# Trends in Tech Education and Hiring of New College Graduates in Washington State: Initial Results and Next Steps

Michael B. Bragg and Debra D. Bragg
Bragg & Associates, Inc.

February 9, 2026

## Introduction

Changes in the "tech" economy have important implications for tech-related programs of study and the workforce. Washington is headquarters to the primary operations of Amazon, Boeing, Expedia, Microsoft, T-Mobile, Tableau, and other firms employing the graduates of community and technical colleges (CTCs), in addition to public and private universities (see Washington Technology Industry Association, 2023). Between 2000 and 2021, Washington saw a 40% increase in science and engineering degrees, reflecting a higher growth rate than any state in the country and ranking Washington first in the share of workers in STEM occupations as a percentage of total state employment. At the present time, Seattle ranks second only to Silicon Valley on the density of regional tech talent in the nation (see the *Greater Seattle's Tech Industry 2024 Report*).

In regions of the country where tech employment dominates labor markets, it is important to understand how shifts in policies and programming affect tech education and hiring across the state. According to research from the Washington Student Achievement Council (WSAC), intentional partnerships among state government, postsecondary education institutions, and employers have helped the state meet the burgeoning demand for tech talent. Washington has also operated as a magnet for tech talent from across the country, with Seattle ranked second among top talent markets in the adoption of artificial intelligence (AI) and first in the nation for senior tech talent in AI.

This brief is part of a series of new research reports on Washington's postsecondary tech education and hiring. We begin with a discussion of growth in postsecondary tech completions at the associate and bachelor's levels at CTCs and bachelor's completions at the public and private university level. We then discuss factors that may be contributing to changes in tech education, hiring, and employment in the state, drawing on academic literature, traditional media, and interviews with 11 individuals who have deep knowledge of tech education and hiring in the state (see Table 1).

*Table 1. Interviewees on Washington's Tech Education and Hiring*

| Date of Zoom Interview | Interviewee and Professional Affiliation |
|---|---|
| December 1, 2025 | Director, cybersecurity, CTC |
| December 11, 2025 | Director, engineering career center, public university |
| December 12, 2025 | CEO, tech company |
| December 17, 2025 | Director, computer science, public university |
| January 5, 2026 | Head, computer science, high school |
| January 9, 2026 | Faculty computer science, public university |
| January 9, 2026 | Faculty computer science, public university |
| January 13, 2026 | New graduate, computer science, public university |
| January 15, 2026 | CEO, tech company |
| January 21, 2026 | Director, tech company |
| January 21, 2026 | Vice President, tech company |

## Trends in Tech Education

For more than a decade, Washington's community and technical colleges (CTCs) and public and private universities have increased the production of postsecondary graduates in response to growing industry demand for tech employees. Responding to these calls for more talent, all 34 CTCs and all six public universities now offer degrees in fields such as computer science (CS), cybersecurity, data science, information technology (IT),[1] and software engineering. Many private universities also offer programs, especially in CS. Collectively, these programs have generated a growing number of annual tech graduates in the state, contributing to the recognition of Washington as one of the nation's leading tech employment hubs. To this point, federal data shows bachelor's degrees in Washington more than doubled for the Classification of Instructional Programs (CIP) category of computer and information sciences, from 47,406 in 2011-12 to 108,503 in 2021-22 (see Table 325.35 of the *Digest of Education Statistics*).

A 10-year analysis of graduates confirms this steep increase in CIP-11 completions from 2014-15 to 2023-24, with increases in annual graduates in all sectors of higher education in the state. Figure 1 shows that CTC associate and public university bachelor's graduates comprised most of the Washington tech graduates from 2014-15 to 2023-24, with CTC graduates at 45% and public university graduates at 33% of all 6,330 tech graduates by 2023-24. Over this 10-year period, CTC bachelor of applied science (BAS) and bachelor of science (BS) graduates increased from 10 to 920, and BS graduates of private universities doubled, from 240 to 480.

---

[1] The second phase of this research study will document the tech education and training curriculum offered by Washington CTCs, including new bachelor of science (BS) in CS degree programs.

