AC 2011-722: IMPACTING THE SUCCESS OF UNDERREPRESENTED MINORITIES AT LOUISIANA STATE UNIVERSITY: A DIVERSITY SCHOLARSHIP AND MENTORING PARTNERSHIP WITH EXXONMOBIL

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Impacting the Success of Under-represented Minorities at Louisiana State University: A Diversity Scholarship and Mentoring Partnership with ExxonMobil

The Louisiana State University (LSU) College of Engineering and ExxonMobil Corporation identified a need to encourage and assist talented minorities to complete a Bachelor of Science degree in engineering. Enrollment, retention and graduation rates for underrepresented minority engineering undergraduates at LSU were lagging behind the national averages. In 2003, ExxonMobil Corporation contributed $250,000 over five years to establish a scholarship fund at LSU, and this partnership was renewed in 2009 with a second, five-year phase. The initial goals of the program were to: recruit and retain minorities, fund ten scholars for four years each, develop a mentoring program with ExxonMobil Corporation employees, and increase the participant graduation rate.

Scholars were selected from a pool of applicants based on proven superior academic background, i.e. class rank, ACT scores and high school GPA. The scholarship was initially awarded as an incentive to attend LSU, and as it evolved, the scholarship program was implemented as a retention element with the award made during the second semester of the freshmen year after contacting candidates during the first semester. Most scholars were initially awarded an amount equivalent to annual tuition and fees ($4,500) with performance based increases (up to $6,000). To remain in the program, scholars were required to maintain an overall 3.0 GPA. During Phase 1, 19 students were part of the program with eight scholars chosen as entering freshmen, and 11 participants lost financial support from the program due to low GPA or major change. During the two years of Phase 2, 13 scholars participated with seven chosen as second semester freshmen and six chosen as second semester sophomores.

The one-on-one mentoring element of the program was directed by the ExxonMobil liaison who selected ExxonMobil engineers and matched them with an LSU ExxonMobil scholar. Additionally, the liaison coordinated workshops with the mentors and protégés, and these events were utilized to communicate expectations, roles and responsibilities of each person. The mentors helped the scholars with professional development and career planning. Feedback for this part of the program was obtained through discussions during Phase 1, and a formal survey of mentors and protégés was added during Phase 2. The 62-item survey results showed that the protégés rated overall mentoring experience a 4.5 on a scale of 1(low) to 5 (high), and they have reported several positive outcomes including “Better understanding of skills used by engineering, science or math professionals.” Likewise, the mentors rated the experience 3.9, and reported several positive outcomes such as “Self reflection on my own career.”

The partnership and program has succeeded in increasing the engineering retention and degree completion rate for the minority scholars. Fourteen of the Phase 1 participants graduated in engineering with an overall mean GPA of 3.005 (s.d. = 0.505), and the remaining Phase 1 scholar is on track to graduate May 2011. This yields a Phase 1 minority engineering graduation rate of 78.9%, which far exceeds the overall LSU engineering six year graduation rate of 39.3%. Of the Phase 2 scholars, 92.8% have been retained in the engineering curriculum, and they had a mean cumulative GPA of 3.171(s.d. = 0.407) at the mid-point of the program.

Introduction

There is an increasing need for college graduates in science, engineering and technology as a critical element in maintaining the United States' progress and leadership in a competive, technology driven world economy[1]. This is the result of several factors including the first wave of engineers from the baby boom years entering retirement from the active workforce. Concurrently, the overall enrollment in engineering degree programs has declined while attrition rates for those students starting in engineering have increased during the last quarter of the 20th century [2, 3]. Thus, this creates a gap between the insufficient number of engineers (and other scientist & technology workers) entering the workforce and the number of technologically focused researchers and innovators needed to continue economic growth [1].

Within the engineering fields, minorities and women continue to be under-represented natioanlly[4], and the ability to increase engineering undergraduate enrollment, persistence and graduation of these groups will be necessary to meet the demand for more engineers [1, 5]. Also, improving the diversity of engineering will lead to a variety of perspectives that ultimately results in optimal, creative solutions to engineering problems [6]. Within the college experience, a more diverse student population generally correlates with improved learning outcomes and experiences for all students [7].

