national center for women & INFORMATION TECHNOLOGY

Encouragement: Pass it on!

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

Lifetime Partner:

Strategic Partners:

Investment Partners:

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

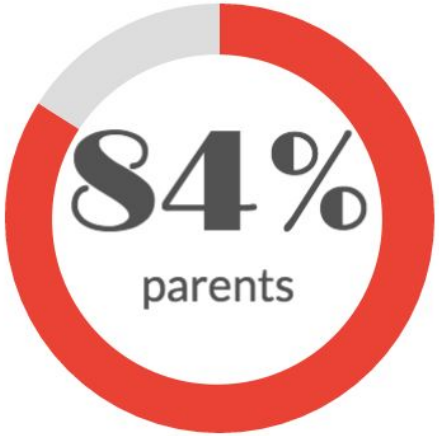
g.co/cseduresearch

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		



say CS is ***at least as important as*** required classes like math, science, history, and English

agree CS should be ***required*** when available

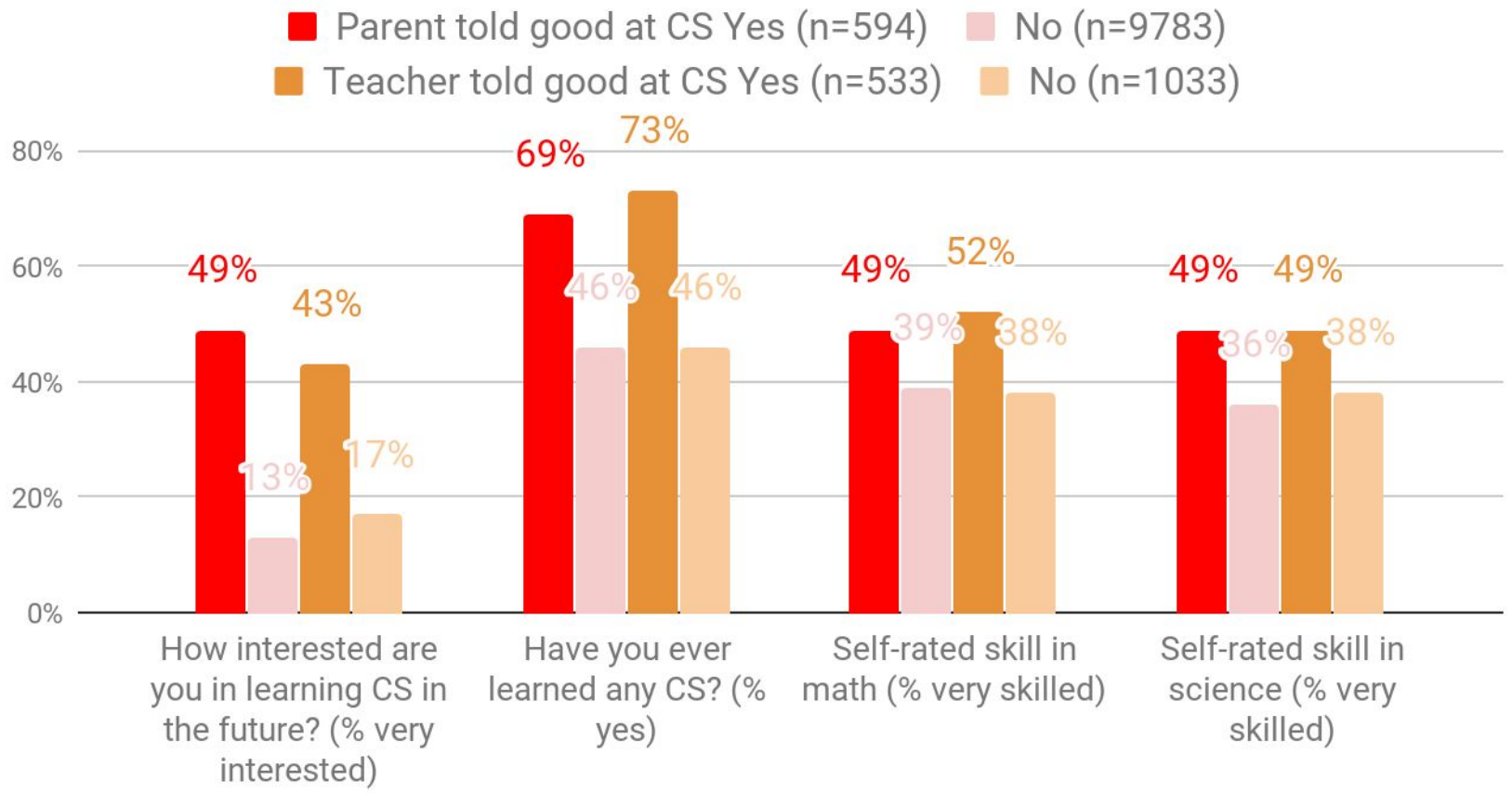
Encouraging Students Toward Computer Science Learning

