

Occupation data: Projections, real-time data, and connecting to education

**Olympia Economic Symposium
Scott Wheeler, Director, System Performance
Labor Market and Performance Analysis
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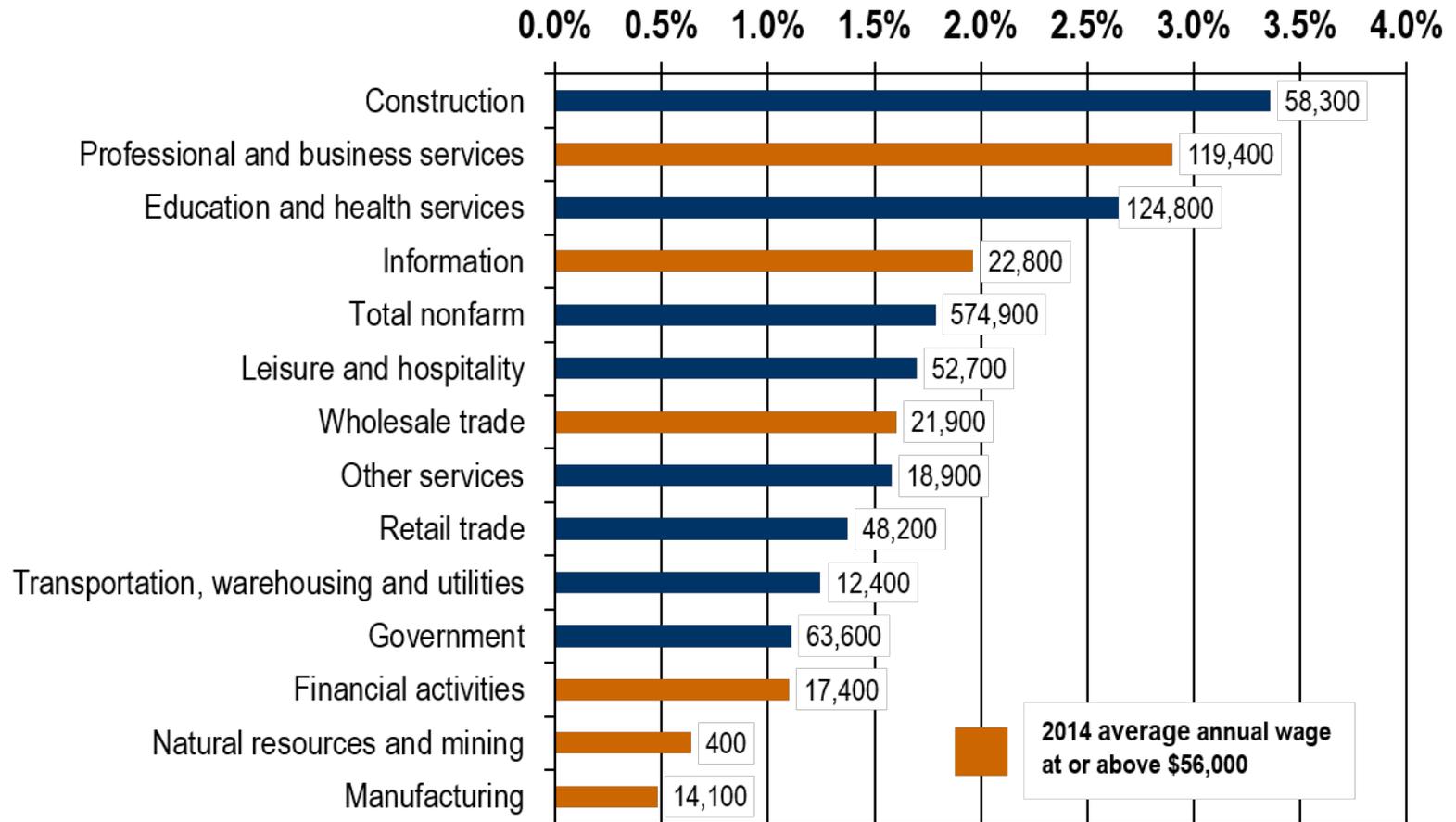
**Employment
Security
Department**
WASHINGTON STATE

