Why STEM Diversity, Ethnicity & Gender Matter

Increasing the number of Underrepresented Minorities (URM's) in the U.S. STEM workforce would solve many of the skills gaps that confront our economy. Ethnic and gender disparities in STEM academic achievement carry over into lower participation by many URM's in high-paying STEM jobs. Selected charts from the National Action Council for Minorities in Engineering, Inc.'s *2013 NACME Data Book* help illustrate the challenge. For more information on URMs in engineering education and engineering careers, visit www.nacme.org/research-publications.

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Figure 1: Changing Demographics of the U.S.[1]

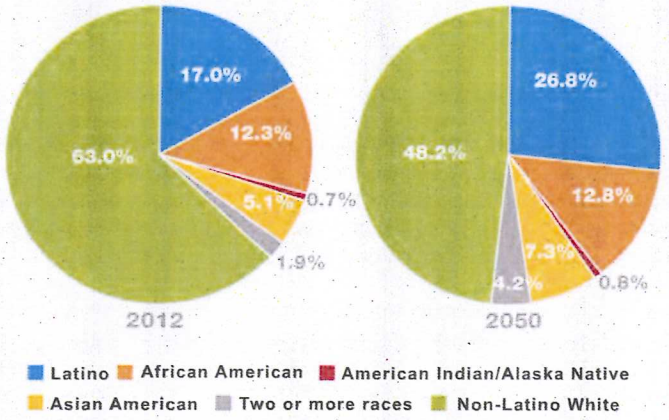


Figure 2: Percentage of Public and Private High School Graduates Taking Calculus Courses in High School, 2009[2]

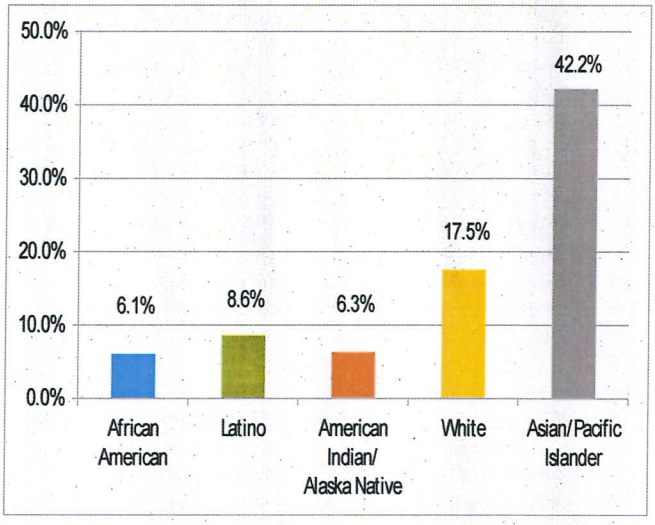


Figure 3: Percentage of Students Meeting ACT College Readiness Benchmark Scores, 2012[3]

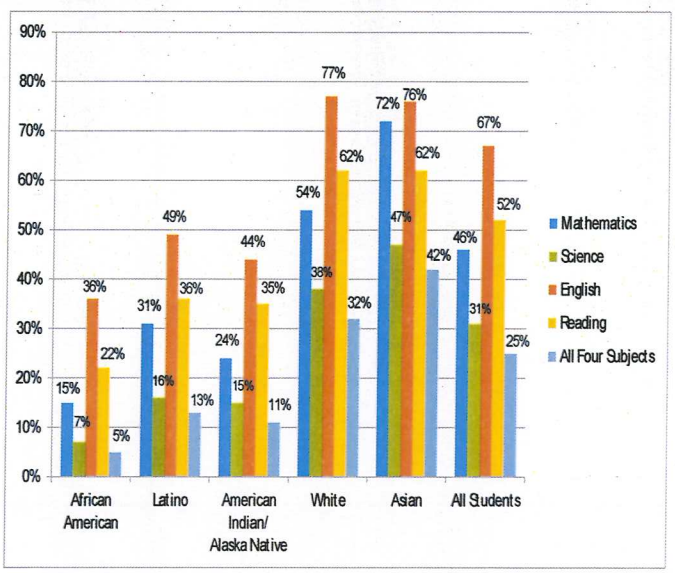
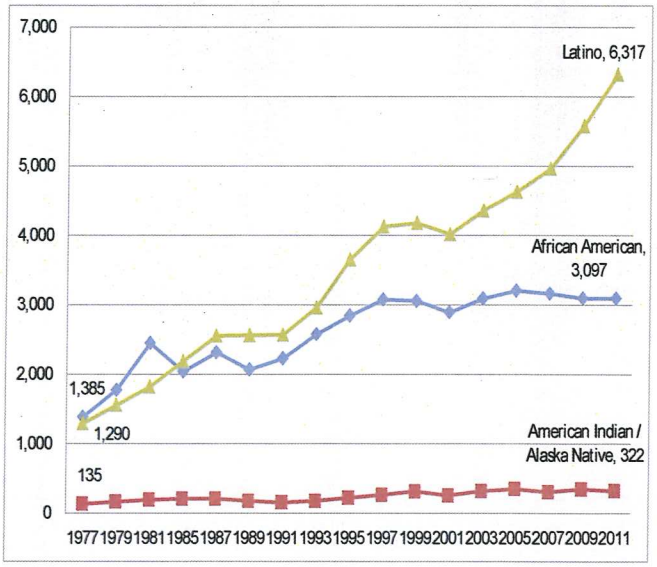


Figure 4: Engineering Bachelor's Degrees Earned, 1977-2011[4]



Endnotes

1. NACME analysis of National Population Projections from U.S. Census Bureau, 2013.
2. National Center for Education Statisitcs, 2012. *Digest of Education Statistics, 2011.*
3. ACT Profile Report, National (Graduating Class 2012). Accessed online at www.act.org.
4. NACME analysis of Integrated Postsecondary Education Data System (IPEDS) accessed via National Science Foundation's WebCASPAR database system, June 2013.

