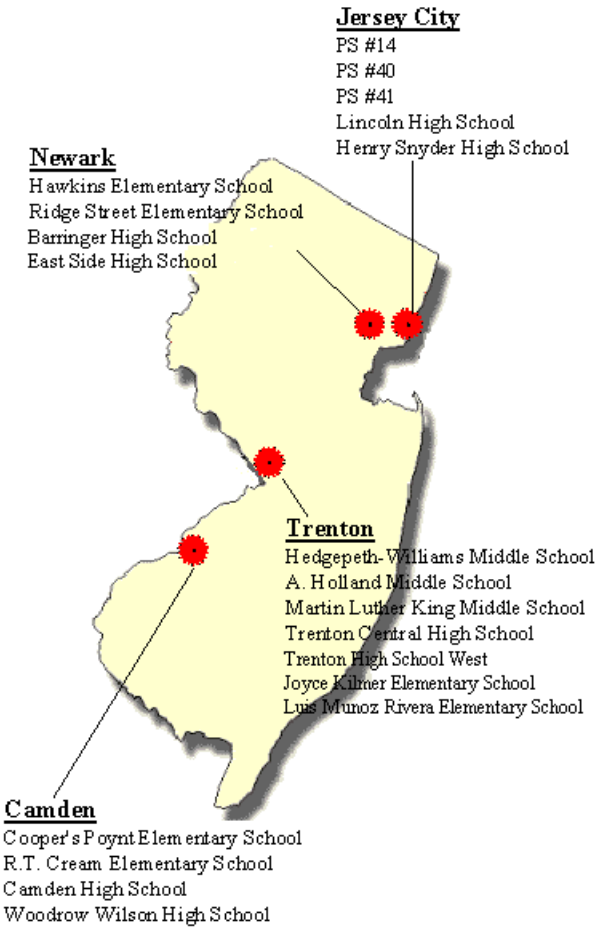
NEW JERSEY GEAR UP

Gaining Early Awareness and Readiness for Undergraduate Programs

Administered by the New Jersey Commission on Higher Education

Funded by the United States Department of Education

Preparing New Jersey Students for College and Careers
Evaluation of New Jersey GEAR UP
February, 2005



Margaret Heisel, Ph.D.
Executive Director,
Student Preparation and
Information Services
University of California,
Office of the President

Preparing New Jersey Students for College and Careers
Evaluation of New Jersey GEAR UP
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Executive Summary

Summary of Findings

The evaluator finds that New Jersey GEAR UP is an outstanding example of student focused academic development, providing low income and disadvantaged middle school through high school cohorts the skills, knowledge and individual self confidence and aspiration that leads to postsecondary academic success.

New Jersey GEAR UP has met, or nearly met, its recruitment and retention goals beginning in 1999-2000 and sustaining cohorts through 2003-2004. Student participants are members of low-income families and communities in four urban locations with high unemployment rates and high numbers of children living in poverty.

New Jersey GEAR UP provides a comprehensive set of services for developing students' awareness of educational and career opportunities, fostering the attitudes, expectations, and experiences that allow them to realize their goals. Through regular and frequent contact with participants over the course of middle and high school, the program establishes a "college going culture" among these students. The fact that the program is comprehensive—academic advising and support, personal counseling, tutoring, acquaintance with artistic and social resources outside the immediate community, summer and academic year supplementary course work, mentoring, parental involvement, and intense motivational work—means that students receive the full array of supports necessary to cultivate college going skills and aspirations.

New Jersey GEAR UP is providing students opportunities for improving math and science knowledge and skills. Students receive tutoring and supplementary course work in these fields throughout the academic year and in summer are provided a full complement of mathematics and science courses, which all students complete. These courses are directly linked to students' academic year programs and courses are aligned with New Jersey Core Curriculum Content Standards. Outcome data indicates that this supplemental course work and academic support substantively improves students' pass rates on the GEPA and HSPA, New Jersey's statewide proficiency exams.

New Jersey GEAR UP has established an excellent record of performance around four major outcome goals. 1) The program has set and maintained a high rate at which students remain in school and persist in the program; 2) it has increased the rate at which participants satisfy the New Jersey state testing requirements, GEPA and HSPA, in comparison with similarly situated peers; 3) it has raised participants' awareness and aspiration for college; and, 4) it has increased the rate at which participants apply to and enroll in college, as compared to their peers.

Background

The National GEAR UP Program

Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) was initiated October 1, 1998. The Program was enacted as part of the 1998 Higher Education Act (Title IV, Part A, Subpart 2, Chapter 2, P.L. 105-244). GEAR UP provides federal funds for state and local partnerships serving more than 1,236,600 low-income intermediate and secondary school students in 47 states, the District of Columbia, Guam, Micronesia, and Puerto Rico. GEAR UP partnerships include public schools, community colleges, universities, businesses, and civic and education organizations.

National GEAR UP Model

The purpose of the national GEAR UP program is to increase the number of low-income students who are well prepared to enter and succeed in postsecondary education. To achieve this purpose, GEAR UP provides five-year grants to States and partnerships to assist students in high-poverty middle and high schools. A distinctive feature of the GEAR UP program is its focus on entire cohorts of students with activities beginning in the seventh grade and continuing through students' graduation from high school. In addition to its individual counseling and motivation work and academic support services, GEAR UP also provides college scholarships to low-income students. GEAR UP is a comprehensive program; some of its distinctive features are the following:

- **Collaboration—**GEAR UP enlists middle schools, high schools, colleges and universities, community organizations, and the private sector in alliances that work in partnership toward shared goals for students. States also participate actively with these organizations to further academic achievement and prepare low-income students for higher education.
- **Matching Funds—**GEAR UP funds must be matched by resources from other members of the Collaborative.
- **Data Driven Outcomes—**GEAR UP programs set clear-cut numerical and qualitative goals and monitor progress toward goals on a regular and frequent basis.
- **Scholarships—**State grant recipients are required to allocate federal GEAR UP resources to scholarships for program participants to attend college.
- **Cohort Approach Beginning in Seventh Grade—**Students begin participating in GEAR UP no later than seventh grade and receive mentoring, tutoring, advising, and counseling from their initial entry through high school graduation.

Section I. New Jersey GEAR UP

New Jersey GEAR UP State Project Aims

The New Jersey GEAR UP State Project aims to increase achievement levels and promote college going among disadvantaged students in four low-income communities in New Jersey. The intent of the program is to enlarge the number of students prepared for, and succeeding in, colleges and universities, since postsecondary education is one of the most reliable means of improving workforce preparation and raising incomes and general well being among economically disadvantaged families.

New Jersey GEAR UP Organization and Sites

The four communities where New Jersey GEAR UP is focused are Camden, Jersey City, Newark, and Trenton. These are urban locations with high unemployment rates, high numbers of children living in poverty, and low median family incomes. In addition, schools serving these students display many signs of seriously reduced educational opportunity, such as low rates of high school graduation and high numbers of students who qualify for free or reduced-price meals.

The program works with students in 19 schools, consisting of twelve middle schools feeding into seven high schools. Average level of academic performance, as measured by state "barrier" exams, shows outcomes far below the state average. High school graduation rates are in the 30-40% range, as compared to a statewide rate of 84%. This pattern alone dramatically illustrates the level of disadvantage of students in these schools.

Schools participating in the program are the following:

City of Newark Schools
Barringer High School
East Side High School
Ridge Street School
Hawkins School