Students who have been **told** by a **teacher or parent** that they would be **good at CS** are:

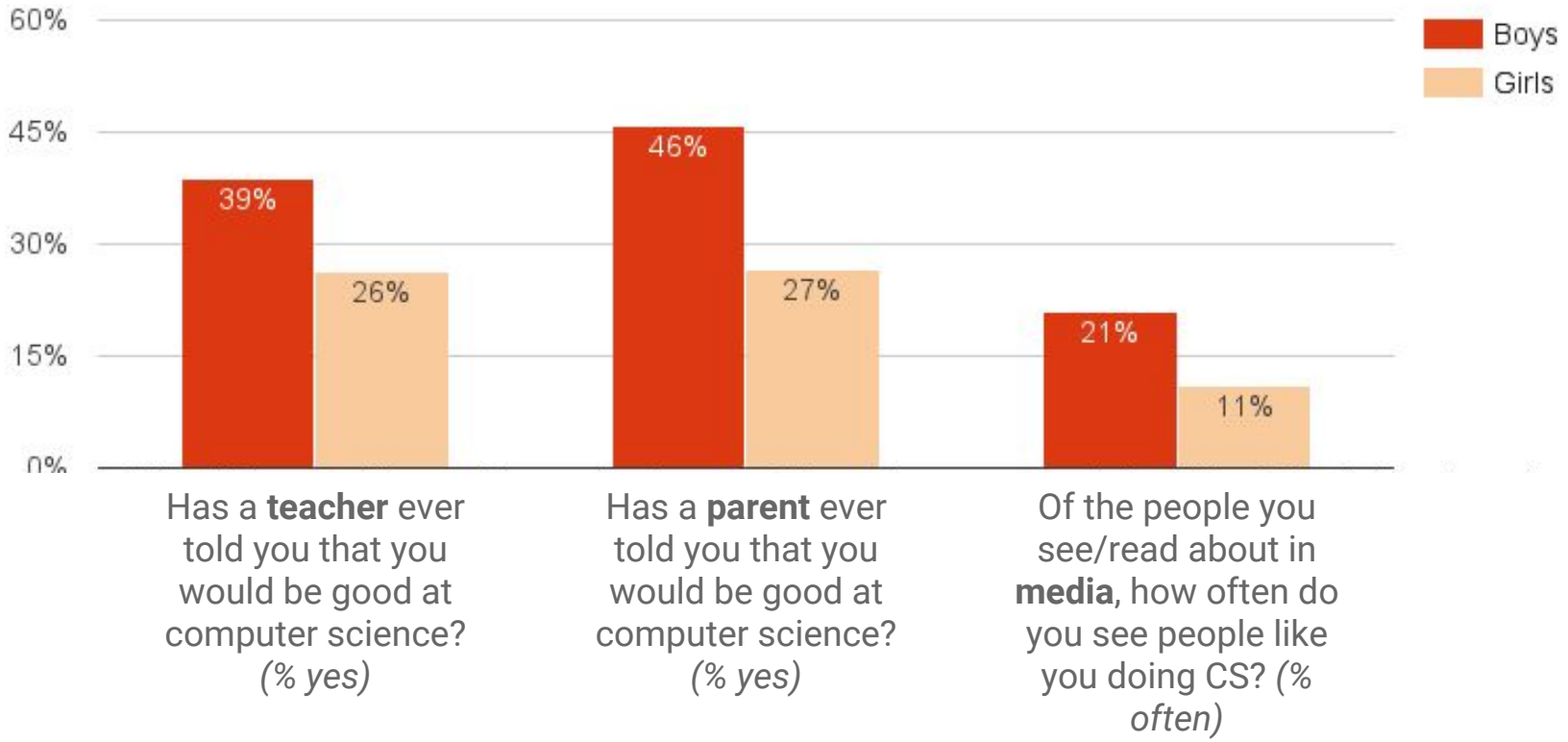
2.5x - 3x	as likely to be interested in learning CS
1.5x	as likely to have learned CS
~2x	as likely to learn CS online, in a group outside school, and in a group/club at school
~1.3x	as likely to be confident in math and science

