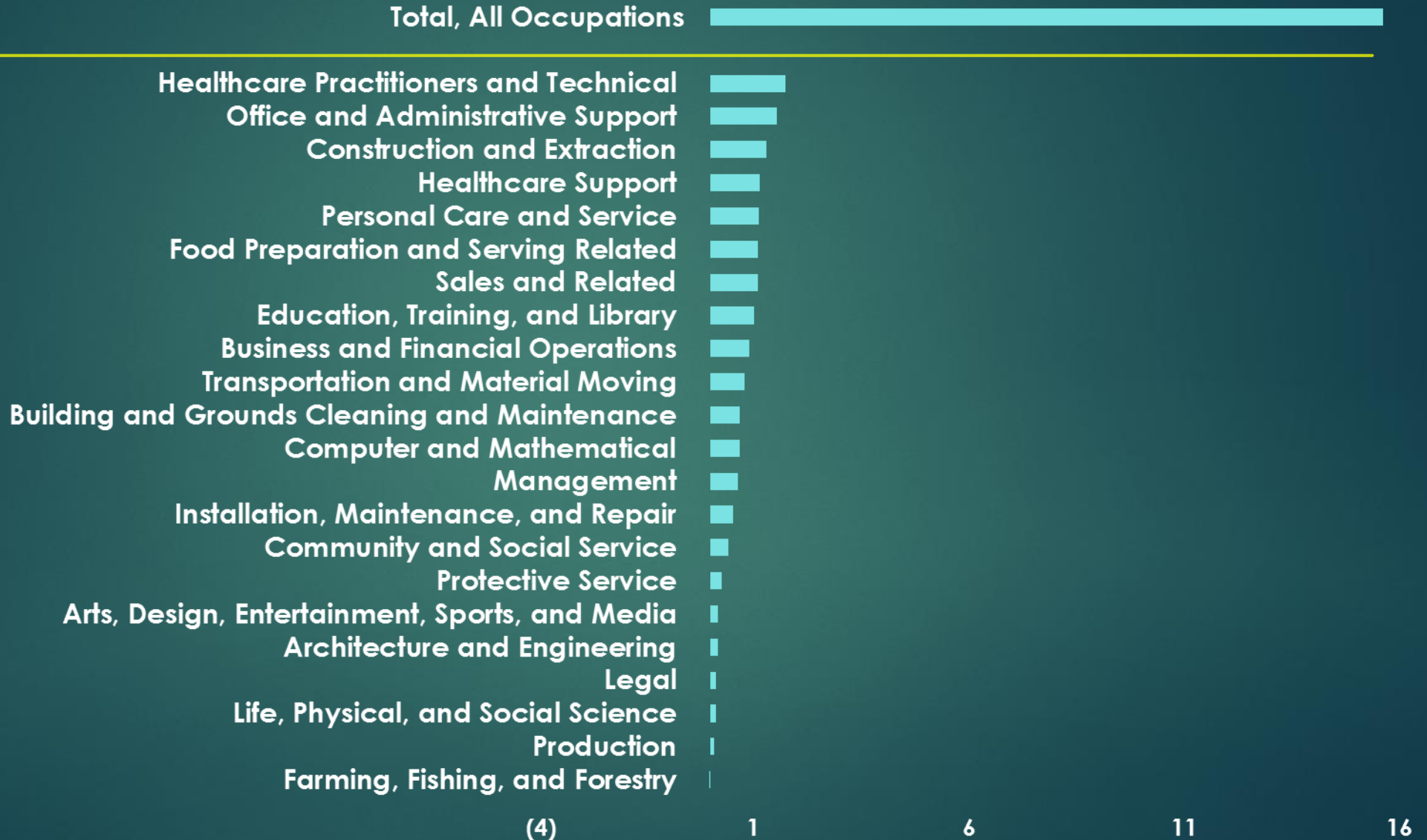
Source: US Bureau of Labor Statistics



National Occupations

National Projected 2022 Numeric Growth per Occupation

