Increasing Educational Attainment among Urban Minority Youth: A Model of University, School, and Community Partnerships

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This article discusses the educational attainment status of racial and ethnic minorities, specifically African Americans and Hispanics as compared to their Caucasian peers. In addition, the authors describe the U.S. Department of Education's educational initiative, Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) that is designed to improve educational equity and increase access on the part of low-income and underrepresented minorities into institutions of higher learning. The promise of this educational initiative is illustrated with a case study of the Yale University GEAR UP Partnership Project.

Keywords: higher education, educational attainment, college access programs, low-income youth, GEAR UP

INTRODUCTION

Research suggests that educational attainment beyond high school is associated with higher median earnings for young adults (U.S. Department of Commerce, 2008), sustained employment (U.S. Department of Commerce, 2004), increased civic engagement (Finlay & Flanagan, 2009), decreased involvement in delinquent behavior (Lochner & Moretti, 2004; Nally, Lockwood, Knutson & Ho, 2012) and better health outcomes (Cutler & Lleras-Muney, 2006). However, student enrollment rates among low-income and minority youth into institutions of higher learning continue to lag behind their non-minority peers. According to the U.S. Department of Education (2007), 50% of low-income students enroll in college immediately after high school, compared with 80% of students from high income backgrounds.

Ethnic differences in high school graduation rates are also troubling. Calculating such rates have been notoriously difficult to accomplish as reports of graduation rates among minority students have ranged from 50 to 85%. However, rigorous analyses that account for biases in such data suggest that 65% of African Americans and Hispanics leave high school with a diploma (Heckman & LaFontaine, 2007). Moreover, this research indicates that this gap has largely remained constant over the past 35 years. In terms of college completion rates, data show that more students across the aforementioned racial or ethnic groups have completed college during the past four decades; however, the gap between Caucasians and African Americans has widened as well as the gap between Caucasians and Hispanics since 1971. In 2011, 39% of Caucasian 25- to 29-year-olds completed a bachelor's degree or higher, as compared to 20% of African Americans and 13% of Hispanics. In 1975, those figures were 15%, 6% and 6%, respectively (Aud et al., 2011).

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In addition to marked differences in college completion rates between African American and Hispanic students as compared to Caucasian students, African American and Hispanic students require more time to complete an undergraduate degree than their Caucasian peers (U.S. Department of Education, 2010). Persistently low academic performance, graduation rates, college enrollment and completion rates among African American students negatively impact their ability to successfully transition into the world of work (Feliciano & Ashtiani, 2012). Therefore, efforts to recruit, retain, and graduate African American youth from institutions of higher learning requires that schools establish a ‘college-going culture’ at primary and secondary levels (Gulatt & Jan, 2003; Stillisano, Brown, Alford, & Waxman, 2013).

Urban school districts face particular challenges in educating low-income and minority youth. The effects of poverty (Feliciano & Ashtiani, 2012; McLoyd, 1998; Perry & McConney, 2010), limited social capital resources (Gordon, 1999) and low parental educational attainment can severely thwart the educational trajectory of urban youth. Despite low college enrollment and graduation rates four-year institutions of higher education on the part of African American and Hispanic students, this trend is not reflective of their early aspirations. National surveys have indicated that the majority of middle school youth aspire to attend college (Aud, et al., 2011). However, for those students who do manage to successfully graduate from high school and enroll in college, these students are often academically unprepared for the rigors of college-level coursework and hence are placed at increased risk for drop out at the postsecondary level (Davis-Kean, Mendoza & Susperreguy, 2012).

Getting urban youth into college requires deep understanding of culture and complex ecologies (e.g., personal, peer, family, school, community) that intersect the lives of urban youth and influence their attitudes and behaviors about the feasibility of attending college. Increasing college enrollment rates also requires a comprehensive service system that involves multiple stakeholders (McMahon, Ward, Pruett, Davidson & Griffith, 2000) who understand that well-educated youth of color benefit their communities and, in turn, build capacity for a diverse, dynamic and competitive workforce. Establishing partnerships between universities, school districts, and community agencies to address educational attainment levels among low-income urban youth of color is a model that has demonstrated promise in recent years (Ward, 2006). The collective leveraging of resources among partnerships provides essential services and supports to urban school districts pressured to do more with fewer financial resources while struggling to turnaround persistently low-performing schools.

