

2013 CS4HS Teacher Workshop

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Google CS4HS

Introduction



Kosta Damevski



Hui Chen



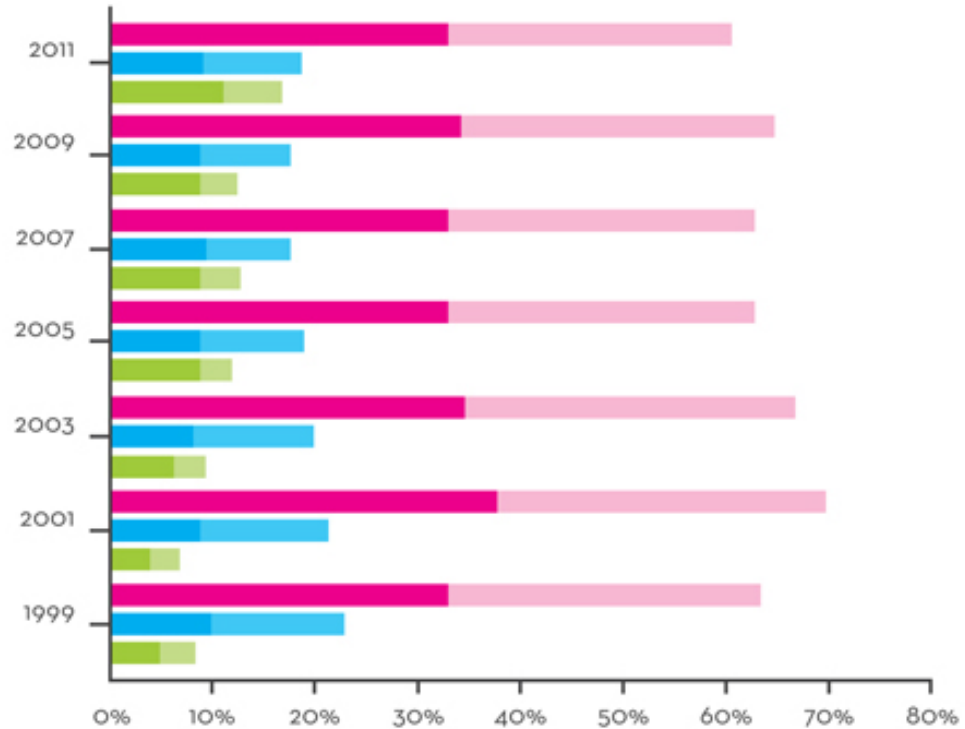
David Walter



Why are we here today?

F M COMPUTER LITERACY
F M COMPUTER PROGRAMMING
F M NONE
 F= FEMALE
 M= MALE

PERCENTAGE OF STUDENTS REPORTING COMPUTER COURSEWORK/EXPERIENCE IN HIGH SCHOOL, 1999-2011



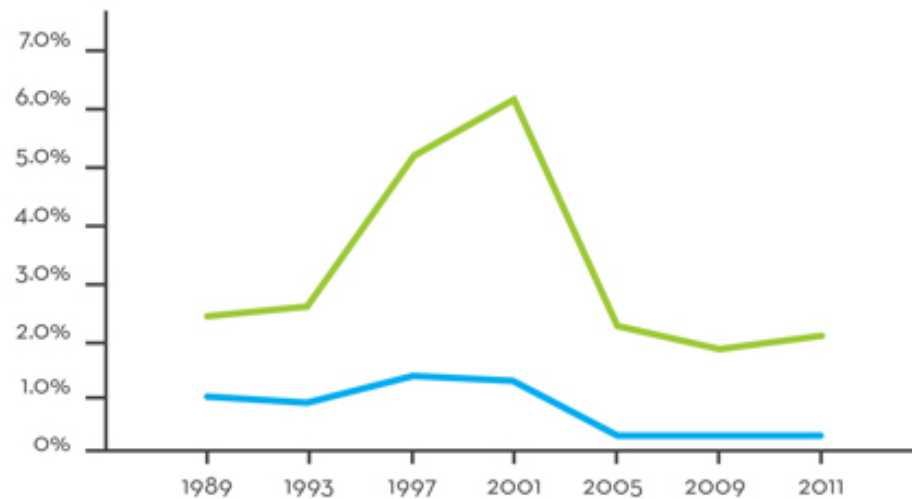
© NCWIT. Source: The College Board, Archived SAT Data and Reports, 1999-2011.

