

**GOALS AND ACCOMPLISHMENTS
ENGINEERING OFFICE OF DIVERSITY
ANNUAL REPORT
2000-2001**

(1) SIGNIFICANT ACHIEVEMENTS OF A GENERAL NATURE

1. Development of strategic Diversity Action Plan (DAP) that has been approved by SOE Faculty Advisory Committee on Diversity.
2. Recruitment of (10) minority graduate students into the school five of the seven departments.
3. Diversity education for administrators/staff and freshman students; Diversity Education for 80% of faculty planned for Fall 2001.
4. The integration of diversity education into the School engineering freshman curriculum to provide healthy and intellectually rich learning cultures for all students, especially the underrepresented minority students.
5. Development of structured mentoring/internships program for minority and academic disadvantaged students with increased faculty involvement.
6. Began the initiation of key signature programs:
 - Pitt Engineering Academy for College preparation, recruitment and retention of minority students.
 - Minority Access to Graduate Engineering Education to create pipeline for talented minority students to PH.D. Program at Pitt.
7. Restructured the Impact Summer Program with emphasis on quality, accountability for excellence, and emphasis on critical and analytical reasoning skills.
8. Re-Structuring all minority programs and integration into the strategic plan of the school with emphasis on quality and preparation for graduate education.
9. The School is presently above national average in enrollment of minority undergraduate students in most engineering disciplines possibly due to the success of the Impact program.

IMPROVEMENT IN THE QUALITY (AND QUANTITY) OF OUR UNDERGRADUATE EDUCATION

Through the activities of INVESTING NOW pre-college activities, the number of African American students recruited into engineering in the Fall 2001 increased by 300% over last year. New components of INVESTING NOW (CARE and SEA programs) have been designed (pending implementation) to make INVESTING NOW more closely aligned with the School's diversity priority of increasing minority enrollment in the School of Engineering.

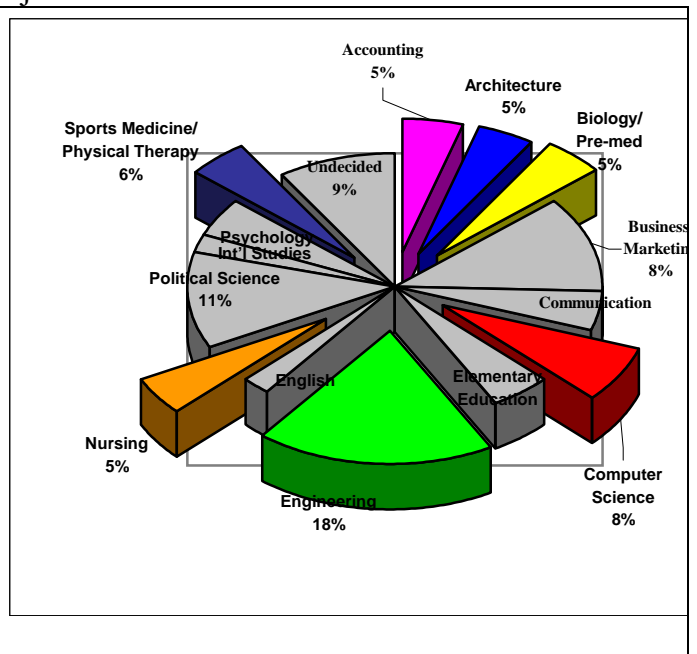
Colleges/Universities

University of Pittsburgh <i>(most frequently selected university)</i>	8 (18% of 2001 Graduates)
Engineering	3
CAS	5
Business	0
Other PA (distributed over 9 schools)	16
Out-of-state	19
Historically Black Colleges or Universities	8
Other	11
Accepted, but Undecided	1

Intended Majors

50% of 2001 graduates plan to pursue MSE majors

Accounting	2
Architecture	2
Biology/Pre-med	2
Business/Marketing	5
Communications	2
Computer Science/Programming	3
Elementary Education	2
Engineering	8
English	1
Nursing	2
Political Science	5
Psychology	1
Spanish/Int'l Studies	2
Sports Medicine/Physical Therapy	2
Undecided	4
Total Math and Science	22
Total of All Majors	44



INVESTING NOW could contribute to quality of undergraduate education through undergraduate students' involvement in our hands-on science component. The goals of Hands-On Science include helping students see the connections between classroom science and the real world, providing hands-on experiences in science and engineering, creating opportunities for students to interact with science and engineering professionals, and stimulating students' interest in science and engineering majors. The impact of Hands-on-Science activity is low in the school of engineering compared to other schools because of lack of faculty involvement. However, it could be increased and the quality of the undergraduates' education enhanced if more departments could participate in our Hands-On Science Component with the involvement of undergraduate engineering students (possibly from the Impact program) from the School.