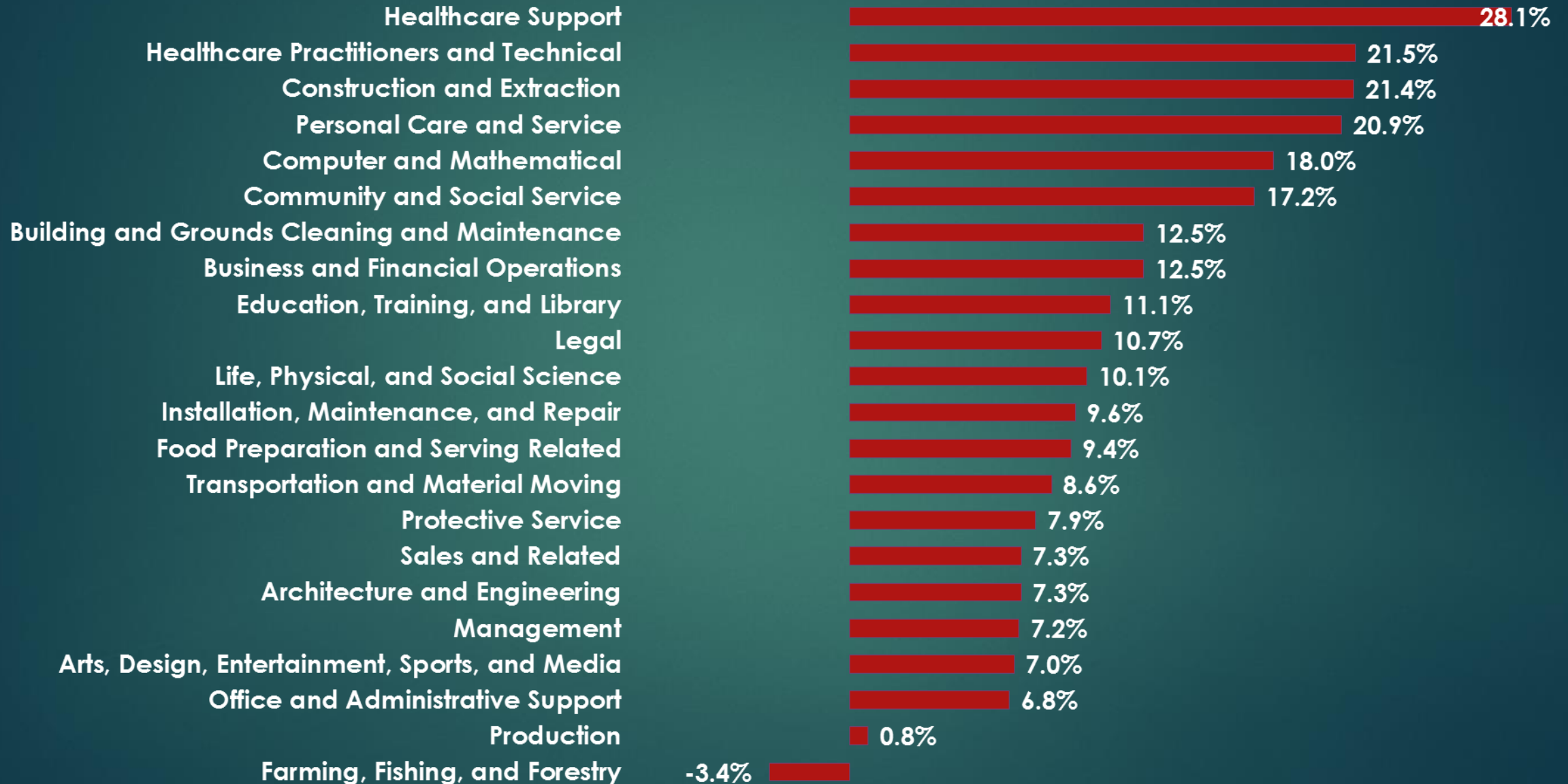
Ranked by Numeric Growth





National Occupations

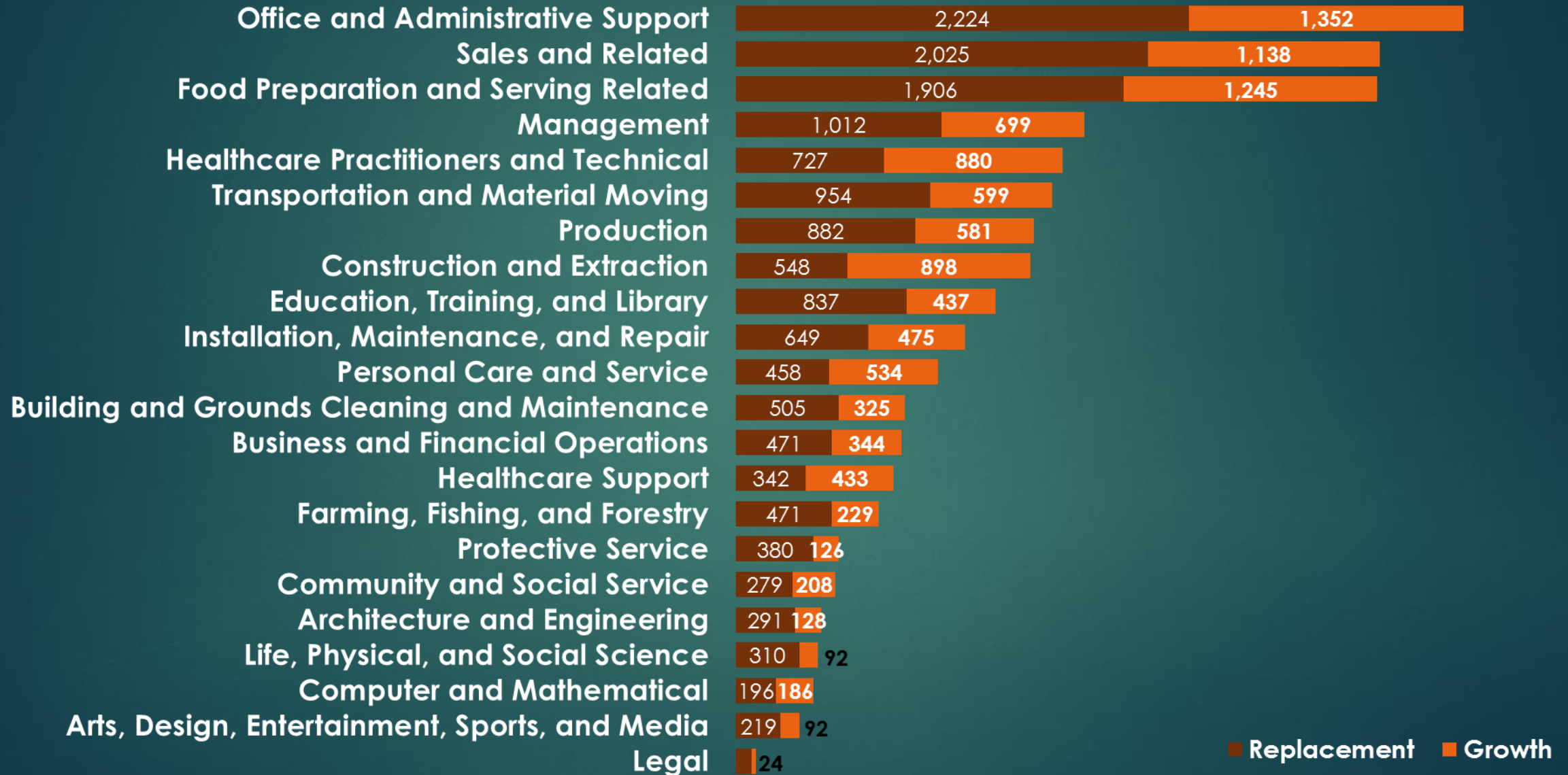
Ranked by Percent Growth from 2012 to 2022





