INTRODUCTION

Since its inception in 1974, NACME has awarded more than $124 million in scholarships and program support to help more than 24,000 underrepresented minority students achieve a post-secondary engineering education. Each year, NACME is responsible for more than $4 million in scholarship funding. Since 2002, the flagship scholarship has become the NACME Scholars (Block Grant) Program. This grant program provides scholarship support in the form of a lump sum grant to partner institutions who enroll students from three sources – first year students identified by NACME or the partner universities, transfer students from two-year colleges, and currently enrolled students who have completed at least one year of engineering study. At the end of each academic year, NACME surveys Scholar graduates to ascertain the impact of the grant, gauge student success, and track the scholars’ entry into the field of engineering.

NACME Scholars, 2012

In 2012, 107 NACME Scholars who had graduated or were expecting to graduate with bachelor’s degrees in engineering responded to the survey. Scholars identified as 31 percent (n=33) female, and 64 percent (n=68) male. The majority were African American (52 percent) and Latino (44 percent). Additionally, 1 percent of this year’s scholars are American Indian/Alaskan Native, and a small percentage of students identify multiple backgrounds (Figure 1). The average age of Scholars was 24, with the youngest graduate age 22 and the eldest, 41. Five percent of the Scholars report having children, and 67 participants (63 percent) reported growing up in a home with at least one adult who had attended college.

The majority of Scholars (82 percent) graduated from a high school in the United States. Figure 2 illustrates how academically prepared students were for their post-secondary engineering degree coursework upon entry into college. Scholars reported being most unprepared in physics and chemistry, and more prepared in mathematics. Within this group of Scholars, 34 percent either began their post-secondary education at a community college, or took classes at a community college that were transferred to their degree major. The majority attended a four year institution.

The most common engineering fields among Scholars were mechanical (22 percent), electrical (21 percent), and chemical (16 percent), and the least common biomedical (4 percent), and aerospace (3 percent). In mechanical engineering, 66 percent of the Scholar graduates were male, and 33 percent were female. Only 14 percent of electrical engineering Scholars were women, yet an equal 50 percent of both men and women graduated with degrees in chemical engineering. In fact, 24 percent of all female Scholars for 2012 graduated with degrees in chemical engineering (Figure 3).
NACME Scholars were able to take advantage of opportunities to prepare for graduate level education or professional work post degree. The majority of Scholars reported attending at least one conference, and approximately half of all Scholars presented a poster, and 20 percent presented papers at a conference (Figure 4). As a first step for graduates becoming a professionally licensed engineer, 11 percent of Scholars had already taken the Fundamentals of Engineering (FE) Exam and 45 percent plan to take it within the next 12 months (Figure 5).

Post-graduation plans for Scholars include pursuing graduate coursework and employment (Figure 6). Almost one-third have already accepted a full-time employment position, while 34 percent are pursuing additional education. Of those entering the workforce, 66 percent are employed in their degree-related content area (Figure 7).

NACME is committed to providing opportunities and financial support to underrepresented minority students in engineering. Since 1974 NACME has supported more than 24,000 students with more than $124 million in scholarships and other support, and currently has more than 1,300 Scholars at 50 partner institutions across the country. Funding for these scholarships comes, in part, from generous gifts from companies and organizations serving on NACME’s Board of Directors and Corporate Council. NACME Scholars rely heavily on funding provided by the NACME Scholars (Block Grant) Program. Approximately 85 percent of students receiving funding from NACME rated the NACME Scholarship as the most important funding source (Figure 9) over the course of their undergraduate career.