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A longitudinal study of the Educational Advancement Alliance, Inc. afterschool and summer enrichment programs

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A LONGITUDINAL STUDY OF THE EDUCATIONAL ADVANCEMENT ALLIANCE, INC. AFTERSCHOOL AND SUMMER ENRICHMENT PROGRAMS

by
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ABSTRACT

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Dr. Burton R. Sisco
Master of Arts in Higher Education Administration

By all accounts there is a crisis in the American educational system. From government officials at all levels to educators, both practitioners and researchers, the question of how to reconnect with America's youth is debated on a daily basis. Solutions to the problems are suggested, debated, and sometimes tested. One of the topics that is often deliberated is the impact of supplemental educational programs. In an effort to address issues of academic skill deficiencies and college preparedness, the Educational Advancement Alliance (EAA) was founded in 1990.

The intent of this study was to quantitatively evaluate the impact of the Educational Advancement Alliance (EAA) AfterSchool Enrichment (ASEP) and Intensive Summer Science Programs (ISSP), on selected student performance. The study examined the impact of the ASEP independently or in combination with participation in the ISSP on the Scholastic Aptitude Test (SAT) scores of program participants over a three-year period, 2006, 2007, and 2008.

Data analysis suggest that attendance at the AfterSchool Enrichment Program (ASEP) coupled with participation in the 4-week Intensive Summer Science Program (ISSP) improved scores on the Scholastic Aptitude Test. The findings further suggest that the longer students participate in both programs, the higher the score.

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I have been truly blessed to have parents who were nurturing and supportive, children who make everything that I do worthwhile, grandchildren who in their own way let me know that the work that I do in an effort to ensure that the next generation can and will take the reins and continue these good works, and friends and other relatives who have accompanied me on this tremendous journey. I thank all of you for continuing to inspire me.

I want to express my sincere appreciation to my students and their parents for allowing me to be your resource and your advocate. Helping to develop some of our future leaders is truly a labor of love.

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CHAPTER I

INTRODUCTION

While history provides a detailed account of the sustained and overt efforts to deny African Americans equal access to educational opportunities, and while civil rights demonstrations, legislation and a tumultuous period that brought forth many attempts to level the playing field, minority students are still lagging in all areas of academic achievement. Although evidence suggests that economics is the more common denominator for children who read below grade level and who ultimately drop out of school, minority children disproportionately are reflected in these statistics. One of the ways that public and private entities have attempted to address failing grades and low Scholastic Aptitude Test (SAT) scores is through the development and implementation of enrichment programs. Davis and Humphreys (1985) list five categories of intervention programs: (a) short-term interventions, including one-day career conferences, workshops, science fairs, or speakers; (b) printed and audiovisual products and exhibits; (c) experiential learning, including internships and field placements; (d) long-term efforts involving courses and curricula, retraining programs, and support programs; and (e) teacher education programs including in-service and summer institutes to modify teacher attitudes and increase their skills.

After-school activities have the potential to counteract the effects of a range of factors that contribute to urban children's lack of opportunities and underachievement. In

particular, quality after-school programs can buffer children against negative outcomes by providing supervised, constructive activities and positive enhancement of various skills including critical thinking and study habits, and an organized program for reinforcing the school curriculum and cultivating strengths, and more time for academic instruction.

Programs such as Upward Bound, Trio, ACT 101, and GEAR-UP, were all established through federal legislation as efforts to provide remedial, enrichment, and other educational services that would begin to address these deficiencies and provide students with the needed assistance to achieve academic success. These programs offer after-school tutorials, mentoring, college and Scholastic Aptitude Test preparatory workshops all aimed at closing the gap that exists between minorities and their Caucasian counterparts. Programs similar to these exist nationwide and many also offer students an opportunity to participate in residential summer programs on college campuses. These summer college preparatory programs offer course content similar to the after-school programs and also provide students with a unique opportunity to experience life as a college student.