Projection of Idaho Occupations - 2012 to 2022

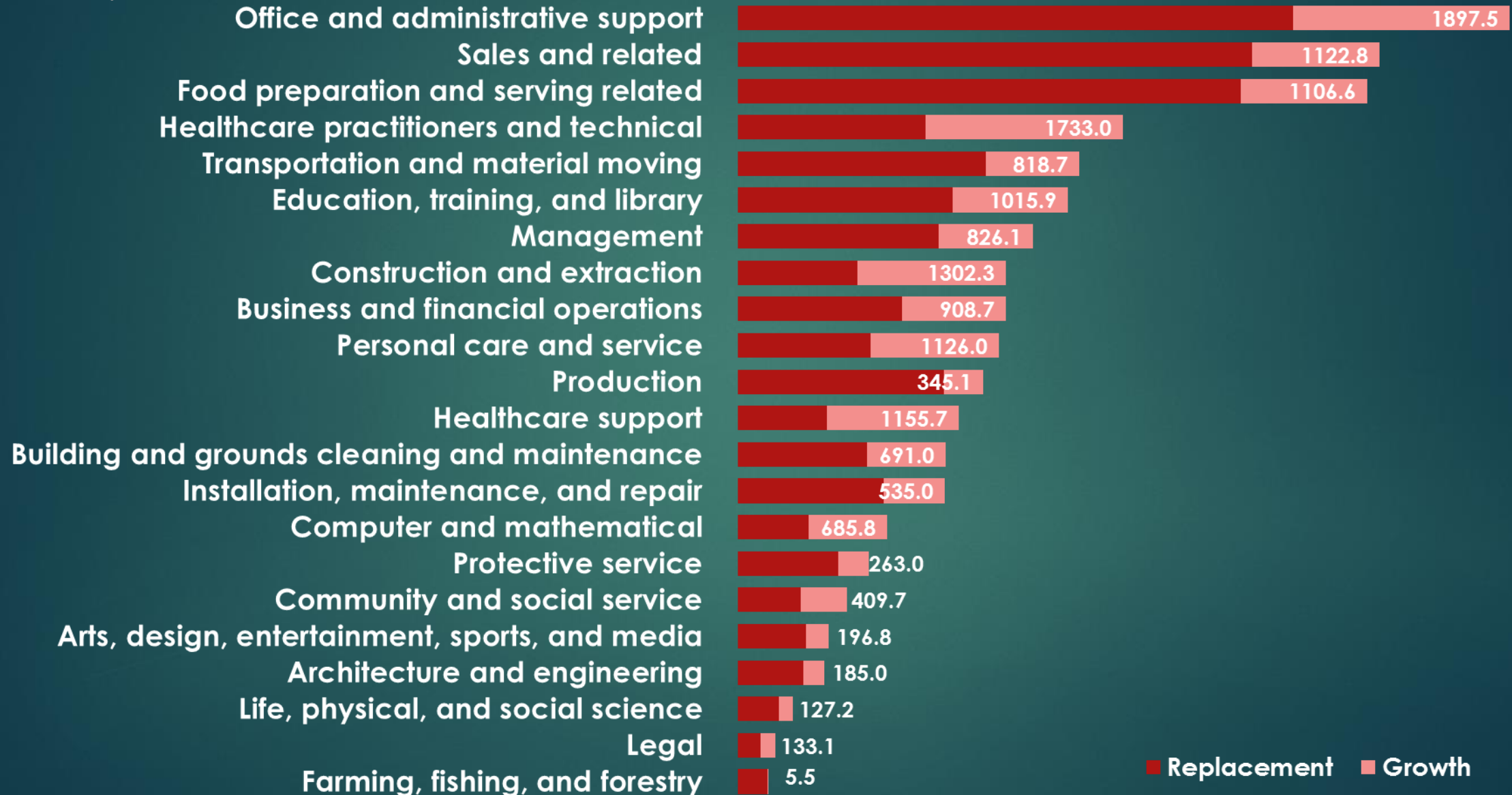
Total Projected Openings by Occupational Group





