

Projections of Idaho Jobs by Industry and Occupation 2012 to 2022



Outline of Presentation



- Overview of Projections & Total Employment
- Industry Projections



Occupations



Analysis of sub-group occupations



Education Attainment





- Decade timeframe projected
- Starting point of 2012 for this round
- Minimum level of industry projected





Provide information for individuals that are:

- Entering the job market
- Seeking to change careers
- Researching the paths to job success

Additional Goals:



Provide information on the labor market for:

- Policymakers
- Education and training officials
- Researchers

Projections Concepts:



- A forecast of the labor market a decade from now, if it were to run at full capacity.
- Produced using the best information available about the past and the present.
- Count of jobs, not people
- Are not a prediction of the future.

Projection Model Exclusions:

- Business cycle
- Dynamic pace of technological or other innovation
- Economic bubbles
- Crises
- Policy decisions and proposals
- Uncertainty natural to human endeavors



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.

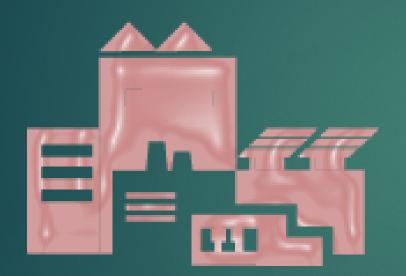


Nation

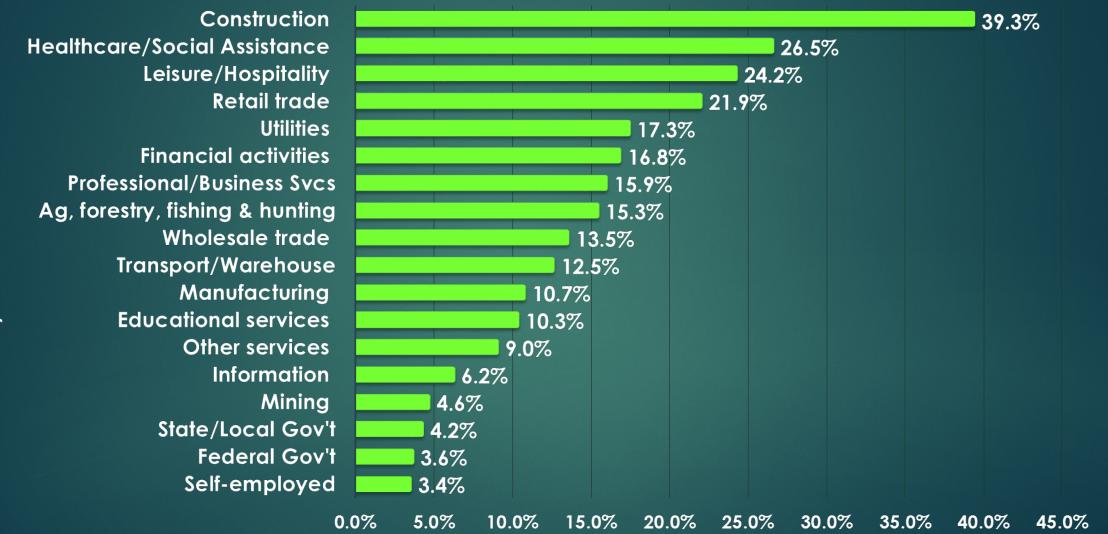
- Total employment is projected to grow 10.8% from 2012 to 2022, or 1.0% annualized.
- From 2002 to 2012, 2.2% growth over 10 years, 0.2% annually.



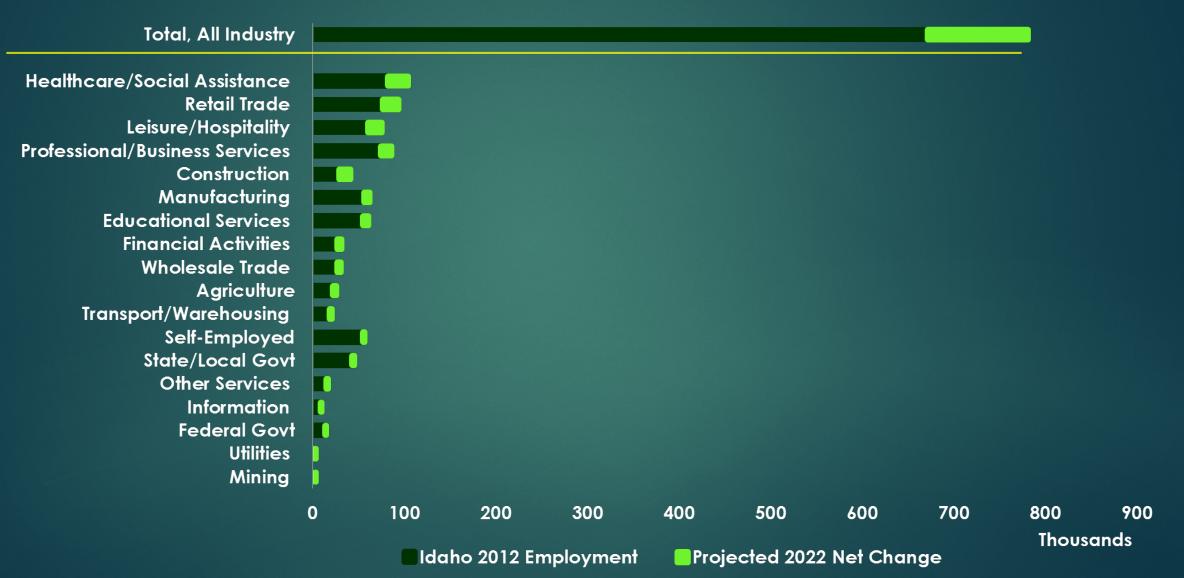
Industry Projections 2012 to 2022



Industry Job Growth: 2012-2022 Projected 2022 Percent Change



Idaho Industry: Job Growth ~ 2012-2022



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Idaho Industry: 2012 Employment & 2022 Projected Net Growth Compared

