Encouragement: Pass it on!

NCWIT K-12 Alliance Member Huddle
12:00pm PST/3:00pm EST
Welcome

Jannie Fernandez
K12 Alliance Manager and
TECHNOLoChicas Program Manager

Leslie Aaronson
Strategic Director of K12 Initiatives

Jennifer Wang, Ph.D.
Program Manager engEDU. Google
Goals

• Get Connected
• Quarterly Huddles around themes to stay informed
• Learn from each other
• Highlight the work that you are doing
• Share useful tools/opportunities to all members
Expectations

• Take the lead!
• Ask questions
• Promote your work!
• Make Connections with each other
• Missed our last Huddle? Catch up [here](#)
Google-Gallup CS education research

NCWIT K-12 Huddle
3/8/18

Jennifer Wang
Google
g.co/cseduresearch
Year 2
2015-16
Who

1,672 students  7-12  (228 Black, 310 Hispanic)
1,677 parents  7-12  (197 Black, 264 Hispanic)
1,008 teachers  1-12
9,805 principals  K-12
2,307 superintendents  K-12

16,469 total
84% of parents say CS is at least as important as required classes like math, science, history, and English.

60% of administrators & teachers agree CS should be required when available.
Encouraging Students Toward Computer Science Learning
Students who have been told by a teacher or parent that they would be good at CS are:

- **2.5x - 3x** as likely to be interested in learning CS
- **1.5x** as likely to have learned CS
- **~2x** as likely to learn CS online, in a group outside school, and in a group/club at school
- **~1.3x** as likely to be confident in math and science

...compared to those not told the same

Encouraging Students Toward Computer Science Learning (2017)
g.co/cseduresearch
Students **encouraged** are more likely to be interested in learning CS, have learned CS, be confident in STEM.
Boys are more likely to have been encouraged and see people “like them” in CS
Between ages 12 and 14, girls lose interest while boys gain interest in learning CS.
The higher interest among Black/Hispanic students is boosted by **Black/Hispanic boys**

How interested are you in learning CS in the future? (% very interested)

- **Black**
  - Boys: 44%
  - Girls: 15%
- **Hispanic**
  - Boys: 45%
  - Girls: 21%
- **White**
  - Boys: 32%
  - Girls: 14%
Takeaways
- Support **parents** and **teachers** in encouraging **all** students
- Enable structural access for **Black** and **Hispanic** students
- Create solutions that overcome the intersecting social and structural challenges for **Black and Hispanic girls**
- Start early; interest begins to diverge at **age 12**
- ...
Thanks!

g.co/cseduresearch
RESOURCES: Encouragement

• How can Encouragement Increase Persistence in Computing

• Top 10 Ways Families Can Encourage Girls in Computing (in Spanish)

• Top 10 Ways of Recruiting High School Women into Your Computing Classes
Student Reflections

Ana H:
When I applied, I didn’t think my chances were great - I knew I needed to put all my experiences down in order to be considered. I was encouraged when I finally wrote it all down and saw that I actually had done a lot in the past two years.

Diana S:
My teacher told me to apply but I thought I was not as impressive compared to other candidates. However, the judges must have been impressed since I won the Aspirations in Computing in Southern California. I just talked about my school work in my Tech Academy class and I spoke about my interest in connecting business with computer science to help students grow and be exposed to technology.
YOUR TURN!

What examples do you have to share regarding encouragement to others?

What opportunities do you have that can be used to encourage others?
Save the Date

Thursday, June 14th, 2018
12:00pm PST / 3:00pm EST

Would you like to present?
https://tinyurl.com/NCWITk12
THANK YOU
See you in June!
Computer science can involve MANY types of activities. Today we are only going to focus on a specific type of computer science.

For the purposes of this survey, computer science is the study of how computers are designed and how to write step-by-step instructions to get them to do what you want them to do. This is sometimes referred to as computer programming or coding. Computer science includes things like creating software, applications, games, websites and electronics and managing large databases of information.

For the purposes of this survey, computer science does NOT include using a computer to do everyday things, such as browsing the Internet. Please keep this definition in mind as you answer the following questions.