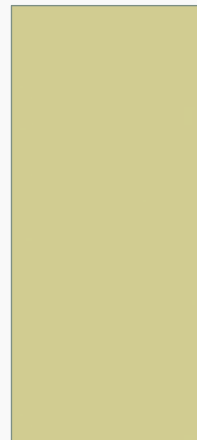


4 CLAIMS ABOUT STUDENTS ENTERING CS PROGRAMS

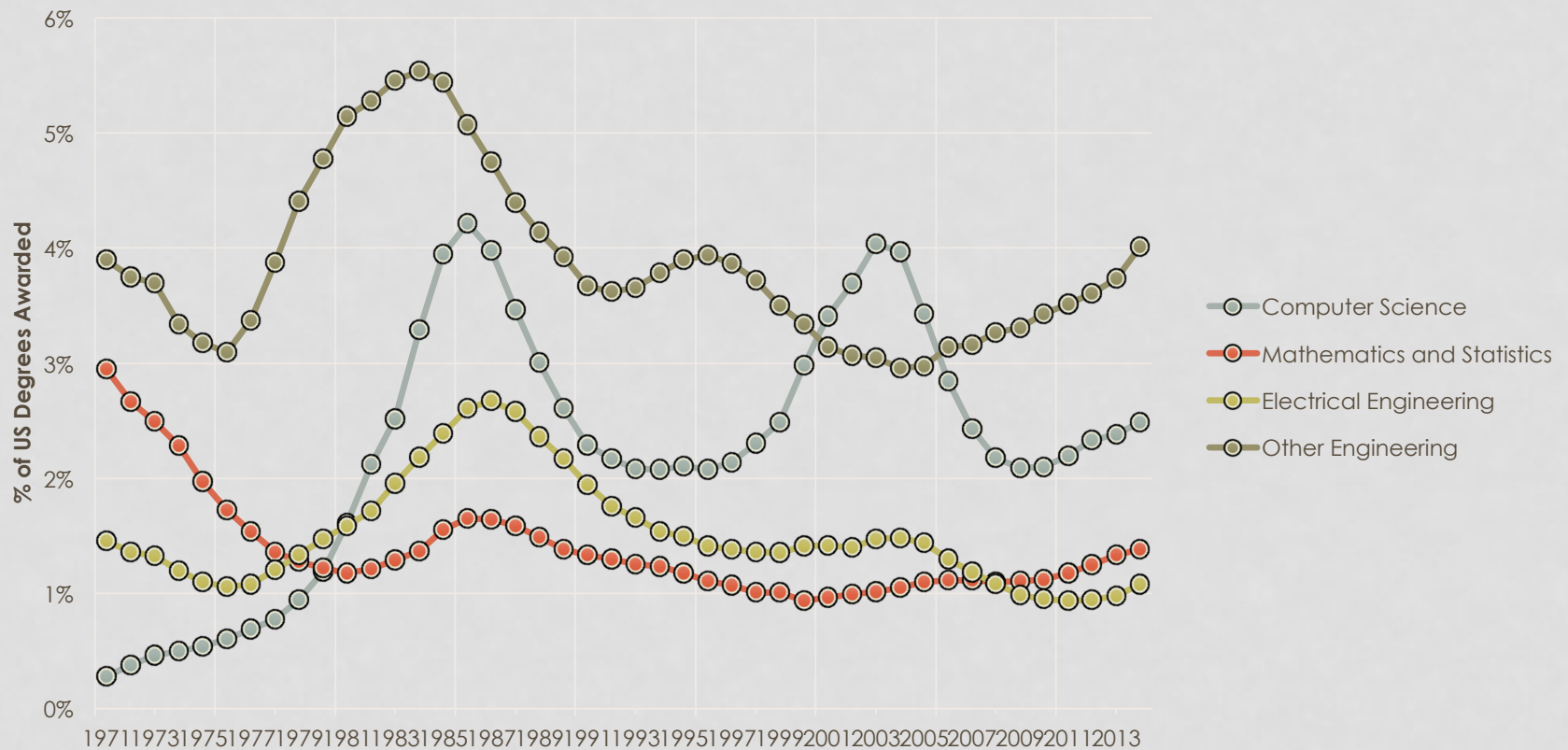
Jeff Forbes