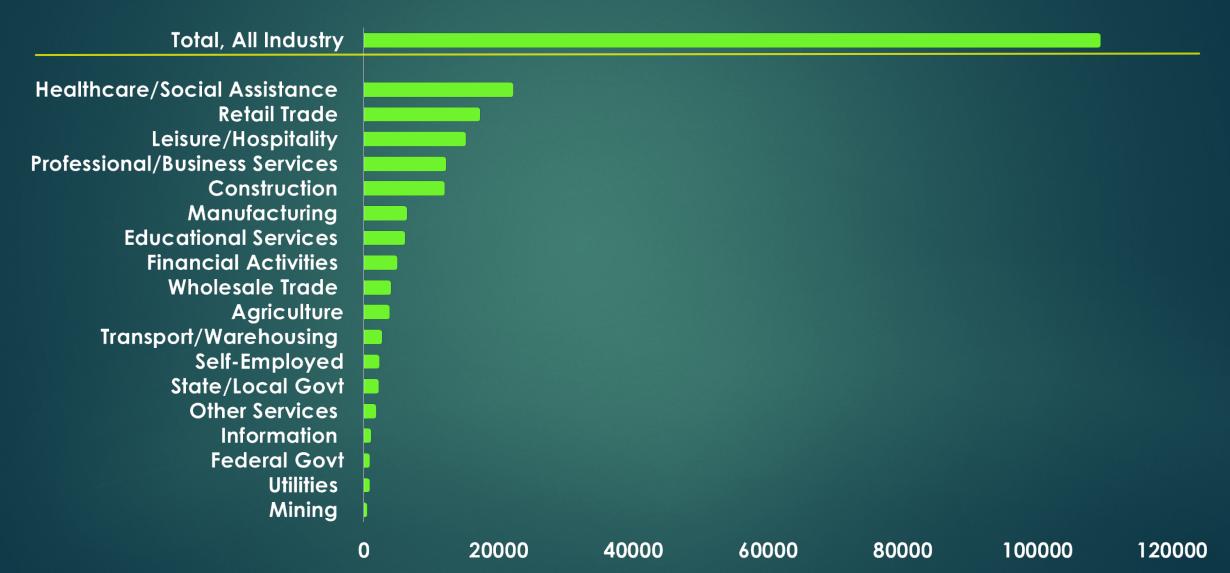


Healthcare/Social **Retail Trade** Leisure/Hospitality **Prof./Business Svcs** Construction Manufacturing Education Wholesale Agriculture Transport/Warehouse Self-Employed State/Local Govt Other Services Information **Federal Govt**



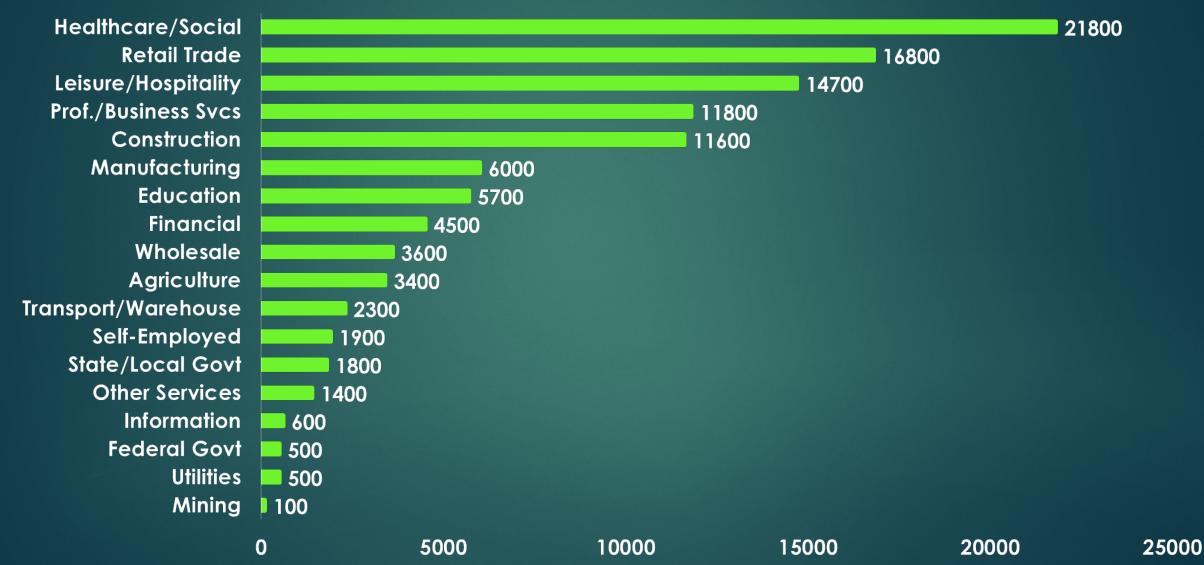
Industry Job Growth: 2012-2022 Projected 2022 Net Change



