



Resources for Recruiting Female and Underrepresented Minority Students

The Computer Science Principles (CSP) project emphasizes the importance of broadening participation in computing and is dedicated to supporting recruitment efforts that increase enrollment of female and underrepresented minority students. Understanding how to encourage female and underrepresented students into the field of Computer Science requires sustained efforts and commitment over time. The following ideas and resources are intended to provide you with initial steps for designing a successful recruitment plan for your CSP or other computing course.

STEP 1: Develop recruitment goals and content, drawing on existing experience, resources, and relationships.

Developing a strategic recruiting plan means going beyond specific tactics—like website development or a visit to a local university—to setting goals, finding partners, articulating benchmarks, and developing and delivering materials.

Create a specific and quantifiable goal. Who do you want to reach? How many? Is there more than one target group? Once you have a goal in mind, it will be easier to implement a plan and develop a plan for tracking your progress.

Leverage existing efforts and relationships. Establish partnerships with people who already interact with your target audience and who are more likely to understand the audience’s needs. For example, research shows that family and teachers have significant influence on student’s academic and career choices. Training or informing other teachers might get more “bang for their buck” than trying to interact with every student. Leveraging existing relationships, like friendships or trusted authorities, can bring an important personal touch.

Message content should be based on research about your audience. What do they believe about CS careers or academic programs now? What are their current goals? Messages should be crafted to address misconceptions about computer science while appealing to existing desires. Craft a message that emphasizes content aimed specifically at the goals and interests of your target group.

Use more than one way of getting the message across. The more times someone hears a message, and the more believable it is, the more likely they are to act on it. Take advantage of the media your audience pays attention to, but target the media of those who might influence them, too. And consider incentives and recognition for the influencers, like “teacher of the year.”

For more information about recruiting females and underrepresented minority students see a list of links to recruiting resources listed below.

STEP 2: Select and Implement Promising Strategies for Sharing Core Messages with your Target Audiences.

1. Announce the Course

What? Information about the course, course content, articles about the course, future job growth potential in CS. Include quotes from former CSP students (or students themselves if possible) describing their experiences/successes and benefits.

Who? This information should be directed at parents, all students (including female students, underrepresented minority (URM) students, students interested in introduction to CS, and students interested in science, technology, engineering, art and mathematics (STEAM)).

How? Invite students to enroll with letter home, flyers, posters, newsletters, bulletin boards, websites, school assembly, and email (e.g., email with a direct link to course registration).

2. Make a Presentation or Hold a Workshop about the Course

What? Detailed information about the course (perhaps including utility of CS, future job growth potential in CS), presentation of student projects. Include quotes from former CSP students (or, where possible, have the students attend the session) describing experiences, successes and benefits.

Who? All students, selected grades or classes of students, all faculty; students interested in STEAM studies.

How? Part of student orientation, in selected classes, in faculty meetings, at whole grade presentations or assemblies and evening workshops.

3. Initiate Direct Contact with Students

What? Detailed information about the course, cool activities in the course (e.g., an activity using App Inventor or Scratch), advantages/benefits of taking the course, and encouragement to enroll. Include quotes from former CSP students (or students themselves if possible) describing their experiences/successes and benefits.

Who? All students, including selected grades or classes of students, female or URM students, student organizations and programs (e.g., National Junior Honor Society or summer programs); and students interested in STEAM studies.

How? Talking directly, emails, get-together or gathering (e.g., pizza party)

4. Initiate Direct Contact with Adults

What? Detailed information about the course, learning strategies, advantages/benefits of taking the course, importance to female and URM students. Include quotes from former CSP students (or students themselves if possible) describing their experiences/successes and benefits.

Who? Parents, selected faculty (e.g., ELL teachers), administrators, guidance counselors, minority services professionals; students interested in STEAM studies.

How? Meetings, emails

Recruiting Resources:

What are the Important Components of Targeted Recruiting? Girls Exploring Science, Engineering, and Technology Event - GESET (Case Study 1)

<http://www.ncwit.org/resources/what-are-important-components-targeted-recruiting-girls-exploring-science-engineering-and>

Outreach-in-a-box: Discovering IT

<http://www.ncwit.org/resources/outreach-box-discovering-it>

Girls in IT: The Facts

<http://www.ncwit.org/resources/girls-it-facts>

Why Should Young Women Consider a Career in Information Technology?

<http://www.ncwit.org/resources/why-should-young-women-consider-career-information-technology>

Counselors for Computing (C4C) Information Sheet

<http://www.ncwit.org/resources/counselors-computing-c4c-information-sheet>

What Research Tells Us About Best Practices for Recruiting Girls into Computing

<http://www.ncwit.org/resources/what-research-tells-us-about-best-practices-recruiting-girls-computing>

What Are the Important Components of Targeted Recruiting? Change the Gender Composition of High School Computing Courses (Case Study 2)

<http://www.ncwit.org/resources/what-are-important-components-targeted-recruiting-change-gender-composition-high-school>

How Do You Recruit or Retain Women Through Inclusive Pedagogy? Equal Access: Inclusive Strategies for Teaching Students with Disabilities (Case Study 3)

<http://www.ncwit.org/resources/how-do-you-recruit-or-retain-women-through-inclusive-pedagogy-equal-access-inclusive>

NCWIT Summit Workshop 2012 – Seth Reichelson: High School Computer Science Education, Recruitment, and Retention

<http://vimeo.com/46466553>

How To Actively Recruit Women to CS

<http://www.csprinciples.org/home/resources/HowtoActivelyRecruitWomentoCS>

The Tapestry workshop for attracting and engaging diverse high school students in computer science, June 26-28, 2013. This 3-day workshop will be offered 4-5 times in summer 2013. Teachers are given a \$1000 stipend, but must pay for their own travel. Focus is on inclusive pedagogy. <http://www.cs.virginia.edu/tapestry/>

Other Tapestry Workshops:

- 07/10 - 12: [Purdue](#)
- 07/16 - 18: [Florida International University](#)
- 07/23 - 25: [University of Oklahoma](#)

- 07/29 – 31: [Triton College](#)

The Richard Tapia Celebration of Diversity in Computing Conference.

<http://tapiaconference.org/2013/>

A Dream Deferred: The Future of African American Education

<http://dreamdeferred.collegeboard.org/>

Preparate: Educating Latinos for the Future of America

<http://preparate.collegeboard.org/>

AP Access and Equity Initiative

Access for All Students

The College Board and the Advanced Placement Program encourage teachers, AP Coordinators, and school administrators to make equitable access a guiding principle for their AP programs. The College Board is committed to the principle that all students deserve an opportunity to participate in rigorous and academically challenging courses and programs. All students who are willing to accept the challenge of a rigorous academic curriculum should be considered for admission to AP courses. The Board encourages the elimination of barriers that restrict access for AP courses to students from ethnic, racial, and socioeconomic groups that have been traditionally underrepresented in the AP Program. Schools should make every effort to ensure that their AP classes reflect the diversity of their student population.



This document is based upon work supported by the National Science Foundation, grant CNS-0938336. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.