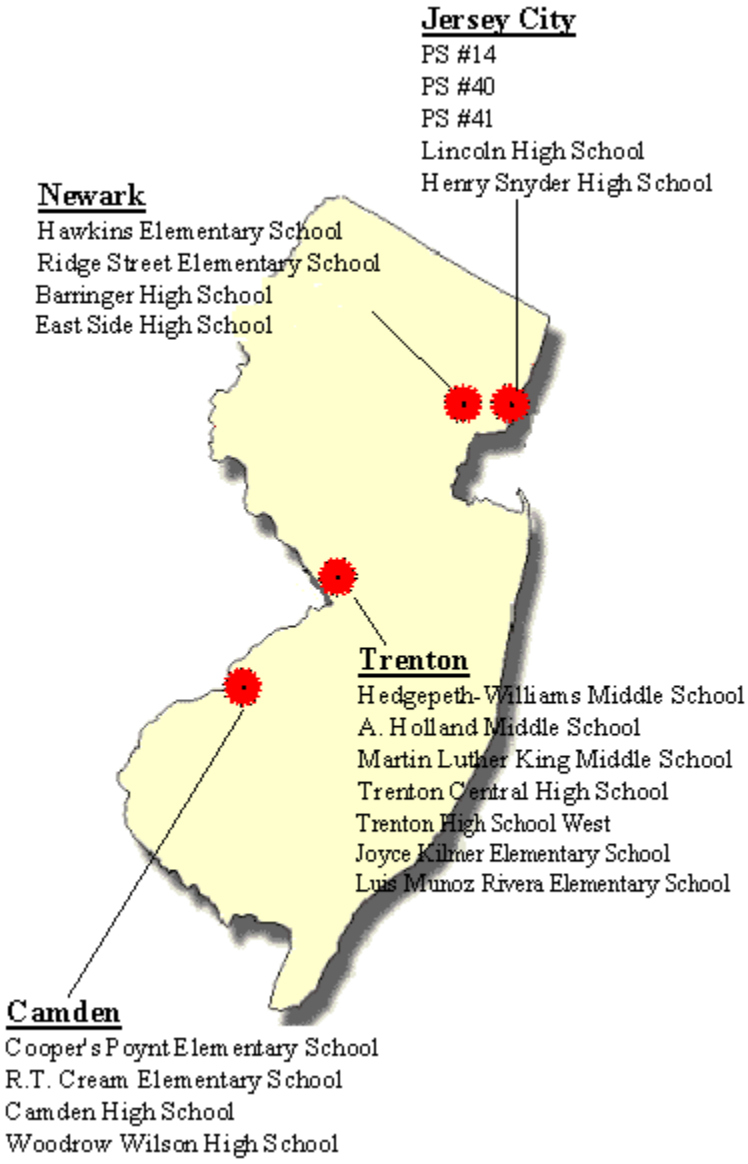
Trenton City Schools
Trenton Central High School
Hedgepeth-Williams Middle School
Martin Luther King Jr. Middle School
Arthur Holland Middle School
Joyce Kilmer Elementary School
Luis Munoz-Rivera Elementary School

City of Camden Schools
Camden High School
Woodrow Wilson High School
R.T. Cream Family School
Cooper's Poynt Family School

Jersey City Schools
Henry Snyder High School
Lincoln High School
PS#41 Fred W. Martin
PS#40 Ezra L. Nolan
PS#14 Ollie Culbreth

The map below displays the locations of the New Jersey GEAR UP state project.

Display 1



The charts on the following page detailing the demographics of GEAR UP participant schools are taken from the New Jersey Report Card, 2002-2003. They display figures indicating the overall social and educational demographics of the schools being served. All New Jersey GEAR UP students qualify for free or reduced lunch; as the data below indicate, the majority of the population enrolled in the schools served also meet this standard.

Displays 2 and 3

Profiles, NJ GEAR UP Target Middle Schools

	% Free or Reduced Lunch	English first language spoken at home	Other Languages 1st spoken at home	% Limited Engl. Proficient	Mobility Rate	Attendance 7th Grade	Attendance 8th Grade	Suspensions	Expulsions
Camden									
Cooper's Poynt	87.2	57.5	Spanish 42.5	2.9	15.1	95.1	93.9	1.0	0.0
R.T. Cream	80.9	85.2	Spanish 14.4	0.0	22.8	89.5	92.2	8.0	0.0
DISTRICT	80.2								
Jersey City									
PS #14	82.5	88.7	Spanish 8.9	0.0	18.1	96.6	94.8	15.6	0.0
PS #40	78.0	53.5	Spanish 41.2	20.6	26.6	94.8	95.1	16.4	0.0
PS #41	82.3	96.5	Spanish 3.0	0.0	20.5	93.2	92.8	15.1	0.0
DISTRICT	72.0								
Newark									
Hawkins Street	83.9	17.9	Sp. 59.7; Port. 22.4	13.3	32.1	92.5	89.5	1.3	0.0
Ridge Street	82.3	68.0	Spanish 31.2	13.3	21.6	92.2	92.5	1.4	0.0
DISTRICT	76.4								
Trenton									
Arthur Holland	73.1	97.9	Spanish 1.5	0.0	14.7	88.6	90.9	25.0	0.0
Hedgepeth-Williams	72.4	82.1	Spanish 17.1	0.0	18.4	88.3	86.5	10.5	0.0
Joyce Kilmer	71.6	99.6	Spanish .2	0.0	17.2	97.0	94.2	22.3	0.0
Luis Munoz Rivera	58.5	99.1	Spanish .7	0.0	22.1	94.9	89.3	10.7	0.0
Martin Luther King	77.4	94.4	Spanish 4.4	0.0	21.3	92.0	90.3	17.7	0.0
DISTRICT	54.6								
District Factor Group*									
State	12.1				12.8	94.9	94.7	4.7	0.0

**District Factor Groups are described in separate handout. All NJ GEAR UP target cities were classified "A" (lowest) in the 1990 census, and 3 of the 4 target cities continued with that classification following the 2000 census. Jersey City was classified "B" following the 2000 census.*

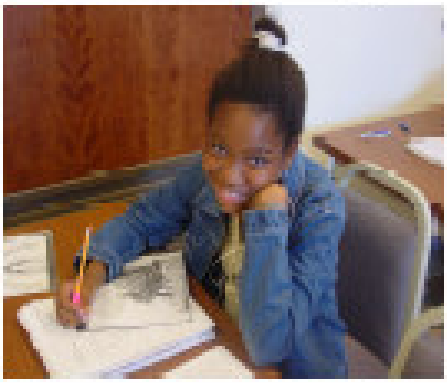
Profiles, NJ GEAR UP Target High Schools

	% Free or Reduced Lunch	English first language spoken at home	Other Languages 1st spoken at home	% Limited Engl. Proficient	Mobility Rate	Attendance Rate 9th Grade	Attendance Rate 10th Grade	Attendance Rate 11th Grade	Attendance Rate 12th Grade
Camden									
Camden	45.9	71.2	Spanish 28.8	3.1	27.4	77.1	80.8	83.8	87.0
Woodrow Wilson	67.0	56.0	Sp. 39.5; Viet 3.3	6.6	49.7	73.5	77.7	80.6	85.0
DISTRICT	80.2								
Jersey City									
Lincoln	50.3	75.1	Spanish 19.9	0.0	39.3	91.6	93.0	93.1	94.2
Snyder	58.8	87.0	Spanish 9.0	0.0	35.7	89.9	88.6	91.3	91.0
DISTRICT	72.0								
Newark									
Barringer	55.1	81.4	Spanish 18.2	10.3	38.0	85.2	80.7	79.0	79.1
East Side	54.9	40.3	Port. 30.6; Sp. 26.6	27.5	27.7	85.7	83.7	85.5	82.7
DISTRICT	76.4								
Trenton									
Trenton Central	39.9	75.7	Spanish 21.7	0.0	20.5	80.8	87.5	88.7	90.0
DISTRICT	54.6								
District Factor Group*									
State	12.1				10.9	93.4	93.5	93.1	91.9

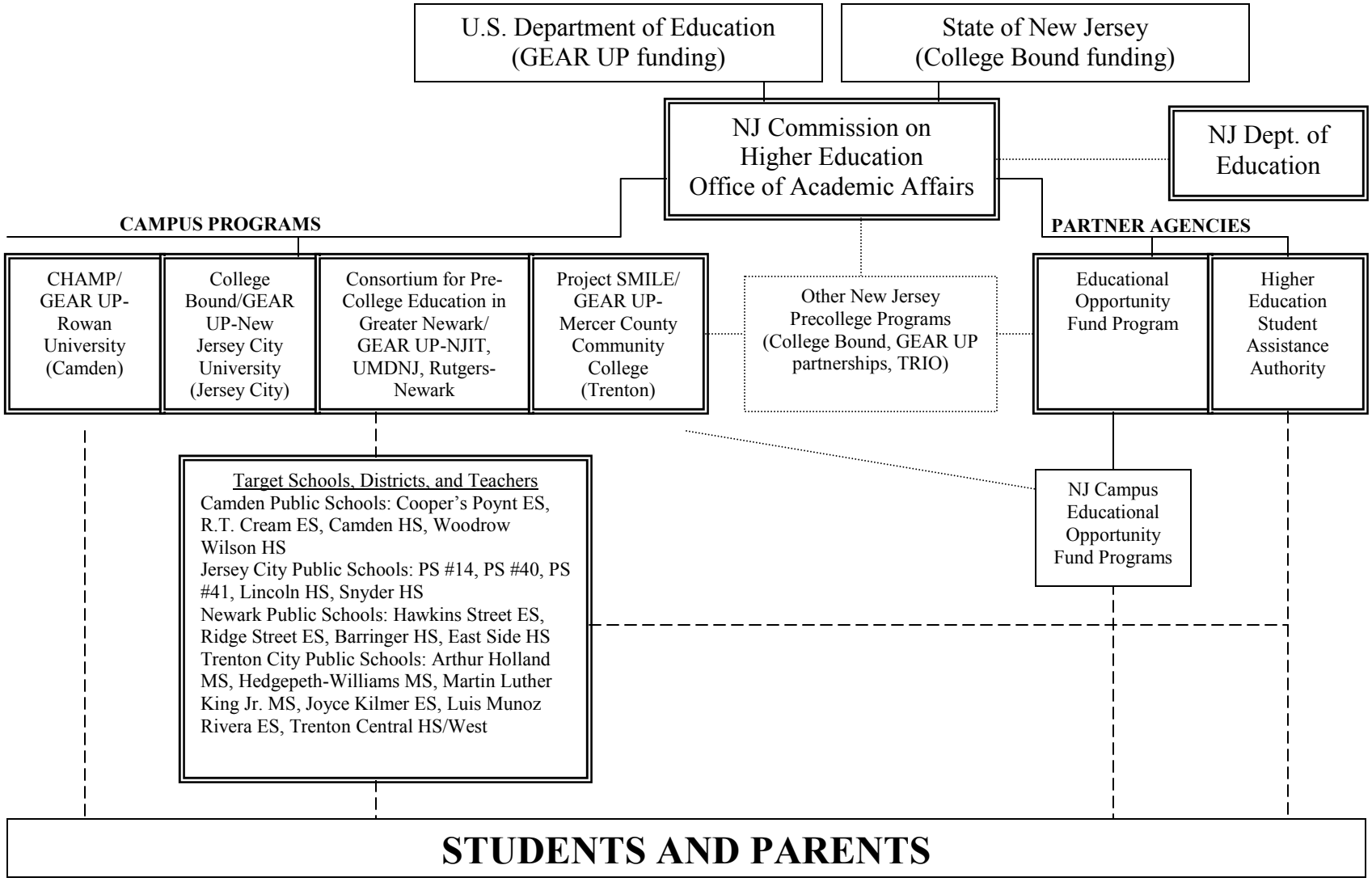
**District Factor Groups are described in separate handout. All NJ GEAR UP target cities were classified "A" (lowest) in the 1990 census, and 3 of the 4 target cities continued with that classification following the 2000 census. Jersey City was classified "B" following the 2000 census.*

