PRE-COLLEGE AND TRANSITION PROGRAMS

TRANSITION PROGRAMS

Latin American Recruitment and Educational Services (LARES)

LARES Summer Bridge (LSB) During the recruitment and admission process students who straddle the admission criteria of the campus are identified and routed through the LARES Summer Bridge program.

Goals/Objectives The central goal is to assure the academic and social success of these students.

Strategies The academic portion of the program helps students transition from a high school to a college-level curriculum. The six-week course of instruction seeks to enhance the students' math and writing skills while introducing them to the resources of the campus. To make this program more accessible, course offerings are tailored to the cultural background of the participants. Curricular modifications include changing course content to reflect cultural perspectives. Since LARES works with a Latino population, the support program reflects the cultural values of this diverse group using literature, including essays, poetry, and fiction. The students find relevance in discussing topics directly related to their experiences. This sense of "belonging," according to the research, serves to connect students to the academic enterprise and improves the retention of minority students.

Outcomes In the summer of 2001 the LSB Program enrolled 71 students. Sixty-eight of those students were entering the College of Liberal Arts and Sciences and 3 were entering the College of Business.

Changes Planned No changes are anticipated.

College of Engineering – Minority Engineering Recruitment and Retention Program

Preparing for Majoring in Engineering (Prep-ME) is a six-week summer program designed to introduce newly admitted underrepresented freshmen in the College of Engineering to college-level math, engineering as a discipline and profession, and the college environment.

Goals/Objectives Prep-ME is a six-week summer program designed to introduce newly admitted underrepresented freshmen in the College of Engineering to college-level math, engineering as a discipline and profession, and the college environment.

Strategies During Prep-ME math sessions, students learn how to use a graphing calculator to solve various algebra and trigonometry problems in preparation for college calculus. This program is funded by the State of Illinois, the University, and industry contributions, and is free for all incoming freshmen students from underrepresented groups in the engineering profession. The pre-college summer program is similar to what students experience during the school year. Students commute from home and participate in daily academic and social events on campus. The program has been enhanced over the past five years with grant money from the state totaling approximately $250,000. Prep-ME students now receive six credits for participating.

Outcomes Prep-ME has proven to be a successful tool for recruiting academically prepared minority students at UIC, allowing these students to set clear academic goals during their college career. To illustrate the impact Prep-ME has on incoming freshmen and their experience at UIC with a difficult course, we compared difference between MERRP students who took Prep-ME and those who did not. Prep-ME students averaged 1.2 grade points higher in their math grades, 1.65 higher in their chemistry grades, and 1.0 higher in overall GPA. The average GPA of Prep-ME participants in Fall 2001 was 4.4 out of 5.0. The strength of the Prep-ME program is that it enhances the freshman's overall college performance. Prep-ME students gain first-hand exposure to the campus prior to the start of the semester. They receive quality instruction in mathematics and one liberal arts and science course. Additionally, they participate in campus seminars.

Changes Planned No changes are planned at this time.

College of Medicine -- Urban Health Program

Goals/Objectives There are two transition programs in UHP that are most accurately labeled transition programs. The goal of these two programs is to better prepare underrepresented students in areas relevant to admission to medical school

Strategies
The Post-Baccalaureate Admissions Program has a four-tiered approach: 1) summer diagnostic testing in the basic sciences, 2) academic year individualized curriculum of upper-level science courses, 3) additional summer preview in the basic sciences, and 4) academic retention activities including structured and non-structured psycho-social and educational activities. This program feeds students into the following program.

The Summer Pre-matriculation Program allows students to access the College of Medicine through performance in this program. This program includes class, lectures, and laboratory sessions covering first year courses.

Outcomes Approximately 85% of the students who participate in the Summer Pre-matriculation Program experience an on-time progression after completing their first year in the College of Medicine.

Changes Planned No major changes are anticipated in this program in the near future.

PRE-COLLEGE PROGRAMS

There are many activities that attempt to connect with grade school and early high school students. These include the many outreach activities of units such as the African American Academic Network and the Latin American Recruitment and Education Support Program. The initiatives detailed below are much more than that. They are formal programs that target specific groups of Underrepresented students with the goal of creating a passion for learning and a desire to continue their education. Although these are UIC programs, their impact is much broader and their success cannot be measured by the number of participating students who later matriculate at UIC.