...compared to those not told the same

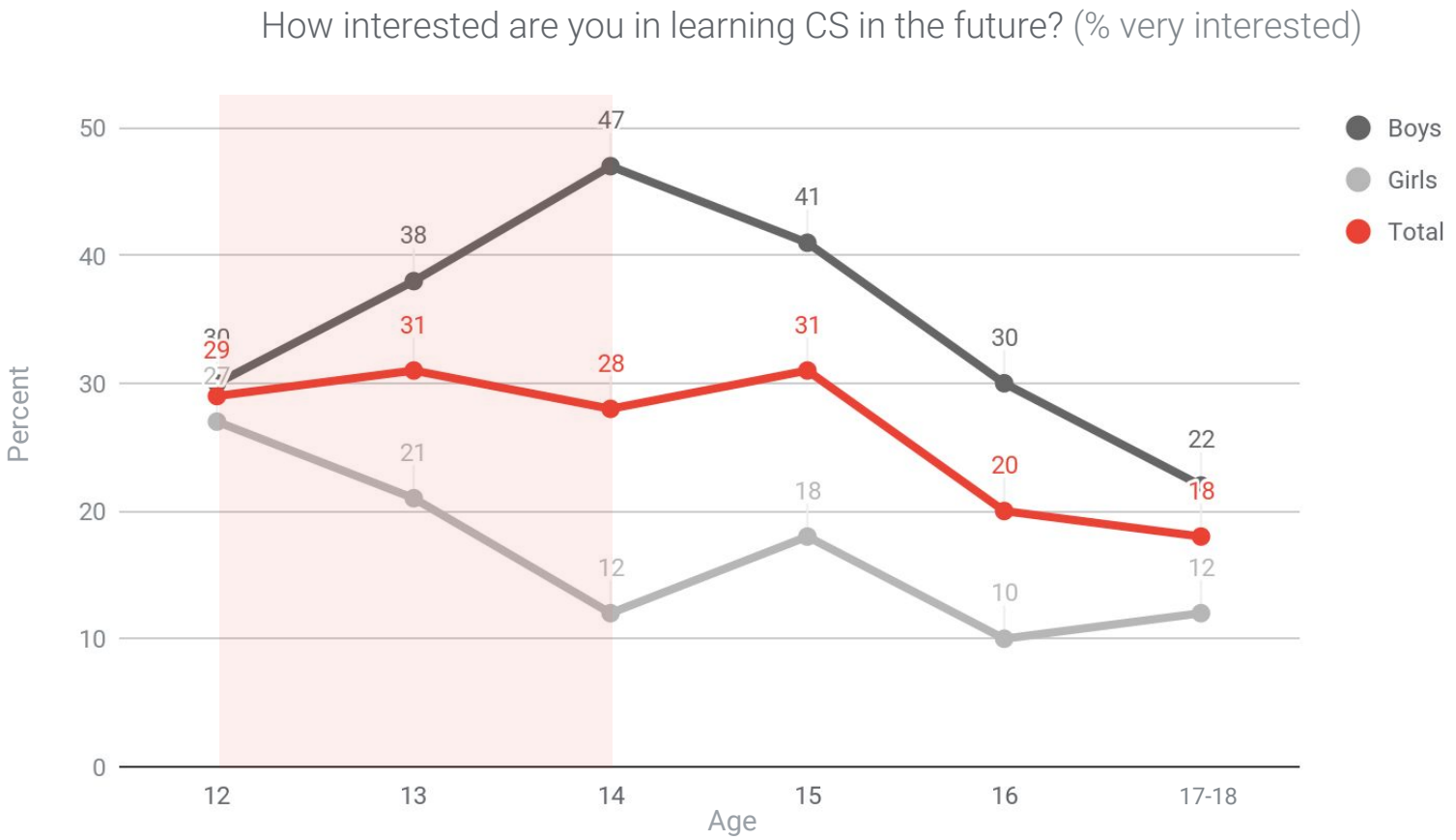
Students **encouraged** are more likely to be interested in learning CS, have learned CS, be confident in STEM