Source: www.ncwit.org

M MALE

F FEMALE

PERCENTAGE OF AMERICAN FRESHMEN INTENDING TO MAJOR IN COMPUTER SCIENCE: A LONGITUDINAL LOOK, 1989-2011

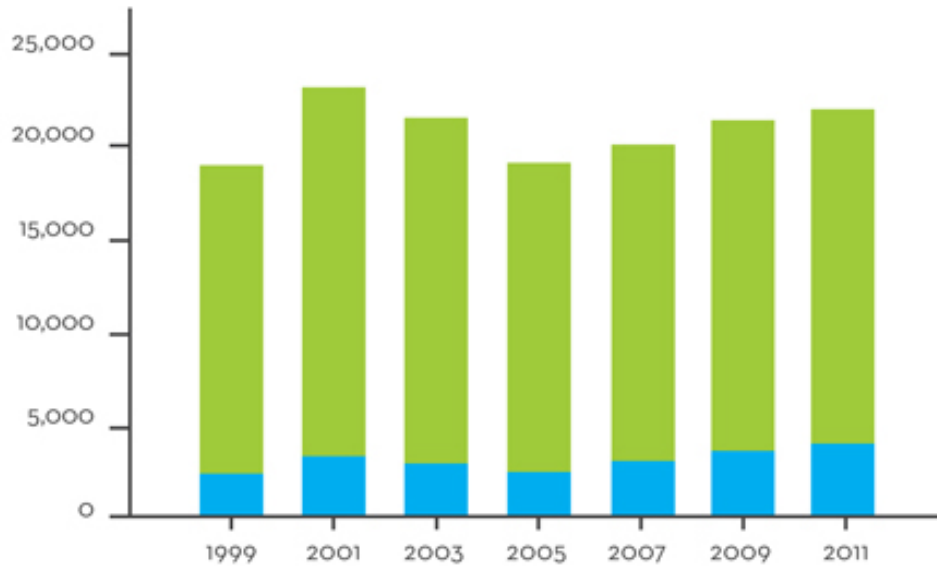


© NCWIT. Source: Higher Education Research Institute, *The American Freshman: Forty-Year Trends 1966-2006*; Higher Education Research Institute, *The American Freshman: National Norms Fall 2011*.