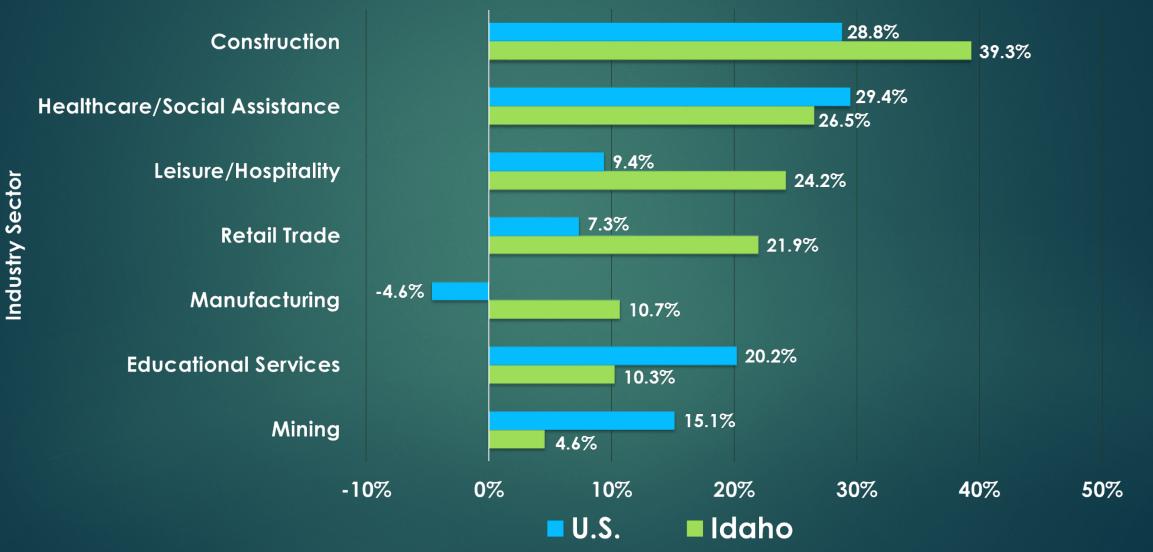


Industry Job Growth: 2012-2022 Projected 2022 Net Change





Industry job growth: 2012-2022 Highlighted Industries



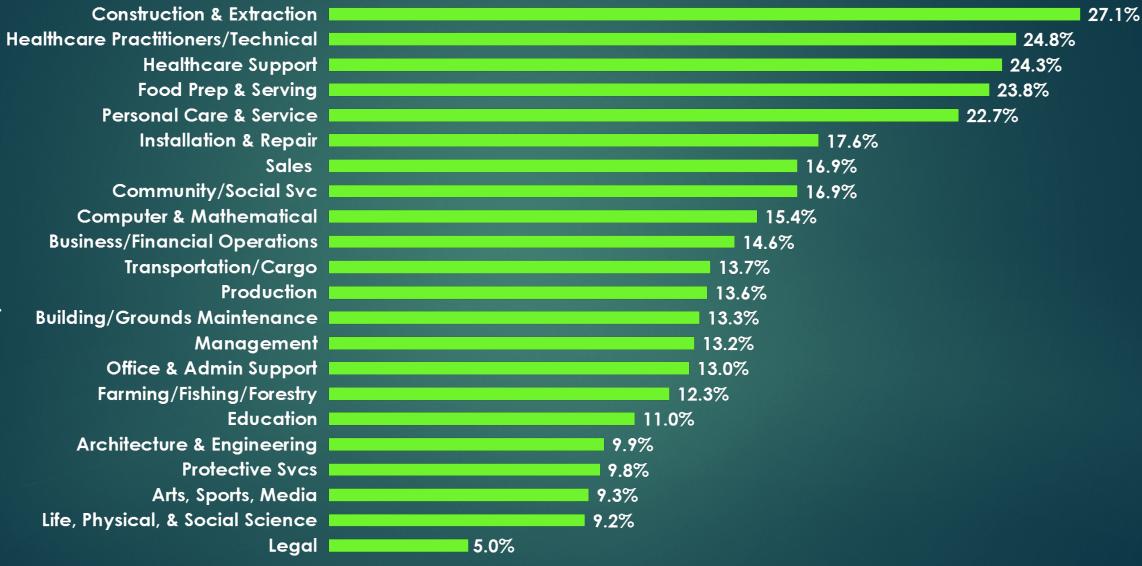
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Occupations 2012 to 2022



