

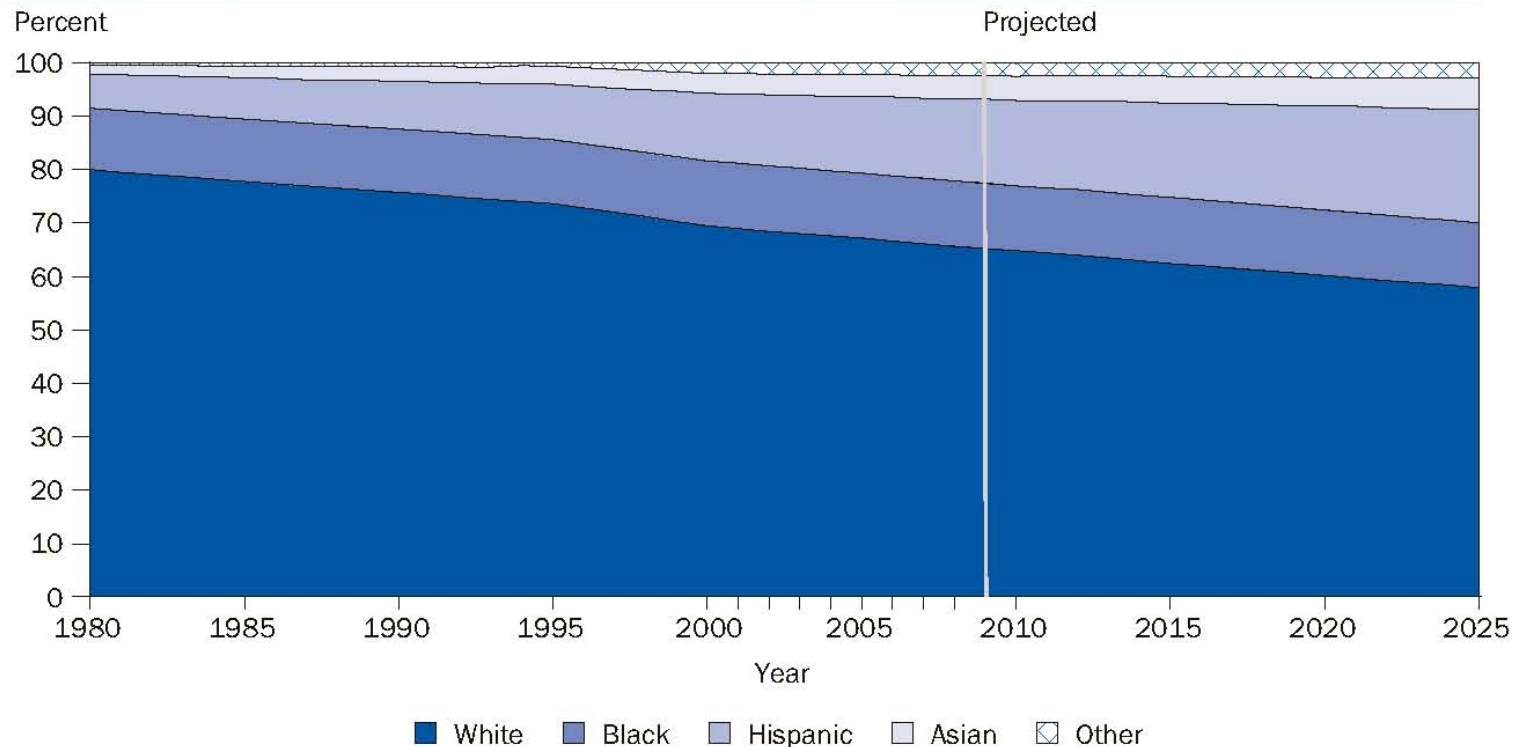
# Broadening Participation in Pre-College STEM Programs



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# Diversity Programs in Engineering

## Percent Distribution of Total Population in the U.S. by Race/Ethnicity: 1980-2008 and Projections 2010-2025



NOTE: "Other" includes the following race categories: Native Hawaiian or Other Pacific Islander, American Indian/Alaska Native, and Two or more races. Numbers for the year 2000 are from the Decennial Census. All other years are population estimates. Prior to 2000, Asian includes Native Hawaiian or Other Pacific Islander. The category "Two or more races" was not an option prior to 1996. Race categories exclude persons of Hispanic ethnicity. SOURCE: U.S. Department of Commerce, Census Bureau, *Statistical Abstract of the United States: 2000 and 2004*, Population Estimates Program, 1980-2000; Table 4: Estimates of the Population by Race and Hispanic Origin for the United States and States: July 1, 2008 (SC-EST2008-04), released May 14, 2009, retrieved May 15, 2009, from <http://www.census.gov/popest/states/asrh/SC-EST2008-04.html>; and Projected Population by Single Year of Age, Sex, Race, and Hispanic Origin for the United States: July 1, 2000 to July 1, 2050 (NP2008-T4), released August 14, 2008.

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## Sample Program Model: The CATALYST Academy

- One-week residential program focused on introducing URM and first generation high school students to engineering and engaging them in faculty-led research projects.
- Annual cohort of 36 students from schools across the country
- Partnering Organizations include: Project High Jump, the Kohala Center, the Motorola Foundation, Upward Bound Programs, Society of Hispanic Professional Engineers, Polytechnic High School, and others



## **Best Practice Model: Urban Bird Gardens**

- Partnership of the Cornell University Lab of Ornithology & Seven Hispanic Serving Community Based Organizations in Chicago, Los Angeles, New York City, Houston, Phoenix, and Miami

### **Planning Steps Included**

- Community Partner Interviews
  - To develop best practices in working with Latino community
  - To better understand the resources and needs of organizations working with Latino families
  - To better understand the needs and strengths of their communities
- Community Profile Research
  - To better understand communities and larger context
  - To better understand community dynamics

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## AAUW – Why So Few Women in STEM?

<b>Attract &amp; Retain Female &amp; Underrepresented Minority (URM) Students in STEM</b>	<b>Key Recommendations</b>
	Actively recruit women and URMs into STEM programs and majors
	Send an inclusive message about who makes a good science or engineering student
	Emphasize real-life applications in early STEM courses and experiences
	Teach educators about stereotype threat and the benefits of growth mindset
	Make performance standards and expectations clear in STEM courses
	Take proactive steps to support female and URM students pursuing STEM experiences and majors
	Learn about your own implicit bias.
	Keep your biases in mind.
	Take steps to correct for your biases.
<b>Counteracting Bias</b>	Raise awareness about bias against women/girls and URMs in STEM fields.
	Create clear criteria for success and transparency.

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## Break Out Groups

1. Burning Questions & Challenges
2. Near & Long Term Priority Actions
3. Individual Action Plans
4. Small Group Report Out