Focus on Diversity & Gender in Engineering

The U.S. population is becoming more diverse each year. By 2050, URMs will represent more than 40 percent of the population, and there will be no majority race. The demand for qualified STEM professionals is high, but the supply of STEM workers to fill these positions is at risk if underrepresented groups are not engaged in these fields. The figures below show that African Americans, Latinos, American Indians, Alaska Natives, and women are underrepresented in all levels of engineering education and in the engineering workforce.

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Figure 5: African Americans in Engineering

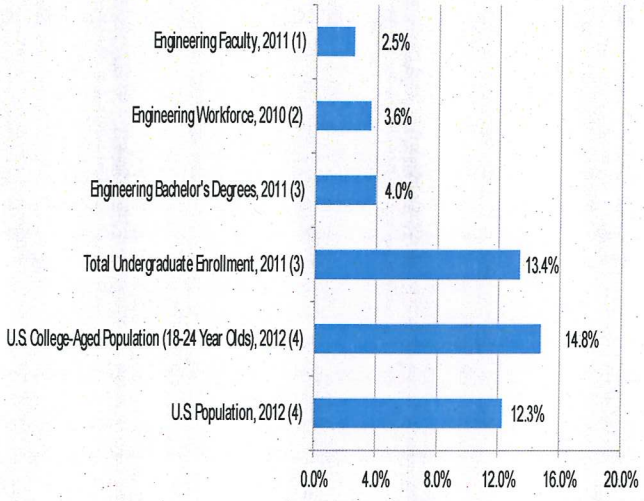


Figure 6: American Indian/Alaska Natives in Engineering

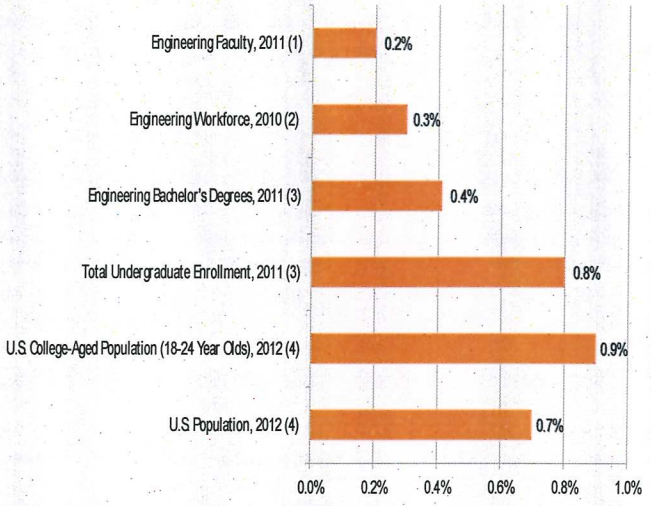


Figure 7: Latinos in Engineering

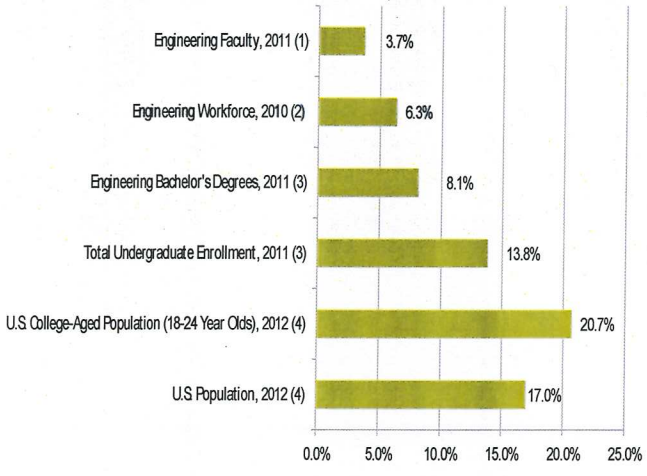
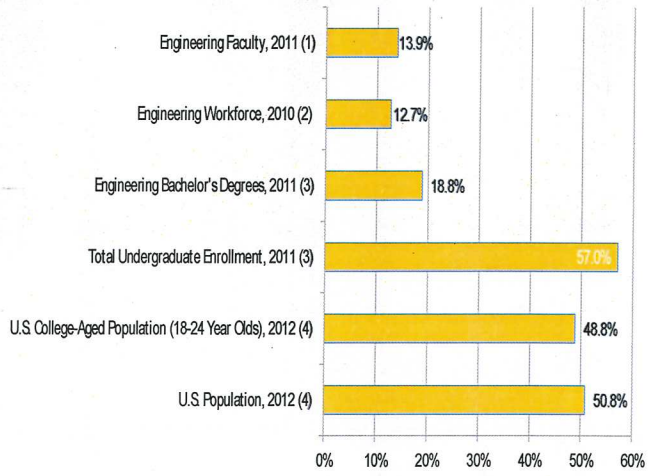


Figure 8: Women in Engineering



Endnotes

1. American Society for Engineering Education, 2012. Engineering by the Numbers, 2011.
2. Finamore, J., Foley, D.J., Lan, F., Milan, L.M., Proudfoot, S.L., Rivers, E.B., & Selfa, L. (2013). Employment and Educational Characteristics of Scientists and Engineers. National Center for Science and Engineering Statistics, NSF 13-311.
3. NACME Analysis of Integrated Postsecondary Education Data System (IPEDS) accessed via National Science Foundation's WebCASPAR database system, August 2013.
4. NACME Analysis of population projections from U.S. Census, 2012.