Idaho Occupations: 2012-2022 Projected Percent Job Growth





Idaho Occupations: 2012-2022 Projected Percent Job Growth

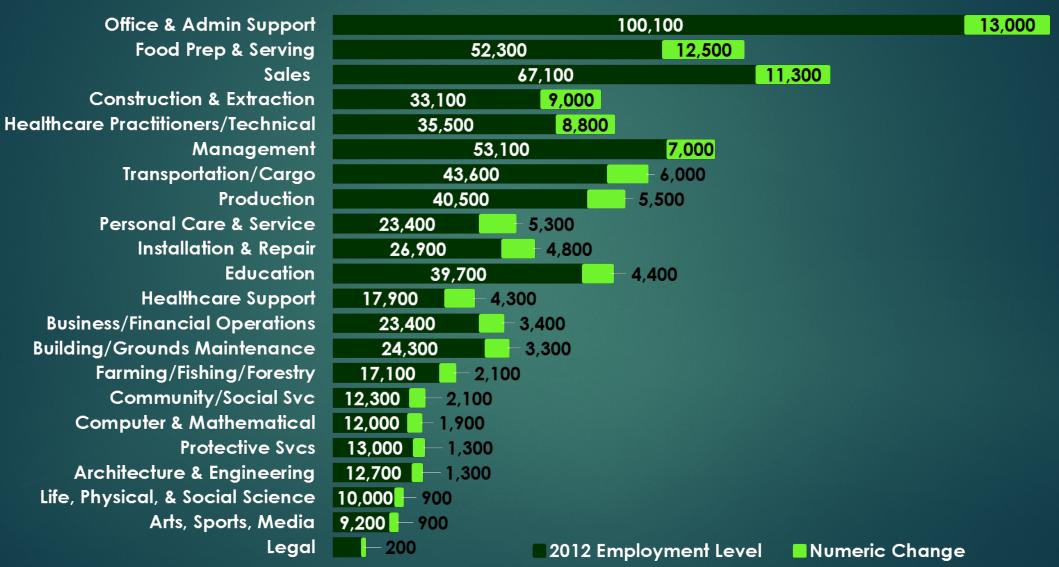
Total, All Occupations

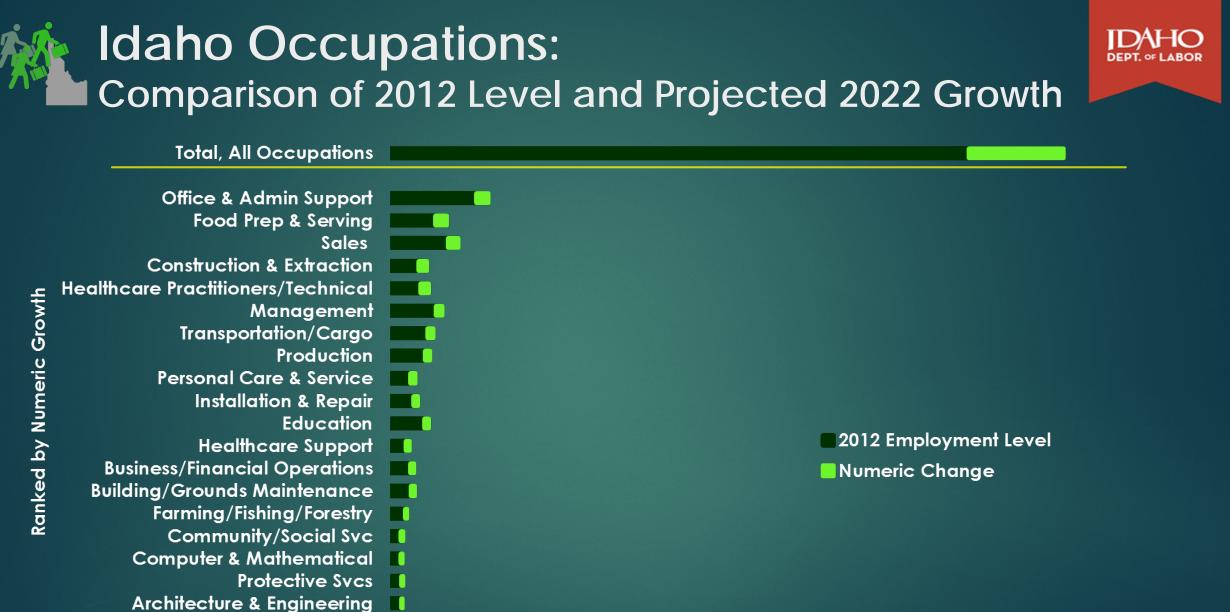


16.2%

Construction & Extraction 27.1% Healthcare Practitioners/Technical 24.8% Healthcare Support 24.3% Food Prep & Serving 23.8% Personal Care & Service 22.7% Installation & Repair 17.6% Sales 16.9% Community/Social Svc 16.9% **Computer & Mathematical** 15.4% **Business/Financial Operations** 14.6% Transportation/Cargo 13.7% Production 13.6% **Building/Grounds Maintenance** 13.3% Managem<u>ent</u> 13.2% Office & Admin Support 13.0% Farming/Fishing/Forestry 12.3% Education 11.0% Architecture & Engineering 9.9% **Protective Svcs** 9.8% Arts, Sports, Media 9.3% Life, Physical, & Social Science 9.2% Legal 5.0%

Idaho Occupations: 2012 Employment & 2022 Projected Net Growth Compared





- Life, Physical, & Social Science
 - Arts, Sports, Media 📕
 - Legal 🚺

Idaho Occupations:

2012-2022 Projected Numeric Job Growth

Total, All Occupations

Office & Admin Support	12,90
Food Prep & Serving	12,40
Sales	11,300
Construction & Extraction	9,000
Healthcare Practitioners/Technical	8,800
Management	7,000
Transportation/Cargo	6,000
Production	5,500
Personal Care & Service	5,300
Installation & Repair	4,800
Education	4,400
Healthcare Support	4,300
Business/Financial Operations	3,400
Building/Grounds Maintenance	3,200
Farming/Fishing/Forestry	2,100
Community/Social Svc	2,100
Computer & Mathematical	1,900
Protective Svcs	1,300
Architecture & Engineering	1,300
Life, Physical, & Social Science	900
Arts, Sports, Media	900
Legal	200
Sources: Idaho Department of Labor and US Burea	u of Labor Statistics

Ranked by net change

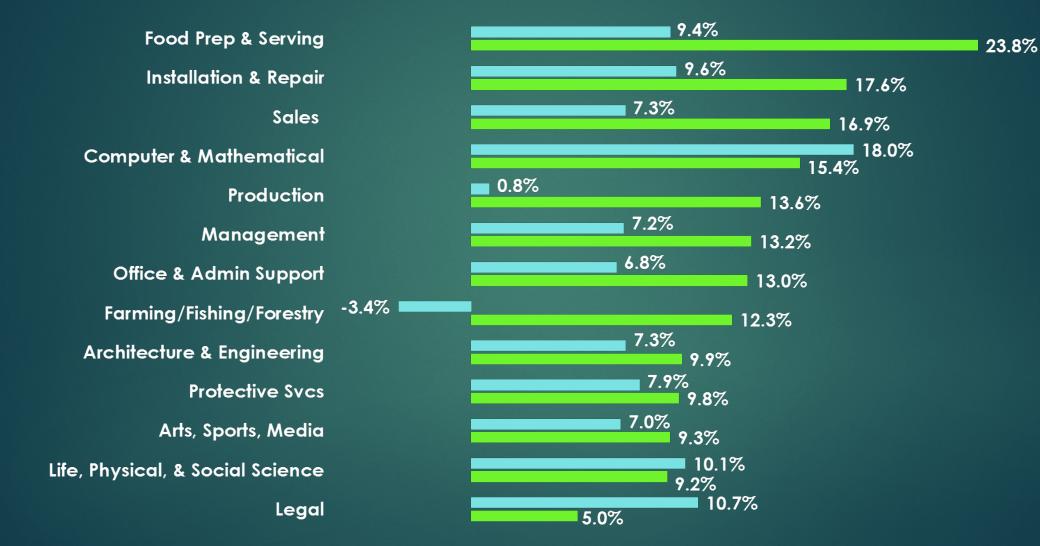


Idaho Occupations: 2012-2022 Projected Numeric Job Growth



Idaho and National Occupations: 2012-2022 Comparative Projected Percent Job Growth





National Occupations

Comparison of 2012 Level and Project Growth

Total, All Occupations



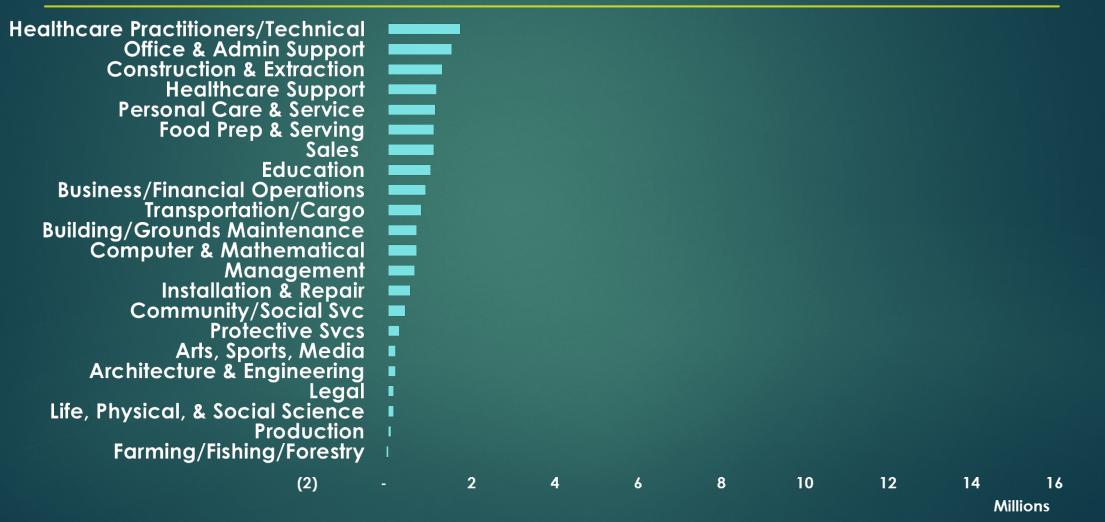
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Source: US Bureau of Labor Statistics