College of Engineering–Minority Engineering Recruitment and Retention Program

MERRP offers two summer experiences designed to encourage high school students to encourage and maintain their interest in engineering. Each of the programs emphasizes some aspect of engineering, such as mathematics, physics, and digital design. The programs are: the Engineering High School Institute, and the Science, Technology, Engineering, and Mathematics Institute (S.T.E.M.).

The UIC Engineering High School Institute is a four-week summer program designed to ensure that minority students gain exposure to principles of mathematics and the basic sciences. The High School Institute was initially funded by external funds provided by GTE. The college later assumed responsibility for fully funding this program.

Goal/Objectives The goals of the High School Institute are:
- to encourage Underrepresented African American, Latino American, and American Indian students to pursue undergraduate education in engineering, math, and the sciences
- to increase the retention rates of minority students in math and sciences
- to expose students to the practical applications of mathematics, science, and technology in a laboratory setting
- to demonstrate how math and science are used in the study of engineering
- to provide students with exposure to a diversity of corporate work environments through industry visits.

Strategies The primary focus of the program is computer education and laboratory activities. Students

explore the practical application of engineering concepts to real life problems while learning digital electronics. In addition to their classroom experiences, students visit area companies, allowing them to gain exposure to the applications of engineering in industry. All materials and activities are free of charge for students who are selected to participate in the High School Institute.

Outcomes Approximately 90 students have participated in this program since 1996.

Changes Planned No major changes are envisioned at this time.

Science, Technology, Engineering and Mathematics (S.T.E.M) Institute is a part of a national effort led by the Center for Advancement of Hispanics in Science and Engineering Education with sites across the U.S.

Goals/Objectives S.T.E.M is designed to assist Latino and other underrepresented minority and disadvantaged science and engineering students in becoming successful college and university students. UIC serves as one of the house institutions for this program funded by NASA. S.T.E.M. motivates and nurtures students to achieve their full potential by providing them with a rigorous exposure to college-level courses in engineering, mathematics, and

science with an emphasis on critical and creative thinking. There is no cost to students who participate in the program.

Strategies S.T.E.M. is a five-week program in which each student takes two three-hour classes. These classes are designed to be academically intensive, yet engaging. The instructors for these courses are successful graduate and undergraduate students from universities throughout the country.

Outcomes Each summer, 50 promising high school students from Chicago experience the rigors of college-level courses by taking two of 10 possible courses ranging from General Chemistry to Probability and Statistics for Engineers. More than 250 students have participated in S.T.E.M. at UIC since 1996.

Changes Planned No major changes are anticipated at this time.

Urban Health Program

College of Education--Early Outreach Program

There are nine initiatives sponsored by the UHP Early Outreach Program which is housed in the College of Education. Due to lack of space, the programs will be listed and the goals, strategies, outcomes, and anticipated changes will be treated as one program. The program names and 2001-2002 enrollments are:

- Saturday College Program (136)
- High School Senior/College Transition Program (21)
- College Support Program (409)
- Hispanic Math/Science Education Initiative (135)
- ABLA (a public housing project adjacent to UIC) Community Scholar Program (453)
- UIC/CPS (Chicago Public Schools) Prep Program (432)
- Educational Enrichment Program (96)
- Summer Residential Health Science Enrichment program/Temple Minority Access To Research Careers (8)
- Mayor Daley's Summer Youth Employment Program (52)

General Goals/Objectives All of the programs and activities of the UHP Early Outreach Program share a set of common goals: to develop a cadre of underrepresented and underserved pre-college students who will pursue careers in the health professions as part of the Urban Health Programs' pipeline; to identify in elementary and high school underrepresented and underserved students who are gifted and talented, or who possess the capacity to be gifted and talented; to increase students' proficiencies in science and mathematics by creating a rigorous education environment in which students' academic abilities are nurtured

and their success is celebrated; to increase students' abilities to think critically and analytically and to problem solve; to introduce students to careers in the health professions in alliance with the UIC college affiliates of the Urban Health Programs; to provide parents with workshops which will enhance their ability to support their children throughout their academic careers; and to introduce students to a college environment.