Projection of National Occupations - 2012 to 2022

National Projected Job Openings by Occupational Group, by thousands



■ Replacement ■ Growth

Occupation Projections 2012 to 2022

- ▶ Analysis of sub-group occupations



Idaho's Projected Top Ten Occupations by: **Abundance** 2012 to 2022

| Rank | Occupation Titles | 2022 Employment | Change | Annual Openings ¹ | Percent Change | 2013 Median Wage | Typical Entry Level Education ² |
|------|---|--------------------|--------|---------------------------------|-------------------|------------------------|--|
| 1 | Retail Salespersons | 25,582 | 4,289 | 1,157 | 20.14% | \$10.10 | <HS |
| 2 | Customer Service Representatives | 19,010 | 3,394 | 764 | 21.73% | \$12.21 | HS |
| 3 | Cashiers | 17,068 | 2,293 | 868 | 15.52% | \$9.02 | <HS |
| 4 | Office Clerks, General | 15,706 | 1,438 | 444 | 10.08% | \$12.84 | HS |
| 5 | Registered Nurses | 15,511 | 3,235 | 562 | 26.35% | \$28.36 | A |
| 6 | Heavy and Tractor-Trailer Truck Drivers | 13,880 | 1,662 | 361 | 13.60% | \$16.95 | PVA |
| 7 | Combined Food Preparation and Serving Workers, Including Fast Food | 13,077 | 3,215 | 699 | 32.60% | \$8.62 | <HS |
| 8 | General and Operations Managers | 12,999 | 2,031 | 408 | 18.52% | \$33.41 | B |
| 9 | Waiters and Waitresses | 12,163 | 2,164 | 697 | 21.64% | \$8.57 | <HS |
| 10 | Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | 11,731 | 1,395 | 264 | 13.50% | \$13.44 | HS |

¹ Average annual job openings include new jobs plus replacement jobs.

² Typical Entry Level Education as determined by Bureau of Labor Statistics analysis.

* Education Key: PhD – Doctoral or professional degree; M – Master's degree; B – Bachelor's degree; A – Associate's degree; PVA – Postsecondary non-degree award; SC – Some college, no degree; HS – High school diploma or equivalent; <HS – Less than High school.



Idaho's Projected Top Ten Occupations by: numerical demand 2012 to 2022

| Rank | Occupation Titles | 2022 Employment | Change | Annual Openings ¹ | Percent Change | 2013 Median Wage | Typical Entry Level Education |
|------|--|-----------------|--------|------------------------------|----------------|------------------|-------------------------------|
| 1 | Retail Salespersons | 25,582 | 4,289 | 1,157 | 20.1% | \$10.10 | <HS |
| 2 | Cashiers | 17,068 | 2,293 | 868 | 15.5% | \$9.02 | <HS |
| 3 | Customer Service Representatives | 19,010 | 3,394 | 764 | 21.7% | \$12.21 | HS |
| 4 | Combined Food Preparation and Serving Workers, Including Fast Food | 13,077 | 3,215 | 699 | 32.6% | \$8.62 | <HS |
| 5 | Waiters and Waitresses | 12,163 | 2,164 | 697 | 21.6% | \$8.57 | <HS |
| 6 | Registered Nurses | 15,511 | 3,235 | 562 | 26.4% | \$28.36 | A |
| 7 | Farmworkers and Laborers, Crop, Nursery, and Greenhouse | 11,586 | 1,473 | 454 | 14.6% | \$9.19 | <HS |
| 8 | Office Clerks, General | 15,706 | 1,438 | 444 | 10.1% | \$12.84 | HS |
| 9 | General and Operations Managers | 12,999 | 2,031 | 408 | 18.5% | \$33.41 | B |
| 10 | Laborers and Freight, Stock, and Material Movers, Hand | 9,953 | 1,386 | 404 | 16.2% | \$11.69 | <HS |

¹ Average annual job openings include new jobs plus replacement jobs.

* Education Key: PhD – Doctoral or professional degree; M – Master's degree; B – Bachelor's degree; A – Associate's degree; PVA – Postsecondary non-degree award; SC – Some college, no degree; HS – High school diploma or equivalent; <HS – Less than High school.

Source: Idaho Department of Labor, Communications & Research Division.



Idaho's Projected Top Ten Occupations by: Percentage Growth 2012 to 2022

| Rank | Occupation Titles | 2022 Employment | Change | Annual Openings ¹ | Percent Change | 2013 Median Wage | Typical Entry Level Education |
|------|---|-----------------|--------|------------------------------|----------------|------------------|-------------------------------|
| 1 | Insulation Workers, Mechanical | 173 | 77 | 9 | 80.2% | \$17.30 | HS |
| 2 | Insulation Workers, Floor, Ceiling, and Wall | 253 | 108 | 13 | 74.5% | \$17.04 | <HS |
| 3 | Mechanical Door Repairers | 117 | 45 | 6 | 62.5% | \$13.28 | HS |
| 4 | Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters | 231 | 83 | 10 | 56.1% | \$15.73 | <HS |
| 5 | Diagnostic Medical Sonographers | 632 | 213 | 27 | 50.8% | \$29.85 | A |
| 5 | Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons | 128 | 42 | 5 | 48.8% | \$8.60 | <HS |
| 7 | Orthotists and Prosthetists | 59 | 19 | 2 | 47.5% | \$31.60 | M |
| 8 | Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic | 67 | 21 | 3 | 45.7% | \$19.05 | HS |
| 9 | Drywall and Ceiling Tile Installers | 986 | 309 | 37 | 45.6% | \$15.59 | <HS |
| 10 | Stonemasons | 147 | 45 | 5 | 44.1% | \$18.22 | HS |

¹ Average annual job openings include new jobs plus replacement jobs.

• Education Key: PhD – Doctoral or professional degree; M – Master's degree; B – Bachelor's degree; A – Associate's degree; PVA – Postsecondary non-degree award; SC – Some college, no degree; HS – High school diploma or equivalent; <HS – Less than High school.

• Source: Idaho Department of Labor, Communications & Research Division.