National Occupations projected 2022 net growth

Total, All Occupations



National Occupations projected 2022 percentage growth

-5.0%

0.0%

5.0%

10.0%

15.0%

20.0%

25.0%

30.0%

Total, All Occupations

Healthcare Support Healthcare Practitioners/Technical **Construction & Extraction** Personal Care & Service **Computer & Mathematical** Community/Social Svc **Business/Financial Operations Building/Grounds Maintenance** Education Legal Life, Physical, & Social Science Installation & Repair Food Prep & Serving Transportation/Cargo **Protective Svcs** Architecture & Engineering Sales Management Arts, Sports, Media **Office & Admin Support** Production Farming/Fishing/Forestry

Sources: US Bureau of Labor Statistics

Idaho Occupations:

2022 projected annual job openings by occupation

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Office & Admin Support	2,200			1,400		
Sales	2,000				1,100	
Food Prep & Serving		1,900			1,200	
Management	1,000		700			
Healthcare Practitioners/Technical	700	90	00			
Transportation/Cargo	1,000		600			
Production	900	é	500			
Construction & Extraction	500	900				
Education	800	400				
Installation & Repair	600	500				
Personal Care & Service	500	500				
Building/Grounds Maintenance	500 30	00				
Business/Financial Operations	500 30	00				
Healthcare Support	300 400					
Farming/Fishing/Forestry	500 200	0				
Protective Svcs	400 10	00				
Community/Social Svc	300 200					
Architecture & Engineering	300 - 100					
Life, Physical, & Social Science	300 100					
Computer & Mathematical	200 200					
Arts, Sports, Media	200 100		C	Replacement	Growth	
Legal	100					

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

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National Occupations 2022 projected job openings

Office & Admin Support Sales Food Prep & Serving Healthcare Practitioners/Technical Transportation/Cargo Education Management **Construction & Extraction** Business/Financial Operations Personal Care & Service Production Healthcare Support Building/Grounds Maintenance Installation & Repair Computer & Mathematical Protective Svcs Community/Social Svc Arts, Sports, Media Architecture & Engineering Life, Physical, & Social Science Legal Farming/Fishing/Forestry



Replacement Growth



Occupation Projections 2012 to 2022

Analysis of sub-group occupations



Idaho's Projected 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< td=""></hs<>
2	Cashiers	17,068	2,293	868	15.5%	\$9.02	<hs< td=""></hs<>
3	Customer Service Representatives	19,010	3,394	764	21.7%	\$12.21	HS
4	Food Preparation and Serving Workers, Including Fast Food	13,077	3,215	699	32.6%	\$8.62	<hs< td=""></hs<>
5	Waiters and Waitresses	12,163	2,164	697	21.6%	\$8.57	<hs< td=""></hs<>
6	Registered Nurses	15,511	3,235	562	26.4%	\$28.36	А

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 Occupations by: Highest percentage growth from 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< td=""></hs<>
3	Mechanical Door Repairers	117	45	6	62.5%	\$13.28	HS
4	Helpers – Masonry, Tile Setting	231	83	10	56.1%	\$15.73	<hs< td=""></hs<>
5	Diagnostic Medical Sonographers	632	213	27	50.8%	\$29.85	Α

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 Occupations by: Highest 2013 Median Wage¹



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Rank	Occupation Titles	Hourly Median Wage ¹	Annual Median Wage ¹	Average Annual Openings ²	Percent Change	Annualized Change
	amily 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 F	Pediatricians, General	\$70.67	\$146,990	4	9.6%	0.9%
4 N	Nurse Anesthetists	\$69.91	\$145,400	10	19.7%	1.8%
h	Architectural and Engineering Managers	\$61.66	\$128,250	39	13.5%	1.3%

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.

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



Idaho's Projected Occupations by: 2012 to 2022 Hot Jobs¹



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	А
3	Physical Therapists	1,502	64	31.5%	\$37.43	Doctoral
4	Software Developers, Applications	2,117	60	22.2%	\$33.62	В
5	Physician Assistants	899	34	33.0%	\$42.38	М
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	А
9	Market Research Analysts and Marketing Specialists	1,959	67	31.9%	\$24.31	В
10	Nurse Practitioners	723	28	30.0%	\$42.71	Μ

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.

Summary: Idaho Industry Projections



Projections for Idaho, 2012 to 2022:

- 109,000, 16% more jobs added to total employment by 2022
- Goods producing sector to grow by 20%, with 18,000 jobs.
- Service providing sector to grow by 17%, adding 86,000 jobs.
- Rebound of construction industry lends to a 39% increase in jobs, the fastest projected growth of any industry in Idaho.
- Healthcare and social assistance projected to grow 27 %, the second fastest in Idaho.

Summary: Idaho occupations



- Over 30% of net growth will fill office support, food preparation and serving, and sales.
- Construction and extraction projected to grow fastest at 27 percent. Growth partly fueled by recovery from the bursting of the housing bubble.
- Growth of 8,800 jobs in healthcare practitioners and technical occupations. Second fastest growth at 25 percent.

Summary: Idaho educational attainment



For projected Idaho total job openings from 2012 to 2022:

- Almost 60% of total projected openings will require some college, training or certificate beyond a high-school diploma.
- About a third, 27%, of job openings will require job seekers to hold a Bachelor's degree or greater to be competitive.
- Occupations for that require a high school diploma or less will comprise 40% of the total openings.

Summary: Idaho, national education compared



Idaho trails national trends of educational attainment:

- Nationally, 19.3% of projected openings will require a bachelors' degree, in Idaho 18.0% will require the same level of education.
- Advanced degrees are projected to comprise 10.6% of national job opening and 9.0% for Idaho.
- Idaho is almost at parity for associate's degrees and some college with 32.4% compared to the national proportion of 32.2%.