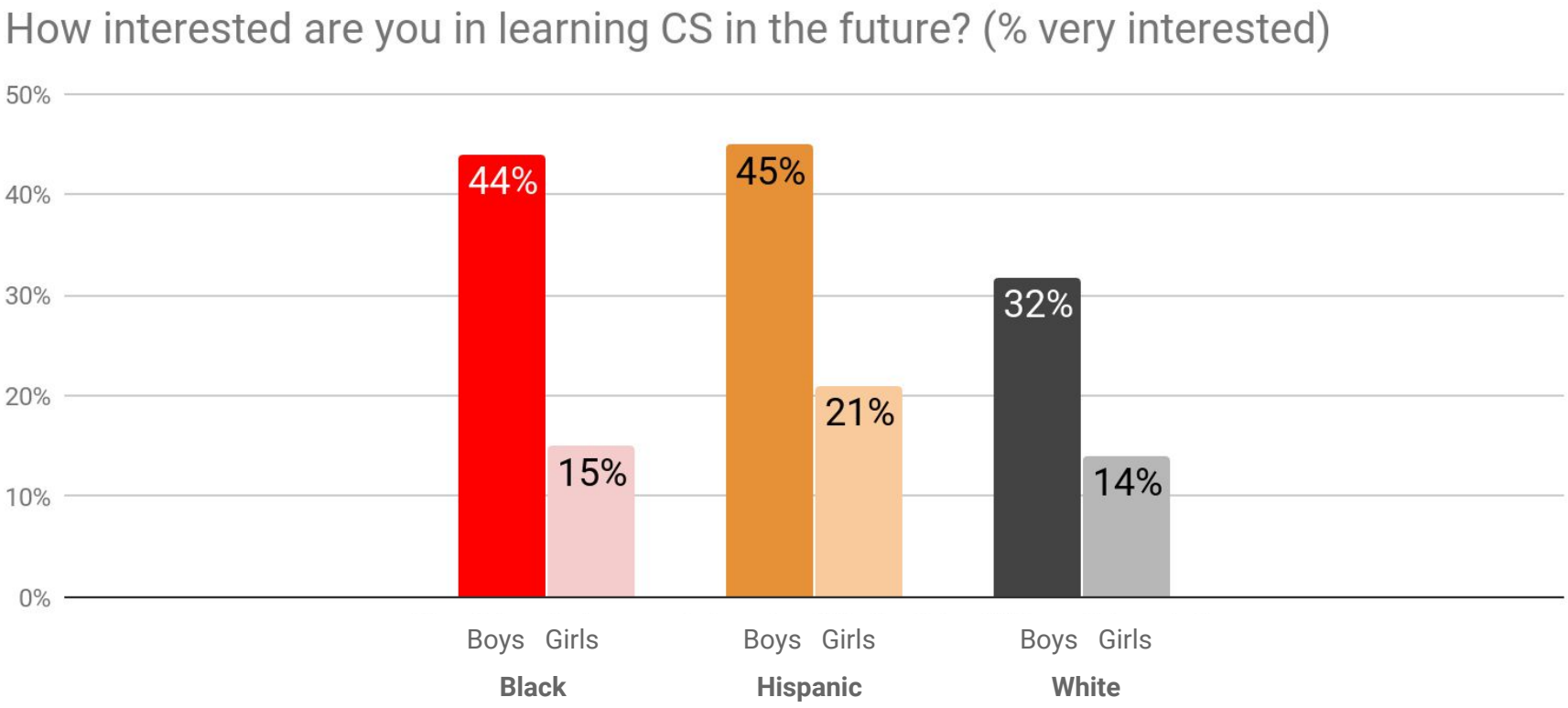
Boys are more likely to have been encouraged and see people “like them” in CS



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**



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!

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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 14t, 2018

12:00pm PST / 3:00pm EST

Would you like to present?
https://tinyurl.com/NCWITk12

national center for women & INFORMATION TECHNOLOGY

THANK YOU

See you in June!

Computer science defined on the survey

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.