As students from under-represented groups pursue engineering degrees, the higher education community will need to deliberately address issues that will support recruitment, persistence and increase graduation rates. With respect to under-represented minorities, both low recruitment and retention are barriers to increasing the number of gradutes[8]. Among students who have financial need, a key retention component is providing non-loan based awards that are correlated with higher persistence rates [5]. Additionally, retention of engineering students is shown to improve with programs that engage the students beginning with the first year [9-14]. Characteristics of successful retention programs for under-represented minorities include elements that build a sense of community and provide guidance via role models (mentors) for talented students.[15]

Background

The Louisiana State University (LSU) College of Engineering has supported an active Minority Engineering Program (MEP) to recruit and help retain minority students in engineering since 1977, with a large emphasis on attracting talented minority students to engineering while providing student support services and small scholarships to undergraduates. The LSU College of Engineering (CoE) and ExxonMobil Corporation identified a need to financially support, encourage and assist talented minorities (African-Americans, Hispanic and American Indians) to complete a Bachelor of Science degree in engineering. Enrollment, retention and graduation rates for underrepresented minority engineering undergraduates at LSU were lagging behind the national averages. Enrollment and graduation data indicated that the College's performance in recruiting and retaining students from under-represented groups has fallen short of LSU and national norms (Table 1). Between 1998 and 2002, the LSU CoE awarded a total of 1,893 undergraduate degrees in 9 majors (excluding construction management), of which 18.8%, 6.3%, and 3.37% were awarded to women, African-American and Hispanic students, respectively. The five year data appear to be reasonably stable and do not suggest discernible trends either upward or downward. The majority of the minorities awarded undergraduate engineering degrees between 1998 and 2002 at LSU are African-Americans (6.3%), which is 1.0% greater than

national average of 5.3%. However, the population of the State of Louisiana is approximately 40% African-American, and the low percentage of the population that receives a degree in engineering at LSU is troublesome. This percentage pales in comparison to LSU as a whole and to the College of Basic Sciences (BASC), which approaches the demographics of the campus at large.

Table 1. Degrees conferred to women and minorities in engineering (CoE) at LSU. LSU data are for 1998-2002; the national averages as reported by Jackson (2006)[16].

Group	Women (%)	Minority (%)
COE-undergraduate (UG)	18.8	10.1
COE-graduate (M.S.)	16.7	2.6
COE-graduate (Ph.D.)	17.7	4.2
BASC* -undergraduate	47.7	11.4
LSU - undergraduate	53.3	10.3
Nation - UG Engineering	20.4	24.7

*College of Basic Sciences

The ExxonMobil Diversity in Engineering Scholarship Program was developed as an effort by ExxonMobil Corporation to assist LSU in attracting talented minority students (both Louisiana residents and non-residents) to complete Bachelor of Science degrees in Engineering. In 2003, ExxonMobil Corporation contributed $250,000 over five years to establish a scholarship fund at LSU (Phase 1), and this partnership was renewed in 2009 with a second, five-year phase of $250,000 (Phase 2).

Project Goals and Objectives

The initial goals of the program for each phase were to: recruit (Phase 1 only) and retain minorities, fund ten scholars for four years each, develop a mentoring program with ExxonMobil Corporation employees, and increase the participant graduation rate. It was also desired that upon graduation the scholars would be highly qualified engineers with respect to technical knowledge and professional skills.

Summary of Programs

Scholarship Parameters and Eligibility

For Phase 1 of the scholarship program, nine freshman students were initially selected as incoming freshmen and supported for a period up to four years with a scholarship, and new scholars were selected as students left the program. For Phase 2, seven freshmen and 3 upper-class students were initially selected after completing the first freshmen semester at LSU and three scholars were added during the second year. The initial scholarship amount was set at $4,500 per year for each student with annual merit increases of $500 to $1,000 based on overall performance and a maximum of $6,000 per year. After the first year, the initial scholarship amount was reduced to $3,000 per year for each student. To be eligible for the ExxonMobil Scholar Program, students were expected to:

- Enroll as full-time undergraduate students.
- Enroll in an engineering discipline.
- Maintain a 3.0 or better university Grade Point Average (GPA).
- In addition, incoming freshmen were preferred to have:
  - Graduated in the Top 25% (Top 10% preferred) and/or
  - Scored 26 (or higher preferred) on the ACT.