Idaho's Top Ten Occupations by: 2013 Median Wage¹

| Rank | Occupation Titles | Hourly Median Wage ¹ | Annual Median Wage ¹ | Average Annual Openings ² | Percent Change | Annualized Change |
|------|--|---------------------------------|---------------------------------|--------------------------------------|----------------|-------------------|
| 1 | Family and General Practitioners | \$89.20 | \$185,530 | 24 | 10.0% | 1.0% |
| 2 | Dentists, General | \$75.03 | \$156,070 | 22 | 11.6% | 1.1% |
| 3 | Pediatricians, General | \$70.67 | \$146,990 | 4 | 9.6% | 0.9% |
| 4 | Nurse Anesthetists | \$69.91 | \$145,400 | 10 | 19.7% | 1.8% |
| 5 | Architectural and Engineering Managers | \$61.66 | \$128,250 | 39 | 13.5% | 1.3% |
| 6 | Actuaries | \$56.76 | \$118,060 | 2 | 29.0% | 2.6% |
| 7 | Pharmacists | \$53.82 | \$111,940 | 75 | 32.4% | 2.8% |
| 8 | Judges, Magistrate Judges, and Magistrates | \$53.14 | \$110,530 | 3 | 4.1% | 0.4% |
| 9 | Chemical Engineers | \$52.98 | \$110,190 | 3 | 11.7% | 1.1% |
| 10 | Chief Executives | \$51.43 | \$106,980 | 25 | 8.7% | 0.8% |

¹ Median wage as defined by the 2013 annual wage from the Bureau of Labor Statistics Occupational Employment Statistics Program

² Average annual job openings include new jobs plus replacement jobs.

* Education Key: PhD – Doctoral or professional degree; M – Master's degree; B – Bachelor's degree; A – Associate's degree; PVA – Postsecondary non-degree award; SC – Some college, no degree; HS – High school diploma or equivalent; <HS – Less than High school.

Source: Idaho Department of Labor, Communications & Research Division.



Idaho's Projected Top Ten **Hot Jobs**¹: 2012 to 2022

| Rank | Occupation Titles | 2022 Employment | Annual Openings ² | Percent Change | 2013 Median Wage | Typical Entry Level Education |
|------|--|-----------------|------------------------------|----------------|------------------|-------------------------------|
| 1 | Pharmacists | 1,763 | 75 | 32.4% | \$53.82 | Doctoral |
| 2 | Registered Nurses | 15,511 | 562 | 26.4% | \$28.36 | A |
| 3 | Physical Therapists | 1,502 | 64 | 31.5% | \$37.43 | Doctoral |
| 4 | Software Developers, Applications | 2,117 | 60 | 22.2% | \$33.62 | B |
| 5 | Physician Assistants | 899 | 34 | 33.0% | \$42.38 | M |
| 6 | Industrial Machinery Mechanics | 2,336 | 107 | 30.6% | \$22.39 | HS |
| 7 | Electricians | 3,746 | 139 | 29.1% | \$21.21 | HS |
| 8 | Dental Hygienists | 1,357 | 53 | 21.6% | \$35.02 | A |
| 9 | Market Research Analysts and Marketing Specialists | 1,959 | 67 | 31.9% | \$24.31 | B |
| 10 | Nurse Practitioners | 723 | 28 | 30.0% | \$42.71 | M |

¹Hot Jobs: Jobs that on average rank high in three major criteria — the abundance of jobs in the economy, jobs that are growing the fastest and jobs with the highest pay.

²Average annual job openings include new jobs plus replacement jobs.

* Education Key: PhD – Doctoral or professional degree; M – Master's degree; B – Bachelor's degree; A – Associate's degree; PVA – Postsecondary non-degree award; SC – Some college, no degree; HS – High school diploma or equivalent; <HS – Less than High school.

Source: Idaho Department of Labor, Communications & Research Division.



Education Attainment 2012 to 2022

Educational Attainment, Growth and Replacement: 2012-2022

Idaho Distribution of Openings by Educational Attainment



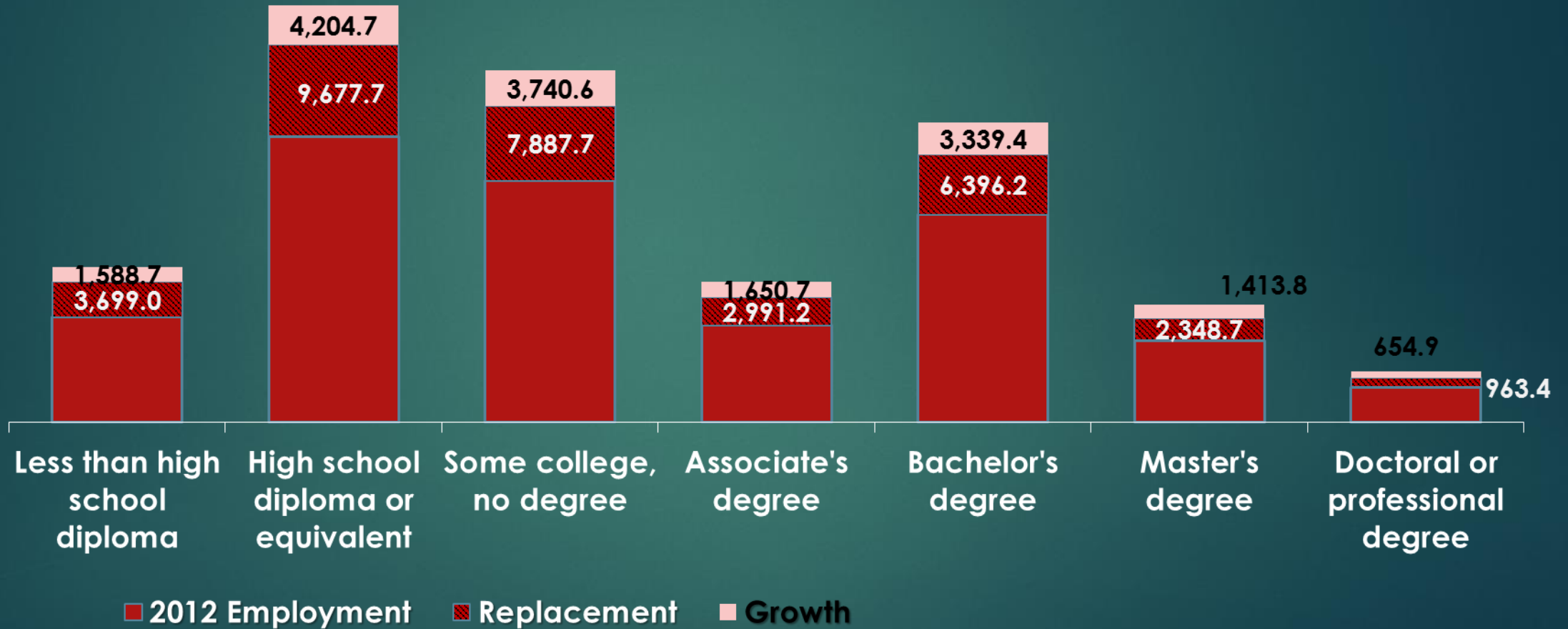
* Educational attainment as defined by the education of workers in occupations that are 25 years or older.
Source: American Community Survey, Bureau of Labor Statistics, Idaho Department of Labor