Duke University



1. Pre-college intent leads to degrees

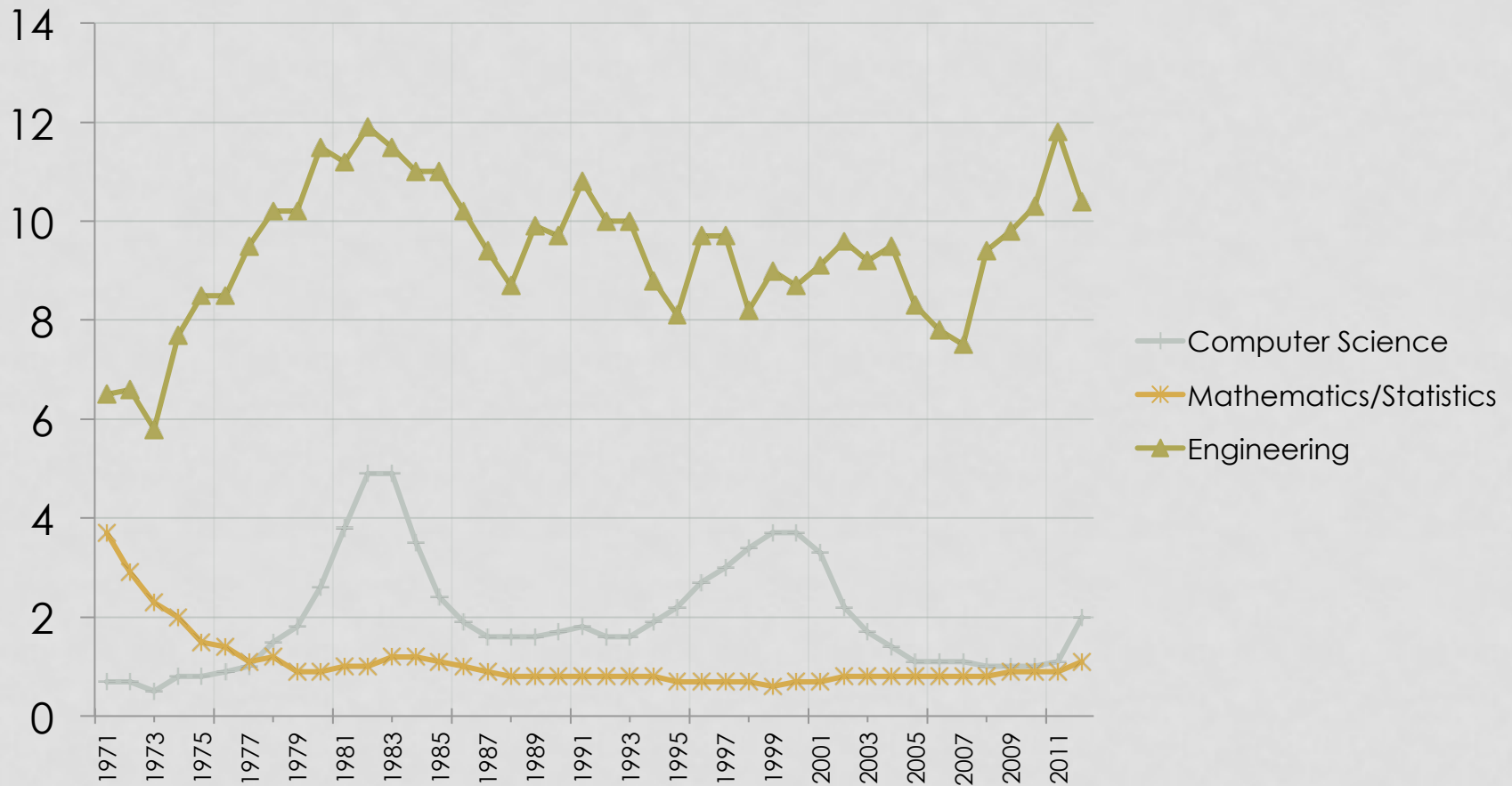
HOW MANY STUDENTS EARN DEGREES IN CS?