It is in this environment that the study of the impact of the combination of year-round afterschool enrichment activities, SAT prep workshops, and residential summer programs was made. The study analyzed the performances of 362 high school students in the areas of Mathematics and English on the new SAT over a three-year period including the academic years of 2005-2006, 2006-2007, and 2007-2008. Students of the Educational Advancement Alliance, Inc. (EAA) in grades 9 through 12 were the subjects of this study. The study compared the students utilizing final grades and SAT scores and

examined the correlation between years of involvement and participation in the summer component and the impact on student performance.

The Educational Advancement Alliance' Afterschool Enrichment Program (ASEP)

Given the higher standards for students' knowledge and abilities, coupled with the growing use of high-stakes tests for decision-making regarding students' school placement and progress, there is heightened demand for quality after-school programs to help underachieving students. Deficiencies in math, science, reading, and writing are at record levels and the achievement gap amongst urban youth compared with their suburban counterparts continue to expand. The Afterschool Enrichment Program (ASEP) was designed to address such deficiencies and provide students with the resources that they need to matriculate and ultimately graduate from college.

The ASEP provides the opportunity for inner-city students attending middle and high schools the kind of out-of-school experiences that create excitement about learning, help students master new skills, and prepare students for a positive future. The program was designed with specific attention to increasing the rigor of science, technology, engineering, and math experiences provided to K-12 students through workshops, summer enrichment, and classroom activities.

Critical in the EAAs view is the need to provide supplemental classes in the areas of language arts, math, science, and technology, subjects necessary for success in postsecondary education. Poor standardized test scores of students attending Philadelphia public schools revealed the need to offer academics in smaller class settings to allow for instructors to give special attention to the students' needs. Students are able to take enrichment classes concurrent with the subjects that they are taking in their

regular high schools. Through hands-on laboratory, classroom, and field activities, students explore biology, chemistry, computer science and other laboratory sciences, receive tutorial assistance in the areas of English (focusing on the development and improvement of written and verbal communication) and math (Algebra, Geometry, Elementary Functions, etc.).

The Intensive Summer Science Program

One of the most significant experiences that the EAA provides to program participants is the opportunity to participate in a four-week summer residential program at Delaware State University (DSU). Students who demonstrate consistent effort, commitment, and success in the ASEP during the academic school year are encouraged to enroll in this extraordinary math, science, and college preparatory program.

While developing the framework for the various programs the EAA leadership was pleased to find that there was an existing program that met their standard of excellence and offered the rigorous coursework that was desired. The Intensive Summer Science Program (ISSP) at Delaware State University emphasized the Science, Technology, Engineering, and Mathematics (STEM) content areas and the SAT prep component that was envisioned. Coupled with recruitment challenges that the program were encountering, it was a perfect match for all. EAA has become a prime sponsor for the program covering tuition, room and board, activities, trips, and supplies costs for EAA students who comprise close to 90 % of the program participants.

The ISSP offers similar academic structure as the ASEP but with an added bonus. It allows rising 8th through 12th grade students to not only hone their academic skills and expose them to campus living independent of parents and guardians; it compels them to

develop decision-making skills that prove helpful to their success and development.

The staff includes a Project Director, faculty and other instructors, undergraduate student mentors, counselors, and tutors who assist and guide the maturation process. In addition to a completed application and letters of recommendation, report cards, and a biographical essay is required for participation.

The ISSP at Delaware State University is a program that has received recognition and high praise from the officials at the National Science Foundation and the United Department of Education. Previously funded by National Aeronautics and Space Administration (NASA), this program provides students with hands-on experimental learning and active involvement in problem-solving activities and getting an introduction to the classes that they will have in the upcoming academic year. In addition to SAT preparation, students are enrolled in advanced courses in various mathematics classes including Algebra, Geometry, and Calculus, Biology, Chemistry, or Physical Science courses, and English classes which further develop verbal and written skills

Purpose of the Study

The purpose of the study was to compare the impact of the Afterschool Enrichment Program and the ISSP on students based on length of participation and/or enrollment in both components. The study used the highest SAT scores to make the comparisons for students enrolled in 2006 through 2008. The study also investigated the relevance of gender, residential community, and the types of school the students attend to assess the impact of these variables on performance.