Educational Attainment, Growth and Replacement: 2012-2022

National Distribution of Openings by Educational Attainment

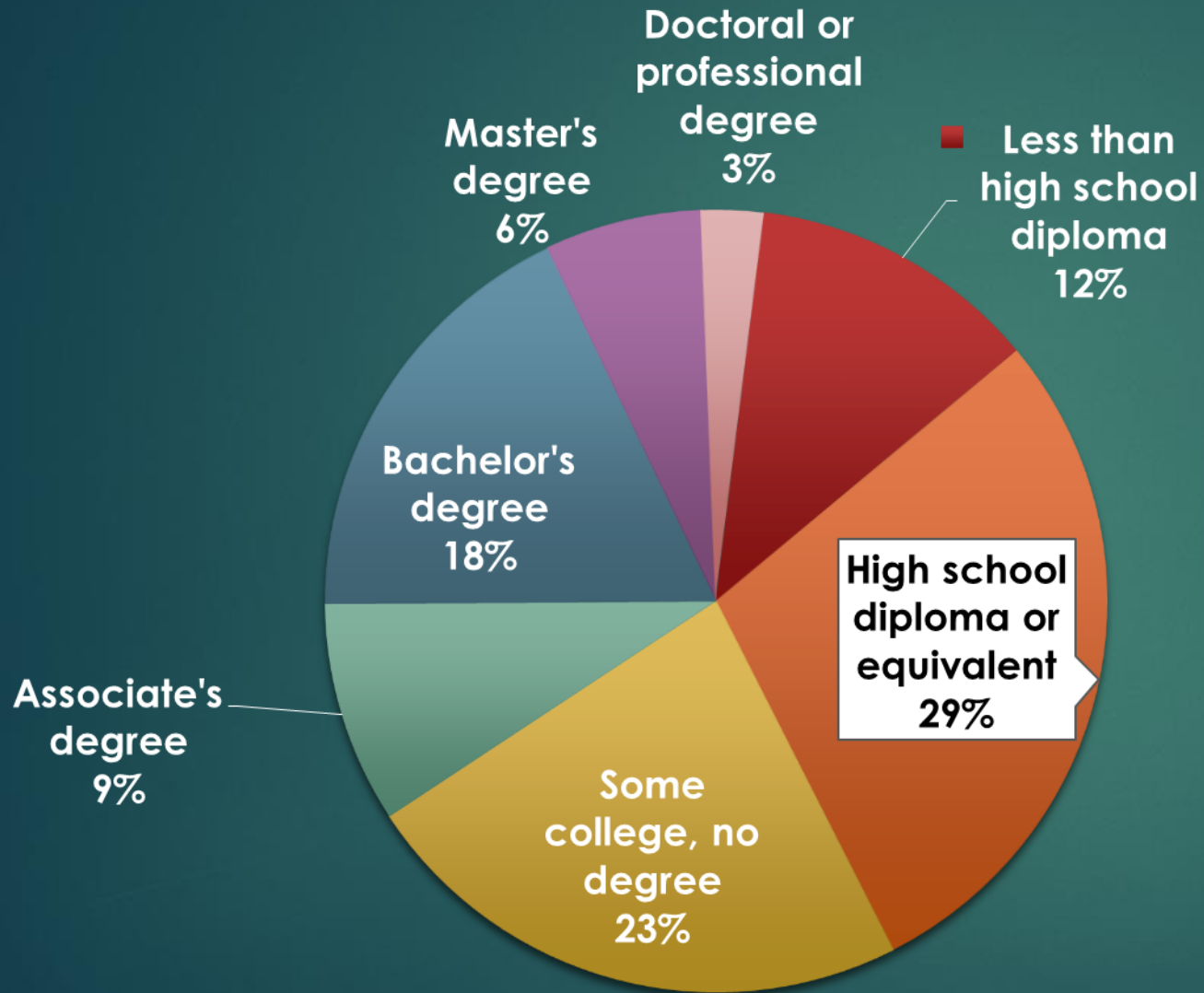
Nation Openings (Numbers in thousands), 2012-22



*Educational attainment is defined by the education of workers in occupations that are 25 years or older.
Source: American Community Survey, Bureau of Labor Statistics, Idaho Department of Labor