Bachelor's Degrees



Data from IPEDs, reflects all institution types

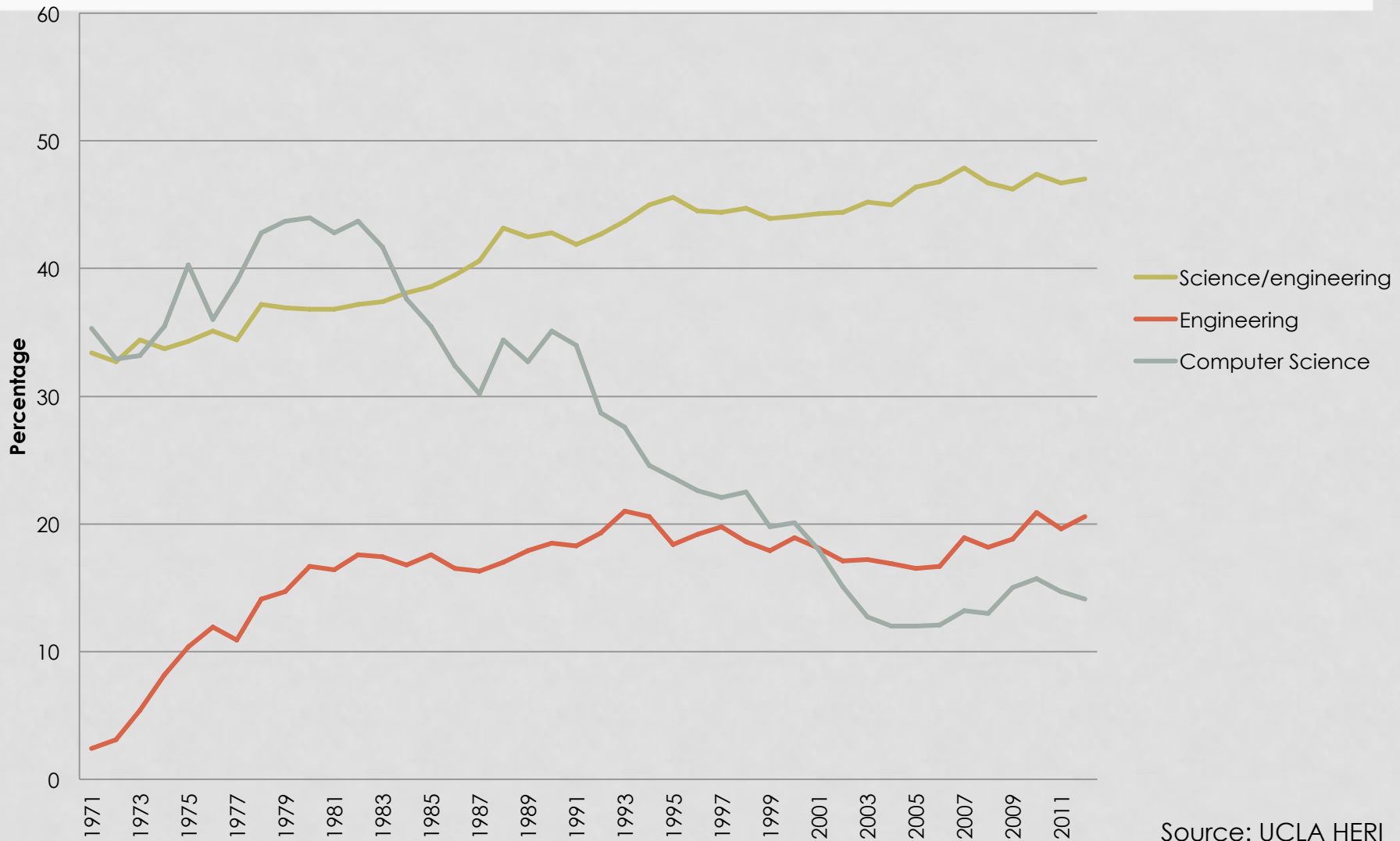
WHAT DID STUDENTS INTEND TO MAJOR IN?



