

Engineering Degrees in the United States

The National Action Council of Minorities in Engineering, Inc. (NACME) has provided scholarship support for underrepresented minorities (URMs) in engineering since 1974. During that time, nearly 8,000 minority engineering graduates have received scholarship support from NACME, and many of these graduates are now leaders in government, industry, and academia. As NACME prepares for its 40th anniversary in 2014, this brief examines the growth in URM engineering degree completion during that time.

The overall U.S. population has grown from 203.2 million in 1970 to 313.9 million in 2012¹. While the percentage of African Americans and American Indians in the population has only grown slightly in that time (increasing by 0.9 and 0.6 percent, respectively), the percentage of people who identify as Latino has sharply increased. In 1980, the first year that complete census data was available on Latinos, only 6.4 percent of the population identified as such². In 2010, 16 percent of the population identified as Latino, including 22 percent of those who were 5 to 17 years old³. Mirroring the growth of the overall population, the number of awarded engineering bachelor's degrees has steadily increased since 1977 (the first year that data is available by race in the Integrated Postsecondary Education Data System (IPEDS)), rising from 49,677 to 78,099. Not surprisingly, the number of bachelor's, master's, and doctorate degrees in engineering earned by Latinos has also steadily increased over this time, as seen in Figures 1-3.

Figure 1: Engineering Bachelor's Degrees Earned, 1977-2011⁴

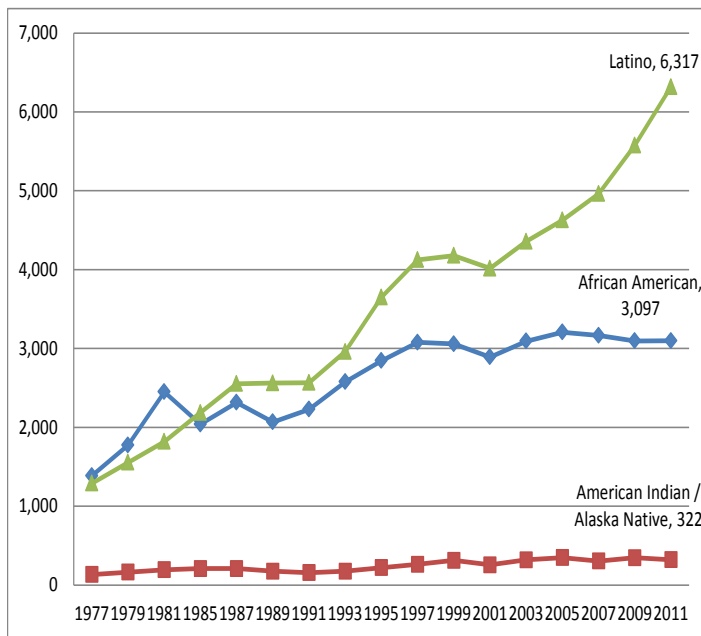
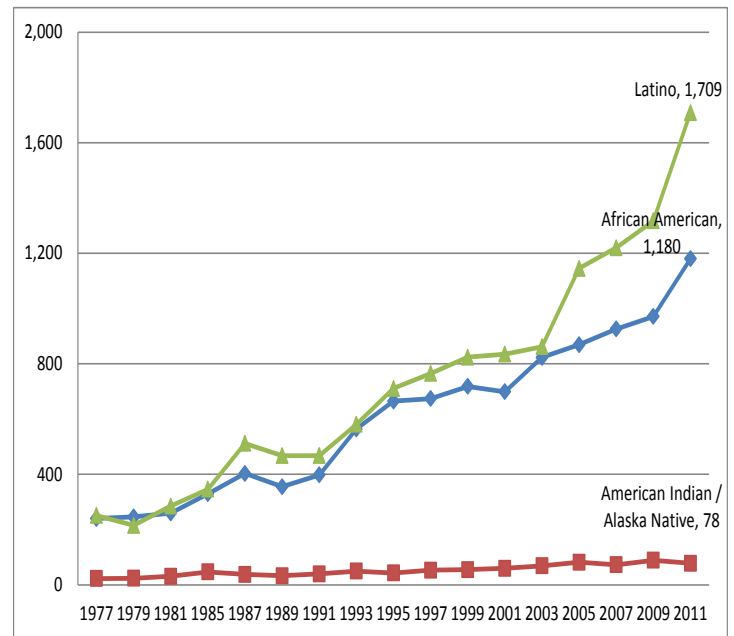


Figure 2: Engineering Master's Degrees Earned, 1977-2011⁴



While there has been minimal growth in the number of engineering bachelor's degrees awarded to African Americans since 1997, the number of master's and doctorate degrees earned by African Americans has steadily increased.

