University of Washington Computer Science & Engineering: Expanding to Prepare More of Washington’s Students for Washington’s Leading-edge Jobs

Washington’s information and communications technology industry is a job-creation powerhouse that drives our state economy:

- The 8,610 ICT companies that call Washington home directly employ 176,600 people in our state.
- Another 62,300 people are employed in ICT-related positions in other Washington industries.
- Washington is the software capital of America, with more software developers employed in the Puget Sound region than in Silicon Valley, San Francisco, or Boston.

No other program comes close to the contribution of UW CSE in preparing Washington’s students for Washington’s ICT jobs:

- More than 3/4ths of our students are Washington residents.
- 90% of UW graduates in the past two years now working under the title “software engineer” are employed in Washington State.
- We are the top supplier in the state by far of computer science graduates to Washington’s leading-edge companies of all sizes.

Washington’s largest workforce gap and greatest need for additional degree capacity is in computer science:

- The state’s own projections indicate that the gap in computer science is greater than the next three most in-demand fields, combined.
- Nationally, 71% of all newly created jobs in all science and engineering fields in the current decade are projected to be in computer science.
- 57% of all available science and engineering jobs, whether due to growth or retirement, are projected to be in computer science.
Washington’s students recognize the opportunity! But student demand far exceeds our current capacity:

- UW CSE can only accommodate 1/3rd of qualified UW students who apply to the major.
- We expect to enroll 5,000 students in our introductory courses this year – double the number we taught a decade ago.
- Our move into Paul G. Allen Center for Computer Science & Engineering – funded by an unprecedented public/private partnership – was transformational, enabling us to increase student enrollment, grow our world-class faculty, triple our research funding, and engage in high-impact collaborations across campus and in our community.
- After 11 years of growth and impact, the Allen Center is filled to overflowing.

Expanding our capacity to meet the needs of Washington’s students, Washington’s employers, and Washington’s economy:

- With legislative support, we have significantly increased student access to our program to reach 300 degrees per year.
- Additional growth (to 375 degrees per year) has been funded, and can be "squeezed in," but the Allen Center does not have sufficient capacity for the long term.
- The Governor’s capital budget requests $40 million to partially fund a second building for UW CSE - with the remainder of the project cost, estimated by UW at $105 million, to be raised privately.
- We hope for further enrollment growth: A bipartisan group of state legislators will request funding in this session to grow computer science enrollments at UW, WSU, and WWU - increasing UW CSE’s degree production to 600 degrees per year.
- Employer demand will continue to grow, thanks to our vibrant technology industry and the broad role of information technology in our modern world.
- Student interest will continue to grow, thanks to Code.org and HB 1813, which will dramatically increase the exposure of Washington’s K-12 students to this phenomenal field.

Computer science and computer engineering are changing the world. UW CSE and Washington State can drive this revolution.