*Figure 1. Annual Estimate of Computer Science and Tech-related (CIP 11) Associate and Bachelor's Degree Graduates from 2014-15 to 2023-24*
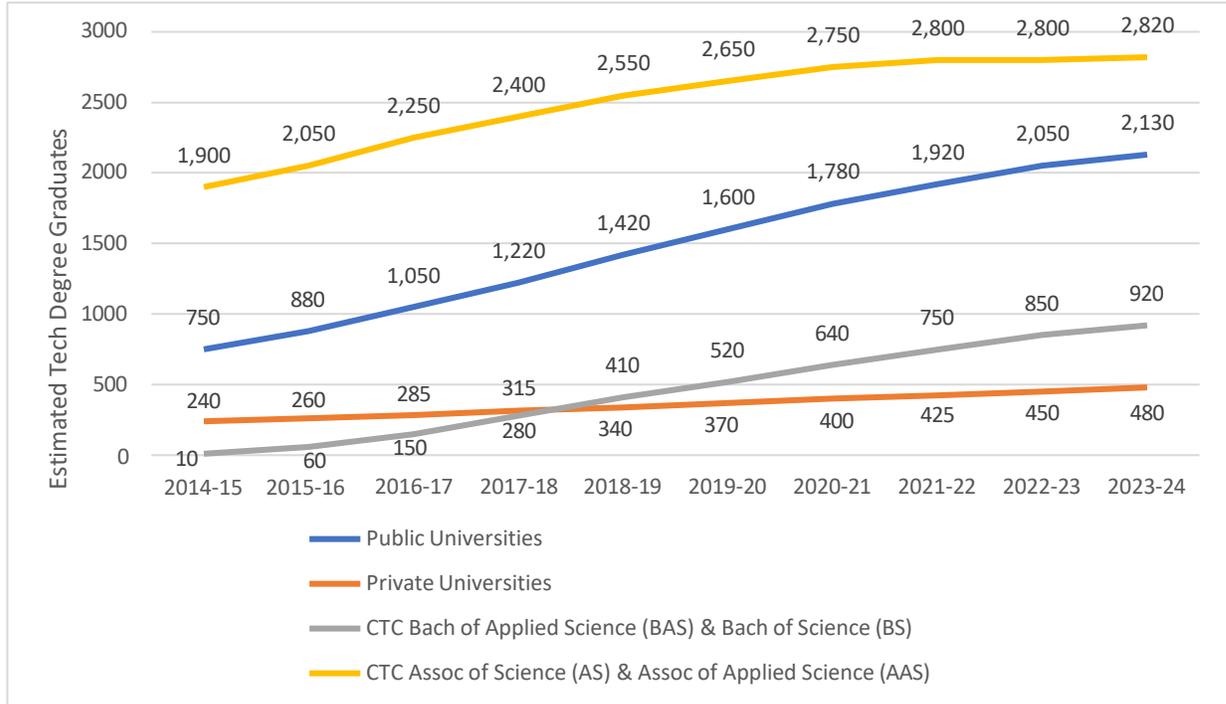


*Source:* The annual estimates of CIP-11-degree graduates were generated by Gemini AI and confirmed using public records and data of the Washington State Education Research Data Center (ERDC), Washington State Board of Community and Technical Education (SBCTC), the Integrated Postsecondary Education Data System (IPEDS), and Washington public and private university reports and dashboards.

Importantly, the sizeable increase in CIP-11 BAS degrees from 2014-15 to 2023-24 reflects only a modest number of graduates of BS in CS programs approved in recent years by the Washington State Board of Community and Technical Colleges (SBCTC). In 2021, legislation passed authorizing CTCs to confer BS in CS degrees after such program applications are approved by the SBCTC. This state law, informally called the "Amazon bill," represented a major departure from the state's earlier legislation on community college bachelor's degrees that limited the bachelor's degrees awarded by CTCs to BAS degrees. For about two decades prior to 2021, Washington authorized CTCs to confer BAS degrees but never BS degrees. Since this law passed, the SBCTC has approved 16 CTCs (47% of the state's 34 CTCs) to confer BS in CS degrees, and the first BS in CS degrees are beginning to be conferred, with Bellevue College reporting 60 BS in CS graduates in 2024-25.

