4 CLAIMS ABOUT STUDENTS ENTERING CS PROGRAMS

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1. Pre-college intent leads to degrees
HOW MANY STUDENTS EARN DEGREES IN CS?

Data from IPEDs, reflects all institution types
WHAT DID STUDENTS INTEND TO MAJOR IN?

Source: UCLA HERI Survey of First-Time Full-Time First-Year Students
2. Women’s interest has declined
LOSING STUDENTS PRIOR TO COLLEGE: FEMALE INTENTION TO MAJOR

Source: UCLA HERI
3. We lose students in college
What group is most interested in CS?

Intended Major in CS

Native American
Black
Hispanic
Asian
White

Male
Female

—HERI The First Year, 2012
LOSING STUDENTS DURING COLLEGE?

CS Intended Majors (2010) vs. Degrees (2014)

Source: HERI The First Year & IPEDS
4. Pre-college exposure to CS is changing
Pre-College CS experience was down

≧ 1 Year of Pre-College CS By Intended Major

—HERI The First Year
What’s Happening Now?

• Advanced Placement (AP) Computer Science A exam from 2006-2016
  • 4x exam takers
  • Pass rate remains similar

• 2015 Demographics
  • 22% female (55% of all exam takers)
  • 9% Hispanic (17%)
  • 4% African American (7%)
What HS courses will students take in the future?

Exploring Computer Science

AP CS Principles
EXPLORING COMPUTER SCIENCE & CS PRINCIPLES

• Inclusive
• Conceptually-based
• Engaging
• Accessible
• Rigorous
• Inspiring

• May 2017: 1st AP Computer Science Principles exam
  • 1,300 schools already plan to offer
  • Biggest launch in AP history
CS For All & Impact on College Departments?

Get engaging, rigorous computing curricula into computing courses in 10,000 high schools, taught by 10,000 well-prepared teachers by 2016.
Thoughts?

• Pre-college intentions strongly impacts pursuit of a CS major
• Different underrepresented groups have different challenges
• Students may have very different pre-college experiences in the near future

Thanks!
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THANKS!

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