Diversity: What Works?

K-12 Initiatives

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Situation in K-12

• Fewer and fewer CS courses taught
  – Lack of qualified teachers
  – Diminished interest among students
  – Webmastery replacing CS
  – Computing is seen as business apps

• In the future, CS will become like engineering
  – Rarely taught on HS campuses
  – PR becomes an issue – Learn about CS?
  – Engineering way up for factory workers
  – First college course must be a welcome mat, not a filter
Two K-12 Initiatives
TeacherTECH
TeacherTECH FACTS

• Originally called GirlTECH

• Started in 1995 by CRPC

• Since then, hundreds of K-12 math & science teachers (20-40)/yr

• Scaled to Boston, Houston, Chicago, San Diego, Pittsburgh by EOT-PACI
TeacherTECH Goals

• Equip teachers with knowledge and strategies that will encourage all students' full participation in computing technologies.

• To enable teachers to effectively use and produce web resources that support student learning.
The Carrot
While we have them there...

Not easy, not most popular
Suggestion

• If you have teacher training, layer an equity piece on top
  • Make them aware of underrepresentation issues
  • Ask them to encourage girls’ and minority’s participation

Tell the “Jimmy” story
Computer Science Computing and Mentoring Partnership

CS-CAMP
CS-CAMP Goals

• Prepare high school girls so they will succeed with confidence and enthusiasm in computer science courses;

• Increase girls’ admission and retention in pre-college computer science courses;

• Improve the climate and instructional experiences for girls in high school computer classes.
CS-CAMP Description

Working with computer science teachers, students, and counselors from nine Houston ISD high schools to improve the quality of instruction and the numbers of females enrolled in computer science classes.

facilitators  Enlist the girls  Team of six
Teachers as Facilitators
Teachers as Facilitators
Teachers as Facilitators
Master Teachers
CS-CAMP Facts

• Camp lasts --two weeks, 6 hours/day

• First year, programming in Scheme

• 2\textsuperscript{nd} year, a menu of “what is computer science?”

• By design, not one-to-one correspondence between girls and computers
Team Work

“What is computing?” modules

Communication

Master Teachers

Programming Projects

FUN!