Employment projections

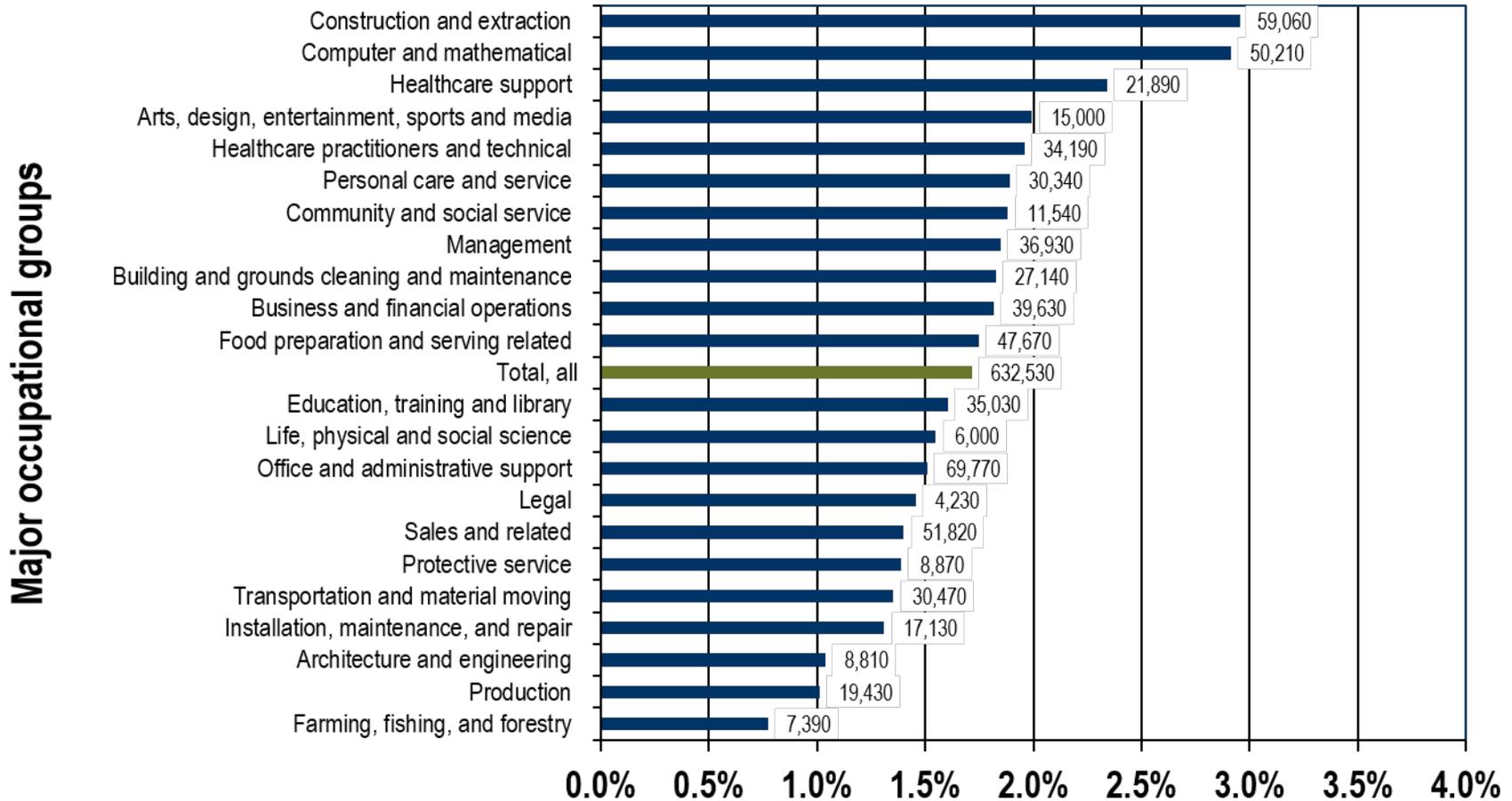
Annually updated industry and occupational projections for 2, 5 and 10 years out:

- Available statewide and by local Workforce Development Area
- Provides foundation for identification of occupations “in demand,” “balanced” and “not in demand”