Overall responsibility and oversight for New Jersey GEAR UP is provided by The New Jersey Commission on Higher Education in Trenton, New Jersey. Sites are comprised of The Consortium for Pre-College Education in Greater Newark/GEAR UP (New Jersey Institute of Technology, Rutgers University-Newark, and the University of Medicine and Dentistry of New Jersey), Project S.M.I.LE./GEAR UP at Mercer County Community College, C.H.A.M.P./GEAR UP at Rowan University, and College Bound/GEAR UP at New Jersey City University. New Jersey GEAR UP expanded funding and services to these programs, which existed as state-funded "College Bound" programs for more than a decade prior to the GEAR UP grant. These six colleges and universities work in tandem with the New Jersey State Department of Education, the New Jersey Higher Education Student Assistance Authority, the New Jersey Educational Opportunity Fund, and the New Jersey Commission on Higher Education.

The NJ GEAR UP organizational plan (see Display 4) brings a number of important contributions to the quality and strength of the project. It links the full chain of New Jersey education providers, from intermediate school to university in the four site locations, into an on-going and active communication network. Not only does this promote long-range educational planning on the part of individual students, but it also helps to link the curricula and staff of these institutions in ways that benefit students and their learning, through greater coordination and exchange of information, ideas, and perspective among organizations. It also strengthens ties within the educational community and with local social service agencies.



NJ GEAR UP State Project Organizational Relationships



Display 4

Program Funding

The New Jersey GEAR UP State Project operates with federal funding of $10,036,582 matched with state and other funds for a total of $20,076,323. These funds are distributed over a five-year period of steadily increasing amounts to accommodate progressive growth in the number of students served. On September 1, 2004, the New Jersey program was granted a sixth year of additional funding amounting to $2,730,328 (matched dollar for dollar with state and institutional funds); the sixth-year extension was offered to all GEAR UP programs originally funded in 1999.

The GEAR UP grant provides funds for pre-college intervention to increase significantly the number of low-income students who are prepared to enter and succeed in postsecondary education. Student financial needs for support during college enrollment are addressed through pre-existing state financial aid programs including the Tuition Aid Grant, the Educational Opportunity Fund Program, and Urban Scholars awards. The federally funded New Jersey GEAR UP scholarship also provides financial support for college expenses for any GEAR UP student who attends college in New Jersey.

Program Theory of Action

The core theory of action for the New Jersey GEAR UP program is a well-established intervention model implemented, especially by postsecondary institutions, in partnership with secondary schools. The assumption on which the model operates is that a combination of enriched learning resources, coordinated with consistent and exemplary adult interaction, will raise student achievement levels significantly. The program provides individualized personal counseling and advising along with tutoring, enriched classroom services, participation in cultural experiences such as travel to postsecondary campuses, museums, and other similar institutions, and support for parents' involvement in education and assistance to them in financing education. This broad, comprehensive suite of interventions is consistent with the thinking on which the national GEAR UP model is based.

In the intersection of personal, educational, and cultural enrichment, low-income students provided these resources have been found to raise their educational and occupational aspirations and to achieve the educational prowess necessary to participate successfully in higher education and employment. In addition, schools where the program operates benefit from a variety of support services being offered for all students, increasing general learning opportunities for all throughout the target communities.

Specific program implementing strategies follow:

1. support target schools in their efforts to improve student performance, graduation, and college attendance rates;
2. assist target schools in their efforts to implement the Core Curriculum Content Standards and coordinate GEAR UP activities with schools to ensure that they are consistent with the requirements of whole school reform model developers;

3. broaden family awareness and participation in decisions related to college preparation, attendance, and financing;
4. enable more students to choose and successfully pursue college preparatory curricula and eventually enroll in a college or university;
5. expand the efforts and number of students served and strengthen local school/college partnerships in the target schools;
6. enable more low-income students to attend college by providing financial assistance; and
7. advance the body of knowledge about effective practices in pre-college intervention among urban youth.

Program objectives include the following. (In parentheses below, the responsible agencies for each of these objectives are cited.)

1. improve the quality of a student's education (NJDOE, target schools, and campus programs that serve the 19 target schools);
2. provide access and opportunity to pursue higher education at a New Jersey college or university (colleges and universities, Educational Opportunity Fund campus programs);
3. help finance postsecondary education at a New Jersey college or university (HESAA—Tuition Aid Grant and Urban Scholars programs, Educational Opportunity Fund); and,
4. provide summer bridge programs and educational enrichment, support services and leadership development while enrolled in a New Jersey college or university (Educational Opportunity Fund).

Section II. New Jersey GEAR UP Program Implementation

How is New Jersey GEAR UP Being Implemented? Observations:

This report tracks the performance and outcomes of New Jersey GEAR UP implementation of components. The observations expressed derive from personal visits to all four program sites conducted during the Summer Program 2004 to observe sessions and speak with students, program administrators, and instructors; again during the fall academic year session, visits were made to the school sites to observe tutoring sessions in practice and speak with teachers, school administrators, and individual students. In addition, materials were reviewed, documenting program activities as well as curricula and staff training.

The sequence of subjects treated is as follows:

- students who participate in this program
- program elements implemented with these students
- documented program outcomes

Who are the New Jersey GEAR UP participants?

New Jersey GEAR UP proposed to recruit 568 participants in year one (1999-2000) and to increase these numbers annually over five years to a total of 1092 participants in year five (2003-04). This total was to be comprised initially of 189 students in 7th grade, 159 in 8th grade, and 55 per grade in 9th-12th grades; students were to be recruited from the 19 target schools listed above. Two of these schools were added during Year Four of the project because of Trenton School District restructuring.

Although the program did not meet the Year 1 target, recruitment since that time has progressed well with steady growth annually, and with actual numbers falling only slightly below goals in the four years following the base year when 490 students were enrolled (see Display 5). No national retention figure for GEAR UP programs is available for comparison, but even without this standard it is clear that the program is working well in advancing the preponderance of original enrollees.

It should be noted that GEAR UP projects can choose to serve a cohort of students (all students in a particular grade) or "priority" students (selected students who meet low-income criteria and are in any grade from preschool through 12th). Although the NJ GEAR UP State Project targets "priority" students, it was implemented exactly like a cohort: the project did not allow students to enter the program after 8th grade. Therefore, attrition at the high school was only compensated for by adding new middle school students.