Figure 3: Engineering Doctorate Degrees Earned, 1977-2011⁴

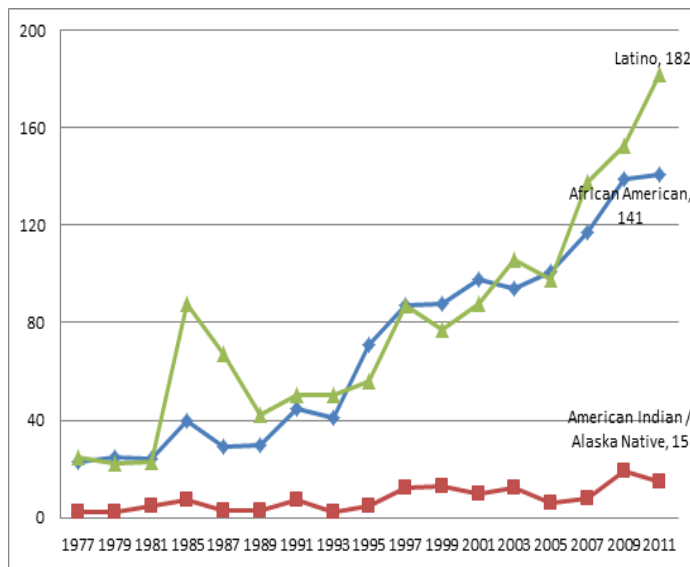
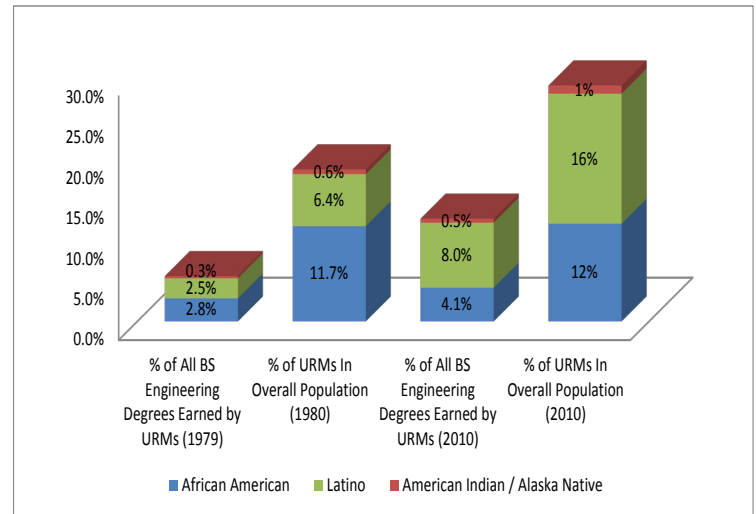


Figure 4 compares the percentage of Engineering B.S. degrees earned by URMs in 1979-80 and 2010 with the percentage of URMs in the overall population in these years. While the percentage of African Americans in

the overall population remained steady over this time period, there was a moderate increase in the percentage of B.S. engineering degrees earned by this group. The percentage of engineering degrees earned by Latinos and American Indian / Alaska Natives also increased, mirroring the growth of these groups in the overall population.

Figure 4: Percentage of URMs, 1979 to 2010^{2,3}



Despite the increases in the number and percentage of URMs who are earning their engineering bachelor's degrees, a large disparity remains between URM engineering degree attainment and the overall percentage of URMs in the population. The institutions that awarded the most engineering bachelor's degrees to URMs in 2011 are profiled in Table 1. NACME Partner Institutions, which serve as models of best practices in developing an environment that supports diversity and recognizes the academic achievement of all students, are highlighted below.

Table 1: Institutions that Awarded the Most Engineering B.S. Degrees to URMs, 2011⁴

Rank	Institution	Degrees Earned by URMs	Rank	Institution	Degrees Earned by URMs	Rank	Institution	Degrees Earned by URMs
1	University of PR Mayaguez Campus	502	12	North Carolina State University at Raleigh	123	22	University of Texas at San Antonio	82
2	Universidad Politecnica de Puerto Rico	383	13	New Jersey Institute of Technology	106	24	University of Illinois at Urbana-Champaign	77
3	Florida International University	282	14	Massachusetts Institute of Technology	102	25	University of Arizona	76
4	University of Florida	227	15	Arizona State University	96	25	University of California - San Diego	76
5	Georgia Institute of Technology	200	16	Texas A&M University Kingsville	95	27	Rutgers, The State University of New Jersey New Brunswick	75
6	University of Texas at El Paso	187	17	University of South Florida	89	28	University of New Mexico	74
7	Texas A&M University	174	18	University of Texas - Pan American	86	29	Prairie View A&M University	70
8	University of Central Florida	146	19	University of Houston	85	29	Stanford University	70
9	University of Texas at Austin	144	19	University of Maryland at College Park	85	29	Texas Tech University	70
10	North Carolina A&T State University	142	21	University of Michigan at Ann Arbor	84	29	Virginia Polytechnic Institute and State University	70
11	California State Polytechnic University Pomona	141	22	CUNY City College	82	33 (tie)	California State University - Long Beach	65

Endnotes

¹ U.S. and World Population Clock. <http://www.census.gov/popclock/>.

² Hobbs, Frank and Nicole Stoops, U.S. Census Bureau, Census 2000 Special Reports, Series CENSR-4, Demographic Trends in the 20th Century, U.S. Government Printing Office, Washington, DC, 2002.

³ 2011 NACME Data Book: A Comprehensive Analysis of the "New" American Dilemma. http://www.nacme.org/NACME_D.aspx?pageid=205.

⁴ Source: NACME analysis of Integrated Postsecondary Education Data System (IPEDS) accessed via National Science Foundation's WebCASPAR database system, June 2013.