Increasing the educational attainment of underrepresented groups in college necessitates well-defined organizational structures, policies, practices, and comprehensive high quality programs. Successful university, school, and community collaboratives establish a common vision and “buy-in” on the part of all parties. This process consists of expectations that:

• all students are capable of being prepared to enroll and succeed in college;
• high quality and ongoing professional development activities are sustained for teachers;
• a full range of high quality college preparatory tools are available to students and their families;
• social, cultural, and learning style differences are embraced when developing environments conducive for learning;
• all stakeholders are involved in establishing policies, programs, and practices that facilitate students’ transition toward post-secondary attainment;
• sufficient financial and human resources are available to enable students to enroll and persist in college; and
• ongoing assessment of policies, practices and institutional effectiveness to ensure that desired outcomes are achieved (Darling-Hammond, 2012; Pruett et al., 2000).

These guiding principles can serve as the foundation for establishing strong partnerships.
Although there is a significant literature on programs and practices that positively impact school achievement outcomes among low-income and minority youth (American School Counselor Association (ASCA), 2004; Banks et al., 2007; Epstein & Van Voorhis, 2010; Hollins et al., 2004) far less is known about the impact of university, school and community partnerships on implementation of academic enrichment and support programs designed to increase educational aspirations and academic performance among urban minority youth. This article describes such a partnership between Yale University and a mid-sized urban public school district in New England established in 2008. Also discussed is the funding mechanism, Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), a federal educational initiative designed to increase educational access and equity among low-income and other underrepresented minorities into institutions of higher learning. Preliminary evaluation findings are presented from 2008-2010 and 2010-2012. Four study aims were identified as student measures: (a) knowledge of high school graduation requirements, (b) educational aspirations to attend college, (c) disciplinary incidents, and (d) academic performance.

A Promising Approach to Systemic School Reform

Federally funded systemic school reform initiatives offer a promising approach to reducing educational disparities experienced by disenfranchised minority youth who have been historically marginalized from the educational mainstream. There are several long-standing federally funded educational initiatives designed to improve equity and access on the part of low-income and racial and ethnic minority students into institutions of higher education. The United States Department of Education’s Office of Postsecondary Education houses an array of academic enrichment and support programs designed to increase the rate at which disenfranchised groups enter into postsecondary education. Born out of the Economic Opportunity Act of 1964 in the wake of the Civil Rights Movement, the term TRIO was used to describe three major federal educational initiatives—Upward Bound, Educational Talent Search (ETS), and Student Support Services (SSS; U.S. Department of Education, 2001. See Ward, 2006 for a full review of Title I and TRIO programs). Despite the long-standing nature of these programs, evidence of their effectiveness in increasing college enrollment rates is mixed (Haskins & Rouse, 2013). However, this article highlights a relatively new federal educational initiative that demonstrates promise in reducing disparities experienced by disenfranchised minority youth who have been historically marginalized from the educational mainstream.

In contrast to TRIO programs, the U.S. Department of Education introduced a new initiative to its portfolio of college access programs in 1999 to increase educational opportunities for low-income and minority students. Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), is designed to provide students with the skills and preparation to pursue and succeed in acquiring postsecondary education. GEAR UP significantly differs from TRIO programs because entire cohorts of students are earmarked for enrollment, instead of first generation college students or students who demonstrate academic promise. Another critical distinction between programs is that GEAR UP requires the forging of university, school, and community partnerships that collectively work toward the singular goal of increasing equity and access on the part of low-income and minority students into institutions of higher learning. GEAR UP has three objectives: (a) to increase students’ academic performance and preparation for postsecondary education, (b) to increase high school graduation rates and college enrollment rates and (c) to increase students’ and their families’ knowledge of the college planning process. Providing parents with information regarding academic course sequencing, college selection, and financial aid are all key interventions for increased educational engagement and long-term achievement outcomes.