To remain eligible, all students were required to maintain the initial requirements and consistently participate in program activities. If a student did not meet these criteria, they were placed on scholarship probation for one semester with funding at the same level. If the criteria were met at the completion of the probation semester, the student remained as a funded scholar, and if criteria were not met, the student was no longer funded. Four of the nine scholars from the first year of students in Phase 1 left the program after two semesters due to low GPAs or change of major, thus the eligibility for the program was modified to evaluate students after the first semester at the university. This was put into place at the midpoint of Phase 1 and continued with Phase 2.

Recruiting

The ExxonMobil scholarship was listed in the LSU General Catalog, posted on the website and displayed on campus bulletin boards. Information and applications were supplied to Office of Admissions and CoE for use during their recruiting activities. ExxonMobil Scholars Program applications were available and information provided at Minority Engineering Program/Office for Diversity Programs recruiting events. Notices were distributed at conferences whose audience include pre-college students, their parents or counselors (i.e. the National Society of Black Engineers Pre-college Initiative Program Conference) and sent nationally to high school counselors as a part of the Recruitment into Engineering of High Ability Minority Students (REHAMS) application packet. On a side note, ExxonMobil Corporation has been a major sponsor and/or supporter of the REHAMS Program in previous years, and it has proven to be an effective vehicle for attracting promising minority students into science and engineering programs.

Selection Process

Student applicants were reviewed in three stages for both Phase 1 and 2 of the program. First their application packages were examined for completion and adherence to scholarship requirements. Qualified applicants were then assigned random numbers for tracking. Next, applications were reviewed and scored across the first seven categories (Table 2). The first semester GPA was used as part of the academic record during the last half of Phase 1 and all of Phase 2. Faculty and CoE staff members evaluated the students' essays. Lastly, the top applicants were invited for a face-to-face interview with the selection committee. Following the interview, applicants were rank ordered for awarding available ExxonMobil Scholarships and another two or three were identified as alternates. It should be noted that during Phase 2, the freshmen were selected after the completion of the freshman fall semester and three sophomore students were selected during the second year.

Table 2. ExxonMobil Scholarship selection criteria.

Evaluation Criteria	Point Value
Academic Record (High School & 1st semester LSU GPA)	10
Letters of Recommendation	20
Essay Score	40
Community Service	25
Extra Curricular	20
ACT/SAT Score	noted
Rank in Class	noted
Committee Interview	noted
Total Possible Points	115

Participants

Scholars Phase 1 At the end of the first, five-year scholarship program, a total of 19 students participated in the ExxonMobil Scholar Program. Of these, eight participants continued as scholars through graduation with an engineering degree (Note this includes one funded ExxonMobil scholar who is on track to graduate May 2011). Of the remaining 11 scholarship participants, seven graduated with a Bachelor of Science degree in engineering, two completed degree programs at the university and two left the university.

With respect to demographics of the Phase 1 ExxonMobil scholars (Table 3), the proportions of the African American and Hispanic students were reflective of the LSU CoE ratios, while the percentage of females was higher than the overall CoE percentage.

Table 3. ExxonMobil scholar demographics were compared to the mean of the Freshmen CoE cohorts, 2002-2008.

Description	Phase 1 (n=19)	Phase 2 (n=13)	CoE mean 2002-2008
Female	26%	38%	16.8%
Male	74%	62%	83.2%
African American	79%	77%	9.23%
Caucasian	0%	0%	78.1%
Asian American	0%	0%	3.80%
Hispanic	21%	23%	3.20%

At LSU, there are nine engineering discipline degrees at the undergraduate level. Generally, the participants in Phase 1 of the scholarship program were evenly distributed among eight of the disciplines with electrical engineering at 26%, having the most scholars (Figure 1).