Source: UCLA HERI Survey of First-Time Full-Time First-Year Students

2. Women's interest has declined

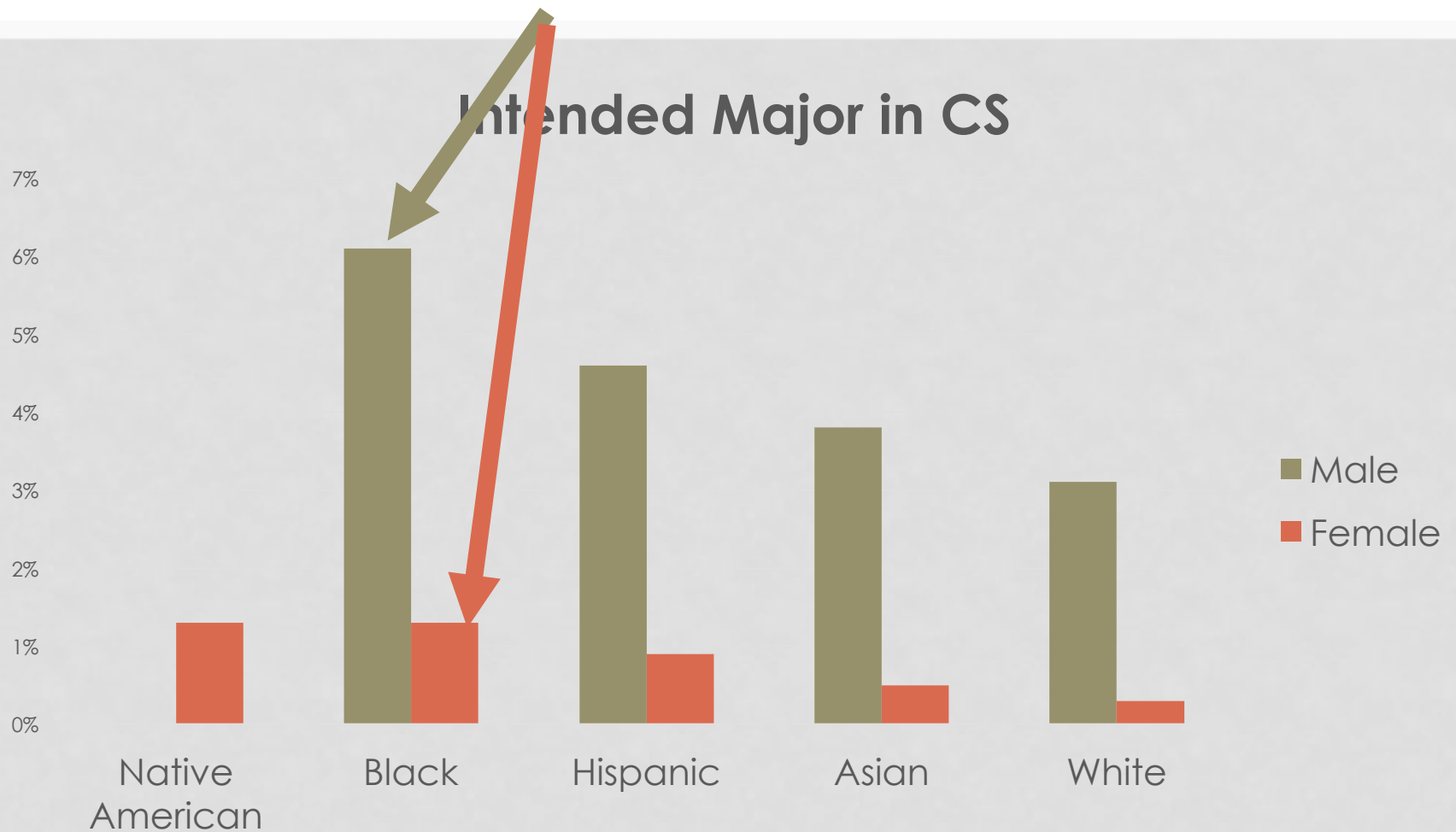