Display 5

NJ GEAR UP STATE PROJECT

Targets	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
7th	189	168	189	188	194	215
8th	159	189	168	194	188	215
9th	55	159	189	168	194	178
10th	55	55	159	189	168	184
11th	55	55	55	159	189	156
12th	55	55	55	55	159	126
Total	568	681	815	953	1092	1074

ACTUAL RECRUITMENT/RETENTION OUTCOMES

3/18/2005

Grade	Year 1 All	Year 2 New	Year 2 Moved Up	Year 3 New	Year 3 Moved Up	Year 4 New	Year 4 Moved Up	Year 5 New	Year 5 Moved Up	Year 6 New	Year 6 Moved Up
7th	176	192	0	259	0	260	0	220	0	215	0
8th	134	54	142	55	143	38	190	44	187	18	197
9th	41	55	101	0	126	0	157	0	198	0	178
10th	43	0	37	0	97	0	121	0	168	0	184
11th	49	0	37	0	27	0	83	0	136	0	156
12th	47	0	45	0	34	0	23	0	82	0	126
	490	663.0		741.0		872.0		1035.0		1074.0	
ORIGINAL TARGETS:	568	681		815		953		1092		NA	

	Yr 1	Yr. 2		Yr. 3		Yr. 4		Yr. 5		Yr. 6	
	% of Target	% Target	% Retained*	% Target	% Retained*	% Target	% Retained*	% Target	% Retained*	% Target	% Retained*
7th	93.1%	114.3%	--	137.0%	--	138.3%	--	113.4%	--	100.0%	--
8th	84.3%	103.7%	80.7%	117.9%	74.5%	117.5%	73.4%	122.9%	88.8%	100.0%	89.5%
9th	74.5%	98.1%	75.4%	66.7%	64.3%	93.5%	79.3%	102.1%	86.8%	100.0%	77.1%
10th	78.2%	67.3%	90.2%	61.0%	62.2%	64.0%	96.0%	100.0%	107.0%	100.0%	92.9%
11th	89.1%	67.3%	86.0%	49.1%	73.0%	52.2%	85.6%	72.0%	112.4%	100.0%	92.9%
12th	85.5%	81.8%	91.8%	61.8%	91.9%	41.8%	85.2%	51.6%	98.8%	100.0%	92.6%
	86.3%	97.4%	81.7%	90.9%	69.1%	91.5%	81.2%	94.8%	90.8%	100.0%	88.2%

YEAR SIX NUMBERS ARE PROJECTIONS, NOT ACTUAL

*Year-to-year retention. Retention numbers in excess of 100% occur when a student in the original cohort does not participate for a year and then re-enters the program at a later date.

Source New Jersey GEAR UP State Project

Equally, as the above chart shows, the retention record of participants has been outstanding. Annual retention figures have ranged from a low of 69.1% to 90.3%, with higher rates occurring in later years as the program has matured. (Note that retention in some instances exceeds 100%; this occurs in years when students in the original recruitment group drop out for a year and are then "reclaimed" at a later date.)

General Student Comments on Program Effectiveness

Interviews with student participants conducted both during the summer program and the academic year revealed a high degree of enthusiasm and approval for the program. A large majority of students interviewed attested to the value of their experiences in the program. The specific benefits the students cited from the program were:

- assistance in raising their grades in their course work,
- increased interest and achievement in various academic disciplines through innovative instructional techniques, and
- hands-on experiences related to various academic disciplines (for example, students mentioned the opportunity to enroll for a summer session in anatomy that increased their interest in medicine and in biology).

Likewise, students' interest in environmental science, physics and engineering rose as a result of summer session experiences, an effect resulting from environmental studies conducted in various field locations. Also, students' opportunity to conduct laboratory experiments involving principles of electrical engineering contributed to their increased learning, motivation, and academic goals.

Students interviewed expressed very high regard for program content and value. Students interviewed for this study had attended the summer sessions for multiple years. In their responses, they discussed their motivation for spending a major portion of their summers in the classroom, year after year. The reasons they cited were:

- the academic advantage of supplemental course work,
- the opportunity to acquire college information and preparation,
- the chance to meet new peers,
- the recreational and cultural opportunities, and
- the intellectual stimulation of class work.

How did the program convey these benefits?

Tutoring

At all of the sites visited, I found tutoring sessions available to the entire population at the schools served and being used on a regular and frequent basis by large numbers of students. The sessions were located in easily accessible sites, either within the school or at the local GEAR UP offices. Uniformly, the locations were comfortable and well-lighted and furnished, with excellent atmosphere for study and tutor/student dialogue.

Students interviewed stressed the value of the tutoring for working on specific challenging assignments or parts of assignments and for establishing a regular study schedule for themselves. Clearly these sites represent a welcome "safe haven" for students. Several mentioned that, with both parents working and unavailable for assistance, these tutoring sites provided services essential to academic achievement. Students also expressed appreciation on the part of their parents for the oversight and academic assistance the program provides.

The schedule for tutoring was a four-hour session, available Monday through Thursday, along with a Saturday session, consisting of either help with class work or a special academic enrichment session. Most of these sessions are scheduled after school, although two schools feature tutoring during the school day. In both time settings, it was clear that students make regular and effective use of the tutoring.

Tutors themselves were well trained in academic disciplines, with excellent demeanor for work with students. In most cases, tutors were drawn from the population of local college students—frequently math, engineering, or English majors---with clearly evident ability to work successfully with tutees. Often tutors had participated in the program as pre-college students. Tutors led students systematically through academic problems, challenging them with appropriate questioning and level of responsibility for student independence and effort.

I found a wide variety of different levels of academic difficulty in the problems being addressed, for example in mathematics, all the way from basic arithmetic to calculus and math analysis. Most frequently at the high school level, tutoring focused on Algebra I and II and Geometry. I also found that tutors were working closely with students and teachers on various aspects of New Jersey State testing programs, both the New Jersey Grade Eight Proficiency Assessment (GEPA) and the New Jersey High School Proficiency Assessment (HSPA). These sessions clearly were highly valued by both students and schools.

School personnel, including teachers, principals, and counselors, expressed very high support for the program and its contributions to student achievement and school services. They indicated that:

- the individual attention given to students was extremely valuable,
- the breadth of new experience and increased motivation was very helpful both to individuals as well as to general school environment, and
- the interaction between program staff and school staff was superior.

Some school officials emphasized the value of GEAR UP assistance to students in preparing for statewide examinations. When asked about changes or additions to the program, school principals, counselors, and teachers requested expansion of program size, in order to assist more students, in particular as regards tutoring.

Mentoring

I interviewed a number of program mentors and I discussed mentor performance with students extensively. I also reviewed mentor training materials and hiring guidelines and discussed expectations that GEAR UP staff have for the mentors. On all these dimensions, I found appropriate expectations being met. Supervision is consistent and there is ample communication between staff leadership and mentors. Mentors displayed appropriate understanding of student development and of their own role in relationship to individual mentees. Mentors also maintained long term relationships with the program and with students.

As with the tutors, I found that the mentor staff is drawn from the local college student population and often from the population of students who have participated in the program. In the current grant structure, mentors are required to be college students; others are not used unless they are at least enrolled for some college courses. I was especially impressed with the role that mentors take in the summer program, when there is considerable time for relaxed and lengthy discussions.

Students indicated that they most appreciated the mentor input regarding the college experience---from a peer point of view. New Jersey GEAR UP mentors are effective in conveying the value of college to students and in helping students see that college is possible, academically, financially, and socially. They also were helpful in assisting students in the college choice process, drawing students' attention to aspects of colleges and universities that many students might not notice and providing a realistic, first-hand picture of the college experience---for example, providing information about how the college experience might differ for a student attending a local versus a distant college,

what social mores prevail at various institutions, and how to assess cost differential effectively.

The mentors displayed appropriate training and maturity, and expressed satisfaction with the training they had received. Training materials I reviewed were comprehensive, covering the full range of issues related to role modeling and advising; in addition, I noted that the schedule for training was appropriately structured.

In sum, I believe that the mentor component of the program is a particular strength for the student population being served.

Informing Students' College and Vocational Decisionmaking: Setting College Goals and Monitoring Progress to Achievement

As indicated throughout this report, promoting student understanding of goal setting and decision making is a complex, multidimensional process. On the one hand it involves expanding student horizons and promoting a sense of confidence and high expectations. At the same time, it is critical to base these expectations in a realistic understanding of the achievements required (especially academic achievement) and discipline and hard work necessary to accomplish ambitious goals.

I am particularly impressed with the wide variety of tools New Jersey GEAR UP is employing in raising student expectation and increasing knowledge of the world of education and careers. I have described many of these tools throughout the report.

New Jersey GEAR UP is providing materials and information about higher education in a great variety of forms; principal among these are:

- printed materials
- acquaintance with materials on the web
- career aptitude and interest inventories
- input from current college students
- visits to colleges and universities
- assistance with the college application process
- ongoing monitoring of students' progress in covering the college prep curriculum and in preparing for and taking appropriate standardized tests
- help to students and parents in gaining awareness and confidence in how to finance college through financial aid and other means.

Clearly this dimension of the program is central in importance. It brings together, in one form or another, all of the other program components. It is ubiquitous within the program. Equally, it is difficult to characterize accurately, because it is embedded in every program activity and feature. Rather than attempting an exhaustive list of every way that I found information being provided, I will try to describe activities I feel are especially relevant and revealing.

Interviews with students regarding goal setting

First, I interviewed students at all program levels about goal setting. Among intermediate grade students, I found somewhat unrealistic career aspirations. Young students mentioned possible employment as actors, cosmetologists, and often pediatricians. The extreme diversity of these occupations and the students' explanations for their choices suggested that their ideas were not well grounded in an understanding of the work involved in such jobs, the paths one might follow to reach these goals, or of the job's relationship to their abilities and circumstances.