Scholars Phase 2 At the end of year two of Phase 2, a total of 13 students have participated in the ExxonMobil Scholars Program. Of these, 10 have continued as scholars with one leaving/transferring from the university at the end of the first year and two students no longer receiving the scholarship due to their cumulative GPA dropping below the criteria.

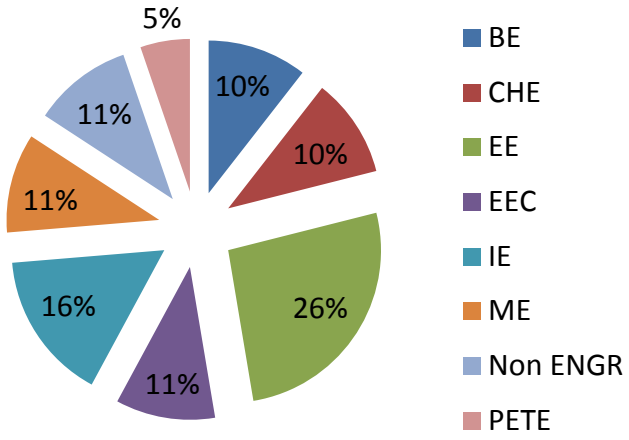

Figure 1. The distribution of majors was determined for ExxonMobil Phase 1 participants at the end of the program.

With respect to demographics of the Phase 2 ExxonMobil scholars (Table 3), the proportions of the African American and Hispanic students were reflective of the CoE ratios, while the percentage of females was higher than the overall CoE percentage.

At LSU, there are nine engineering discipline degrees at the undergraduate level. The participants in Phase 2 of the scholarship program were distributed among only five of the disciplines with the most scholars in chemical and mechanical engineering (Figure 2).

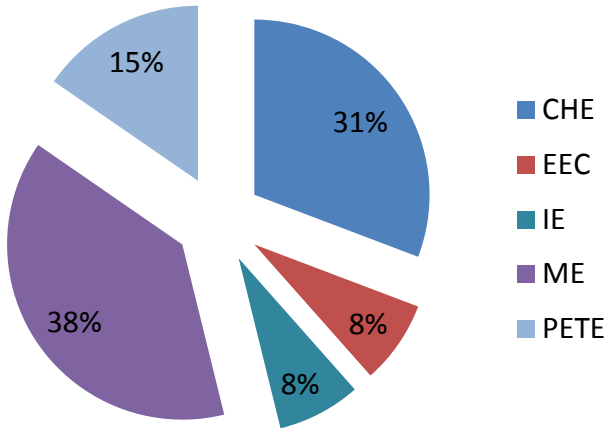

Figure 2. The distribution of majors was determined for ExxonMobil Phase 2 participants at year two of the program.

Activities

LSU CoE During the course of the academic year, the scholars from both Phases were required to attend monthly academic and professional development seminars. These seminars were sponsored by the CoE Office for Diversity Programs, and the programs target undergraduate engineering students served by the office including ExxonMobil Scholars. Topics during Phase 2 have ranged from Career Expo Essentials, health and fitness, finding academic help, interviewing skills and graduate school. ExxonMobil engineer, Del Dugas has been a key presenter in the interviewing skills seminar. Ms. Dugas and fellow ExxonMobil engineers have critiqued student resumes and conducted mock interviews with student volunteers. On the seminar series survey, students have consistently rated this particular seminar as one of the most interesting and helpful presentations with a score of 4.4 of 5.

The ExxonMobil scholars from both Phases have had mandatory one-on-one meetings (retention interviews) with the CoE Diversity Staff approximately once per month during the academic year to assess their academic progress and any issues outside the classroom that impact their overall success. Students who were determined to be in need of additional support and guidance were asked to meet on a more regular basis, and/or they were referred to other professionals on campus to seek support.