The IMPACT program continues to make significant contributions to the goal of recruiting more under-represented students and improving the quality undergraduate education in four key objective areas:

A. To recruit quality underrepresented minority students into the School of Engineering.

Accomplishments: 1. Freshmen Recruiting Overview

	<u>Total Applications</u>	<u>Total Admitted</u>	<u>Projected matriculation</u>
01/1	177	119	27
02/1	246	147	36*

* Final numbers won't be available until Fall 2001.

2. There are currently 22 freshmen participating in the IMPACT 2001 Summer Program (13 IMPACT Admits and 9 Direct Admits)

	<u>Average SAT: Summer 2000</u>	<u>Summer 2001</u>
Math	508 (IMPACT) 621 (Direct)	515 (IMPACT) 607 (Direct)
Verbal	481 (IMPACT) 588 (Direct)	493 (IMPACT) 618 (Direct)

Challenges/Barriers:

Underrepresented minority students who receive financial aid will most often choose the institution that has offered the most complete package. If the University of Pittsburgh is to remain one of the top choices, the financial aid, merit-based, as well as need-based, must increase, as the tuition/cost of attending increases. The SOE and Dean's Office can help by committing more funds to the financial aid packages, thus allowing Pitt to

compete with institutions that are offering full funding.

B. To ensure the provision of quality academic support services to underrepresented minority and/or academically disadvantaged students.

Accomplishments: 1. 83.3% of freshman PEIP participants completed a program evaluation at the end of the spring 2001 semester.

100% of students completing the evaluation rated the counseling/advising component as good/excellent.

88.2% of students responding agreed/strongly agreed that the quality of Chemistry tutoring was very good or excellent.

58.8% of students responding agreed/strongly agreed that the quality of Engineering 001/0012 tutoring very good or excellent.

61.1% of students responding agreed/strongly agreed that the quality of Math tutoring very good or excellent.

89.5% of students responding rated the quality of Physics tutoring as very good or excellent.

80% of students responding rated the number of scheduled tutoring sessions to be “sufficient”.

35.3% of students responding rated the financial aid package awarded by the University of Pittsburgh to be “insufficient”.

2. 100% of students meeting with PEI-P staff were encouraged to participate in SOE and University support activities and/or services. Information was provided on:

- a. Supplemental Instruction Sessions
- b. Help Desks locations/hours
- c. Learning Skills Center
- d. Placement/Career Services
- e. Organization Study Sessions

C. To increase the number of underrepresented minority students who graduate, enroll in graduate school and/or enter the workforce

- a. Thirty-seven minority students graduated from the School of Engineering during the 2000-2001 academic year with an average QPA of 2.823 and 33% graduating with QPA of 3.00 and above. This represents a 6% increase in quality and 60% increase in quantity over 99-00.

D. To provide structured faculty-student mentoring experience.

Accomplishments:

During the Summer 2001, 9 PEI-P students served as interns for four professors in the SOE and one UPMC doctor/researcher. The length of the internships varied:

6 weeks (1 intern)

10 weeks (7 interns)

12 weeks (1 intern)

A major part of our goal of providing structured academic year mentoring to 30% of the senior class through research experience with engineering and corporate mentors during the academic year was not accomplished this year due to lack of funding.

Challenges/Barriers in meeting the School-wide objectives:

1. Although one objective was to expand PEI-P services, this has been limited due to limited staff. The SOE and Dean's Office can help by increasing the PEI-P staff with the addition of at least one full-time professional and one part-time records management staff person.
2. Increasing the availability of merit based financial aid awards could aid in the retention of students who leave due to lack of funds. These awards could also reduce the number of students who seek off-campus employment in order to meet their financial obligations. Students who achieve at a high academic level need to be supported and encouraged to continue to excel.
3. The increased availability of upper-level experienced tutors is also needed. Although TA's are available, they may not have matriculated at Pitt as an undergraduate, thus their familiarity with the specific course/professor may be limited. Most of the current tutoring is focused on the freshmen/sophomore level courses. Juniors/seniors also need tutorial resources.
4. It is important for students from underrepresented groups to see faculty who are members of their ethnic group. The faculty can serve as mentors/role models for ALL while helping the SOE increase its diversity in the classroom.
5. The number of internships to be offered each year depends on the funds available and the number of professors/mentors willing to commit their time and expertise.