As students progressed through the program, I found evidence of steadily increasing levels of awareness, aspiration, clear thinking and realistic planning around college and career. Two factors appeared to play important roles---visits to college campuses and conversations with tutors and mentors. These experiences appeared to make the deepest impression on students. Visits to campuses gave students a vivid sense of the college experience, in particular because the visits involved discussions with admissions officers and faculty and with enrolled students. Mentors and tutors gave students, in their own vocabulary, a sense of what college required and what opportunities it provided, as well as how it felt from the perspective of a neighborhood peer of a similar background. Mentors and tutors are credible witnesses for students as well as models for behavior and aspiration.

Access to College Information—Printed and On-Line

In terms of other materials, I found at every program site a well-stocked library of current college catalogs, recruitment materials such as view books, and applications from a wide variety of types of colleges and universities. Also, I observed students conducting college searches and career inventories via computer, both as a part of summer session coursework as well as in everyday personal use during my academic year visit. Training in computer search techniques on these topics seemed particularly useful since this knowledge has such great value both as a learning tool and for a student's continuing investigation and understanding of his/her goals.

Monitoring Individual College Preparation

I reviewed Personal Educational Plan (PEP) form files that are completed each year for individual students, documenting their progress toward various academic goals---lists of course work taken, grades, and standardized test scores. These files form the basis for individual planning sessions with students to assure that they are giving adequate thought over time to an assessment of their individual strengths and to their plans for future career and education, taking into account the record of grades and test scores they are building. I found these sessions and similar sessions being conducted by a variety of personnel, including mentors, advisors, and other program staff.

I also discussed with students and with program staff the availability of test preparation programs for students and records that are kept regarding individuals' standardized testing and scores. I found students informed about test taking techniques and aware of sources of assistance in preparing for tests.

In terms of specifying with students exactly how to set realistic academic goals and pursue them, I saw good practices in place in terms of acquainting students with options. This aspect of the program, however, can be enhanced in a number of ways. First, the program should develop a clear set of guidelines for student course taking, school by school. With up-to-date course lists of college prep and AP classes, school by school, the program should review students' schedules to assure that they are taking a full complement of courses at appropriate levels for rigorous college preparation. The program should work with partner schools to assure that college prep and Advanced Placement and Honors courses are available in sufficient number and that GEAR UP students are enrolled in these courses.

In addition, files must contain up-to-date tracking, term by term, of grades received in college prep courses, and students must make direct comparison of these courses and grades to the admission requirements or recommendations of specific colleges and universities they hope to attend. This process should be routinized into the fabric of the program, so that students have a clear idea of where they stand with regard to enrollment at institutions at various levels and of various types.

As an example of an electronic tool that provides students a calculation of their chances of admission to various colleges and universities, taking into account academic and other criteria, New Jersey GEAR UP may want to assess web sites such as Collegedata.com. Another tool that allows individual students to build and maintain a record of college preparatory work aimed at the general standards of individual colleges and universities is one pioneered by the University of Southern California; the web site is sig.usc.edu.

Financial Planning for College

I found New Jersey GEAR UP is providing appropriate assistance to students and parents about financing college costs. General discussions of college costs take place in group and individual sessions provided for both parents and students at appropriate times throughout the year, and geared to the age and academic level of students as they prepare for college. These sessions begin early for students and parents, building toward appropriate knowledge needed at time of college application. Financial aid forms and deadlines are a part of program curriculum in students' senior high school year, and students receive general advice on selecting a college for enrollment based on the variety of factors important in that decision. In other words, students and parents are counseled on how to read and assess a financial aid award, how to think through the implications of loans versus work in a financial aid package, and how to weigh intelligently cost differentials among private and public colleges and universities.

In sum, I believe that the program helps participants gain self-awareness and confidence in regard to higher education, that it acquaints participants with the variety of postsecondary options available to them, and that it supports and motivates participants to high aspirations for achievement.

Parent Involvement

Based upon interviews with New Jersey GEAR UP program personnel and material contained in annual reports submitted by each of the program sites, parental involvement has remained at a relatively modest level. Parents attend financial aid and planning sessions at high levels, and respond promptly to requests for information and other requirements, but do not play an active role in on-going activities, primarily due to their work and child care responsibilities. Despite the challenges of involving parents in the college preparatory process, research consistently shows parent involvement in learning is positively related to achievement.

Because of the critical role parents play, it is important for the program to improve its outreach to parents. Clearly, new efforts must take into account the challenges that low-income and minority parents feel with regard to involvement in education—time pressure, job pressure, language barriers, and lack of education and understanding of educational structures. For these parents, it is essential that involvement take forms that are substantive and active. Examples might involve participation in trips and workshops, orientation sessions at the beginning and end of students' academic terms, parent involvement in student course selection, or groups organized by parents of participants focusing on program support and support of program goals.

Coordination with Source Schools

New Jersey GEAR UP has close relationships with source schools in terms of advising and tutoring students, in particular in those sites where GEPA and HSPA preparation is most active. In addition, it is evident that schools greatly value the college counseling and college information that GEAR UP provides their students. Additional work is needed to coordinate grade reporting and class scheduling, so that GEAR UP students can take full advantage of college prep classes and source schools can benefit to the fullest extent from available advising and support services from GEAR UP sites.

To gain the type of access to course scheduling procedures, transcript review, and grade reports, a close cooperative relationship needs to be built between GEAR UP and each school where it operates. To achieve that goal, the program must invest time researching the school profile and gaining the confidence of school personnel so that a working relationship is built that meshes student services seamlessly in support of students. GEAR UP's tutoring for GEPA and HSPA tests is an extremely valuable component of such a structure. In addition, GEAR UP is positioned to assist schools with college materials and advising, offering algebra or science academies to selected students along with assistance to the school in organizing its own academies, as well as referrals for counselors and teachers to professional development opportunities, etc.

Section III. Curriculum Review

Strengthening Preparation in Math and Science

New Jersey GEAR UP is providing students opportunities for improving math and science knowledge and skills. Tutoring programs throughout the academic year emphasize mathematics as a primary focus. Among the disciplines, mathematics is clearly the area receiving greatest use in tutoring; it is also the area where pedagogy for tutoring is most highly developed. In addition, summer programs offer a full complement of mathematics and science courses, which all students complete. These courses are directly linked to students' academic year programs in math and science so as to build base knowledge before entering courses and refine skills needed to succeed as they progress. In many instances, these courses are taught by the same teachers with whom the students will enroll during the regular term; these summer sessions also provide opportunity, especially in science, for students to engage in "hands-on" experimentation in engineering, environmental science, anatomy, physics, and other areas.

In particular, with middle school students, the summer program assures that students prepare for, and succeed in, gateway courses such as algebra, as foundation for secondary school achievement. On both the GEPA and HSPA exams, GEAR UP students attain substantially higher scores in both mathematics and science than do their peers in comparable circumstances. (See displays 6 and 7 below.)

Review of New Jersey GEAR UP Mathematics and Science Curriculum

Students enrolled in New Jersey GEAR UP attend program sessions on a year-round basis. Attendance is monitored and continuation in the program is at risk if a student falls below the 70% attendance level. This means that students must attend at least 70% of the 20 Saturdays (when activities are scheduled during the academic year) and of the six week summer program. Student grades are reviewed term by term and tutoring is mandatory for any participant whose GPA falls below the 3.0 (B) level. Field trips intended to broaden the student's cultural range and experience are included in the curriculum; some field trips include visits to college and university campuses where students might expect to enroll.

The summer GEAR UP session is a six-week intensive program involving classroom work four days per week with a field trip session on the fifth day. Depending upon the student circumstance, these summer sessions may be residential all or part of the summer. A typical summer session schedule for a 10^{th} grade class is shown on the next page.