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Projections data:

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Labor Market Information:



Career Information: Kaho Career Information System - CS

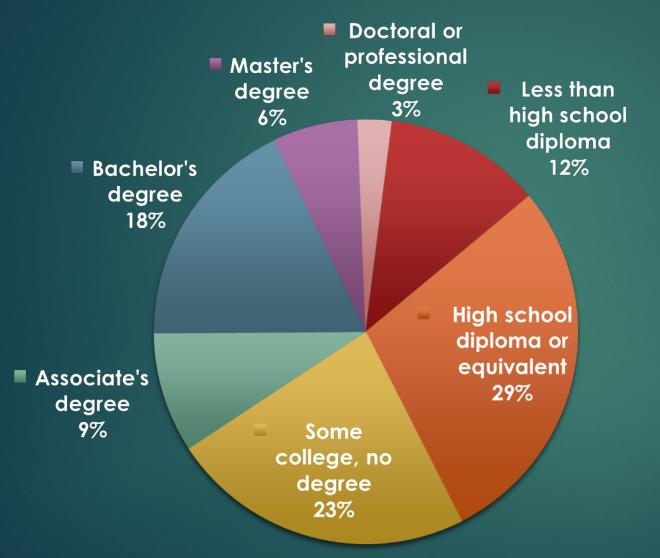






Education Attainment 2012 to 2022

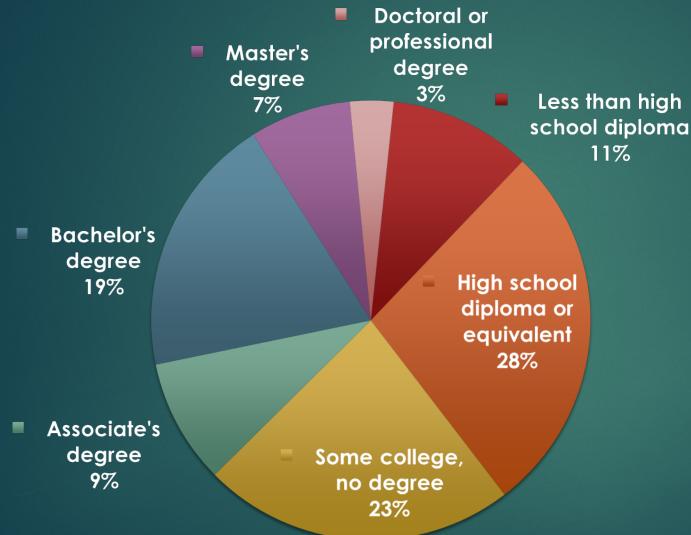
Share of Idaho Projected Competitive Education Level:



Educational attainment 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.

- By 2022, 59% workers 25 years and older are projected to have a greater than high school education.
- 27% projected to have a bachelor's or higher.
- 41% projected to have a high school diploma or less.

Share of US Projected Competitive Education Level:



 61% of workers 25 years and older are projected to have more than a high school education.

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- 32% will have a bachelor's or higher.
- 39% will have a high school diploma or less.

Educational attainment 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 Projected Openings by Education Level:



- Less than high school diploma
- Some college, no degree
- Bachelor's degree
- Doctoral or professional degree

- High school diploma or equivalent
- Associate's degree
- Master's degree

Idaho:

- 27% Bachelor's or greater
- 32% With some college or an Associates degree
- 41% High School or less

Nationwide

- 30% Bachelor's or greater
- 32% With Associates degree or some college
- 38% High School or less

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.

Idaho Competitive Educational Attainment¹: 2012-2022 Hot Jobs²



Pharmacists		41.7%		50.8%					
Registered Nurses	38.1%			46.0% 7.					
Physical Therapists		38.2%		29.9%	23 .1%				
Software Developers,			50.3%		29.6%				
Physician Assistants		11.8%	27.1%	33.4%	13.8%				
Industrial Machinery Mechanics	10.9%	42.6%	6	28.6%	12.3%				
Electricians	7.2%	39.5%		32.5%	13.6%				
Dental Hygienists	6.3%	54	.8%		32.4%				
Market Analysts & Specialists	12.37	<mark>6</mark>	50.9%		22.5%				
Nurse Practitioners			77.8%		12.7%				
(0%	20%	40%	60%	80% 100%				
 Less than high school Associate's degree Doctoral/professional 	High school or equivalent Bachelor's degree			Some college, no degree Master's degree					

¹Educational attainment defined by the education of workers in occupations that are 25 years or older.

²Hot 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. Source: American Community Survey, Bureau of Labor Statistics, Idaho Department of Labor.

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Projections data:

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Labor Market Information:



Career Information: Kaho Career Information System - CS







Thank you!

Addendum:

Population context:

- Population Growth
- Demographics
- Labor Force

Methodology

- Projection funding and administration
- Projecting industry
- Model exclusions
- Projecting occupations