M MALE

F FEMALE

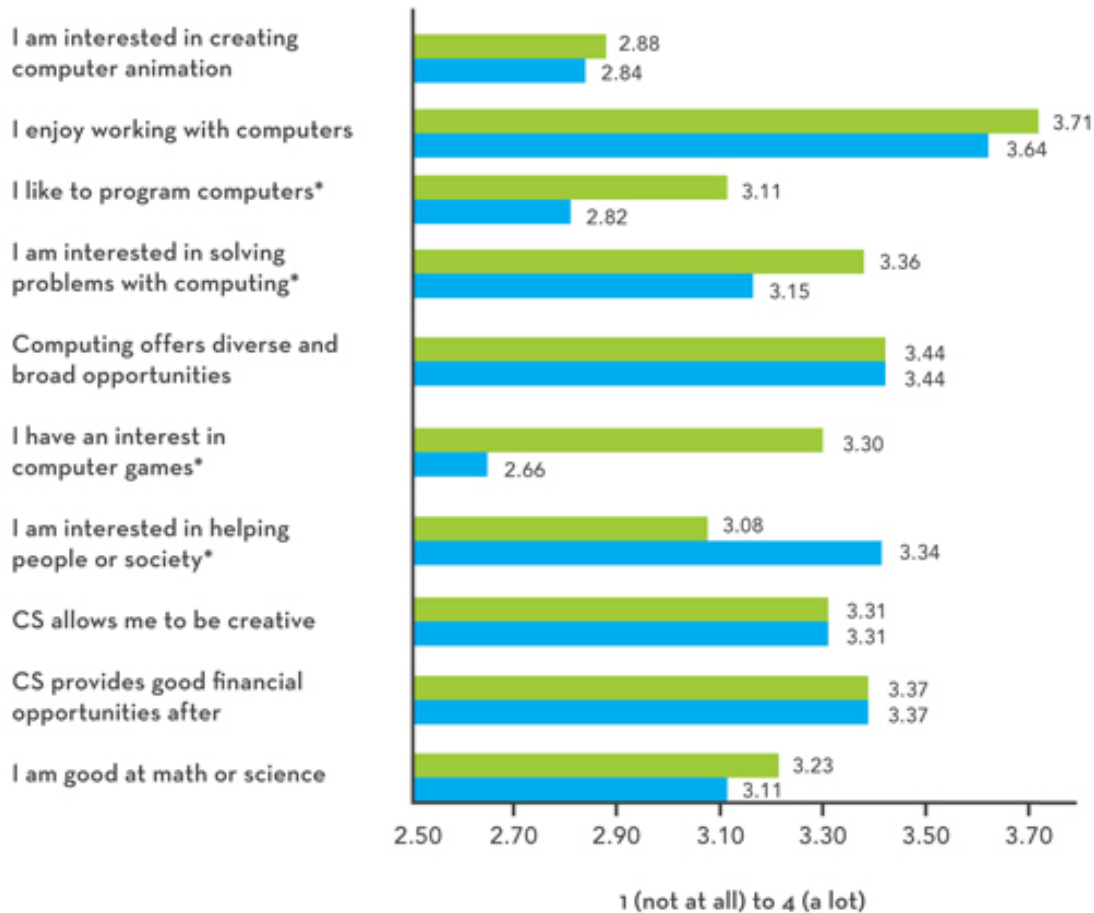
NUMBER OF ADVANCED PLACEMENT (AP) COMPUTER SCIENCE TEST-TAKERS BY GENDER, 1999-2011



© NCWIT. Source: The College Board, AP National Summaries, 1999-2011.