In addition to these CTC BS in CS graduates, it is also noteworthy that the three University of Washington campuses confer between 54% and 58% of all public university BS in CS degrees in the state, according to the Washington ERDC dashboard on public university degree production.

Moreover, the CTC associate degrees should not be overlooked in this analysis, as they comprised the single largest category of tech degrees from 2014-15 to 2023-24. Graduates of these associate degrees are foundational to the production of tech talent in Washington, since many of these graduates transfer to universities to complete their BS

degrees and/or move into the workforce in myriad tech-related occupations.

## Trends in Tech Hiring

Turning to tech hiring and employment, we analyzed Bureau of Labor Statistics (BLS) Standard Occupational Classification (SOC) code 15-0000 for computer and mathematical science employment from 2017 to 2024. These eight years include three years (2017-2019) prior to the Covid-19 pandemic that extended from March 2020 to May 2023 and for nearly two years post-pandemic (2023 and 2024).[2]

Figure 2 below shows growth in annual CS employment in Washington from 157,400 in 2017 to 213,200 in 2024 (an addition of 55,800 employees), with a dip in 2021 linked to the pandemic. These data show some fluctuation in CS employment from 2021 to 2024 but reflect an overall increase over the entire eight-year period. These results are important to understand relative to current concerns reported about tech jobs nationwide and in Washington in particular. To this point, the *New York Times* published an article in May 2025 that claimed new college graduates struggle to find jobs in tech occupations that had previously offered solid employment opportunities. Likening CS graduate job searches to "an A.I. job apocalypse," this article discussed research conducted by the Federal Reserve Bank of New York that shows an unemployment rate of 5.8% for new college graduates ages 22-27, slightly higher than 4.1% reported in April 2023.

Similarly, a study conducted by the Federal Reserve Bank of St. Louis linked the nation's rise in unemployment to the increasing pace of AI adoption. This study found computer and mathematical occupations (SOC 15-0000) and unemployment are strongly correlated, suggesting that "software developers, data analysts and other tech professionals are finding that AI tools can indeed accelerate certain tasks, but potentially at the cost of overall employment demand." Whereas this cautionary note is appreciated, correlational research does not measure causation. Plus, as noted previously in this brief, national trends do not necessarily translate into what's happening in Washington state. To this point, one CS expert we interviewed expressed concerns about the study's methods, suggesting these data do not align with the experiences of their new CS graduates.

However, concerns have been expressed about tech graduates in Washington, with a *Seattle Times* article claiming the "golden age" of tech workers is over. Compared to the BLS data, the Washington State Employment Security Department suggested tech jobs peaked at 144,300 in 2022 and fell to 127,800 in 2025, which is about the same level as January 2020 just prior to the pandemic. This trend may reflect more new graduates competing for fewer tech jobs, along with a reduction in internships that help prepare new graduates to enter the workforce job ready. One other point to reiterate here is that while tech-related programs of study produce a growing number of CTC and university graduates for jobs in Washington, many other people migrate to work in companies like Amazon and Microsoft that are recognized widely as global leaders in the tech industry. To this point, a 2023 CBRE study shows Seattle led all U.S. cities in the in-migration of new tech talent, at 15.1% of workers with 0-3 years of experience.

---

[2] Washington employment data are missing from the BLS database for 2016, so we did not look farther back than 2017, and BLS data for 2025 are not yet published.