Seven year grants are awarded to university–school–community partnerships to provide educational enrichment and support services to high poverty school districts across the country. Grantees follow an entire cohort of students beginning in the middle grades, through high school
and into college. The aim of this approach is to focus systemic interventions at the middle grades to promote sustained and continuous support for students through high school and into college.

To date, GEAR UP has served 12 million students in 49 states, the District of Columbia, and seven territories. This year alone, GEAR UP partnerships serve 700,000 students and state grants, 3,444,777. The racial and ethnic composition of students served by this initiative is 36% Hispanic, 32% White, 21% African American, 4% American Indian/Alaska Native, 4% Asian, and 2% Native Hawaiian or Pacific Islander. Since its inception in 1999, the GEAR UP initiative has received roughly 4.2 billion dollars to support more than 510 partnership grants and 104 state grants. The average funding for students is $800 for local partnerships and $97 for state partnerships. As a result of efforts by the National Council for Community and Educational Partnerships (NCCEP), the policy and lobbying arm of GEAR UP, the U.S. House of Representatives passed the House Labor–HHS Education Appropriation Bill that restores funding for this initiative at $302 million for FY 2012/13.

A Model of University, School and Community Partnerships

In 2008, Yale University School of Medicine was awarded 6.9 million dollars to partner with an urban district to implement a model of university, school and community partnership to address these challenges. This six-year collaborative would leverage resources from the partnership to extend comprehensive services to teachers, school counselors, students and parents. Four core program components define GEAR UP programs and services: (a) professional development for teachers, (b) professional development for school counselors, (c) academic enrichment and support programs for students and (d) programs designed to engage and involve parents in the college planning process. In addition, the project has over 20 identified community partners that include area colleges and universities, youth- and family-focused community-based organizations, social service agencies as well as members from the city’s regional business council. To be considered a GEAR UP partner, formal partnership agreements are established as the initiative requires a dollar-for-dollar in-kind matching contribution. That is, 6.9 million dollars (or 1.15 million dollars a year for six years) of in-kind contributions must be documented and annually reported. Examples of approved matching contributions include personnel time, facility, materials and supplies, student travel and cash donations. Each of the components is implemented through a coordinated system of year-round programming for teachers, counselors, students and parents. The largest component featured among the four program areas is the student academic enrichment and support program and is the focus of this discussion.

Student Academic Enrichment and Support

The goal of the student academic enrichment and support component is to develop and implement an array of programs that heighten students’ awareness of college as a viable option for their future by assisting students in:

- developing skills for optimal school performance,
- increasing self-efficacy in mastering academic tasks,
- improving educational engagement,
- increasing knowledge and awareness of the college planning process, and
- heightening educational aspirations.

A core feature of this component is The Maximizing Adolescent Academic eXcellence program (MAAX), a classroom-based social development program delivered universally to all students in the cohort at each consecutive grade level beginning in seventh grade. The curriculum features eight modules that highlight an early college awareness theme and is delivered each week for 24 weeks. Informed by the national model of the American School Counselors
Association (ASCA, 2004) and research conducted by the Search Institute (1997), the MAAX curriculum uses an assets-based approach to promote the development of multiple competencies in academic, social and college/career domains. Another unique characteristic of the MAAX program is cultural relevance. The curriculum addresses socio-cultural factors that impact academic achievement among African American and Latino students. Attending to issues of cultural identity and its relation to educational engagement and identification with academics, curriculum sessions demystify the concept of higher education and challenge misconceptions many ethnic minority youth may hold about their potential to achieve.

