

# Tech Employment Projections for Computer Science-Related Occupations and Workforce Development Areas in Washington State

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This brief supplements two earlier briefs on the Washington community and technical colleges and tech education and employment. Digging into data from the Washington Economic Security Department (ESD), we present ESD projections by Standardized Occupational Codes (SOC) 15 for computer science-related (CS-related) occupations. Using the latest reports on “in-demand” occupations, we report ESD’s SOC-15 occupational projections for the state’s 12 workforce development areas (WDAs) and the entire state.

This brief utilizes data from the ESD on [Occupational Projections 2023-2033: Long-Term Occupational Projections, State Method](#), as well as the [Occupations In-Demand List](#) that the ESD updates annually in partnership with the Local Workforce Development Board (LWDB) in each of the 12 WDAs. The latest update of the Occupations in-Demand List was on March 5, 2026, meaning these data were updated and reported by the ESD within the last six months.

According to the ESD website, the Occupations In-Demand List “shows whether an occupation in a local area is considered in demand (abundance of opportunities), not in demand (few opportunities) or balanced.” Each update reflects the ESD’s analysis of historical patterns, workforce projections, online job postings, unemployment claims, and other factors to produce an initial list that is shared with the LWDBs who, at their discretion, share the list with community stakeholders for engagement, analysis, and evaluation. Incorporating this local input can result in changes in the final reported “in demand” rankings from the initial ESD rankings. Thus, the annual Occupations In-Demand List reflects the ESD’s analysis as baseline for further deliberation with the 12 WDA’s local knowledge of real-time conditions. Understanding that the Occupations In-Demand List represents state and regional input is important, but these results should be tempered with the understanding individuals can live and work in different WDAs, particularly in the densely populated region surrounding Seattle. Increasingly employees telecommute, which affects our understanding of location in employment patterns.

Results of this analysis are particularly useful to expanding findings on Washington community and technical college tech programs reported in *Growth in Community and Technical College Tech Programs and Employment in Washington State* (Bragg & Bragg, 2026). Table 1 lists all 12 six-digit CS-related occupations by level of demand for the state and the 12 WDAs, with WDAs listed from the largest to smallest CS-related occupational projections, based on the Occupational In-Demand List. Table 2 details the counties and community and technical colleges associated with each WDA so that readers can associate the findings with the regional economies represented by the 12 WDAs.

**A major take-away from this analysis is that the total projected number of CS-related occupational employees is estimated at over 240,000 by 2033, which is up from about 210,000 in 2024.** The largest single category of CS-related occupations by employees is Software Development (114,280), followed by Computer User Support Specialist (23,954), Computer Systems Analyst (22,363), Web Development (22,097), Computer Occupations All Other (15,800), and Network and Computer Systems Administration (11,711), based on [ESD projections released July 2025](#).

The following bullet points highlight the level of demand of CS-related occupations through 2033, using the [ESD 2023-2033 long-term occupational projections](#) (state method), released in March 2026.

- Based on ESD projections in March 2026, seven of the 12 WDAs are projected to see CS-related occupations in-demand through 2033, with four WDAs projected to see balanced hiring. CS-related occupational projections for the Workforce Central (Pierce) are not in-demand, with this WDA being the only one in the state at this relatively modest level of growth. Again, it is worth reminding readers that the level of in-demand is ultimately determined at the WDA level, reflecting local understanding of regional occupational demand.
- Computer System Analyst and Software Development are projected to be in-demand or balanced in all 12 WDAs, with Web Development and Computer Occupations All Other projected to be in-demand or balanced in 11 of the 12 WDAs.
- Software Development are projected to combine to employ the largest number of CS-related employees in the state, at 47% of all CS-related occupational employees. The Seattle/King WDA is expected to employ about 70% of all 114,280 Software Development employees in the state.
- Info Security Analysts are in-demand or balanced in all but one of the WDAs, reflecting the growth in cyber security programs in Washington community and technical colleges, and indicating a potential area of growth for Washington community and technical colleges in the future.
- Computer Network Support Specialists and Database Analysts are projected to be in-demand in the Seattle/King and Pacific Mountain regions but no other WDAs project a similar level of growth in these occupations. However, Computer Network Support Specialists and Database Analysts employees are projected to be balanced in one-third to one-half of the WDAs.
- No CS-related occupations are projected to be in-demand in the Future Workforce Alliance (Snohomish) WDA. However, three are projected to be balanced, with one of these three occupations (i.e., Software Development) accounting for 43% of all CS-related occupational employees in this WDA.