***Figure 2. Estimate of Washington State Computer and Mathematical Sciences (SOC 15-0000) Employees from 2017 to 2024***
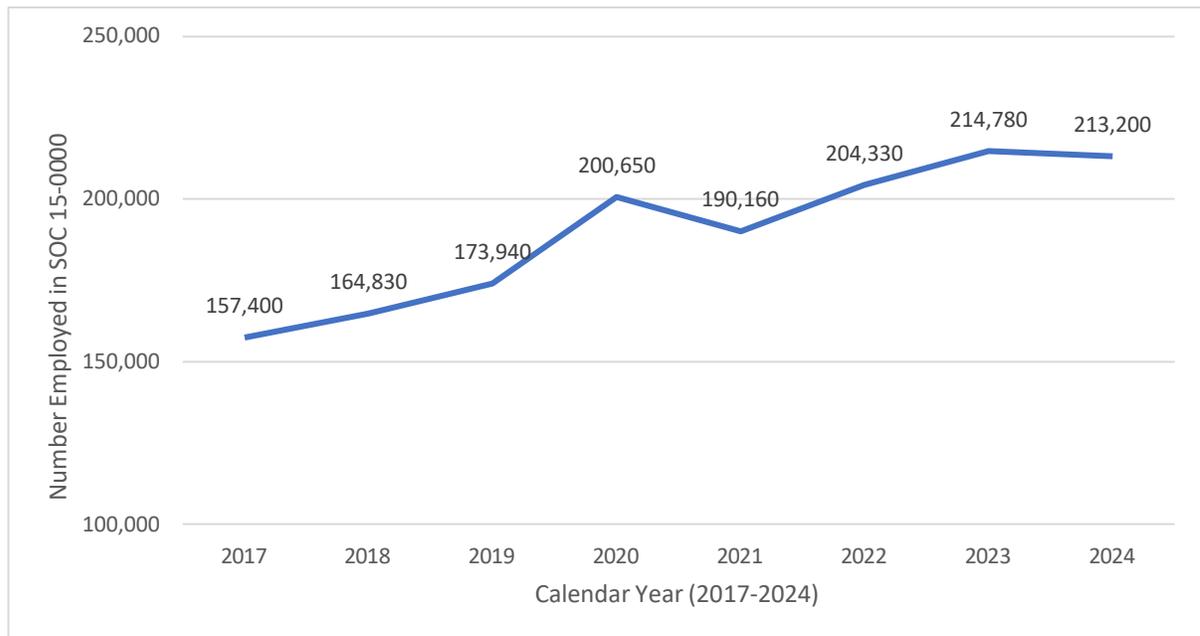


*Source:* Data appearing in this chart were drawn from the federal Bureau of Labor Statistics (BLS) on January 20, 2026.

Using the ERDC Earnings for Graduates *Dashboard* for years 2014 to 2023, Figure 3 shows the inflation-adjusted median annual earnings by year after graduation for Washington state associate and bachelor's degree tech completers. For the associate graduates, this dashboard reports inflation-adjusted median annual earnings rise from $57,900 at one year after graduation to $104,900 at 10 years after graduation. By comparison, the inflation-adjusted median annual earnings of bachelor's graduates increase from $95,100 at one year after graduation to $195,800 at 10 years after graduation. Over the 10 years studied, the inflation-adjusted median annual earnings of associate graduates increases by 81% compared to 106% for bachelor's graduates, suggesting a premium for the bachelor's degree.

These ERDC data help inform national results on the annual earnings of Washington tech workers shown in the 2025 CBRE report wherein Seattle is second only to the San Francisco Bay area on highest annual earnings for tech workers in the country. Assuming the projected decline by the *Seattle Times* in tech jobs for new graduates is real, we would expect to see the annual earnings of these workers fall due to an oversupply of tech graduates relative to job openings, but this isn't the case so far. As more annual earnings data become available, it will be important to monitor these trends as one indicator that Washington's tech workforce is softening.

Also informing this point, ZipRecruiter shows new CS graduates in the Seattle and Puget Sound region command some of the highest annual salaries in the country, at $126,107 compared to $111,343 nationwide. New CS graduates employed by major firms like Amazon, Google, and Microsoft secure starting packages as much as 30% to 50% higher than the national average.