Table 1

*Description of Maximizing Adolescent Academic Excellence (MAAX) Curriculum Content*

<table>
<thead>
<tr>
<th>Module</th>
<th>Curriculum Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Managing the Middle School Transition</td>
<td>Encourages students to explore challenges they experienced in transitioning to middle school. Offers practical suggestions to support students in how to successfully negotiate the school</td>
</tr>
<tr>
<td>2. Keys to Academic Success</td>
<td>Emphasizes assessing, monitoring, and evaluating students’ commitment to learning throughout the school year. Students learn to set appropriate goals, utilize their time effectively and hone important study skills</td>
</tr>
<tr>
<td>3. Exploring College</td>
<td>Leads students through a process of understanding the benefit of a college education, exploring college options, experiencing college through tours and envisioning their future. Students are introduced to college and career planning resources and are invited to speak to professionals in careers of interest to them.</td>
</tr>
<tr>
<td>4. Who Am I?</td>
<td>Celebrates ethnic diversity and challenges misconceptions that often interfere with students’ engagement in the learning process. Features proverbs, literary works and interactive activities to encourage youth to explore contributions from prominent leaders from their respective cultures</td>
</tr>
<tr>
<td>5. How Values Shape My Life</td>
<td>Encourages students to think about what is important to them and how values influence important life decisions. Attention is also paid to the influence popular culture has on values held by youth.</td>
</tr>
<tr>
<td>6. Getting along with Others</td>
<td>Offers a cognitive-behavioral approach to effective communication, problem solving and decision making. Students are taught key concepts and strategies for effective interpersonal communication among their peers and with adults.</td>
</tr>
</tbody>
</table>
In addition to the MAAX program, students receive individual academic advising that assists students in establishing and monitoring goals in academic, social, college, and career domains. Tutoring, mentoring, college tours, educational excursions, after school programs, Saturday Academy and summer programs are all extended to students as part of the partnership with the school district. In addition to the services provided by GEAR UP, community partners support the project by providing additional enrichment and exposure activities to students in the cohort. College and university partners (of which there are five) provide college tours, college admissions and financial aid presentations as well as exposure to campus-based educational programs and events. Community-agency partners provide domestic and international service learning opportunities, youth leadership development programs, funding to support after-school and Saturday Academy programs, assistance in completing college applications and college essays, tuition remission to residential summer programs and full-scholarships upon admission into area colleges and universities. All programs and services provided by university and community partners are documented as in-kind matching contributions.

All of the aforementioned academic enrichment and support programs are implemented with the support of three full-time site-based coordinators and 12 part-time academic advisors. The staff provides continuity of support to students as they follow the cohort through critical school transitions; middle-to-high school and high school-to-college. Through established university partnerships, undergraduate and graduate students are recruited and trained to serve as academic advisors. Students hired reflect the racial and ethnic composition of students served by the district. Reliance of students to assist the team in this effort is critically important to the success of the program. Academic advisors serve as role models who by virtue of their own educational pursuits, demonstrate by example that not only is college a viable option, but earning a graduate level degree also lies within the realm of possibility for urban minority students. Advisors also inspire and motivate students to share their decision-making process in determining college and career choices, obstacles overcome, and future career aspirations. In addition, advisors appropriately discuss the myths and realities of college life—both academic and social and the significance of students’ high school experience in preparing them for their transition into college.

The partnership with the school district also involves regular interface with school counselors and teachers. The team works closely with school counselors in the regular monitoring of academic, social and college/career goals in individualized “student success plans” that are developed in collaboration with students. In addition, counselors and advisors confer about student class schedules, sequencing of courses and assignments to various academies established in the respective high schools. The team interfaces with teachers across academic disciplines to support students’ academic progress as advisors provide tutoring to students during in-school, after-school or weekend programs. Advisors provide assistance with homework, test preparation, class projects and in some instances, support to teachers in the classroom. Site coordinators and academic advisors provide a consistent message that high academic achievement and postsecondary education is an expectation held for all students. It is from these experiences that students’ educational aspirations are positively influenced.