LOSING STUDENTS **PRIOR** TO COLLEGE: FEMALE INTENTION TO MAJOR



Source: UCLA HERI

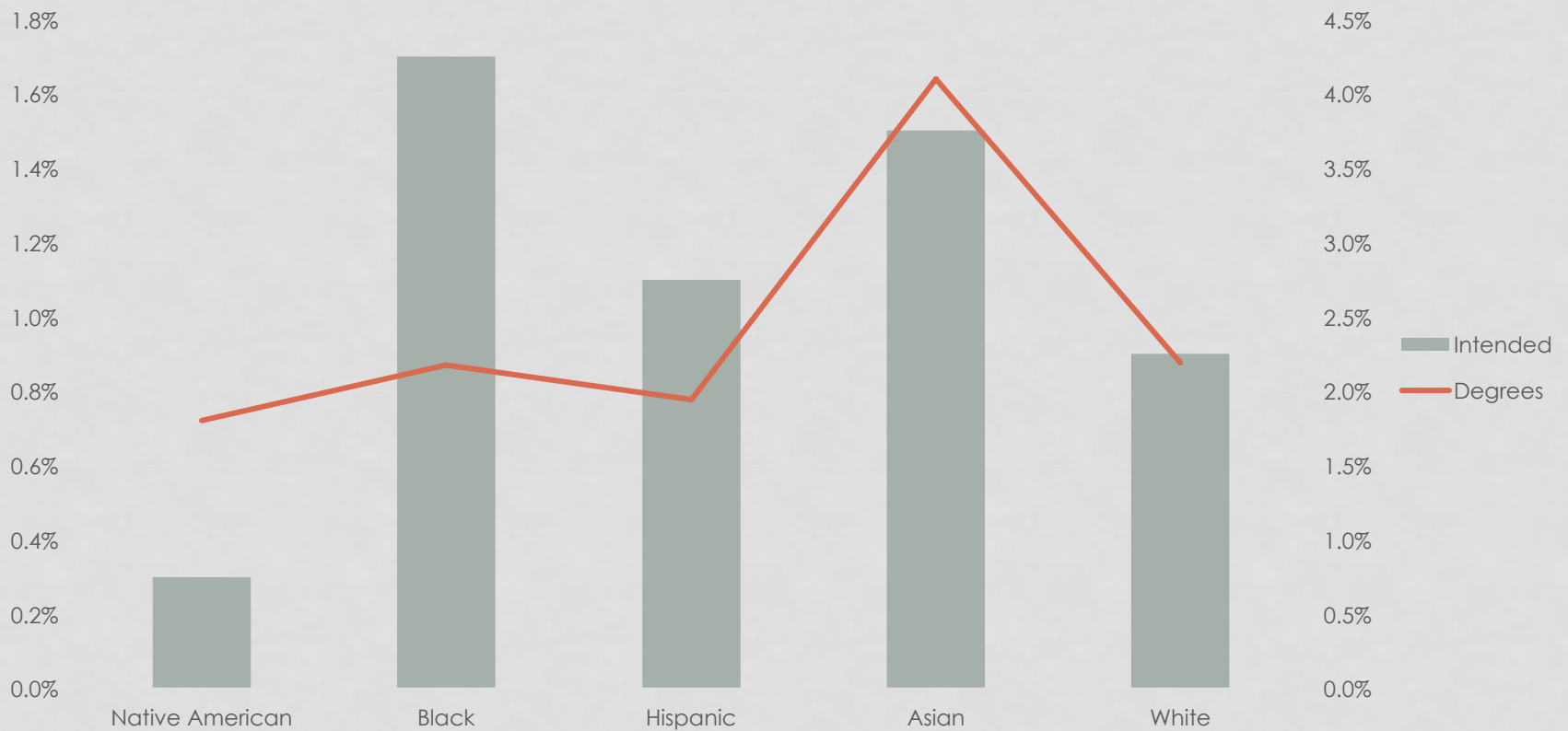
3. We lose students in college

