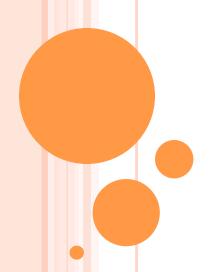
QEM NETWORK MENTORING WORKSHOP FOR UNDERREPRESENTED MINORITY UNDERGRADUATE STUDENTS & FACULTY/STAFF ADVISORS



A Glance at Disturbing Trends in STEM Education for Minorities Garrick E. Louis University of Virginia

Baltimore, MD November 13, 2009

STEM STATISTICS – UNDERGRADUATE^{1,2}

- ◆The % of BSc. degrees in engineering awarded to black students declined from 3.3 % in 1995 to 2.5% in 2005.
- ◆African Americans, Latinos, & Native Americans are ~30 % of the overall undergraduate population in the US, but receive only ~12 % of the degrees awarded in engineering
- ◆Of the 68,000 BSc. degrees in engineering awarded in the US in 2006; 8,500 were to under-represented minorities;

STEM STATISTICS – GRADUATE^{1,2}

- ◆Of 6,404 PhDs in engineering awarded in 2006, 100 went to African American students; 98 went to Latinos and 9 went to Native Americans and Alaska Natives;
- ◆Of these doctoral degree recipients, 55 were women;
- ◆ Women of all ethnic backgrounds account for less than 20 % of the engineering degree recipients at every level

US SCIENCE & ENGINEERING WORKFORCE³

- Employment in S&E occupations will increase at ~ double the growth rate for all occupations through 2014
 - ~73% of projected increase is in computer-related jobs
- African Americans, Hispanics and Native Americans/Alaskans made up only 10% of degreed individuals working in S&E occupations but make up 13 % of the total college graduates
 - African Americans were ~4% of computer scientists and mathematicians, 3% of physical scientists and engineers and 2% of life scientists
 - Hispanics were about 2.5-4% of each S&E field
- Asians/Pacific Islanders were about 5% of the U.S. population, but accounted for 7% of college graduates and 14% of degreed individuals employed in S&E occupations

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- Babco, Eleanor, "Trends in African American and Native American Participation in STEM Higher Education," Commission on Professionals in Science and Technology, New York, NY. May 2003. (ttp://www.inpathways.net/STEM.pdf)
- 3. NSF Science and Engineering Indicators, 2008 (2006 data)