*Figure 3. Inflation-Adjusted Median Annual Earnings for Washington Computer Science and Other Tech (CIP 11) Graduates from 1 to 10 Years After Graduation*
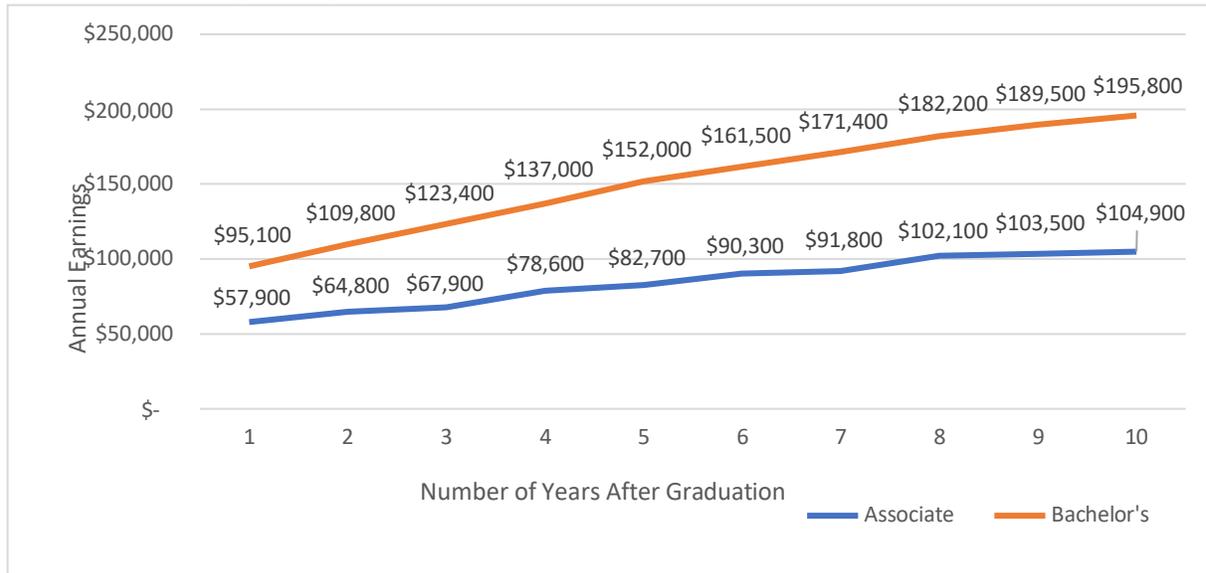


*Source:* Data for this figure were drawn from the Washington EDRC dashboard on January 18, 2026.

## Factors Influencing Tech Education and Hiring

In addition to the trend data, this section discusses major findings from interviews with 11 individuals, primarily from the Seattle area, who have considerable experience with tech education, hiring, and employment in Washington. We used a semi-structured interview protocol, with some customization of questions based on each interviewee's expertise. Having said that, all the interviews focused on gathering interviewee perspectives on recent developments in tech education, hiring, and employment, with an eye toward sharpening future research on the tech talent landscape in Washington state.

**Taking the Long View**
Our interviews with experts on trends in CS and tech-related hiring suggests the importance of taking the long view on hiring trends in tech. Fluctuation in hiring is a pervasive feature of engineering, technical, and scientific sectors, including CS, according to the National Academies of Sciences, Engineering, and Medicine. One interviewee with extensive CS experience emphasized this point, saying CS has seen peaks and valleys in hiring going back 50 years or more. After each valley, the next peak is even larger than the last, such that growth persists over the long run. Questioning the logic of examining short-term trends, this interviewee recommended looking at CS and other tech-related fields over time to understand more fully how economic and employment changes in state and regional economies contribute to what's happening.

Several other interviewees referenced taking the long view on hiring trends as they relate to AI. These people questioned current and bold claims that AI will replace entry-level CS employees on a large scale. To this point, an interviewee estimated a 15% increase in efficiency for programmers using AI, but they didn't see this increase as cause for

6

alarm. This individual asserted similar productivity changes have occurred when jobs in technical fields have integrated new tools in the past. Another interviewee responded to this question about AI replacing entry-level jobs by citing a study his company helped conduct where software engineers perceived that the integration of AI would increase their productivity by 15% to 30%, but in fact, the research showed software engineers using AI were *less productive* than non-AI users. With more time, the tech sector will gain more experience with AI, with implications for how entry-, mid-, and senior-level jobs will be structured. Understanding these changes is critical to shaping the future postsecondary education programs of study.