Strategies The Early Outreach Program combines the theoretical constructs of Lem Semyonvich Vygotsky, Jerome Bruner, and Erik Erikson to design programs that empower students to excel academically. Each program is supported by the idea that in order for students to gain and increase scientific and mathematical proficiency and acumen, the program design must incorporate a multifaceted curriculum which results in a high level of competency through which students achieve a positive sense of their identity. The classes utilize a collectivist approach through which students encounter learning situations which teach them how to embrace and use their intellect and cognition to develop mastery in science, mathematics, and language arts, while providing a fundamental comprehension of the underlying principles that give structure to a given subject. Using activity theory, the programs provide diverse settings in which students are engaged in collaborative activities to try to work out scientific, mathematical, and language arts problems. The program also hires only teachers who are proficient in the areas in which they provide instruction. There are small numbers of students in each classroom, and students are assigned to instructional groups on the basis of ability.

Outcomes The success of the Early Outreach Program is documented by the following outcomes:

- One hundred percent of all graduates of the Saturday College Program and Hispanic Math and Science Education Initiative continue their education beyond secondary school. Ninety-five percent enroll in baccalaureate degree granting institutions, while the remainder enroll in associate degree granting institutions or post-secondary programs.
- One hundred percent of graduating seniors give the program an excellent rating.
- The average grade point average of graduating seniors is 3.49 on a 4.0 scale.
- Fifty-seven percent of the graduation seniors rank in the top 25% of their graduating class.
- For the 2001-2002 Saturday College Program, 67% to 100% of the students in grades four through eleven showed overall academic improvement; 75% to 100% showed improvement in mathematics (the 10th grade class was not included); 60% to 100% showed improvement in science.
- Eighty-one percent of the students enrolled in Saturday College and HMSEI Programs report grades of "B" or better in science, mathematics, and language arts.
- Ninety percent of students enrolled in Saturday College and HMSEI programs reports grades of "C" or better in science, mathematics, and language arts.
- One hundred percent of the eighth graders are admitted into high schools with selective enrollment criteria.
- The average composite ACT score has been between 21.5 and 21.9 for the past six years (scores typically range from 8 to 32), which is at or above the national norm. In comparison to students at Juarez and Clemente High Schools, Early Outreach students generally score six or more points above these schools' average scores.
- There is an increased commitment to academic excellence in student participants who reside in public housing and participate in the after-school and Saturday College Programs.
- The CPS Program received an excellent rating from the Board of Education evaluators.
- For the 2001 elementary school science summer camp, 67% to 100% of the students in grades 3 through 8 reported an above-average to excellent attitude toward science. Seventy-seven percent to 100% had positive attitudes toward their science teachers.
- One hundred percent of the advanced high school students who are placed in laboratories in the College of Medicine received excellent rating from their faculty mentors.
- Ninety-eight percent of the Health Science Enrichment Program students who are now in college or are graduating seniors are enrolled in or planning to enroll in pre-health science programs in college.
- Seventy-five percent of the parents of participants serve as volunteers on Saturdays in the classrooms or as hall monitors.
- Parental attendance at the monthly Parent Network meetings has increased tremendously. All the seven of the standing committees are functioning at very high levels of competency.

UHP-Early Outreach finds parental participation critical to improving academic performance.

- Parents are reading the texts assigned by the Director and writing book reports each month.

Changes Planned If the outcome assessments of these programs and their outside funding continue, no changes are anticipated.

College of Medicine--Urban Health Program

Goals/Objectives Current recruitment goals are to identify and nurture the development of a potentially qualified pool of students from underpresented groups and to affect the acceptance and enrollment of students in this pool.

Strategies The College of Medicine has an extensive program that includes pre-collegiate and pre-professional school programs. The five pre-college and pre-professional initiatives offered under the umbrella of the Urban Health Program are:

- Structured activities on- and off-campus for students at three partner public high schools;
- A summer six-week prep course for the ACT;
- A seven-week MCAT Review Course to prepare students for the August administration;
- A six-week Summer Academic Enrichment Program to provide additional academic preparation for applicants to the COM whose credentials were not competitive for admission, but who displayed excellent motivation and commitment to a career in medicine.

Outcomes This summary will highlight outcomes of a few programs. Eighty-five percent of the participants in the MCAT Preparation Program improved their inorganic chemistry score by 30% or more, and 100% improved their pre-test score in organic chemistry by 30% or better. Participants in the HCOP Summer Academy had similar success. Fifty percent earned a "B" or higher in Math, 69% a "B" or higher in Chemistry, 67% a "B" or better in Biology, and 81% a "B" or better in English. Generally, numbers of participants have increased.

Changes Planned Minor changes are always occurring in every program. One such minor change is the redesign of the Prep for MD Program to target rising sophomores who have not taken their first science and math courses. This program proved to be a burden for new freshmen – the original target of this program.