Display 6

Consortium for Pre College Education in Greater Newark/New Jersey GEAR UP
New Jersey Institute of Technology
Class Schedule -Summer 2004

Period	Teacher Assistant	7 GREEN Mr. Abhinav Varma	7 BLACK Mr. Juan Nieves	7 RED Mr. Amal Saxena	7 BLUE Mr. Phillip_Mofunanya
	8:30am - 8:40am	Homeroom in CULLIMORE LECTURE HALL 2			
1	8:45 a.m.-9:25 a.m.	Science Cullimore Hall 2 Ms. G. Pérez	Language Arts 321 A Tiernan Ms. A. Perez	Drama & Film Faculty 412 Ms. Sullivan	Mathematics 321 B Tiernan Ms. Alexander
2	9:30 a.m.-10:10 a.m.	Society & Culture Faculty 407 Mr. Allrich	Science Cullimore Hall 2 Ms. G. Pérez	Language Arts 321 A Tiernan Ms. A. Perez	Drama & Film Faculty 412 Ms. Sullivan
3	10:15a.m.-10:55 a.m.	Mathematics 321 B Tiernan Ms. Alexander	Society & Culture Faculty 407 Mr. Allrich	Science Cullimore Hall 2 Ms. G. Pérez	Language Arts 321 A Tiernan Ms. A. Perez
4	11:00a.m.-11:40 a.m.	Drama & Film Faculty 412 Ms. Sullivan	Mathematics 321 B Tiernan Ms. Alexander	Society & Culture Faculty 407 Mr. Allrich	Science Cullimore Hall 2 Ms. G. Pérez
5	11:45a.m.-12:45 p.m.	LUNCH	LUNCH	LUNCH	LUNCH
6	12:50p.m.-1:30 p.m.	Language Arts 321 A Tiernan Ms. A. Perez	Drama & Film Faculty 412 Ms. Sullivan	Mathematics 321 B Tiernan Ms. Alexander	Society & Culture Faculty 407 Mr. Allrich
7	1:35p.m.-2:35 p.m.	Recreation Elective Special Activity	Recreation Elective Special Activity	Recreation Elective Special Activity	Recreation Elective Special Activity
	2:40 p.m.-2:55 p.m.	Dismissal in CULLIMORE LECTURE HALL 2			

Counseling: Individual Sessions Tiernan B8
Group Sessions as scheduled

Tutoring: As requested or scheduled

Note: Classes also occur in the Computer Lab (ITC 2305 or Student Mall Labs 37, 39 or 40)

Source: New Jersey GEAR UP

As the display above indicates, these summer sessions are intensive academic experiences aimed at raising levels of academic achievement and motivation. Disciplines covered in the summer sessions emphasize mathematics, science, and language arts, along with electives, social science courses, technology training, and cultural and educational field trips.

Curriculum Objectives

The curriculum offered in the summer program focuses directly on:

- courses implementing the New Jersey Core Curriculum Content Standards
- providing learning experiences that enable students to demonstrate proficiency on the GEPA and HSPA
- reinforcement of learning from the academic year the student has just completed and introduction of concepts that will challenge the student in his/her upcoming year

Paper Review of A Sample Mathematics Course and A Sample Science Course

In the course of my site visits to New Jersey GEAR UP summer program classes, I attended and monitored classes across the curriculum, observing instructional techniques and student response and involvement. Generally, I found the level of instruction to be high. Many of the teachers are from the target districts and some are college or university instructors. A variety of teaching styles was evident, from standard lecture format to Socratic dialogue, and very frequently emphasized the relationship of the conceptual to real-world experiences and problems.

Below I will review the content of one mathematics course and one science course I have selected as representative samples with the New Jersey Core Curriculum Standards for these disciplines. Clearly, the six-week summer session cannot be expected to contain all elements of the Standards, but it should demonstrate a clear relationship and an astute selection of topics that will reinforce students' learning and appropriately prepare students for additional future work in mathematics.

The Algebra course demonstrates close correspondence to New Jersey standards, and in fact, not only meets, but exceeds, standards. Directly below is a list of items to be included in Algebra I, based upon the standards.

Algebra I—Consortium for Pre-College Education in Greater Newark

New Jersey Core Curriculum Standard 13-Algebra-Grades 9-12
Patterns
Unknown quantities
Properties
Functions
Modeling real world situations
Evaluating Expressions
Solving equations and inequalities

In the box below we see on the left panel a list of topics covered in the GEAR UP Algebra course. In the right panel I have listed standards referenced to these topics.

Algebra I Consortium for Pre-College Education Fall Session Topics	***New Jersey Core Curriculum Content Standards***
Using Algebra to Work with Data	Standard—Draw inferences from real world situations
Equations and Functions Solving Equations Applying Functions Coordinate Graphs Using Graphs to Solve Problems	Standard—Model situations and evaluate expressions Standard—Represent situations with graphs Standard—Properties and Functions
Graphing Linear Equations Applying Rates	Standard—Solve Linear Equations Standard—Analyze tables and graphs to

Direct Variation Slope Finding Equations of Lines Writing Equations of Lines	identify properties and relationships
Solving Equations and Inequalities Using Reciprocals Solving Equations Solving Inequalities	Standard—Solve Linear Equations and use variables, expressions, equations, and inequalities
Connecting Algebra and Geometry Ratios and Proportions Scale Measurement Probability	Standard—Ratio, proportion and variation
Algebra I Spring and Summer Session Topics Working with Radicals Pythagorean Theorem Irrational Numbers and Radicals Monomial and binomial Products Systems of Equations and Inequalities Linear equations Solving systems of Equations Linear Inequalities Quadratic Functions Parabolas & Nonlinear Graphs Solve and Apply Quadratic Equations The Quadratic Formula Exponential Functions Exponents & Powers Scientific Notation Exploring Powers Polynomial functions Operations & Polynomials Exploring Polynomial Equations Exploring and Applying Factoring	Topics Reinforcing and Advancing Beyond Basic Standards Material shown in the cell to the left and below represents postsecondary level elements.

The Grade 7 Science course I reviewed corresponds to appropriate New Jersey Core Curriculum Standards. In addition to encompassing the subject matter prescribed for that level and discipline, it also promotes familiarity with laboratory experimentation and use of technology in learning. Components of the Curriculum Standards are shown below along side course components, and I have listed just below the grid the correspondences between the two that are evident.

PROJECT SMILE COURSE OUTLINE GRADE 7, Winter 2002

Course Goal—Reinforce components in the area of earth, life and physical sciences. Exposure to, understanding of, and application of scientific technology is also a primary mission of this course. Students will participate in hands-on lab experiments, enhancing their knowledge of the environment. They will become familiar with lab equipment such as microscopes, Bunsen burners, scales, etc.

Conceptual Framework—Course Content-Project SMILE 7th Grade Science	**New Jersey Core Curriculum Content Standards, End of Grade 8**
A. Exploring and Classifying Life—Critical thinking, solving problems, classification of living things and using the scientific method.	**1.** Learn to identify systems of interacting components and understand how their interactions combine to produce the overall behavior of the system. **2.** Develop problem solving, decision making, and inquiry skills, reflected by formulating usable questions and hypotheses, planning experiments, conducting systematic observations, interpreting and analyzing data, drawing conclusions, and communicating results. **3.** Develop an understanding of how people of various cultures have contributed to the advancement of science and technology, and how major discoveries and events have advanced science and technology. **4.** Develop an understanding of technology as an application of scientific principles. **5.** Integrate mathematics as a tool for problem solving in science, and as a means of expressing and/or modeling scientific theories.
B. Cells Cell Structures Comparing cells Viewing cells Viruses	
C. Cell Processes: Chemistry of life Moving cellular Materials Visualizing cell membrane transport Photosynthesis and Respiration	
D. Cell Reproduction: Cell Division and Mitosis Mitosis in Plant Cells Sexual Reproduction and Meiosis Visualizing polyploidy in Plants DNA and Mutations	
E. Heredity: Genetics Genetics Since Mendel Advances in Genetics Test for Color blindness The human genome	

F. Adaptations Over Time: Evolution Ideas and clues about evolution Recognizing variation in a population	**6.** Gain an understanding of the structure, characteristics, and basic needs of organisms. **7.** Understand the structure and behavior of matter. **8.** Gain an understanding of natural laws as they apply to motion, forces, and energy transformations. **9.** Gain an understanding of the structure, dynamics, and geophysical systems of the earth. **10.** Gain an understanding of the origin, evolution, and structure of the universe. **11.** Develop an understanding of the environment as a system of interdependent components affected by human activity and natural phenomena. **12.** Investigate the diversity of life.
G. Bacteria: What are Bacteria? Observing Cyanobacteria Bacteria in our life Unusual Bacteria	
H. Protists and Fungi Comparing Algae and Protozoans Visualizing lichens as air quality indicators	

Below are the correspondences between New Jersey curriculum standards and course content**: 1**. A., B., E., F; **2.** B-H**.; 3.** A, F; **4.** B, C, D; **5**. E. **6.** A, B, C, D, E, F, G, H; **7.** A, D, E, F, H; **8.** B, C, D, G, H; **9.** C. D; **10.** A, F; **11.** F; **12**. A, D, E, F, G, H

Review of New Jersey GEAR UP Math and Science Curriculum

I have reviewed the summer session curricula for mathematics and science programs offered throughout New Jersey GEAR UP. The two sample curricula shown above exemplify the level and scope of material covered. The programs not only meet, but exceed New Jersey core curriculum standards. In addition, the rigor of the programs, both at the middle school and high school level, both in terms of curricular elements taught as well as instructional scope and expectation, represent excellent examples of

college preparatory material. A variety of instruction methods are employed, including widespread use of critical thinking and independent investigation skills demanded of student participants. Not only is an appropriate body of knowledge covered in these courses, but college preparatory study skills are cultivated and student autonomy is emphasized.