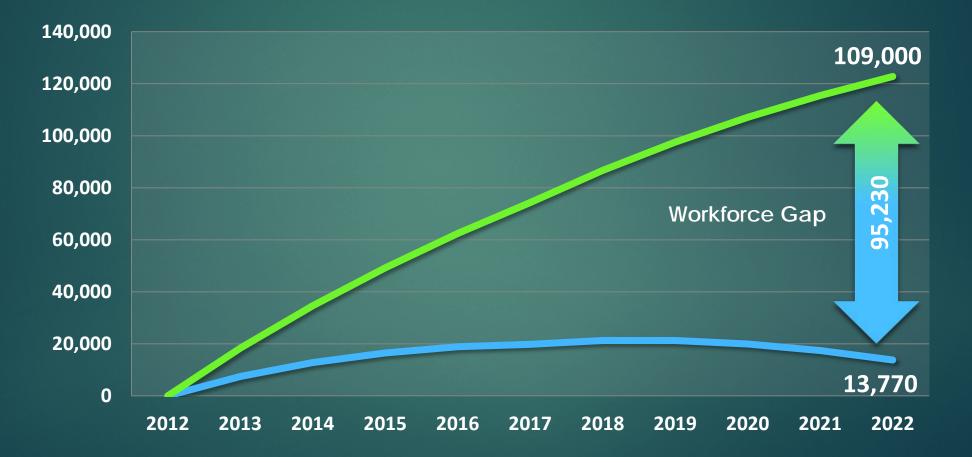
Concept

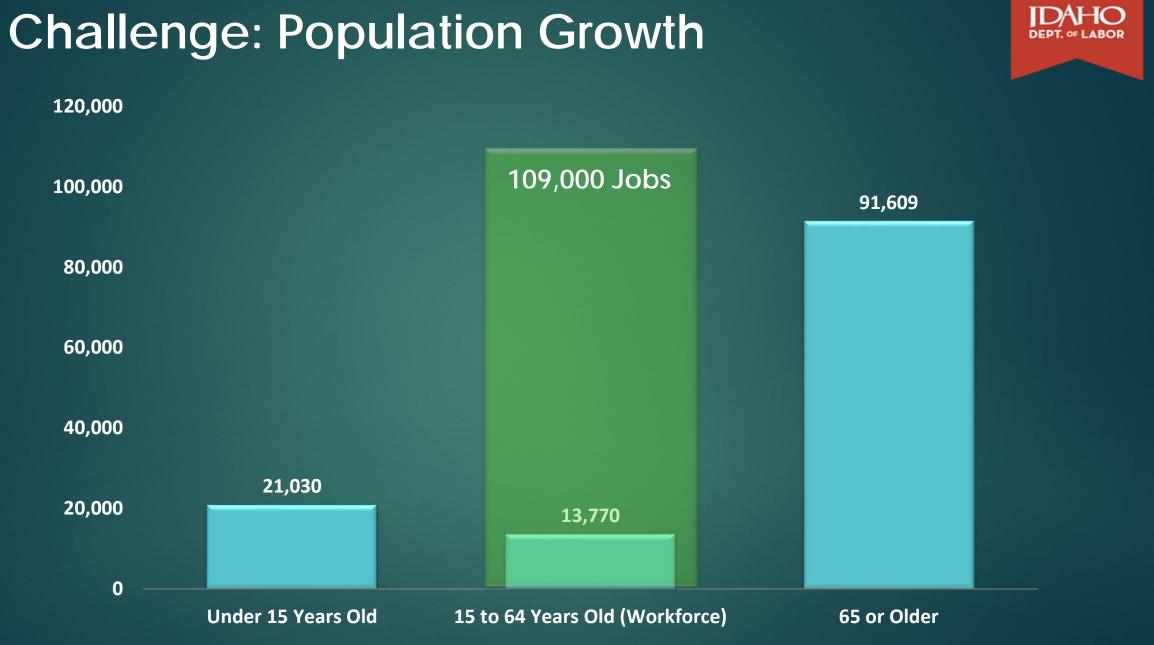
• total employment = industry jobs = occupation jobs

Challenge: Idaho's Supply of Labor

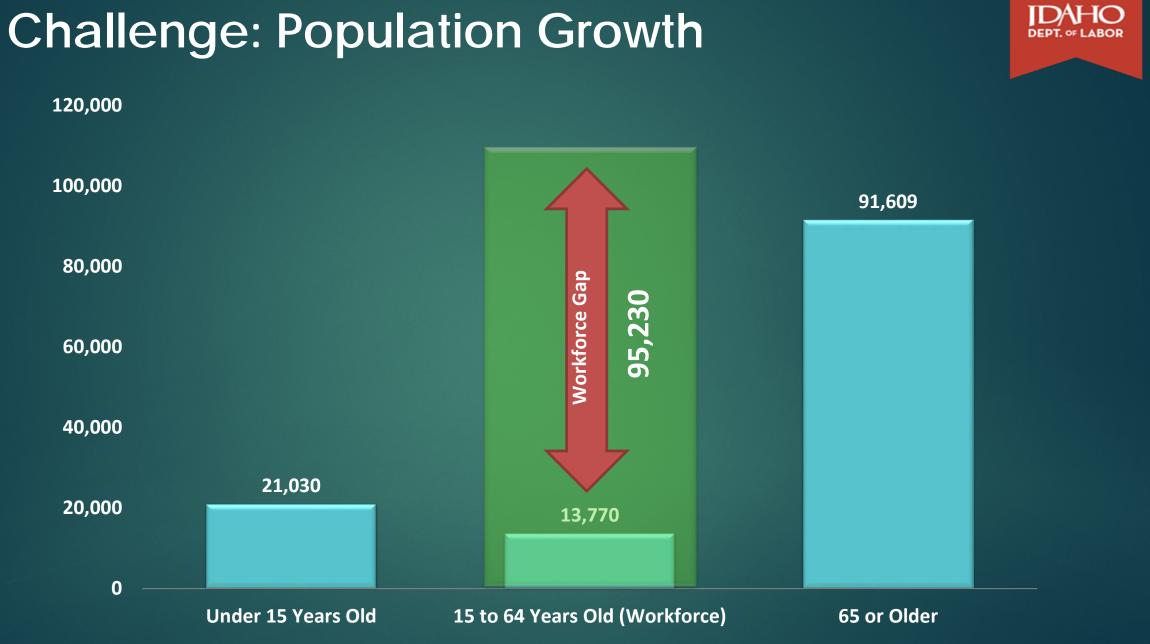
Jobs and Workforce Growth

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Population Forecasts - EMSI August 2014 and Jobs Forecast - IDOL August 2014