**METHOD**

**Evaluation Design**

The evaluation design incorporates a process and outcome evaluation strategy to ensure that the project’s goals and objectives are being achieved. The process evaluation guides program monitoring and improvement efforts, supports fidelity of program implementation, and contributes to long-term plans for sustainability. The primary data used for this aspect of the evaluation consists of the nature of the GEAR UP services that students received and the amount of time they were exposed to it. The outcome evaluation uses a longitudinal design to assess the impact of the
program on indicators of academic performance (e.g., grade point average) in addition to intermediary outcomes such as students’ college knowledge, expectations, and aspirations as well as academic engagement and motivation. Highlighted in this evaluation report are preliminary findings that assess the association of exposure to GEAR UP academic enrichment and support programs (i.e., MAAX, tutoring, advising, educational trips and college tours) with students’ educational aspirations and academic performance. Findings reflect data between 7th (2008-2009) and 10th grades (2011-2012).

Cohort Demographics

The school district is characterized as a mid-sized urban public school system in New England that enrolls 20,000 students in grades PK-12 and is located in a low-income working class urban city where the annual per capita income is $17,000. Nearly 90% of students are Hispanic/Latino and African American; however, emergent immigrant populations from the Southeast Asia, Eastern Europe and the Caribbean have become established in the city. As a result, 59 different languages are spoken by the district’s students. All students in the district are eligible for free/reduced lunch and the average educational attainment level for adults aged 18 and older is 13 years. Over 65% of students reside in single, female-headed households.

At the inception of the program in 2008, the identified student population was the entire cohort of 1,469 seventh graders (775 males and 694 females) enrolled in all 19 of the district’s K-8 middle schools. The program is operating in three of the district’s comprehensive high schools. Forty-seven percent of students are Hispanic/Latino, 42% are Black/African American, 8% are White/European American and 3% are Asian American/Pacific Islander. Currently, students served by the project are in their junior year of high school.

Measures

Knowledge of high school graduation requirements & educational aspirations. A survey protocol developed for the U.S. Department of Education by an external consulting firm was administered to gauge students’ knowledge of high school graduation requirements (e.g., How many science credits are required for high school graduation?) and educational aspirations (e.g., What is the highest level of education you expect to attain?). This survey was administered at the end of 8th and 10th grade, 2009 and 2011 respectively.

Academic performance. Student academic performance was measured by calculating core grade point average in English, mathematics, science, history, and foreign language. Grade point average ranged from 0 to 4 points, where 0 represents a grade of “F” and 4 a grade of “A”. Student grade reports were provided annually by the district.

Disciplinary incidents. Data on disciplinary incidents was collected from the district’s administrative database and represents the total number of disciplinary incidents students received for a school year. Examples of disciplinary incidents include but are not limited to detention, suspension, expulsion, cutting class and disruptive behavior.

Program exposure. Student participation in academic enrichment and support programs (dosage) was collected daily by program staff and entered into a secure data gathering and monitoring platform. Dosage was defined by hours spent in four core academic enrichment and support programs: (a) the MAAX, (b) tutoring, (c) academic advising, and (d) college tours and educational trips.

Results

Knowledge of high school graduation requirements. Every other year beginning in the 8th grade students are surveyed to gauge their knowledge of the sequencing of college preparatory courses and credits for high school graduation and college entrance and their educational
aspirations. During the period of 2008-2010, only 52% of 8th graders surveyed correctly identified the number of years and credits in English that are required for high school completion and college entrance. Fifty-eight percent correctly identified the sequencing of courses and credits in math and 43% of students were able to correctly identify the sequencing of courses for science, history and foreign language, respectively. During the 2010-2012 report period, 85% of 10th grade students correctly identified the number of years needed for required classes in English and science, 81% correctly reported the recommended number of classes to take in mathematics, and 83% of students correctly reported the number of history and foreign language classes needed to attend a four-year college.