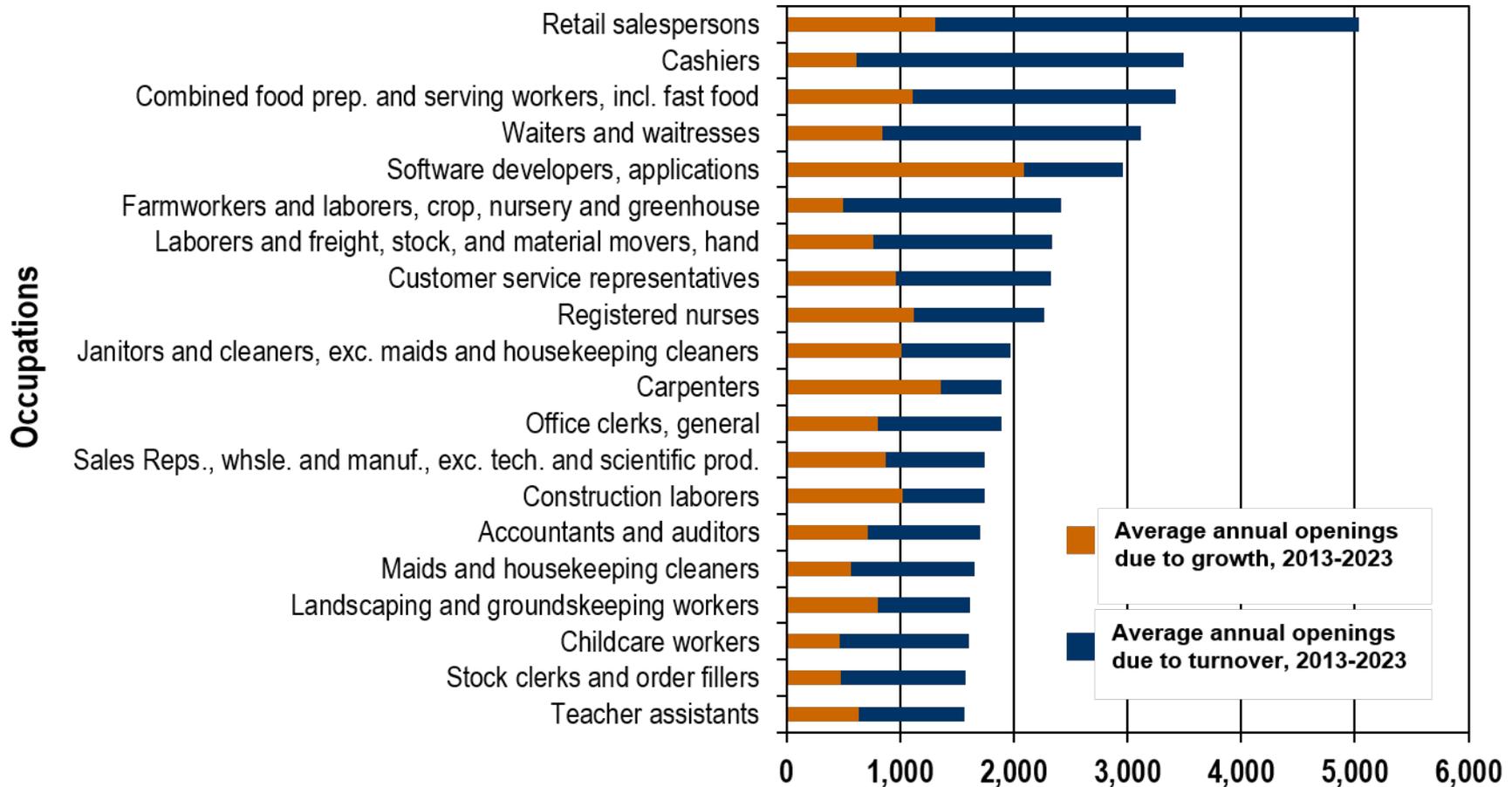
Washington industry projections: average annual growth, 2013-2023



Washington occupational projections: average annual growth, 2013-2023



Washington's top 20 occupations by annual openings, 2013-2023



Why is real time labor market information important?

- Provides a snapshot of current hiring
- Supplements projections
- Tests assumptions

Washington's use of real time LMI

Washington uses The Conference Board's HWOL data to:

- Provide real-time measure of occupational demand
- Provide local hiring data to the workforce development areas via the monthly supply/demand tool
- Compare annual job postings to education completer/job seeker data
- Supplement the Occupations in Demand factors

What data is available?

Online job posting data is parsed by:

- Location: national to city level
- Employer: large corporations to small businesses
- Industry: administration to wholesale goods
- Skills: Software dev., QA, bilingual
- Education/certifications: RN, BA, CDL
- Occupation: Groups (healthcare support) to specific jobs (nursing assistants)
- Keywords: STEM, clean tech

How does Washington use the demand data?

Aggregating the job postings location and occupation data allows the state to:

- Determine demand trends at the state and local level
- Qualify projections for in demand jobs
- Provide planners the context for other data and anecdotal results

How does Washington use the supply data?

Aggregating graduates, claimants, and job seekers allows the state to:

- Determine the current imbalance between overall supply/demand (job seekers per jobs available)
- Receive early notice that demand may be increasing or declining
- Ascertain whether education is over/under training in certain fields, “right-sizing training programs”

Tactical supply/demand report

Displays current and recent monthly trends for demand and supply:

- Groups postings and job seekers (claimants and WorkSource) by location, occupation group and job*
- Incorporates commuting into supply**
- Highlights gaps where demand or supply are out of balance
- Supplements information from industry councils, employers, and sector/cluster analysis

Supply/demand for occupation groups

2015 Labor Market Supply/Demand Report by Month

Total Potential Applicants¹ Estimated number of claimants and WorkSource customers likely to work in the area based on the labor force's commute patterns using US Census inflow/outflow data. This number subtracts the number of customers who might commute out of the area and adds the number of customers commuting in.

Demand* for an area is not the true demand: HWOL only aggregates online postings. Supply* is an unduplicated count of current UI claimants and WorkSource customers in an area. Gap* is the difference between Supply and Demand for a given area and occupation.