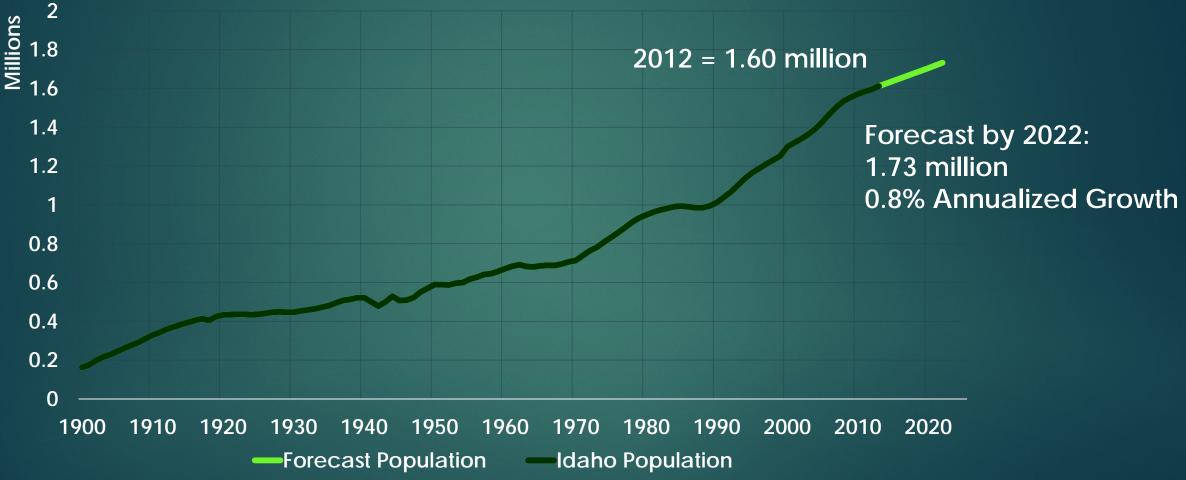


Population Forecasts - EMSI August 2014 and Jobs Forecast - IDOL August 2014

Challenge: Population Growth



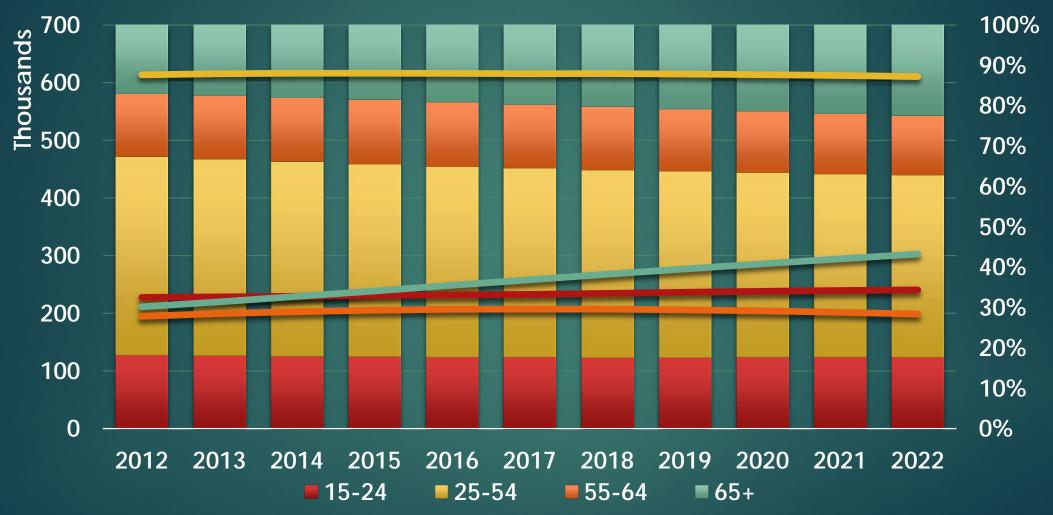
Idaho Population



Population Estimates and Forecasts – EMSI, US Census Bureau, IDOL September 2014

Challenge: Aging Idaho

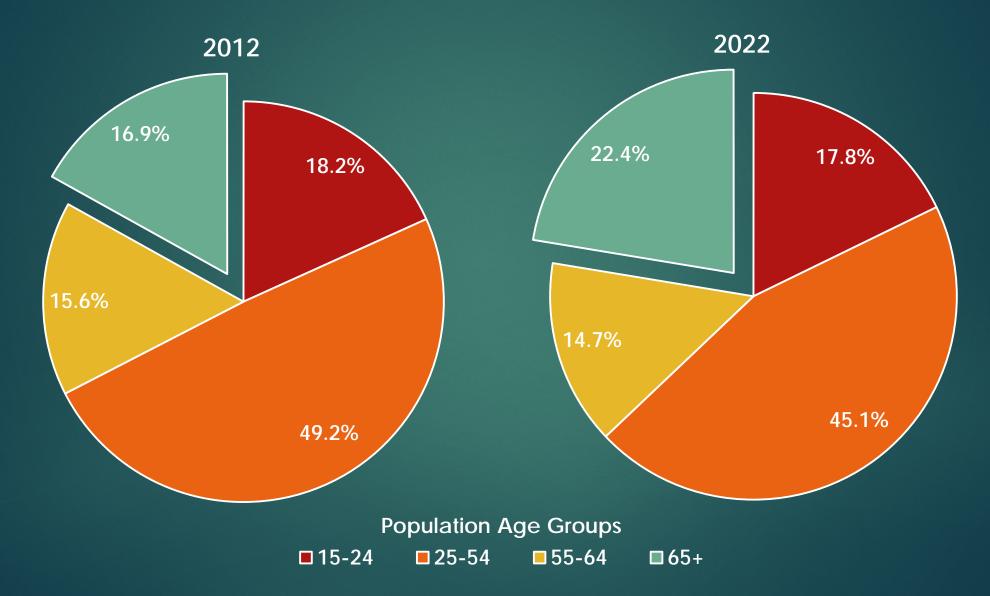




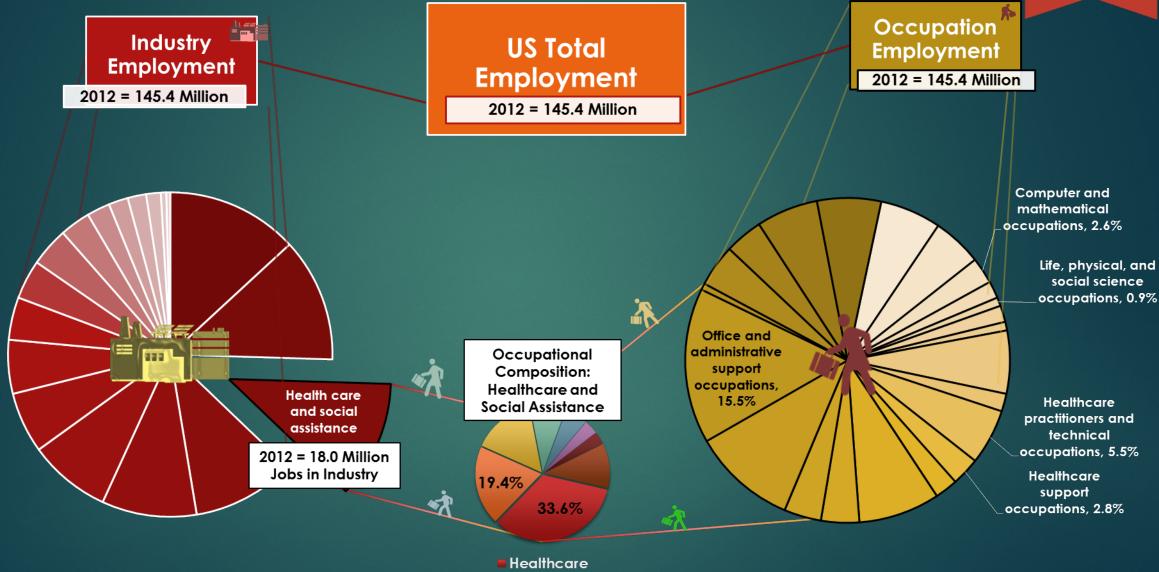
Population Estimates and Forecasts – EMSI, US Census Bureau, IDOL September 2014

Challenge: Aging Idaho





Industry and Occupation Jobs



Practitioners



Methodology

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: Projections of Industry Jobs



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: Projection of Occupation Jobs



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.