WHAT GROUP IS MOST INTERESTED IN CS?



LOSING STUDENTS DURING COLLEGE?

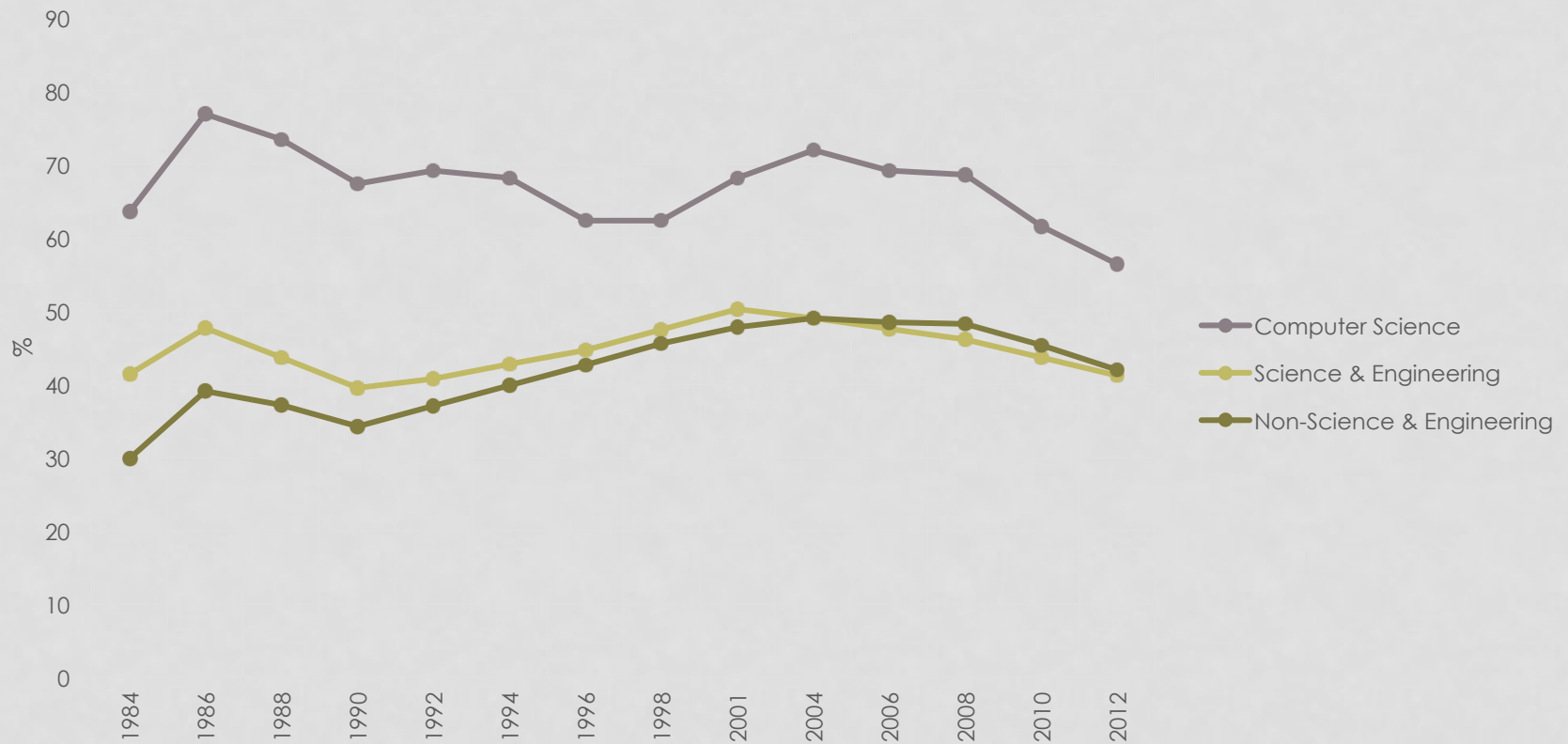
CS Intended Majors (2010) vs. Degrees (2014)