In considering how the GEAR UP science and mathematics programs prepare students for college work, we need to define the knowledge and skills expected at that level. The intent of middle school science is to prepare students for the more formal treatment of concepts, principles, and theories called for at the high school level. As such, it is important to assure that students entering middle school strengthen their reading and mathematics in order to establish vocabulary, reading sophistication at a conceptual level, and ease with arithmetic skills in preparation for chemistry and physics. Middle school earth science in grade six capitalizes on students' natural curiosity about their environment, and biology/life science and then physical sciences prepare students for chemistry, biology and physics at the secondary level. In addition, in middle school students need to become acquainted with some of the techniques of laboratory science.

Likewise in mathematics, they need to master fractions, number sense, identify relationships, work with logic problems, gain proficiency in estimations and learn to read graphs, charts, tables, and diagrams. They also need to become acquainted with ratio and proportion and develop algebraic terminology in preparation for Algebra at the eighth grade. They also should be prepared to compute positive integral exponents and square roots of perfect squares as well as perimeters, areas, and volumes of simple geometric figures.

In course work supplementing their class work, GEAR UP should work to reinforce and expand on the student's curriculum in math and science, giving ample time to practice varied explanations and logic problems. Supplemental work should emphasize development of skills of logical implication, testing of assertions, and inductive and deductive reasoning. In addition, diagnostic assessments should be frequent in order to assist students in addressing weaknesses and as a tool for course selection during the academic year.

All students preparing for college should complete courses covering the topics normally contained in Algebra I, Geometry, and Algebra II. In addition, those students who plan to take calculus in college (depending upon major) should complete Algebra II prior to the final year of high school. These students should also take a semester course in trigonometry followed by a semester course in analytic geometry and mathematical analysis. Students entering fields requiring probability and statistics may elect such a course as an alternative to the course in analytic geometry and mathematical analysis.

Section IV. Program Measures and Outcomes

Academic Performance Measures

Academic improvement goals for GEAR UP are several. Among the most important quantitative goals are:

- improving the rate at which participating students remain in school and persist in the program;
- increasing the number who satisfy the New Jersey state testing requirements, GEPA and HSPA;
- raising students' awareness and aspiration for college and
- increasing the proportion of participants applying and enrolling in college.

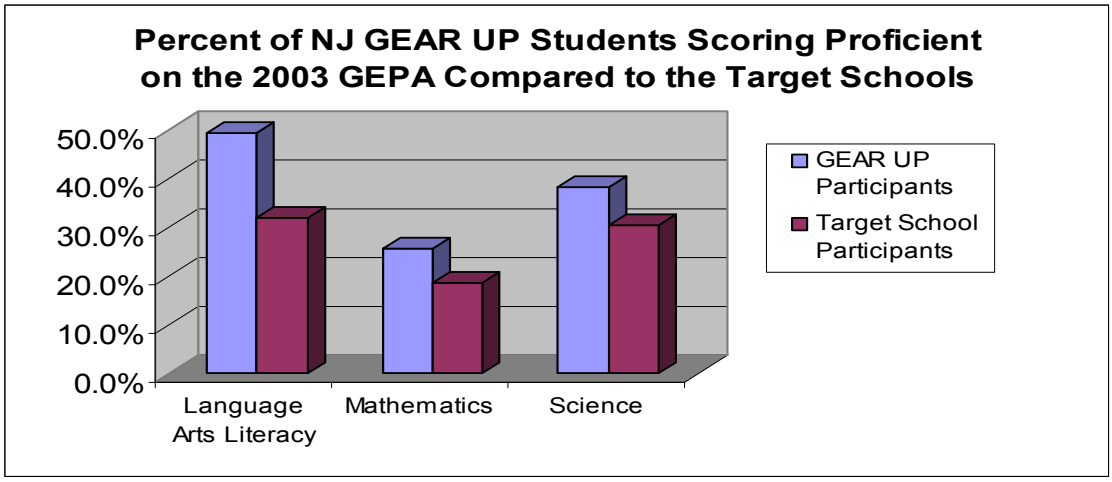
Program Retention

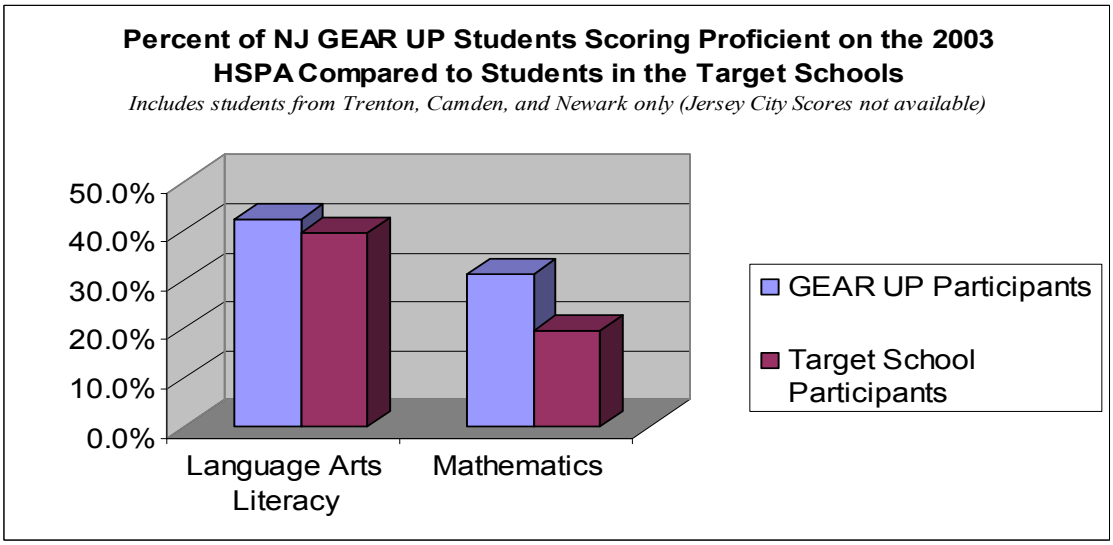
Display 5 on page twelve of this report shows rates of retention and progression within the program. These levels are high, ranging from a low of 69.1% to a high of 90.3%; thus, on the measure of retaining participants year over year to completion of the program, New Jersey GEAR UP is succeeding. Students value the program and persist in attendance.

Performance on New Jersey State Testing Requirements

The two charts shown on the next page compare the performance of program participants on the GEPA and the HSPA with the population overall in target schools where participants are enrolled. In every subject category shown, GEAR UP students outperform their nonparticipating peers within their schools. Improvement in performance in mathematics and science courses is strong and noteworthy. On this measure in particular the program can be said to be achieving a clear and meaningful difference in participant academic achievement levels.

Displays 6 and 7





Source: New Jersey GEAR UP State Project; target school data from New Jersey Report Card 2002-3

SAT Test taking and Scores

When the NJ GEAR UP State Project began, two program sites served students in grades 7-12, while the other two began with 7th and 8th graders and only began serving the upper grades in Years Four and Five of the project. For that reason, complete data on SAT scores and test-taking behavior for all NJ GEAR UP participants cannot be provided. However, data from two program sites has been collected. Below is a chart showing the average SAT scores in 2003 of students in the target schools attended by GEAR UP students at the Rowan and Consortium sites. Average math and verbal scores were 373 and 361 respectively. Only 48.9% of these target high school seniors took the SAT in 2002-3, according to the New Jersey Report Card.

Display 8

Scholastic Assessment Test (SAT) Results 2002-2003

of students in Camden and Newark Target Schools

School	Math	Verbal	# of 12 graders	# taking SAT	% taking SAT
Camden High School	370	360	210	63	30%
Malcolm X Shabazz	356	337	219	108	49%
Technology High	391	391	131	97	74%
Woodrow Wilson High	376	356	192	100	52%
AVERAGE SCORE	373	361	188	92	48.94%

Note: Malcolm X Shabazz and Technology high schools are not target schools; however, the New Jersey GEAR UP students in the comparison group attend these schools

In contrast, of the 23 GEAR UP students in those schools who were seniors at Rowan and the Consortium in 2003, 18 (81.8%) took the exam, scoring an average of 428 (math) and 418 (verbal). Quite clearly, participation in the program had a positive effect on test taking behavior and on scores.

College Going Rates

The two tables shown on the next two pages display college going patterns for NJ GEAR UP participants. As shown in Display 9, between 61% and 100% of all program completers enroll in higher education. These figures compare very favorably with national numbers, which indicate that the three year average college going figure for low income students is 47.8%, the figure for black students is 56.3% and the figure for Hispanic students is 48.6%. (Source: U.S. Department of Commerce, Bureau of the Census, current Population Survey, October 1972-2001)

In the first table we see each year's cohort shown separately. Figures include number and proportion of participants enrolling in college as well as subsets of those enrolling in New Jersey and out of state institutions. Cohort 5 contains incomplete data and thus cannot be evaluated. Cohorts 1, 2, 3, and 4, however, indicate a pattern of success. For all four years for which complete data are available, between 61% and 100% of all program participants who complete the GEAR UP curriculum enroll in college.