**Educational aspirations.** Of the 1,249 8th graders who completed the survey in 2009, 74% \((n = 929)\) of students reported that they plan to earn a degree from a four-year college or university. Seventeen percent \((n = 216)\) of students surveyed indicated that they expect to earn a degree from a community college and only 5% \((n = 65)\) of students surveyed reported that they expect to earn only a high school diploma. By 10th grade, an increase of 6% was noted for students who would like to attend college. The majority (79.6%) of students responded that they would like to obtain a four-year college degree or higher. Approximately 13% of students indicated that a two-year college degree was the highest level of education that they would like to obtain. Less than 4% of students reported that they would not like to obtain a college degree and less than 4% stated that they would like high school to be their highest level of education.

**Disciplinary incidents.** The authors also observed fewer disciplinary incidents for GEAR UP students in contrast to comparison cohorts. Figure 1 displays descriptive disciplinary incidents in 8th grade by cohort. Duplicated incidents represent the total number of 8th grade incidents for each cohort while unduplicated incidents represent the number of students reported to have had any disciplinary incident. Results show lower values on both indicators for our cohort. When considering the percentage of students by cohort with disciplinary incidents, 31% of the 2014 cohort had documented disciplinary incidents as compared to 37% of students in the 2013 cohort and 36% of students in the 2012 cohort. This translates into a 6 to 7% difference in reported behavioral incidents (e.g., suspensions, expulsions) across cohorts; a difference of roughly 100 additional students actively engaged in school. District data were unable to be obtained for the 2010-2012 report period.

**Program dosage and academic performance.** In an effort to assess the impact of the program on student achievement outcomes, the authors aimed to assess whether students' time in the program (dosage) was associated with grade point average. Dosage was defined as hours spent...
in four core academic enrichment and support programs: (a) Classroom-based social development program (the MAAX program), (b) academic advising, (c) tutoring and (d) college tours and educational trips. Table 2 depicts aggregated dosage by grade level for student enrichment and support services. As noted, mean hours was 19.62 for 8th grade, 2.10 for 9th grade, and 9.10 for 10th grade. The table also reflects cohort attrition between 8th to 9th and 9th to 10th grade which is typical for this school district. Since the inception of the program, an unduplicated number of 2,161 students have participated in GEAR UP services between 8th through 10th grades.

Table 2

Descriptive Statistics for Selected Academic Enrichment and Support Services (in hours)

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th</td>
<td>1402</td>
<td>.00</td>
<td>99.75</td>
<td>19.62</td>
<td>12.12</td>
</tr>
<tr>
<td>9th</td>
<td>1248</td>
<td>.00</td>
<td>30.10</td>
<td>2.10</td>
<td>2.85</td>
</tr>
<tr>
<td>10th</td>
<td>1220</td>
<td>.00</td>
<td>62.28</td>
<td>9.10</td>
<td>8.85</td>
</tr>
<tr>
<td>8th-10th</td>
<td>2161</td>
<td>.00</td>
<td>107.21</td>
<td>18.52</td>
<td>17.81</td>
</tr>
</tbody>
</table>

Note. Selected services consist of Maximizing Adolescent Academic Excellence, advising, tutoring, college trip and tours.

To test the extent to which program dosage was associated with achievement, a multiple regression analysis was conducted where the sum of dosage across 9th and 10th grades ($M = 7.76$ hours) was entered as a predictor (independent variable) and end-of-year 10th grade mean grade point average (GPA) in core courses (mathematics, English, social studies, science, and foreign language) was entered as an outcome (dependent variable). Additionally, the authors statistically controlled for 9th grade GPA in core courses, a common approach used for assessing change across two time points. Conducting the analysis in this way allows for interpreting a significant result as higher being associated with 10th grade performance among students with comparable 9th grade performance.

Results from the analysis confirmed a statistically significant effect of higher dosage being associated with higher 10th grade GPA after controlling for 9th grade GPA ($b = .01, p < .01$). The regression coefficient indicates that for every one hour increase in dosage there is an expected .01 increase in GPA. Since change in a grade level (e.g. from a “B” to a “B+”) represents an increase of .20, this suggests that 20 hours of dosage would be expected for such an outcome (see Table 3).