College of Medicine--Hispanic Center of Excellence (HCOE)

Goals/Objectives Three goals of this program are related to recruitment: To increase the proportion of Latino students from three partner high schools who enter pre-med studies at UIC or other four-year colleges by at least 25%; to increase the transfer rate of Latino students from Richard J. Daley College to UIC or other 4-year colleges in pre-health professions programs by at least 25%; to increase the number of competitive Hispanic applicants from Illinois from to 55.

Strategies The ESCUCHA Network and the ESCUCHA Leadership program are major tools in achieving program goals. The ESCUCHA Network brings together Latino high school, college, and medical students in Chicago and other selected areas in Illinois to encourage and support each other to continue their academic pursuits toward a medical degree. The leadership program is a seminar that brings student leaders from various Illinois schools to participate in interactive workshops which provide culturally-based leadership development training on Hispanic Health. HCOE offers a Medical College Admissions Test Review Course to help Latino college students prepare for this test. In addition to these general initiatives, the HCOE staff customizes program activities to meet the needs of the partner schools. For example, 30 students from a majority Latino school were able to attend an anatomy lab workshop, a laparascopic computer surgery, a financial aid workshop, and a vital signs workshop through the auspices of HCOE.

Outcomes HCOE is moving toward its goal of increasing the proportion of Latino students from the partner high schools and Richard J. Daley College by 25%. In Fall 2001, 61 Latino students from the 3 partner high schools enrolled at UIC. For Fall 2001, there were 21 transfer students from Daley College compared to 18 in 1998. The goal of increasing the Latino medical school applicant pool to 55 in three years was surpassed. There were 135 competitive Latino applicants and 61 Latino new students in the UIC College of Medicine in the past three years. HCOE has played a role in this increase. The 1999 entering medical school class netted 48 competitive Latino applications. Of these, 17 students were products from either the ESCUCHA Network, the MCAT Summer Program, or the Post-Baccalaureate Program. For the entering class of 2000, 42 Latino applicants were in the pool. Of this group, 19 students had been involved in HCOE programs. The entering class of 2001 netted 45 competitive Latino applicants. Twenty-five had been participants in HCOE activities.

The goal of increasing the Latino medical school applicant pool to 55 in three years was surpassed.

Changes Planned The federal grant supporting this Center has been renewed. Only minor changes are anticipated due to the success of the current strategies.

Hispanic Center of Excellence and Urban Health Program (Joint College of Medicine Program)

Prep for MD Summer Program

Goals/Objectives The shared goal of these two programs in the College of Medicine is to increase the enrollment of underrepresented students in the UIC College of Medicine. The specific goal of the Prep for MD program is to prepare targeted UIC undergraduates for entering the health care professions.

Strategies The program consists of eight weeks that focus on courses in general biology, inorganic chemistry, physics, and pre-calculus. Participants are provided diagnostic assessments of academic skills and intensive reviews of math and basic science. The program includes an orientation as well as study skills, test taking skills, and time management skills.

Outcomes Six students enrolled in this program in 2001, 3 African American and 3 Latino. These students will be tracked to assess impact.

Changes Planned Recruitment measures for participation in this program will be examined to increase enrollment. This program is grant supported. Under the new grant beginning in Fall 2002**,** this program will be under the aegis of the UHP - College of Medicine rather than a co-sponsored program.

TRIO Programs

TRIO has five component programs at UIC. A summary of goals, activities, and outcomes are reported due to space constraints.

Goals/Objectives The shared objective of these programs is to increase the retention and ultimate college graduation of underrepresented students. The programs target students at different educational levels and with slightly different specific goals.

- **Upward Bound** – is a comprehensive summer and academic year program to promote high school completion.
- **Gear Up** – partners with Saturday College (see above under Urban Health Pre-College Programs) to increase the number of college ready graduates from target high schools.
- **Educational Talent Search** – provides academic advising, cultural enrichment, tutoring and self-development activities to underrepresented students at the secondary and post secondary level.
- **Regional Math/Science Center** – provides intensive math and science courses, as well as computer science and a foreign language classes, in a summer resident program.

- **Academic Support Program** – provides a broad range of support services intended to increase the retention of and graduation of UIC students from underrepresented groups.

Outcomes TRIO Programs receive most of their support from the federal government, and thus have formal plans for assessment. The extensive testing and analysis of progress are too extensive to present here.