The second table (Display 10) tracks the cumulative college attendance of GEAR UP participants. In year four of the program (the last year with complete data), 83.2% of participants are enrolled in college. Thus, available data shows a clear correlation between New Jersey GEAR UP participation and markedly higher than projected college enrollment patterns. Since college enrollment is such an important focus of the program, achieving this objective on this scale must be commended.

INITIAL COLLEGE-GOING RATES OF NJ GEAR UP STATE PROJECT COHORTS

INCOMPLETE

	Cohort 1			Cohort 2			Cohort 3			Cohort 4			Cohort 5		
First AY	00-01			01-02			02-03			03-04			04-05		
# Completers	47			45			34			23			86		
	Total	NJ	out of state	Total	NJ	out of state	Total	NJ	out of state	Total	NJ	out of state	Total	NJ	out of state
Enrolled in college	47	41	6	36	30	6	27	24	3	14	12	2	68	57	11
Unknown	0			9			7			9			18		
College Enrollment Rate (includes reports of out of state enrollment)	**100.0%**			**80.0%**			**79.4%**			**60.9%**			**79.1%**		
New Jersey % of total college enrollees attending NJ institutions	**87.2%**			**83.3%**			**88.9%**			**85.7%**			**83.8%**		
Out of State % of total college enrollees attending college out of state	**12.8%**			**16.7%**			**11.1%**			**14.3%**			**16.2%**		
Non-College (% of completers with no known college enrollment decision)	**0.0%**			**20.0%**			**20.6%**			**39.1%**			**20.9%**		
STATUS OF ALL COMPLETERS															
Enrolled in NJ Inst	**87.2%**			**66.7%**			**70.6%**			**52.2%**			**66.3%**		
Enrolled out of state	**12.8%**			**13.3%**			**8.8%**			**8.7%**			**12.8%**		
Not enrolled	**0.0%**			**20.0%**			**20.6%**			**39.1%**			**20.9%**		

Display 9

OVERALL COLLEGE-GOING RATE OF NJ GEAR UP STATE PROJECT

INCOMPLETE

	Cohort 1			Cohorts 1 & 2			Cohorts 1, 2, & 3			Cohorts 1, 2, 3, & 4			Cohorts 1, 2, 3, 4, & 5		
First AY	00-01			01-02			02-03			03-04			04-05		
# Completers	47			92			126			149			235		
	Total	NJ	out of state	Total	NJ	out of state	Total	NJ	out of state	Total	NJ	out of state	Total	NJ	out of state
Enrolled in college	47	41	6	83	71	12	110	95	15	124	107	17	192	164	28
Unknown	0			9			16			25			43		
College Enrollment Rate (includes reports of out of state enrollment)	**100.0%**			**90.2%**			**87.3%**			**83.2%**			**81.7%**		
New Jersey % of total college enrollees attending NJ institutions	**87.2%**			**85.5%**			**86.4%**			**86.3%**			**85.5%**		
Out of State % of total college enrollees attending college out of state	**12.8%**			**14.5%**			**13.6%**			**13.7%**			**14.6%**		
Non-College (% of completers with no known college enrollment decision)	**0.0%**			**9.8%**			**12.7%**			**16.8%**			**18.3%**		
STATUS OF ALL COMPLETERS															
Enrolled in NJ Inst	**87.2%**			**77.2%**			**75.4%**			**71.8%**			**69.8%**		
Enrolled out of state	**12.8%**			**13.0%**			**11.9%**			**11.4%**			**11.9%**		
Not enrolled	**0.0%**			**9.8%**			**12.7%**			**16.8%**			**18.3%**		

Display 10

Section V. Recommendations

The following are my recommendations for program areas and elements that might most benefit from change of policy and/or practice.

1. New Jersey GEAR UP should work to tie data collection to program goals more systematically. The GEAR UP annual Performance Report requires collection of data on the full scope of activities. This requires that, for each cohort of students baseline data must be collected and quantitative and qualitative goals and benchmarks must be defined, along with expected rate of progress. Some of the benchmarks the program might consider collecting in this system are course taking patterns, GPA, scores on state tests, scores on standardized college entrance exams, college application, admission, and enrollment rates of GEAR-UP participants, student participation in supplemental learning opportunities, and student/family assessment of program

   Although the program is collecting some data on participants, a more comprehensive collection program should be installed for compiling information into a relational database. The system must be capable of collecting and reporting counts of students, parents, and teachers involved in the program and type, duration, and frequency of services provided to each.

   The most important issue for study is student academic information, collected in a timely way so as to monitor student progress steadily. Projected course work for each student should be gathered, and matched to school offerings of college prep patterns. In addition, standardized test scores must be available as administered.

   The goal of the system is the capacity to provide, on any given day, an accurate and complete picture of the dosage each student has received of each service and activity and to relate that to academic progress toward a defined goal. Clearly the system also must be capable of producing reports on groups of students as well.

   The Impact Evaluation system developed by Grossmont-Cuyumaca community College for its GEAR UP program provides an excellent model for such a system.

   While New Jersey GEAR UP does collect and manage data electronically, it does not now provide in a simple, easy to use system, the information for decision making and planning that is optimal. Likewise, summative reports are not clearly defined and do not contain all data elements in a format in which reports can be generated easily in response to basic questions.

   For example, the system should have the capacity to report all college preparatory courses for each participating high school and enrollment patterns of GEAR UP students in these courses. For any given students, the system should be capable of providing a full list of services received and dosage. It should allow for grade improvements to be followed term by term and discipline by discipline.

2. New Jersey GEAR UP should adopt an on-line system to replace its paper PEP files. The goal of this system, which would greatly enhance the entire college advising process, is to reflect each individual student's academic record for his/her own use as well as for advising purposes and monitoring of individual progress toward goals.

   Such a system would record electronically students' career investigations and college/university searches and goals. Two models that might be investigated for use in this area are collegedata.com and a program developed by the University of Southern California, available at the following address: sig.usc.edu.

   The value of these easily accessible records is to help students make well informed choices for college and career, to keep these filed and updated, and to match academic achievements with admission requirements and standards of the institutions where students plan to enroll.

   Instituting these systems will reduce radically the amount of paper records being generated, make information instantly accessible to all authorized users—staff, students, and parents—and will allow for causal relationships to be much more easily and certainly established.

   A final recommendation in this area is to establish a set of standard reports, generated regularly and frequently and discussed broadly with students, parents, and program staff.

   Note: It should not be inferred from this recommendation that the program is not collecting information on its participants. The program currently uses a Microsoft Access database which collects student demographic data (e.g., name, address, Social Security number, birth date, parent name, race/ethnicity, eligibility for free lunch), academic data (e.g., school enrolled, grade, courses taken, grades in courses, "barrier" test dates and scores, PSAT/SAT/ACT dates taken & test scores, graduation from high school), participation data (e.g., active enrollment in the program by Academic Year and summer component), and college enrollment data (e.g., date completed FAFSA, college attending). Campus programs input information from student applications, report cards, test score reports, and individual meetings with students and report to the Commission at least twice each year.

   Standard reports include rosters of participation by race/ethnicity, gender, and new/returning student status; college enrollment of graduating seniors; list of schools where students are enrolled; school grades; "barrier" exam scores; and SAT/ACT exam scores.

3. One of the most promising elements of New Jersey GEAR UP is its collaboration with schools in raising overall school achievement in the GEPA and HSPA. I recommend that the program investigate ways of deepening and broadening these collaborations, which appear to be integrating the program very well into school fabric. In order to do this, it is necessary to assure systematically identify ways in

which the goals of GEAR UP align with the goals of the schools where participants enroll; as a next step, school leadership and GEAR UP leadership must determine, assessing resources and needs of each organization, how they can work jointly to address issues and problems. Clearly, underpinning such a level of close cooperation is mutual trust and understanding---which requires time and effort to build. But GEAR UP has extraordinary expertise to bring to bear on school issues and joint work can achieve significantly enhanced outcomes for schools and the program.

4. New Jersey GEAR UP is an extraordinarily valuable service in the communities and schools it serves. I recommend that efforts be made to engage host campuses more fully in the activities of the program through greater faculty participation as instructors, advisers, and role models.

Note on the Reviewer: Dr. Margaret Heisel is responsible for Student Academic Preparation and Educational Partnership programs throughout the ten campuses of the University of California; this includes evaluation and policy direction for these efforts, which encompass some 80,000 student participants throughout California. She has 30 years of work in higher education, with a particular emphasis on student preparation for college and university admission, admissions and relations with schools, articulation of courses and programs between institutions, and college to university transfer. She is Executive Director of Student Preparation and Information Services and Associate to the Vice President, Student Affairs, at the University of California Office of the President.