ExxonMobil In addition to providing financial support for the scholarship program, ExxonMobil has provided mentors and advice for each scholar during both Phases. The one-on-one mentor support has been a valuable component of the program as expressed by the scholars. After the first year of Phase 1, many of the scholars and the program were not performing as well as expected, and it was at this point that Del Dugas volunteered to enhance the program. Ms. Dugas continued to serve as the ExxonMobil coordinator/liaison since the second year of the ExxonMobil Scholars Program, and she recruits engineers from within ExxonMobil to serve as

mentors. Each scholar was matched with a mentor who maintains that relationship with the scholar for a minimum of two years. Initially, the mentor/scholar pairs were encouraged to meet face-to-face about once per month to develop a rapport. The ExxonMobil mentors have been provided Office for Diversity semester schedules so they could be knowledgeable about the students activities, and the scholars were encouraged to invite their mentors to LSU events and activities.

Mentor/Scholar dinner workshops have been conducted by ExxonMobil approximately once a semester. These events have been an opportunity to build relationships between mentors and scholars, work on team building skills and effectiveness, and develop professional etiquette and communication skills. Typically, the event encompasses an interactive lesson such as competitive group activities with awards; skits to demonstrate the correct and incorrect way to talk with fellow professionals; and discussions on the expectation, roles and responsibilities of the mentors and scholars.

Site visits by the scholars to the local ExxonMobil facility have also been part of the activities. The overall goal of the site visit day was to provide the scholars exposure to engineering opportunities in the energy sector that would help them consolidate their personal goals in attaining an engineering degree. The students:

- Were introduced to engineering careers and leadership at ExxonMobil.
- Interacted with a panel of young engineers and discussed the student-to-workplace transition.
- Shared lunch with their mentors and other engineers.
- Viewed a presentation on current engineering projects.
- Toured the facility.

An advisory panel consisting of College of Engineering and ExxonMobil personnel was established in Year 1 of Phase 1 to guide the development of the program. This panel has meet twice a year (mid-year update and annual meeting), and this allowed for a good exchange of information about the scholars and program progress and the ability to make adjustments as needed. This advisory panel was continued during Phase 2.

Evaluation and Assessment

GPA

The scholars in both phases were required to maintain a minimum 3.00 cumulative GPA in all coursework taken. The mean GPA for each phase of scholars was calculated based on their last semester attending LSU (Table 4), and grouped according to status. Overall, the results show that they maintained high academic standards. Eight of the Phase 1 scholars who maintained their award until graduation (scholar graduates) had an impressive mean GPA of 3.390 (s.d. = 0.300). Considering all 14 of the Phase 1 participants who graduated in engineering, their overall mean GPA was 3.005 (s.d. = 0.505). Whenever a student's GPA fell below this criterion, they were placed on probation the following semester, and they were no longer funded by the program if the GPA was not above 3.00 at the end of the semester. Phase 1 participants had a probation rate of 53%, and 30% of the students placed on probation returned to good standing over the five-year course of the program.

Table 4. The mean GPA for both phases of the ExxonMobil Scholars program was calculated and the number of scholars placed on GPA probation is given for each group.

	Phase 1			Phase 2	
	All Scholars n=19	Scholar Graduates n=8	Scholar Unfunded n=11	All Scholars n=13	Scholars Funded year 2 n=10
GPA (mean)	2.91	3.39	2.56	3.17	3.22
Number on Probation	10	3	7	4	2

At the completion of two years of Phase 2, the cumulative GPA for the 10 active scholars remained high at 3.22 (s.d. = 0.372) while all scholar participants had a 3.17 (s.d. = 0.407). The Phase 2 scholars had a GPA probation rate of 33% and a return to good standing rate of 50%.