While our use of occupational projections by WDA regions is informative, it is important to note that students attending Washington community and technical college (CTC) may work outside the specific WDAs where they attend school. Student mobility to live, study, and work in Washington state is substantial, especially in more highly urbanized regions of the state. As a result, these findings should be interpreted as suggestive of employment projections for CTC CS students. Analysis of CS-related employment of CTC CS students is needed to provide definitive evidence of actual employment outcomes.

**Table 1. Projected Number of Employees and Level of Demand for CS-Related Occupations in Washington's 12 WDAs**

| Workforce Development Areas by Total Employees in Computer Science Related Occupations | Total Projected Employees in SOC-15 | Cmptr Syst Analysts 15-1211 | Info Security Analysts 15-1212 | Cmptr & Info Res Scientists 15-1221 | Cmptr Net Spprt Spec 15-1231 | Cmptr User Spprt Spec 15-1232 | Cmptr Network Architects 15-1241 | Database Admin 15-1242 | Network & Cmptr Syst Admin 15-1244 | Cmptr Program 15-1251 | Software Dev 15-1252 | Web Dev 15-1254 | Cmptr Occups, Other 15-1299 |
|----------------------------------------------------------------------------------------|-------------------------------------|-----------------------------|--------------------------------|-------------------------------------|------------------------------|-------------------------------|----------------------------------|------------------------|------------------------------------|-----------------------|----------------------|-----------------|-----------------------------|
| <b>WA State Total</b>                                                                  | <b>241,217</b>                      | <b>22,363</b>               | <b>5,505</b>                   | <b>3,203</b>                        | <b>5,132</b>                 | <b>23,954</b>                 | <b>5,110</b>                     | <b>4,457</b>           | <b>11,711</b>                      | <b>7,605</b>          | <b>114,280</b>       | <b>22,097</b>   | <b>15,800</b>               |
| WDC of Seattle-King County                                                             | 157,55<br>>                         | 12,635<br>>                 | 2,554<br>>                     | 2,168<br>>                          | 3,725<br>>                   | 13,211<br>>                   | 2,851<br>>                       | 2,305<br>>             | 7,061<br>>                         | 5,289<br><            | 80,751<br>>          | 15,455<br>>     | 9,552<br>>                  |
| Future Workforce Alliance (Snohomish)                                                  | 9,273<br>>                          | 1,274<br><                  | 267<br><                       | 23                                  | 310<br><                     | 908<br><                      | 178<br><                         | 215<br><               | 579<br><                           | 167<br><              | 4,028<br><           | 420<br><        | 904<br><                    |
| Pacific Mountain WDC                                                                   | 8,185<br>>                          | 946<br>>                    | 339<br>>                       | 17                                  | 294<br>>                     | 1,048<br>>                    | 504<br><                         | 587<br>>               | 927<br>>                           | 113<br><              | 2,732<br>>           | 332<br>>        | 346<br>>                    |
| Workforce Southwest Washington                                                         | 7,098<br><                          | 918<br><                    | 135<br><                       | 42                                  | 260<br><                     | 1,143<br><                    | 139<br><                         | 161<br><               | 518<br><                           | 146<br><              | 2,481<br><           | 488<br><        | 667<br><                    |
| Workforce Central (Pierce)                                                             | 6,684<br><                          | 1,202<br>>                  | 164<br><                       | *                                   | 207<br><                     | 1,095<br><                    | 148<br><                         | 105<br><               | 603<br><                           | 401<br><              | 1,406<br>>           | 349<br><        | 1,004<br><                  |
| Spokane Workforce Council                                                              | 6,103<br><                          | 703<br>>                    | 177<br>>                       | 21                                  | 348<br><                     | 1,127<br><                    | 84<br><                          | 115<br><               | 414<br><                           | 136<br><              | 1,892<br><           | 506<br><        | 580<br><                    |
| Northwest Workforce Council                                                            | 3,347<br><                          | 390<br>>                    | 163<br><                       | *                                   | 189<br><                     | 647<br>>                      | 44                               | 55<br><                | 291<br>>                           | 45                    | 1,068<br>>           | 151<br><        | 304<br>>                    |
| Olympic Consortium WDC                                                                 | 3,294<br>>                          | 360<br>>                    | 78<br><                        | 99<br><                             | 113<br><                     | 458<br>>                      | 41                               | 42                     | 271<br>>                           | 62<br><               | 818<br>>             | 160<br><        | 792<br><                    |
| Benton/Franklin WDC                                                                    | 2,060<br>>                          | 302<br>>                    | 151<br>>                       | *                                   | 39                           | 359<br>>                      | 66<br><                          | 34                     | 178<br><                           | *                     | 807<br>>             | 70<br>>         | 54<br>>                     |
| North Central WDC                                                                      | 1,796<br><                          | 172<br>>                    | 35                             | 14                                  | 92<br><                      | 308<br>>                      | 39                               | 32                     | 163<br><                           | 45                    | 619<br>>             | 173<br>>        | 104<br><                    |
| Eastern Washington Partnership                                                         | 1,402<br>>                          | 264<br>>                    | 46                             | 42                                  | 35                           | 246<br>>                      | 46                               | 34                     | 168<br>>                           | 13                    | 295<br>>             | 63<br><         | 150<br>>                    |
| South Central Workforce Council                                                        | 1,403<br>>                          | 188<br>>                    | 28                             | *                                   | 65<br><                      | 367<br><                      | 10                               | 26                     | 222<br><                           | 23                    | 249<br>>             | 73<br><         | 152<br>>                    |