Source: www.ncwit.org

REASONS FOR CHOOSING A COMPUTING MAJOR, BY SEX



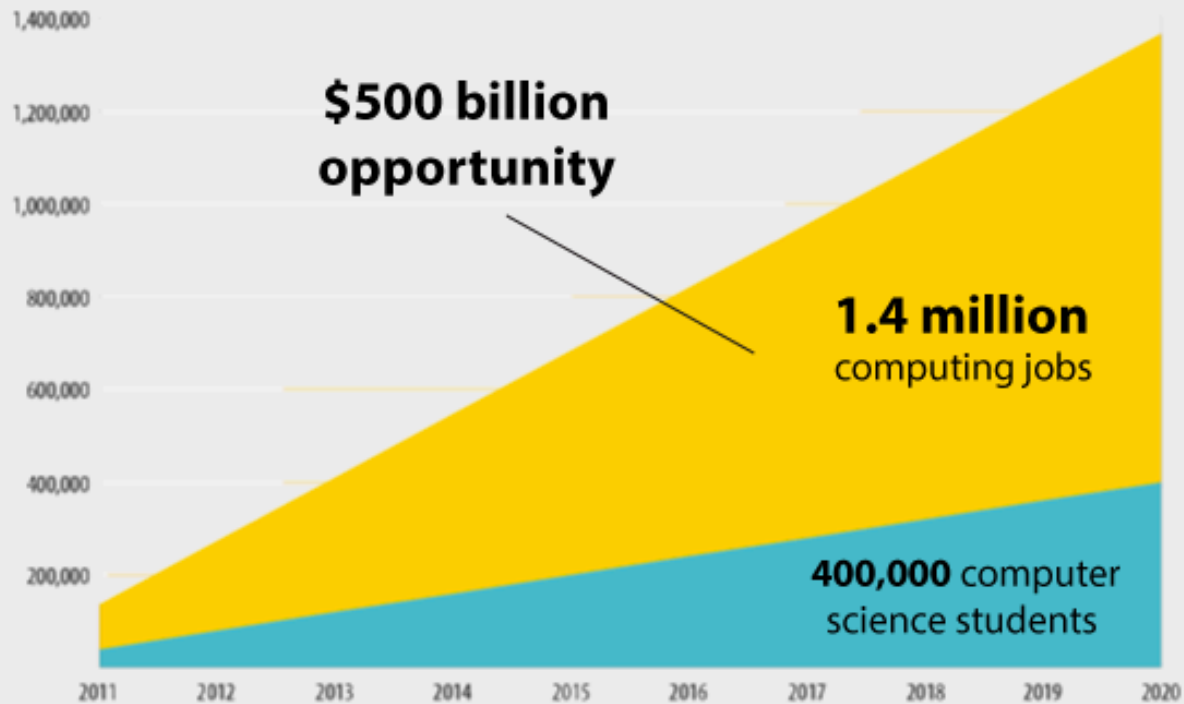
M MALE
F FEMALE

*Statistically significant ($p < .05$)

Guzdial et al., in press. Reprinted with authors' permission.

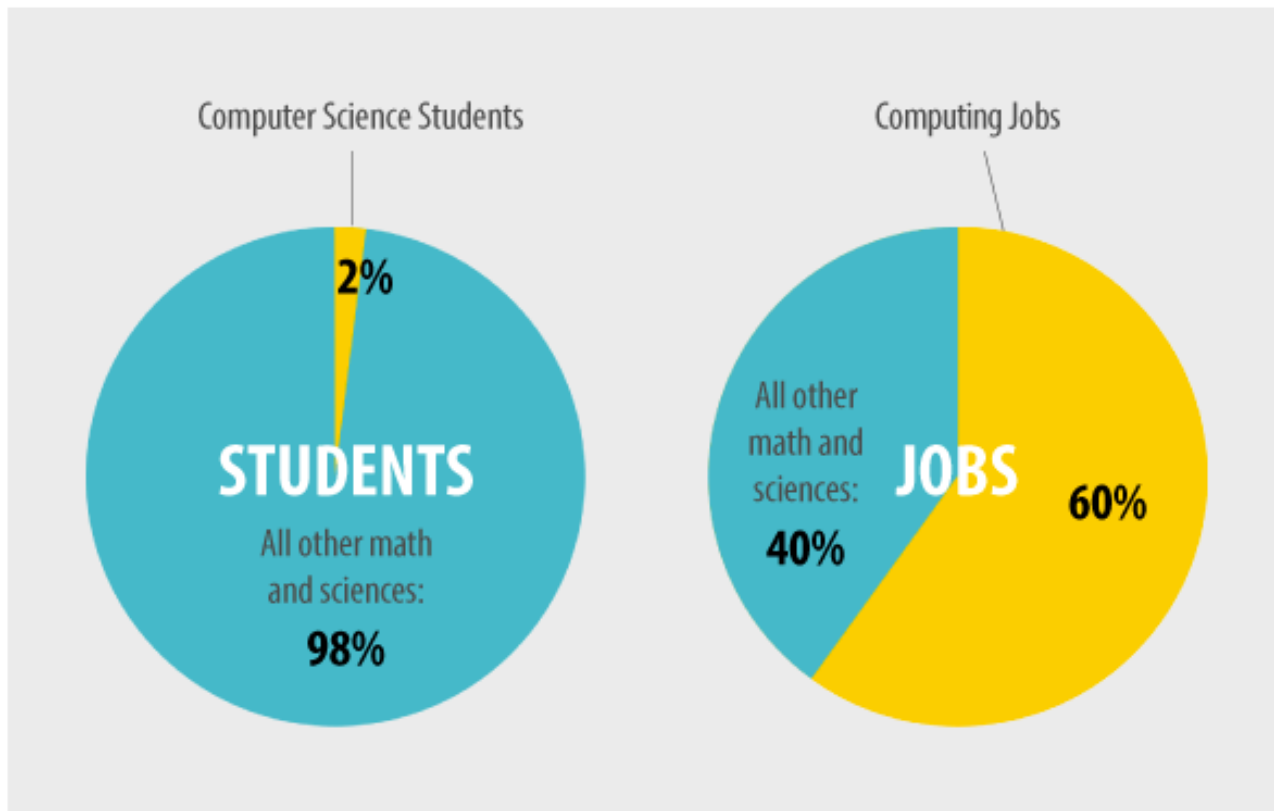
OPPORTUNITY

1,000,000 more jobs than students by 2020



Source: www.code.org

COMPUTER SCIENCE IS THE **HIGHEST PAID COLLEGE DEGREE** AND COMPUTER PROGRAMMING **JOBS ARE GROWING AT 2X THE NATIONAL AVERAGE.**