Table 3

9th and 10th Grade Dosage Predicting 10th Grade Core GPA Controlling for 9th Grade GPA ($n = 855$)

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>se</th>
<th>B</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.77</td>
<td>.09</td>
<td>.46</td>
<td>8.14</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>9th grade GPA</td>
<td>.57</td>
<td>.04</td>
<td>.46</td>
<td>14.94</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>9th and 10th grade dosage</td>
<td>.01</td>
<td>.00</td>
<td>.15</td>
<td>4.79</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Note. Dosage consists of Maximizing Adolescent Academic Excellence, tutoring, advising, educational trips, and college tours.

DISCUSSION

Establishing university, school, and community partnerships is a promising approach to improving minority achievement, educational aspirations and attainment. In this article, the authors described the Yale University Gaining Early Awareness and Readiness for
Undergraduate Programs (GEAR UP) Partnership as well as its funding mechanism. The preliminary evaluation of this partnership examined the relative impact of students' time spent in academic enrichment and support programs GPA. It was found that students' knowledge of the sequencing of college preparatory courses and credits required for high school completion and college enrollment increased from 8th to 10th grades. Students also experienced fewer disciplinary incidents during middle school than comparison cohorts and educational aspirations increased as students transitioned from middle school to high school with more students indicating their intent to attend a four-year college or university. Future analyses will be conducted to assess the extent to which differences in these outcomes are related to dosage.

Findings also revealed a relationship of program dosage and core GPA (English, math, history, science and foreign language) when controlling for prior performance. That is, students' increased participation in the variety of academic enrichment and support programs offered by GEAR UP was associated with grade point average. Interestingly, this finding is statistically significant \( p = .01, < .001 \) despite the low level of dosage documented during the 2009-2010 school year \( (M = 2.10 \text{ hours}) \). Lower program dosage in 9th grade was attributed to a major educational reform initiative underway in the district at the time the students transitioned into high school. For instance, two of the three identified high schools were engaged in high school reform initiatives; one experienced the "turn-around" model of reform while the other experienced the "restart" model. The third high school was undergoing the arduous process of school accreditation. As schools struggled with this process, all program activities were postponed until the following spring term. This had a dramatic negative impact in the number contact hours students received in student enrichment and support programs, particularly at a time when students needed additional support in managing their transition to high school. This resulted in a loss of approximately 18-20 hours of MAAX (in addition to other services) per student based on dosage calculations in prior years.

Moreover, fluctuations in program participation (dosage) can be attributed to students' involvement in other school or community-based programs. GEAR UP is one of many community-based organizations housed in each high school. Students are highly selective in their participation in more than 20+ clubs, athletics, music and arts, and service learning programs. Tracking and monitoring of student participation in GEAR UP activities poses considerable challenges. Developing coordinated mechanisms to track service use between partnering entities can become unwieldy and complicated. However, working collaboratively with stakeholders to establish data management systems and protocols for gathering and sharing data can resolve these problems.

**Student Attrition**

At the inception of the program in 2008, the identified cohort was comprised of 1,447 7th grade students. Currently, the project serves 1,160 GEAR UP students nearing completion of their junior year; 309 students have dropped out of the program since 2008. The attrition of GEAR UP students was most pronounced between the 8th to 9th grade transition \( (n = 109) \) and 9th to 10th grade transition \( (n = 299) \) which is not unusual for this school district. These findings are attributed to the transfer of students out of district to attend private, parochial, or public high schools in more affluent neighboring towns. Attrition experienced between 9th and 10th grades was also due to changes in district policy on social promotion. This resulted in increased retention of low-performing GEAR UP students in the 9th grade. Despite the constant fluctuation of district student enrollment throughout the school year, it appears that enrollment for the GEAR UP cohort has stabilized. As students transitioned from 10th to 11th grades, the cohort experienced the addition of 7 students, no student losses were documented.
Challenges Associated with University, School and Community Partnerships

One of the challenges associated with GEAR UP is the cohort approach espoused by the initiative. Although following one cohort of students over six years has its merits (examining the impact of the initiative on indicators of student achievement and social and behavioral outcomes over time), its limitation is that cohorts of students are unable to access the richness of resources offered by the initiative. Explaining the cohort approach to building administrators, teachers, counselors, parents or other students requesting services offers little consolation to school personnel seeking enrichment and support services for students.