(All)

Occupation	Total Online Postings	70,090	Total Potential Applicants ¹	#N/A
	Demand*		Supply*	Gap*
Architecture and Engineering Occupations	1,467		1,189	278
Arts, Design, Entertainment, Sports, and Media Occupations	1,688		1,142	546
Building and Grounds Cleaning and Maintenance Occupations	2,072		1,176	896
Business and Financial Operations Occupations	3,413		1,960	1,453
Community and Social Service Occupations	1,699		621	1,078
Computer and Mathematical Occupations	7,580		1,990	5,590
Construction and Extraction Occupations	3,203		8,460	-5,257
Education, Training, and Library Occupations	1,863		1,066	797
Farming, Fishing, and Forestry Occupations	208		1,842	-1,634
Food Preparation and Serving Related Occupations	4,751		2,769	1,982
Healthcare Practitioners and Technical Occupations	5,680		978	4,702
Healthcare Support Occupations	2,371		1,175	1,196
Installation, Maintenance, and Repair Occupations	3,039		2,420	619
Legal Occupations	317		310	7
Life, Physical, and Social Science Occupations	734		553	181
Management Occupations	5,466		6,082	-616
Military Specific Occupations	3		613	-610
Office and Administrative Support Occupations	8,355		7,781	574
Personal Care and Service Occupations	1,804		1,766	38
Production Occupations	2,051		6,196	-4,145
Protective Service Occupations	673		640	33
Sales and Related Occupations	6,721		3,990	2,731
Transportation and Material Moving Occupations	4,932		4,261	671
Grand Total	70,090		58,980	11,110

WDANAME

- Benton-Franklin
- Eastern Washington
- North Central
- Northwest
- Olympic
- Pacific Mountain
- Seattle - King County
- Snohomish
- South Central
- Southwest Washington
- Spokane
- Tacoma - Pierce

Digit

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Month in 2015

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Detailed occupation gap analysis

2015 Labor Market Supply/Demand Detailed Occupation* Gap Analysis

Seattle - King County

Occupation	Gap*
Software Developers, Applications	5540
Computer Occupations, All Other	3578
Registered Nurses	2619
Marketing Managers	2532
Web Developers	1525
Network and Computer Systems Administrators	1485
Retail Salespersons	1402
Computer Systems Analysts	1356
Management Analysts	1047
Accountants and Auditors	958
First-Line Supervisors of Retail Sales Workers	956
Heavy and Tractor-Trailer Truck Drivers	931
First-Line Supervisors of Office and Administrative Support Workers	885
Computer User Support Specialists	875
Social and Human Service Assistants	753
First-Line Supervisors of Food Preparation and Serving Workers	742
Customer Service Representatives	734
Executive Secretaries and Executive Administrative Assistants	713
Medical Scientists, Except Epidemiologists	707
Sales Managers	645

Strategic supply/demand report

Determines the most recent year's labor market demand and supply by:

- Annualizing data on the school/program year*
- Adds and unduplicates all postings by state/area
- Unduplicates all claimants & job seekers, and adds training completers
- Groups courses of study codes and occupation codes into broad EDEPs** units of analysis to create a link between graduates and available jobs

Education and workforce supply vs demand

Units of analysis	Excess Supply	2013 Completers
Liberal Arts and Humanities	17,870	17818
Business Management and Administration	18,496	6082
Nursing	-22,512	3900
Computer Systems	-30,878	3247
Psychology	2,148	2649

Top five units of analysis with the least demand	Supply (completers & claimants & job seekers)	Demand (Openings)	Excess Supply
Miscellaneous Production Workers	42,822	5,458	37,364
Miscellaneous Construction and Extraction Workers	36,391	6,065	30,326
Miscellaneous Farm, Forestry and Conservation Workers	31,569	1,670	29,899
Roofing	26,189	1,260	24,929
Miscellaneous Clerical and Admin Support Occupations	37,351	15,904	21,447

Top five units of analysis with the most demand	Supply (completers & claimants & job seekers)	Demand (Openings)	Excess Supply
Computer Systems	30,571	61,449	-30,878
Nursing	7,591	30,103	-22,512
Sales	32,658	48,096	-15,438
Computer Engineering	10,944	25,220	-14,276
Digital Graphics	4,935	16,036	-11,101

Things to consider....

- Online postings underrepresent low wage, lower-skilled jobs and over-represent higher wage, tech jobs
- Job postings may not always reflect actual jobs
- Data does not incorporate replacement/internal job movements
- Real-time is just that, the data does not provide a long-term projection of the labor market's needs
- Data represents only a fraction of the labor market's currently employed job seekers
- Data does not completely accommodate for transferable skills

Thank you

Scott Wheeler
Director, System Performance
esd.wa.gov/employmentdata