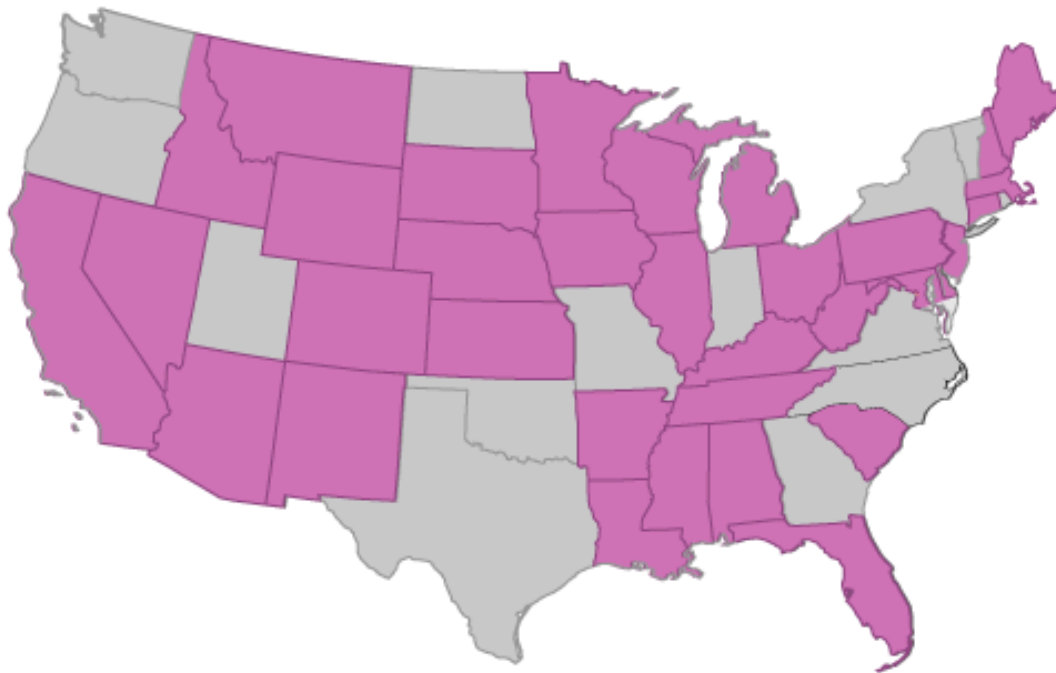
Source: www.code.org

LESS THAN 2.4% OF COLLEGE STUDENTS
GRADUATE WITH A DEGREE IN COMPUTER
SCIENCE... THAT'S FEWER THAN 10 YEARS AGO.

9 out of 10 schools
don't even offer computer
programming classes



IN 36 OF 50 STATES, CODING CLASSES DON'T
COUNT TOWARDS HIGH SCHOOL GRADUATION
MATH OR SCIENCE REQUIREMENTS.



Source: www.code.org

CS4HS

- Initiative sponsored by Google
- Goal is to promote Computer Science and Computational Thinking in high school and middle school curricula
- Provide support for 2-3 day workshops for local high school and middle school teachers





Workshop Goals

- Expose in-service high school teachers via hands-on experiences to resources that can be used in their classrooms for teaching computer science concepts.
- Excite teachers about computing by enabling them to utilize the Android platform in their instruction.
- Continue the development of ongoing relationships among regional STEM high school teachers and VSU faculty.

Workshop Schedule

- Today – Introduction to App Inventor to create Android applications
 - Dr. Hui Chen
- Tomorrow – Creating Android Applications using Java
 - Dr. Kosta Damevski