**Shift to More Experienced Tech Talent**
Several interviewees reported seeing an increase in demand for more experienced workers (estimated at 5-7 years of work experience). Building on the previous discussion of AI and tech worker productivity, one commonly held view of the interviewees is that tech workers with more experience may be better prepared than entry-level workers to manage product development cycles, scrutinize AI-produced code, and provide higher-level human skills (e.g., project management, communications, human relations) that AI cannot provide. If this is true, it has implications for the education of new graduates who will eventually be needed.

In the Seattle context, a few interviewees thought more experienced workers may be sought simply because recent tech layoffs have made these more experienced workers available in the labor market. If this is true, new graduate hiring should pick up when the pool of more experienced workers available due to layoffs is no longer available and to replace experienced workers who are promoted to senior positions and eventually retire from the labor force.

**Complications from AI Use in Hiring**
Several interviewees shared additional thoughts on the impact of AI on the tech labor force. For example, some interviewees observed the increased use of AI in the hiring process may be discouraging new tech job seekers. Since the pandemic, the hiring process has moved heavily online, with graduates using AI to identify and apply for positions. As a result, jobseekers can apply for many more positions than before and in a relatively short amount of time. To respond to this, employers use AI to filter applicants and make decisions about who to interview and hire, which may contribute to applicant frustration. Further complicating the process, one interviewee with extensive knowledge of tech hiring of new CS graduates in Washington suggested that it takes 35 applications to get an interview and five to six interviews to get a job, which he estimated to be about double the number of applications and interviews required to get a job compared to only a few years ago. Knowing the large volume of applications that employers receive, along with knowing that many more applications are required than in the past to snag a job interview and ultimately land a job, some graduates may be disillusioned with the hiring process.

**Tech Hiring in the Aerospace Sector**
Whereas most of our interviews were conducted with individuals working in higher education institutions and firms in the Seattle/Puget Sound tech ecosystem, we conducted two interviews with employees in the aerospace sector. Important to this sector, the acceptance of AI seems to be lagging due to the regulatory environment. In this case, the AI skills new graduates bring to the workplace supplement the knowledge and experience of the existing workforce. As a result, this interviewee's company has

keen interest in new graduates' knowledge of how to apply AI to technical problems. This interviewee also noted that another factor affecting the aerospace industry is the regulatory environment that requires ABET-accredited workers in some parts of the business, which may have implications for some CS graduates.

Another interviewee who works in a large firm that develops high-tech products reported that a push for AI has reduced the number of new hires. In this company, upper management is pushing AI to try to increase employee productivity and reduce product development costs. This interviewee thought the company was seeing some productivity improvements from AI in some special cases, but they did not believe AI would take over entry-level jobs. They noted this company likes to hire from its own pool of internship students (where admittedly, the number of interns has declined). They also suggested that this company may return to an earlier hiring practice of recruiting from a short list of elite schools, including recruiting graduate-degree candidates, something we heard from several other interviewees as well. The interviewee suggested this shift is focusing on hiring software expertise, as well as automation, controls, hardware, and other more traditional engineering skills.

**New Graduate Expectations and Interest in Tech Jobs**
Some interviewees speculated that, faced with the possibility of taking a job with a second- or third-choice firm, some new graduates may be less willing to take a tech job at all. Following the impact of Covid-19, some interviewees reported some graduates may feel exhausted and discouraged about their job prospects. Graduates may also perceive reduced hiring prospects due to the rise in AI, whether AI will play a role in their employment or not. Moreover, several interviewees thought new graduates may think the job market is worse than perhaps it actually is, speculating that the role of social media may discourage applications. One interviewee referred to this as a "false sense of panic." Through social media, new graduates may form negative opinions about their likelihood of finding employment even though employment trends are still favorable overall. Finally, some interviewees pointed out that many of today's college students began their education when the tech sector was growing, with high paying "dream jobs" in preferred locations. Several interviewees thought positions are still available to new graduates who are willing to look beyond the "Big 5 tech firms," with good job opportunities in small- and mid-sized tech firms, as well as non-tech firms like Costco and Nordstrom. Whereas these types of jobs may not be the "dream job" some graduates aspired to attain, they may offer opportunities to start and build a tech career.