The means for the objective selection criteria, ACT composite score, high school GPA and high school percentile rank, were calculated (Table 5), and they were analyzed to determine if there was a correlation with maintaining a college GPA >3.00 (Table 6). The data from both phases were grouped, and Pearson's correlations (r) were determined using SPSS®. The resulting Pearson's correlations were 0.245 - ACT composite, 0.173 - high school GPA and 0.024 - percentile rank, thus none of the three variables are strong predictors of maintaining a college engineering GPA >3.00. The data were also examined for each Phase, and the Pearson's correlations were notability different. The Phase 1 scholars' GPA was moderately correlated with the high school GPA (Pearson's r = 0.331) and negatively correlated with the ACT composite score (Pearson's r = -0.028). The Phase 2 scholars college GPA after two years in the program are showing much different correlations with the ACT composite exhibiting the strongest correlation (Pearson's r = 0.402) and high school percentile negatively correlated with high school percentile rank (Pearson's r = -0.186).

Retention and Graduation

The comparison of the retention and graduation rates of the ExxonMobil Scholars compared to LSU CoE freshmen and university cohorts provides an excellent evaluation metric that shows the positive impact of the program on the participating students. The main statistics that the university uses for reporting purposes are the six-year graduation rate and the retention rate after the freshman and sophomore years.

Table 5. Mean of academic predicators were calculated for CoE freshmen cohorts (mean 2002-2006) and ExxonMobil Scholars.

Parameter	CoE	Scholars Phase 1			Scholars Phase 2	
		All n=19	Graduates n=8	Dropped n=11	All n=13	At year 3 n=10
ACT Composite	25.3	24.8	25.4	24.2	27.2	27.6
High School GPA	3.34	3.78	3.88	3.7	3.64	3.58
High School Percentile Rank	-	9.5	11.4	7.9	15.0	18.5

Table 6. Pearson's correlations were determined to identify the relationship between ExxonMobil scholarship selection criteria and maintaining a college GPA > 3.0.

Group		ACT composite score	High School GPA	High School Percentile
GPA All Participants	Pearson Correlation	0.245	0.173	0.024
	Sig. (2-tailed)	0.201	0.378	0.907
	N	29	28	27
GPA Phase 1	Pearson Correlation	-0.028	0.331	0.154
	Sig. (2-tailed)	0.917	0.211	0.584
	N	16	16	15
GPA Phase 2	Pearson Correlation	0.402	0.309	-0.186
	Sig. (2-tailed)	0.173	0.329	0.564
	N	13	12	12

Scholars Phase 1 The six-year graduation rates were averaged over the same entering freshmen cohort years, and the rates for the University and College of Engineering were 58.4% and 39.3% respectively. The six-year graduation rates of the university minority and engineering minority populations were 50.3 and 27.1%, respectively. In comparison, the six-year graduation rate of all Phase 1 ExxonMobil Scholars was 84.2 % from the university and 78.9% in engineering (Table 7). These numbers are significantly higher than the CoE graduation rates. The mean time to graduation in the CoE is approximately 5.5 years and the Phase 1 ExxonMobil Scholars graduated 4.7 years on average. Within the scholarship program, eight students retained the award until graduation, and the 11 scholars who were dropped from the program persisted in their education at a much higher rate of 72.7% than the overall CoE rate 58.4%.

Scholars Phase 2 The Phase 2 scholars have been retained at LSU and in engineering at an exceptionally high level of 92.3%, with only one student leaving the university. Of the remaining

Table 7. Cumulative graduation rates (%) were calculated for CoE freshmen cohorts (mean of years 2002-2006) and Phase 1 ExxonMobil Scholars.

	CoE mean	All Phase 1 n=19	Scholar Graduates n=8	Unfunded Scholars n=11
University Graduation Rate				
4 Year (%)	0.2	15.8	25.0	9.1
5 Year (%)	46.6	68.4	100.0	45.5
6 Year (%)	58.4	84.2	100.0	72.7
Engineering Curriculum Graduation Rate				
4 Year (%)	13.6	15.8	25.0	9.1
5 Year (%)	30.9	63.2	100.0	27.3
6 Year (%)	39.3	78.9	100.0	63.6

12 ExxonMobil Phase 2 scholars, all students have been retained in engineering curriculums, and only two students have not met the GPA criteria to keep the scholarship award. At this point, these students are either in their third or fourth year of college and are on track to graduate between four and five years.