**Sources:**

- The WA State Total is derived from the 2023-2033 Long-Term Occupational Projections, state method at: <https://esd.wa.gov/jobs-and-training/labor-market-information/employment-and-wages/projections>.
- Demand estimates for the 12 WDA and 12 CS-related occupational projections are derived from the March 5, 2026, Occupations In-Demand List at: <https://esd.wa.gov/jobs-and-training/labor-market-information/learn-about-occupation>. These results show the projected level of demand for CS-related occupations through 2033, reflecting the level of job growth and total job openings.

**Legend: Levels of Demand of Computer Science-Related Occupations using Washington ESD Projection 2023-2033):**

|   |           |   |          |   |               |  |               |
|---|-----------|---|----------|---|---------------|--|---------------|
| > | In-Demand | < | Balanced | < | Not In-Demand |  | No Projection |
|---|-----------|---|----------|---|---------------|--|---------------|

### Washington State Workforce Development Areas (WDAs), Counties, Community & Technical Colleges

| WDA                                     | County                                                                                            | Community and Technical Colleges                                                                                                                                                                                                         |
|-----------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WDC of Seattle-King County              | King                                                                                              | Bellevue College, Cascadia College, Green River College, Highline College, Lake Washington Institute of Technology, North Seattle College, Renton Technical College, Seattle Central College, Shoreline College, & South Seattle College |
| Future Workforce Alliance (Snohomish)   | Snohomish                                                                                         | Everett Community College & Edmonds College                                                                                                                                                                                              |
| Pacific Mountain WDC                    | Grays Harbor, Lewis, Mason, Pacific, Thurston                                                     | Centralia College, Grays Harbor College, & South Puget Sound Community College                                                                                                                                                           |
| Workforce Southwest WA                  | Clark, Cowlitz, Wahkiakum                                                                         | Clark College & Lower Columbia College                                                                                                                                                                                                   |
| Workforce Central                       | Pierce                                                                                            | Bates Technical College, Clover Park Technical College, Pierce College-Puyallup, Pierce College-Steillacoom, & Tacoma Community College                                                                                                  |
| Spokane Workforce Council               | Spokane                                                                                           | Spokane Community College, & Spokane Falls Community College                                                                                                                                                                             |
| Northwest Workforce Council             | Island, San Juan, Skagit, Whatcomm                                                                | Bellingham Technical College, Skagit Valley College, & Whatcom Community College                                                                                                                                                         |
| Olympic Consortium WDC                  | Clallam, Jefferson, Kitsap                                                                        | Olympic College & Peninsula College                                                                                                                                                                                                      |
| Benton-Franklin WDC (Benton & Franklin) | Benton, Franklin                                                                                  | Columbia Basin College                                                                                                                                                                                                                   |
| North Central WDC                       | Adams, Chelan, Douglas, Grant, & Okanogan                                                         | Big Bend Community College & Wenatchee Valley College                                                                                                                                                                                    |
| Eastern Washington Partnership          | Asotin, Columbia, Ferry, Garfield, Pend Oreille, Stevens, Columbia, Lincoln, Walla Walla, Whitman | Walla Walla Community College                                                                                                                                                                                                            |
| South Central Workforce Council         | Kattitas, Klickitat, Skamania, & Yakima                                                           | Yakima Valley College                                                                                                                                                                                                                    |

### Other Briefs on Washington Community and Technical College and Tech Education and Employment by Bragg & Associates, Inc.:

Bragg, M. B., & Bragg, D. D. (2026, February 9). *Trends in Tech Education and Hiring of New College Graduates in Washington State: Initial Results and Next Steps*. Bragg & Associates, Inc. <https://www.sbctc.edu/resources/documents/colleges-staff/research/bachelor-applied-science-research/trends-in-tech-ed-2026.pdf>

Bragg, D. D., & Bragg, M. B. (2026, April 28). *Growth in community and technical college tech programs and employment in Washington state*.

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