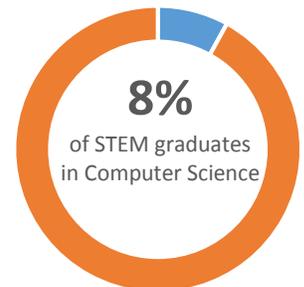
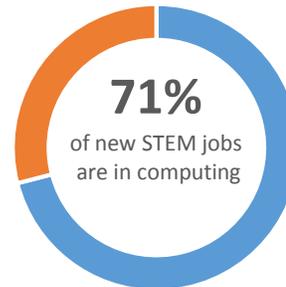




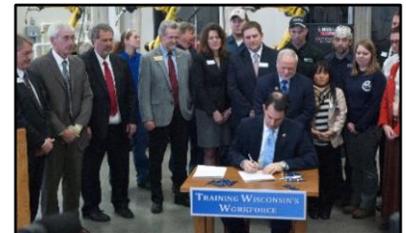
# K-12 COMPUTER SCIENCE EDUCATION IN WISCONSIN

**BUSINESS NEEDS.** Computer science drives job growth and innovation throughout our economy and society. Computing occupations make up two-thirds of all projected new jobs in STEM fields<sup>1</sup>, making computer science one of the most in-demand college degrees. Demand for computing jobs in Wisconsin is more than three times the average demand rate for other jobs. Average computer sciences salaries (\$76,000)<sup>2</sup> is almost double the average salary (\$42K)<sup>3</sup> in Wisconsin.



## What has Wisconsin done to improve computer science education?

- ✓ **Wisconsin Act 63 (enacted December 2013)** gave local school boards the flexibility to count one qualifying computer science course as a math credit needed for graduation.
- ✓ **Wisconsin Department of Public Instruction (DPI) created certification pathways for computer science teachers.**<sup>4</sup>



## Still more to do...

**EDUCATION NEEDS.** Computing is used all around us and in virtually every field. All students need a foundational knowledge in computer science. We need to offer formal coursework and integrate computer science into K-12 learning opportunities. Fewer AP exams are taken in computer science than in any other STEM subject area. With the DPI Guidance for Computer Science Licensure, teachers are better prepared to teach computer science courses. However, there are still inconsistencies in which computer science courses qualify as a graduation math credit. These inconsistencies could be eliminated by adopting K-12 computer science academic standards.

## And...

### We need to improve access for all students, including groups who have traditionally been underrepresented.

- Fewer than 1 in 5 Wisconsin high school students who took the AP Computer Science exam were students of color.
- Only 1 in 10 Wisconsin high school students who took the AP Computer Science exam were female.

## What more can Wisconsin do to improve computer science education?

- Develop rigorous computer science academic standards available across grades K-12
- Fund computer science professional development and course support
- Assist institutions of higher education (IHE) to start offering computer science courses to pre-service teachers
- Create positions in state and local education agencies (LEA) dedicated to computer science
- Work with admission requirements at IHEs to allow computer science to count as a mathematics or science credit parallel to Act 63

<sup>1</sup> <http://dpeaflcio.org/programs-publications/issue-fact-sheets/the-stem-workforce-an-occupational-overview/>

<sup>2</sup> <http://salarybystate.org/computer-internet/computer-science-salary-by-state>

<sup>3</sup> [http://www.bls.gov/regions/midwest/news-release/countyemploymentandwages\\_wisconsin.htm#ro5qcw-wisconsin.f.1](http://www.bls.gov/regions/midwest/news-release/countyemploymentandwages_wisconsin.htm#ro5qcw-wisconsin.f.1)

<sup>4</sup> <http://dpi.wi.gov/sites/default/files/imce/tepd/pdf/Computer-Science-Guidance.pdf>