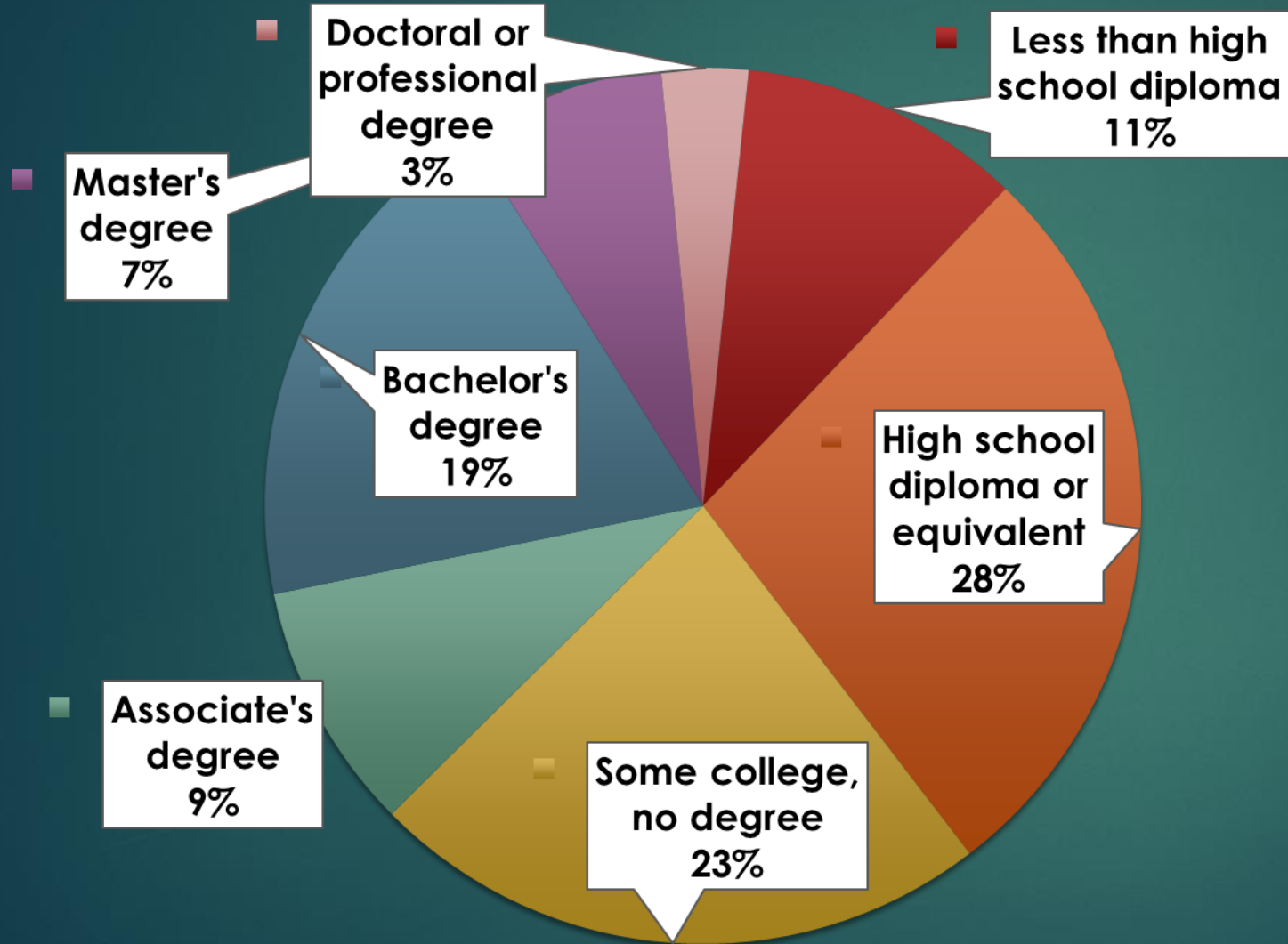
Share of Idaho Projected Competitive Education Level: 2012-2022



- By 2022, projections show that **59%** workers 25 years and older, will have a greater than high school education.
- **36%** will have a Bachelor's or higher.
- **41%** will have a high school diploma or less.



