The rapid pace of technological advancement, as seen with the widespread integration of generative artificial intelligence (AI), underscores the need for foundational knowledge in computer science for all students. This report calls upon advocates to embrace the urgency of this matter and revamp school curricula to align with the demands of the 21st century, including requiring that all students learn computer science.

Currently, 57.5% of public high schools in the United States (U.S.) offer a foundational computer science class—an achievement marking the largest percentage growth in the last five years. Across the 35 states* where data is available, 5.8% of high school students are enrolled in foundational computer science. Even with growing access this growth, large disparities still exist, and we must continue to focus on eliminating participation gaps.

*AL, AR, AZ, CT, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, MS, NC, ND, NE, NJ, NM, NV, NY, OK, OR, PA, RI, TN, TX, UT, VA, VT, WV, WI

**Comparative Access to Computer Science Courses**

(percentage of high schools offering)

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage</th>
<th>State Plan</th>
<th>All HS Required to Offer CS</th>
<th>CS Required for Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho</td>
<td>38%</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>California</td>
<td>45%</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Washington</td>
<td>48%</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>Oregon</td>
<td>64%</td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Nevada</td>
<td>96%</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

**In 2023, WA averaged 10,857 open computing jobs each month**

**$134,654**

These jobs have an average salary of $134,654
## Ten Policies to Make Computer Science Foundational

1. Create a [statewide plan](#) for K-12 computer science
2. Define [computer science](#) and establish standards for K-12 computer science
3. Allocate funding for rigorous computer science teacher professional learning
4. Implement [clear certification pathways](#) for computer science teachers at elementary and secondary levels
5. Create university programs to encourage all preservice teachers to gain exposure to computer science
6. Establish [dedicated computer science](#) positions in a state education agency
7. Require that all schools offer computer science with appropriate implementation timelines
8. Allow computer science to count toward a core graduation requirement
9. Allow computer science to satisfy an admission requirement at higher education institutions
10. Require that all students take computer science to earn a high school diploma

### What Has Washington Done to Advance Computer Science Education?

Washington has funded computer science education since 2017, totaling over $26M after the 2023 legislative session.

The Washington State Office of Superintendent of Public Instruction adopted a state plan for expanding computer science in 2022.

### How Can Washington Increase Opportunities for Students?

Washington should adopt a graduation requirement for all high school students in computer science.

Washington should expand its data collection to include K-5 schools.
Percentage of Public High Schools Offering Foundational Computer Science

Access by School Year

<table>
<thead>
<tr>
<th>School Year</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-2018</td>
<td>33%</td>
</tr>
<tr>
<td>2018-2019</td>
<td>43%</td>
</tr>
<tr>
<td>2019-2020</td>
<td>49%</td>
</tr>
<tr>
<td>2020-2021</td>
<td>47%</td>
</tr>
<tr>
<td>2021-2022</td>
<td>48%</td>
</tr>
<tr>
<td>2022-2023</td>
<td>43%</td>
</tr>
</tbody>
</table>

Access by Geography*

<table>
<thead>
<tr>
<th>Geography</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>41%</td>
</tr>
<tr>
<td>Suburban</td>
<td>54%</td>
</tr>
<tr>
<td>Rural</td>
<td>48%</td>
</tr>
</tbody>
</table>

Access by School Size*

<table>
<thead>
<tr>
<th>School Size</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>35%</td>
</tr>
<tr>
<td>Medium</td>
<td>75%</td>
</tr>
<tr>
<td>Large</td>
<td>95%</td>
</tr>
</tbody>
</table>

*Data is from the most recent data school year 2022-2023

Participation in Foundational High School Computer Science by Student Demographics

5.0% of middle and high school students took foundational computer science in 2022-2023

30% of students who took foundational computer science were female

51% of middle schools** are teaching foundational computer science education. There were 32,388 students in middle school and high school that enrolled in CS.

Hispanic students are 1.4 times less likely to take foundational computer science than their white and Asian peers

K-12 Access and Participation in Computer Science

**77% of middle schools reported course offerings and among those schools 49% reported teaching foundational computer science
Percentage of Public High Schools Offering Foundational Computer Science Nationally

UNITED STATES

57.5% — National Percentage Offering

- AR: 99%
- MD: 99%
- NV: 96%
- AL: 95%
- SC: 94%
- IN: 91%
- CT: 84%
- IA: 84%
- MA: 83%
- NJ: 82%
- NH: 81%
- RI: 80%
- KY: 79%
- MS: 78%
- WV: 78%
- UT: 77%
- VT: 76%
- VA: 74%
- HI: 72%
- GA: 71%
- NC: 71%
- PA: 71%
- ME: 66%
- OK: 64%
- OR: 64%
- TN: 64%
- WV: 63%
- OH: 62%
- WI: 62%
- MI: 56%
- CO: 55%
- IL: 54%
- TX: 54%
- AK: 51%
- MO: 50%
- NE: 50%
- NM: 50%
- NY: 48%
- ND: 48%
- CA: 47%
- DC: 45%
- SD: 45%
- FL: 44%
- DE: 41%
- ID: 40%
- AZ: 38%
- KS: 36%
- LA: 36%
- MT: 35%
- MN: 28%

UNITED STATES

0% 20% 40% 60% 80% 100%