- Continued financial support to cover housing costs and to help keep wages competitive is also needed to maintain and eventually expand the on-campus internship component.

Diversity

1. Diversity Education:

The school Office of Diversity organized and implemented a series of Diversity training for freshman students, teaching assistants and student leaders. Initial assessment of the impact of the training shows that more than 80% of the freshman students and 65% of graduates that participated committed themselves to examining their behaviors toward other's cultures and willingness to work together despite the cultural and value differences.

The diversity plan also conducted an initial diversity-training workshop to educate faculty and senior administrators on managing diversity. Most of the participants in the training felt the training was a valuable first step and 67% thought it was an outstanding workshop. The diversity action plan is to increase the School effectiveness in managing diversity and system-wide culture change, which could improve the students' perception of the departments, and the identity of the School in particular.

2. Graduate Education

The list below show some progress in the number of minority students admitted into the school with potentials for full sponsorship for graduate education in the school.

LIST OF MINORITY (HISPANICS AND AFRICAN AMERICAN) GRADUATE STUDENTS ADMITTED FOR FALL 2001.			
Students	Ethnicity	Department	Degree sort
Ayodope Anise	African American	BIO	MS
Carmen Gaines	African American	BIO	MS
Adetola Abatan	African American	CHE	PhD
Rolana Harris	African American	IE	MS
John Michelot	African American	IE	MS
Andre' Logan	African American	IE	MS
Serene Longsworth	African American	ME	MS
Wilfred Fonseca	Hispanics American	IE	PhD
Rafael Cruz	Hispanics American	IE	PhD
Igor Garcia	Hispanics American	MSE	PhD

This list represents a significant increase in the number of minority students admitted into the school. The Office of Diversity projects that 70% of the number will matriculate in the fall.

3. Minority Faculty Recruitment.

The School did not make any visible progress in the recruitment of minority Faculty for the 2001. Part of the reason is the apparent lack of commitment on the part of the department chairs that had opportunity to recruit minority faculty. We have identified the following universities as making progress in the approach to diversity issues, especially in the areas of recruiting and retaining minority faculty.

- **University of Washington, Seattle**
- **University of Texas, Austin**
- **Indiana University, Bloomington**
- **University of Michigan.**
- **University of Maryland**

Part of the accomplishments and focus of the Faculty Advisory Committee on Diversity is to develop a plan that will adopt some of the strategies generally applied by these universities. These include

tomorrow

A. The Search Process

- Committee members are trained to broaden the search process to reach out to complete pool of potentially qualified applicants.
- For retention, most new minority faculty members are mentored by senior faculty about the environment in the department.
- Standards are not to be lowered or merit discarded, but there must be an effort to ensure that existing criteria are applied with broad perspective to fairly give account of each individual true contribution to the learning environment.

B. Creation of Minority Faculty Development Funds to help departments target more diverse pool of faculty candidates.

C. Minority Visiting Faculty Program to increase national and international network through which qualified minority faculty could be identified for regular appointment.

D. Additional incentives to departments who identify and recruit minority faculty, especially those departments that do not have any minority.

E. Recognition of the role of Minority Faculty Recruitment Committee, a part of Faculty Diversity Committees.

F. Faculty salaries need to compete with salaries in industries.

G. Senior faculty and administrations are fully committed to recruitment and retention initiatives.

- Continuous dialog w/Deans (7% of faculty to be minorities) to support strategic hires in departments to increase African Americans in those departments that has no Latinos or African Americans.
- Search outside whether there is an opening or not.
- Assumes that allowing departments only to hire minority faculty does not yield expected results.
- Identify candidates through Minority Faculty Fellowship Programs.
- Strong commitment from the university.

Improvement in the Quality (*and Quantity*) of our Graduate Education Program.

By increasing the number of students graduating with a better QPA (6% over 2000), providing research internship opportunities with faculty (200% increase over 2000), providing a better structured mentoring opportunities, the minority engineering program activities are making significant impact in the quality of minority graduate education in the school.

Revenue Generation. During the current fiscal year, INVESTING NOW has received \$30,000 from the Grable Foundation and \$28,000 from the Pittsburgh Foundation. Our goal is to generate at least \$50,000 in outside funding each year from various foundations and corporations.

A significant portion of IMPACT funding is generated from outside sources. Major support is provided through the Pennsylvania Department of Education Act 101 which provided \$94,000 in 2000-2001 and \$97,000 in 2001-2002.

We continue to seek additional funding to assist the School in expanding and maintaining the programs. We are also hoping to see increased commitment and financial support from the School of Engineering.