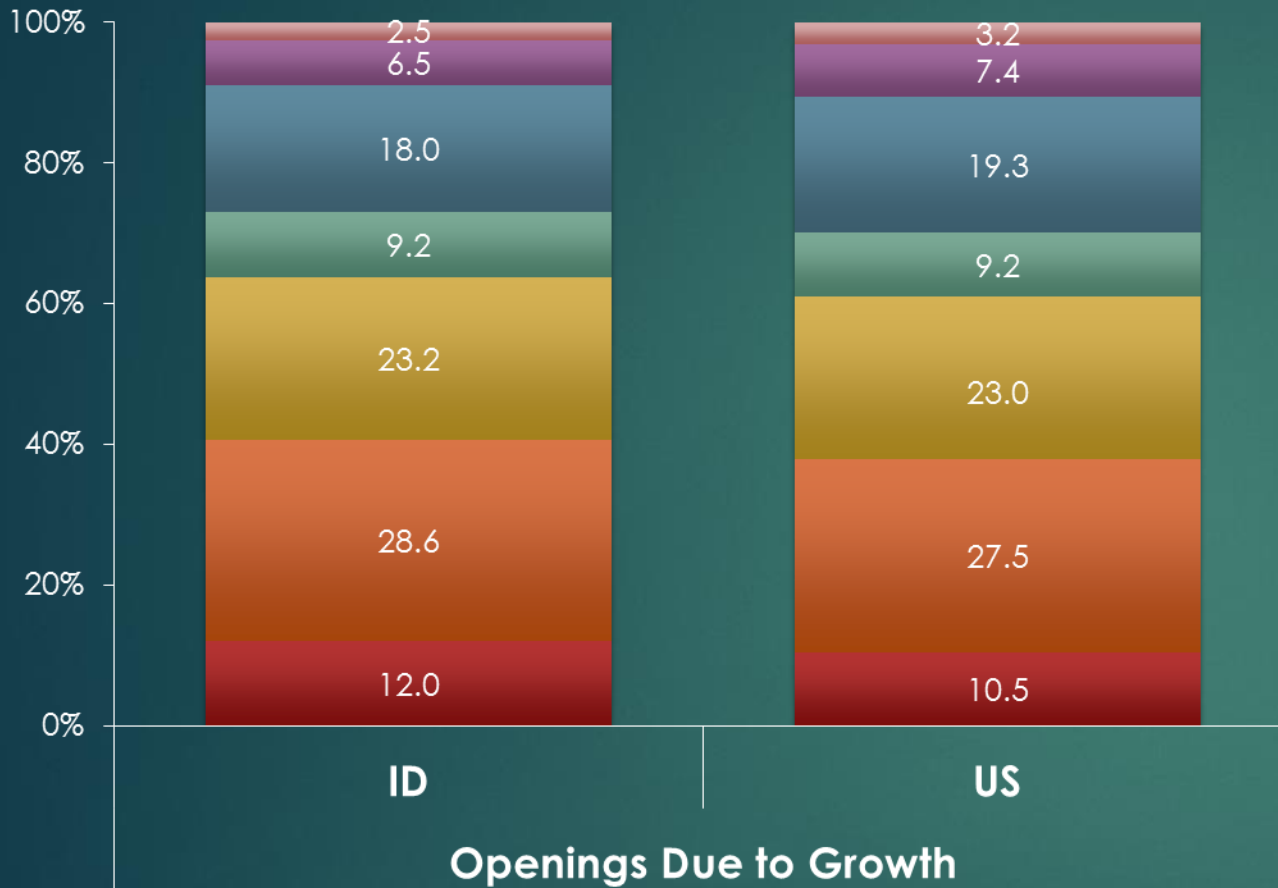
Share of **US** Projected Competitive Education Level: 2012-2022



- Nationwide, projections indicate 61% of workers 25 years and older, will have greater than a high school education.
- 38% will have a Bachelor's or higher.
- 39% will have a high school diploma or less.



Share of Projected Openings by Education Level: 2012-2022



■ Less than high school diploma

■ High school diploma or equivalent

■ Some college, no degree

■ Associate's degree

■ Bachelor's degree

■ Master's degree

■ Doctoral or professional degree

- Idaho:

- 27% Bachelor's or greater.
- 32% Greater than high-school up to Associates.
- 41% High School or less.

- Nationwide

- 30% Bachelor's or greater.
- 32% greater than high-school up to Associates.
- 38% High School or less.

Summary: Industry

- ▶ **Idaho Industry Jobs Projections 2012 to 2022:**
 - ▶ **Increase 109,000 (16%) over ten years**
 - ▶ **18,000 (20%) more jobs in goods producing (excluding agriculture)**
 - ▶ **Rebound of the industry contributes to 12,000 (39%) increase for construction**
 - ▶ **Service Sector jobs growth of 86,000 (17%)**
 - ▶ **Health care and social assistance adds 22,000 (27%) jobs**

Summary: Occupations

- ▶ **Idaho Occupation Projections:**
 - ▶ **109,000 net growth of total for all Occupations**
 - ▶ **Over 30% of net growth will fill Office and Administrative Support, Food Preparation and Serving Related, and Sales and Related occupations.**
 - ▶ **Projected growth is fastest for construction and extraction occupations, adding 9,000 or 27 percent over ten years.**
 - ▶ **Healthcare Practitioners and Technical growth of 8,800 jobs, 25 percent and projected to be second fastest.**

Methodology

Projection Model Exclusions:

- **Business cycle**
- **Dynamic pace of technological or other innovation**
- **Economic bubbles**
- **Crises**
- **Uncertainty natural to political economies**

Funding and Administration:

- The Idaho of Department of Labor develops and published projection of Idaho's labor market with resource and guidance provided by the US Department of Labor, Employment Training Agency.
- Allows for comparability of Idaho data with that of other states and the nation.

Methodology:

▶ Data

- Historical and current industry employment from Quarterly Census of Employment and Wages
- National and state economic variables

▶ Method

- Ordinary Least Square regression models of each industry of sufficient size.
- Shift-Share and time-series for industries that are too small for regression viability, or when statistically sound model is not possible.

▶ Analytical judgment:

- Adjustment of rates or ratios derived from national data base on local factors or conditions
- Search and selection of locally relevant data
- Selecting the most appropriate projections model based on economic assumptions
- Strict mechanical approaches to projections will not achieve the highest level of accuracy.



Methodology - Occupations

▶ Data

- **Completed Industry Projections for relevant time period.**
- **Staffing pattern for Idaho industries developed from the Occupational Employment Statistics Program (OES).**
 - OES is a program funded and directed by the Bureau of Labor Statistics, and the Idaho Department of Labor
 - ***A direct survey conducted by dedicated staff at the Idaho Department of Labor.***
 - ***Provides annual analysis and information obtained directly from Idaho employers.***

▶ Method

- **Staffing pattern applied to industry projections to derive occupational projections.**

Industry and Occupation Jobs

