Google

Computer Science Learning: Closing the Gap Hispanic Students

Computer science (CS) education is critical in preparing students for the future. CS education not only gives students the skills they need to succeed in the workforce, but it also fosters critical thinking, creativity, and innovation. This summary highlights the state of CS education for **Hispanic students**, who make up nearly **one-quarter of the U.S. K-12 student population.**¹

Most likely to report learning CS in groups or clubs

Hispanic White Black



Least likely to use a computer at home at least most days of the week

■Hispanic ■White ■Black



Least likely to have an adult in their life who works with computers or other types of technology

■Hispanic ■White ■Black



Most interested in learning CS in the future

■Hispanic ■White ■Black



Hispanic parents want their children to learn some CS in the future

 $\blacksquare {\sf Hispanic} \ \blacksquare {\sf White} \ \blacksquare {\sf Black}$

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Findings

Hispanic students are interested in CS, but lack access to computers and adult role models who work with technology. Accordingly, Hispanic students have lower confidence in learning CS when compared to other racial/ethnic groups. We have found that Hispanic students:

Learning CS

• Learn CS outside the classroom at higher rates than White students. 41% who learned CS did so in a school group or club (vs. 18% of White and 34% of Black students). Across racial/ethnic groups, 80% of students who learned CS did so in a class at school, which demonstrates that CS classes have the greatest potential to benefit all groups equally.

Access and Exposure to CS and Technology

- Have lower computer usage. Only 50% of Hispanic students use a computer at home most days (vs. 68% of White and 58% of Black students), and only 31% say they use a computer at school every day (vs. 42% of White and 34% of Black students).
- Have high mobile usage. Over 72% of Hispanic students use a cellphone or tablet daily (vs. 74% of White and 81% of Black students), and 47% say they use their device for more than five hours on a typical day (vs. 27% of White and 52% of Black students).
- Are least likely to have adult CS role models. Just 49% of Hispanic students say an adult in their lives works with computers or technology (vs. 58% of White and 65% of Black students).

Interest and Confidence in CS

- Show high interest in CS. 35% of Hispanic students say they are "very interested" in learning CS (vs. 21% of White and 31% of Black students), and 38% say they are "very likely" to have a job requiring CS (vs. 26% of White and 30% of Black students).
- **Report lower confidence to learn CS.** Only 51% of Hispanic students say they are "very confident" they could learn CS (vs. 56% of White and 68% of Black students).
- Have parents who are enthusiastic about CS. 92% of Hispanic parents whose children haven't learned CS want their children to learn it (vs. 84% of White and 92% of Black parents), and 53% report their children are very likely to learn some CS (vs. 24% of White and 35% of Black parents).

Recommendations

- **Provide more exposure.** Give Hispanic students access to computers and adult role models, so they gain confidence to learn CS and pursue CS careers.
- **Go mobile.** Offer mobile-friendly learning opportunities that put CS education in the hands of Hispanic students.
- Leverage interest. Advocate for schools to provide CS coursework that taps into Hispanic students' and their parents' high interest in CS.

*Google commissioned Gallup to conduct a multi-year, comprehensive research effort to better understand computer science perceptions, access, and learning opportunities among underrepresented groups, such as girls, Black, and Hispanic students, in the United States. These results are from Year 2 of this study of U.S. students, parents, teachers, principals, and superintendents.

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Data Tables

The below data tables show summaries of responses from 1,672 7th–12th grade students and 1,677 parents of 7th–12th graders in the U.S., including 310 Hispanic students and 264 Hispanic parents, surveyed 2015–16. Sample sizes may vary by question. See **g.co/cseduresearch** for methodology in the full **Diversity in Computer Science: Exploring the Underrepresentation of Girls, Blacks and Hispanics** report coming soon.

Learning CS	Hispanic	White	Black
Have you ever learned computer science in ANY of the following ways? In a group or club at school (Asked only of students who have learned CS) (% yes)	41	18	34
Have you ever learned computer science in ANY of the following ways? In a class at school (Asked only of students who have learned CS) (% yes)	80	81	82
Access and Exposure to CS and Technology	Hispanic	White	Black
How often do you use a computer at your school? (% every school day)	31	42	34
In a typical week, how often do you use a computer at HOME? (% every day/most days)	26/24	45/23	30/28
In a typical week, how often do you use a cell phone or tablet? (% every day)	72	74	81
In a typical day, how many hours do you use a cell phone or tablet? (Asked only of students who use a cell phone or tablet every day) (% more than 5 hours)	47	27	52
Is there an adult in your life who works with computers or other types of technology? (% yes)	49	68	65
Interest and Confidence in CS	Hispanic	White	Black
How interested are you in learning computer science in the future? (% very interested/somewhat interested)	35/49	21/59	31/57
How likely are you to have a job someday where you would need to know some computer science? (% very likely/somewhat likely)	38/49	26/58	30/58
How confident are you that you could learn computer science if you wanted to? (% very confident/somewhat confident)	51/39	56/38	68/28
[Parents] Would you like your child to learn computer science in the future? (Asked only of those whose child has not learned CS) (% yes)	92	84	92
[Parents] How likely is it that your child will learn some computer science in the future? (Asked only of those whose child has not learned CS) (% very likely/somewhat likely)	53/33	24/55	35/47