4. Pre-college exposure to CS is changing

PRE-COLLEGE CS EXPERIENCE *WAS* DOWN

≥ 1 Year of Pre-College CS By **Intended Major**



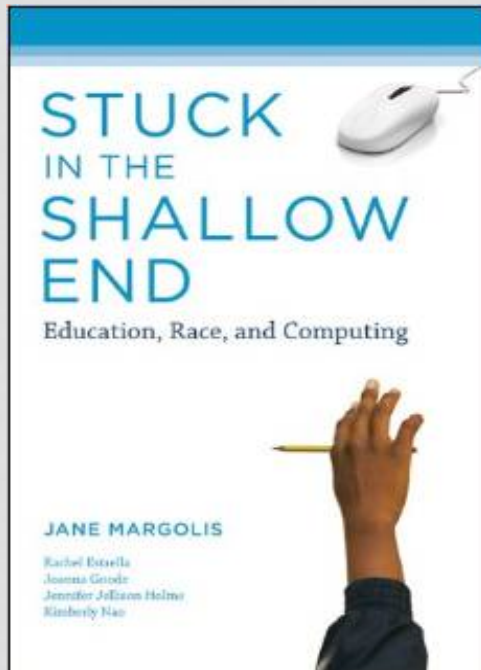
—HERI *The First Year*

WHAT'S HAPPENING NOW?

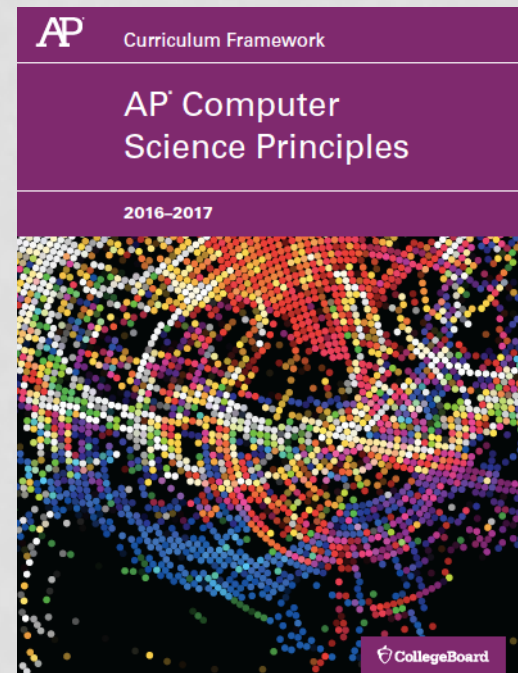
- Advanced Placement (AP) Computer Science A exam from 2006-2016
 - 4x exam takers
 - Pass rate remains similar
- 2015 Demographics
 - 22% female (55% of all exam takers)
 - 9% Hispanic (17%)
 - 4% African American (7%)

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?



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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