Mentoring Impact

A first time Mentor/Scholars Assessment was completed during the spring 2010 semester, and the goal of the task was to evaluate the effectiveness of the mentoring program and make improvements. The survey was adapted from the 2002 MentorNet® Survey[17] and included items with rating, ranking and occurrence type responses. The topics covered a range of issues from general experiences, logistics (e.g. how they communicated and frequency), benefits, and issues discussed. The scholar survey included 62 items, and the mentor survey had 77 items. On average, the scholars rated the overall mentoring experience a 4.5 on a scale of 1 (low) to 5 (high), and they have reported several positive outcomes. All scholars reported that they had experienced:

- "Better understanding of skills used by engineering, science or math professionals."
- "Encouragement and/or moral support from my mentor."
- "Learning about my mentor's job and workplace environment."

Likewise, the mentors rated the experience 3.9 (mean) and the quality of the match with the scholar a 4.4 (mean). The mentors reported several positive outcomes such as:

- "Self reflection on my own career."
- "The satisfaction of helping another person."
- "The opportunity to pass along what I have learned."

With respect to communications, both mentors and scholars reported that they received about the right amount of email from each other, and they planned to continue to participate at the same level. Also, their communications did not extend to the social networking media.

There were a few areas measured by the survey that indicated improvements could be made. Based on the item "Have you experienced…feeling like a member of a larger ExxonMobil mentor/scholars community," the mentors did not experience this as frequently as the scholars. With 1 = never experienced and 5 = often, the mentor average was 3.7 and the scholar average was 4.3. In the area of most useful topics, there was a gap in the importance of discussing the difference between academics and industry. The scholars overwhelming (90%) rated this as a useful topic, while 20% of the mentors believed this was beneficial.

Conclusion and Future Plans

While the sample size is only 33 total students, it can be concluded that the ExxonMobil Scholars Program has had a tremendous impact on minority engineering student retention and graduation. ExxonMobil Scholarship program Phase 1 participants accounted for 15% of the minority LSU Bachelor of Science Engineering graduates in the 2007-2008 academic year. It is also notable that three of the ExxonMobil scholars graduated with cumulative GPA's greater than 3.5. Subsequently, the continuation of this program has been viewed as critical to the LSU

College of Engineering's aim to increase the number of degrees conferred to students from underrepresented groups.

During Phase 1, a total of 19 students were part of the ExxonMobil Scholars Program. The initial process of selecting the Phase 1 scholars revealed that high school based metrics were not good indicators of a high level of academic performance at the university level. This in turn led to choosing ExxonMobil Scholars after one semester at the university. The program participants regardless of the status of financial support persisted to graduate with an engineering degree at a rate of 78.9%. The first ExxonMobil Scholar graduated in May 2007, and now works for the ExxonMobil Supply Company. Another three graduates were employed by ExxonMobil upon graduation.

The Phase 2 scholars were selected after completing the first semester of college, and this new criterion has led to 80% of the scholars remaining eligible and engaged in the program for a longer time. Of all Phase 2 participants, 92% remain in the engineering curriculum at LSU with mean cumulative 3.17 GPA. These Phase 2 scholars are on track to exceed the performance of their freshmen class cohorts and possibly the Phase 1 scholars.

The mentoring element has had an impact by pairing each ExxonMobil Scholar was with an ExxonMobil engineer. Feedback from the students and the mentors has allowed the mentor program to grow over time. The students believe the mentor program has been a tremendous benefit to them and has provided a mechanism for exchange of ideas and discussions pertaining to all aspects of the students' lives. The guidance provided by the mentors reinforced the importance of technical excellence, discipline, initiative, leadership, and other success traits. Their experience and counseling further helped the Scholars achieve academic and professional career goals.

The successes of this partnership between LSU and ExxonMobil Corporation will be used as a model to develop future programs with corporate sponsors who can provide critical financial support as well as the human relationships. This in turn will increase the number of under-represented minorities who earn engineering degrees and develop professional skills that are utilized throughout their careers.

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