Maintaining partnership agreements can also be a challenge as agreements are negotiated annually. Economic climate and changes in budget allocations often effect what partners can reasonably contribute to the project. As a result, some partnership agreements become void; however, new partners must be secured to maintain the match. Documenting matching requirements can also be tedious as detailed records of the match must be recorded.

The Benefit of University, School and Community Partnerships

University, school and community partnerships can contribute in important ways to increasing educational achievement and educational attainment among urban minority youth. First, institutions of higher learning are charged with giving back to the local community. This can be accomplished by encouraging undergraduate and graduate students to make meaningful connections with youth by offering their time to become tutors, mentors, service learning partners or in our instance, academic advisors. For graduate students enrolled in advanced professional training programs (e.g., teacher prep, counseling, social work or psychology) practicum placements in school districts can prove to be mutually beneficial. In addition, providing middle and high school students with early college exposure experiences makes the possibility of attending college a viable option.

Second, colleges and universities have a vested interest in engaging school districts to assist in preparing students for the rigors of postsecondary education. In this model, university partners supports the district by providing professional development for teachers that improves the quality of instruction and aligns core academic curricula in a way that prepares students for college.

Third, involvement of community organizations and local businesses is essential in that students’ successful matriculation into- and out-of college translates into a stronger, diversified and competitive workforce. Local businesses, community organizations and social service agencies can provide shadowing opportunities, internships or summer employment experiences that enable youth to develop social competencies and broaden their awareness of various college and career options. Moreover, these experiences facilitate the application of what students learn in school to real world contexts, which in turn increases students’ sense of school relevance.

Finally, ongoing working collaboration among partners serves to sustain programming efforts beyond the funding cycle. Requiring a dollar-for-dollar match for all partners based on formal agreements solidifies the partnership and holds all parties accountable. All of these strategies can serve to improve efforts on the part of colleges and universities to recruit low-income and minority students into institutions of higher learning.

CONCLUSION

As the GEAR UP cohort enters into their final year of high school, our team has intensified its efforts to prepare students for their transition into college. Students will have the opportunity to participate in

- SAT Prep course (offered at no cost),
- academic advising sessions aimed at identifying colleges/universities aligned with academic and career interests,
- coaching on how to complete the common application and developing college essays,
- workshops on financial aid options,
• credit-bearing summer residential programs,
• college tours, and
• workshops on navigating the high school to college transition.

These authors expect that students’ participation in these interventions will translate into increased educational aspirations, achievement, high school graduation and college enrollment rates; all important indicators of program impact.

Unfortunately, the six year award precludes our ability to follow the GEAR UP cohort into their first year of college. However, we are working within the partnership to develop monitoring assessments to gauge students’ successful matriculation into college and persistence through their freshmen year. In addition, we are working with university partners to link GEAR UP students to the continuum of TRIO programs that seamlessly transition students into college.

Increasing educational attainment among low-income and minority youth requires a comprehensive approach that involves multiple stakeholders committed to a common vision of preparing all students for the rigors of postsecondary education. By leveraging university, school and community partnerships, GEAR UP offers a model of systemic school reform that increases equity and access of low-income and minority students into institution of higher learning. Since its inception, GEAR UP has leveled the playing field for more than 12 million students who might otherwise have been excluded from opportunities to attend college. Introducing the message of early college awareness in middle grades is an essential feature of this program.

Although encouraged by the findings that suggest the project is having a positive impact on students’ educational aspirations and GPA, ongoing rigorous evaluation of the program is warranted. As the GEAR UP cohort completes its final year of high school in 2014, graduation rates, college enrollment rates and student performance on the SAT are all key outcomes of interest. These findings will have important implications for the design, implementation and evaluation of future district-wide school reform efforts.

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