## Next Steps for the Study

While this study makes substantial progress toward understanding the tech education, hiring, and employment ecosystem in Washington, we recognize the need to go deeper. Many questions remain unanswered about how CTC graduates with tech-related degrees fare in the tech labor market, and even more need to be answered about the future. However, this research has begun to provide an evidence-based assessment of what's happening in the field. Additional data gathered from state, regional, and federal sources can provide an even clearer picture of the tech sector in Washington.

We offer the following considerations to guide our next steps:

1. The 11 interviewees provided extensive, valuable information to understand tech trends in Washington, but knowledge gaps exist. To address these gaps, we recommend conducting more interviews with small- and medium-size tech firms and with employees of medium-to large non-tech firms like Costco, Nordstrom, State Farm, and others. Two interviewees provided insights into the non-tech firm employment picture in the state, but we need to recruit more employers who represent the types of companies where CTC graduates may find promising employment opportunities. We also need to interview CTC graduates who are looking for tech positions across Washington. More than one interviewee mentioned that CTC bachelor's degree graduates not having the brand name of a well-known university on their resume may hinder their chances of being selected for an interview by recruiters. Future interviews should also investigate if and how CTC bachelor's graduates can overcome this barrier.

2. We also recognize the need to delve more deeply into interviews with individuals from regions of Washington beyond the Seattle and Puget Sound region. While undertaking interviews with individuals located in these areas has helped lay a good foundation for the rest of the study, we recognize the need to expand. One strategy we intend to pursue is reaching out to CTC campus leaders who are well positioned to help identify regional employers who hire their tech graduates or who may be seeking new employees. Finding employers in communities in central and eastern Washington to discuss tech hiring needs has important implications for CTC associate and bachelor's degree education.

3. Although not included in the analysis of this report, several of our interviewees provided thoughts on educational processes used to prepare tech graduates, offering ideas for improvement. Many thought CS training in AI should include learning how to use generative AI to improve their own productivity. Most also thought students should learn practical workplace skills, and they suggested some ways this should be done. They noted that various forms of work-based learning, including internships, used to be widely available but have declined in recent years. To address this problem, some interviewees thought colleges and universities should offer more capstone courses that encourage students to tackle complex, real-world problems in team environments that closely simulate tech workplaces. These findings are very preliminary but important to recognize, as the next phase of our research delves more deeply into CS and tech-related curriculum offered by CTCs.

4. Our future research briefs will examine current tech-related CTC programs at the associate and bachelor's levels. Our methods to conduct such studies will involve a systematic review of the Washington CTC curriculum at the associate and bachelor's degree levels, followed by a review by CS and other tech-related experts. Our final report scheduled for the end of September 2026 will synthesize all results from this year-long research into lessons learned and recommendations for the CTCs in Washington.

5. Finally, these research findings need to be compared and connected to findings from the quantitative study of CIP-11 graduates of Washington's CTCs being conducted by Dr. Elizabeth Meza at the University of Washington. Her study using student-level data provides the opportunity to delve more deeply into factors that

may help explain tech education, hiring, and employment linked to all 34 CTCs across the state of Washington.

## About the Authors

**Michael B. Bragg, Ph.D.,** is Vice President of Bragg & Associates, Inc. and former Frank & Julie Jungers Dean of the College of Engineering at the University of Washington (UW). Dr. Bragg also worked nearly 40 years as aerospace faculty at UW, University of Illinois Urbana-Champaign (UIUC), and The Ohio State University.

**Debra D. Bragg, Ph.D.,** is President of Bragg & Associates, Inc., and Gutgsell endowed professor emerita of educational policy, organization, and leadership at UIUC. Dr. Bragg is also the founding director of the Office of Community College Research and Leadership at UIUC, and Community College Research Initiatives at UW.

## Recommended citation

Bragg, M. B. and 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.