Significance of the Study

As efforts are made to address the widening gap achievement gap between minority and Caucasian and those from suburban and urban areas, this research may provide educators, elected officials, and others with pertinent data to affect positive change and possibly become a best practice model. The findings of this study could potentially aid those responsible for assisting students in their efforts to improve academic performance, increase SAT scores and ultimately matriculation and college graduation rates.

Assumptions and Limitations

The cohort group for this study was limited to students of the Educational Advancement Alliance, Inc. who were enrolled in the Afterschool Enrichment Program (ASEP) and may or may not have participated in the Intensive Summer Science Program (ISSP) at Delaware State University. As students are voluntary participants, they already demonstrate an interest or willingness in further developing or enhancing their academic skills, the study does not address the question of teaching methodology or specific strategies. The scope of this study was unable to analyze whether one component was superior to the other as there was not a cohort of students who attended solely the ISSP. Although the researcher, as the primary sponsor can benefit directly from positive results, the data were collected and the reports were generated by other entities including students' schools, the staff of the ISSP at Delaware State University, and the College Board. As with the study performed by Becker (1990), it is impossible to measure the level of instruction or coaching techniques, the effectiveness of one instructor versus another and what materials were used.

Operational Definitions

1. Coaching: Providing tutorial of academic subject content and/or test-taking strategies.
2. Cohort: The group of students having statistical factors (as age or risk) in common.
3. Educational Advancement Alliance, Inc. (EAA): An educational non-profit corporation located in Philadelphia, PA dedicated to providing supplemental academic services and resources in an effort to ensure that high school students in the Philadelphia area adequately prepared for college.
4. Instructors: College professors teaching in the ASEP or the ISSP at Delaware State University.
5. Intensive Summer Science Program (ISSP): Pre-college enrichment program co-sponsored by Delaware State University and the Educational Advancement Alliance, Inc. The 4-week residential program provides high school students with a rigorous introduction to academic core subjects in which they will enroll in the upcoming academic year. In addition, a demanding SAT preparation process is facilitated to help improve performance and scores.
6. Rising: Refers to students who will be going to an upper grade in the next academic year.
7. SAT Preparation Courses: Workshops that provide tutorial of academic subject content and/or test-taking strategies.
8. SAT Reasoning Test: The recently revised and renamed college entrance examination used to assess students' aptitude in Mathematics and English content.
9. Students: Young people in grades 9 through 12 participating in the Educational Advancement Alliance program and the Intensive Summer Science Program from the

academic years of 2006, 2007, and 2008.

Research Questions

The study sought to address the following questions:

1. What were the combined mean SAT scores of the EAA alumni and the effect if any of variables such as gender, school type, and type community in which they reside?
2. Is there a difference in the combined SAT scores of students who attended both the ASEP program and the ISSP versus students who attended only the ASEP?
3. Is there a relationship between years of participation in EAA programs and SAT scores?
4. Are either the mean Verbal or Math SAT scores impacted more or less by participation in the ASEP and ISSP?

Overview of the Study

Chapter two provides an examination of scholarly literature pertinent to this study. The literary works that were reviewed provide an historical perspective and context by which this study is based. It explores possible root causes and continuing efforts to address the problem of the achievement gap and SAT score disparity between Black and White students.

Chapter three describes the methodological process that was employed to facilitate the study. A detailed narrative of the study, demographics of the cohort group, the data collection instruments and processes, and an analysis of the data are contained in this chapter.

Chapter four provides the findings of the study. Contained herein are the answers to the research questions that were posed in the introduction of the study. The summary

is provided in a narrative and statistical format.

Chapter five presents a summary of study and discusses major findings in relation to the research questions posed in the introduction chapter. Recommendations for future study and observations are also presented in this section.

CHAPTER II

REVIEW OF THE LITERATURE

An Explanation of the Achievement Gap between Blacks and Whites

The achievement gap refers to the observed disparity on a number of educational measures between the performance of groups of students, especially groups defined by race and ethnicity, gender, and socioeconomic status. The achievement gap or difference in performance can be observed on a variety of measures including standardized test scores, grade point average, dropout rates, and college enrollment, retention, and completion rates.

In recent decades researchers have begun to critically analyze the factors that contribute to the disparity in the academic performance of Black versus White students. While many acknowledge income as a factor, many of the reasons for lower performance by Blacks prevail without regard to family incomes as cited in the *Journal of Blacks in Higher Education* (1999) and ("This Wasn't Supposed," 1999).

The lack of educational support at home, the concentration of Black students in inner-city public schools that receive less funding than their suburban counterparts, lower opinions of their capabilities by white teachers and counselors, peer pressure ridicule, "stereotype vulnerability" which is when students are aware of societal expectations, and Afrocentric curriculum which does not support subject matters on the SAT are just some of the factors that contribute to this disparity. Additionally, segregated surroundings that

do not teach the pathways and modes of thinking that are embedded in white culture and reflected in standardized tests, and the inability to finance SAT prep courses are according to the author some of the major factors that impede the path to higher scores.

Historical Explanations

In an effort to identify and address the root causes, it is important to provide an overview of the historical perspective. Berlak (2001) provides a solid account of the racialist theory that identifies genetics as the reason for the superior attainments of whites in cultural, artistic, and academics endeavors. Such theories have been espoused since the 19th and 20th century and recited on and off throughout history. Berlak recounts the eugenics movement in the 1930s which posited a biological basis for the superiority of whites and managed to gain a foothold in North American universities. He added that all of the leaders of this overtly xenophobic movement were the leaders of the newly emerging field of scientific mental measurement and that many were the same men who testified before Congress in the 1920s. The Eugenics movement was considered a respectable academic discipline until it was discredited some years later.

Berlak also cites the article that appeared in 1969 in the *Harvard Educational Review* by University of California-Berkeley education professor Arthur Jensen, which revived the scientific case for racism. Based on his statistical analysis of IQ tests, Dr. Jensen concluded that African Americans were genetically inferior to whites in general intelligence. In 1994, once again using standardized test data, Charles Murray and Richard Hernstein authored *The Bell Curve* and claimed to have proven that the inferior place of Black and brown people in the social, political, and economic order was rooted in biology. Both theories were widely disseminated and discussed in the media and in

highly regarded academic and policy circles. In each instance, the conclusions were discredited by geneticists and biologists.

Berlak noted that a more subtle form of scientific racism had recently been examined which theorized that the inferiority of the Black and brown races was not necessarily in genetics but in culture and history. This master-race ideology has also been dismembered, although such racist explanations for the racial achievement gap persist.

With numerous studies examining standardized test scores, family structure, environment, income levels, and other factors educators and research scientists all conclude that there is not a simple answer and that the complexities continue to confound those in search of critical answers and resolutions. Policymakers and most Americans almost universally conclude that persistent achievement gaps must result from poorly designed school policies—either expectations are too low, teachers are insufficiently qualified, curricula that is badly designed, classes that are too large, school climates that are too undisciplined, leadership that is unfocused, or a combination of these (Rothstein, 2004). Dr. Rothstein cautions that this common sense perspective is misleading and dangerous because it ignores how social class characteristics in a stratified society like the United States may actually influence learning performance in school. In his report, *Strategies for Closing Academic Achievement Gaps,* he states that it confuses social class, a concept which Americans have historically been loathe to consider with two of its characteristics, income and in the United States, race. However over the decades numerous studies, approaches, and efforts have been designed to address the problem.

Initial Efforts to Address Educational Disparities

For decades the United States government, initially through legal challenges and ultimately through legislative efforts by conscientious members of Congress have designed and implemented many policies aimed at improving education for African American children. Schools were once legally segregated and African American children were often assigned to inferior schools before individuals like Ruby Bridges challenged these policies in the 1960s. Ruby Bridges is known as the first African American child to attend an all-white school in the South. Ruby Bridges story is just one of many that would come on the heels of the some dramatic events during the 1950s which are often viewed as a time of prosperity for most in the United States. Notably, however, there were groups of people who were not thriving, especially the very young, the very old, and people of color. Lyndon Johnson, then a senator from Texas, saw the prosperity around him, and determined that the time was right for dramatic social change. Senator Johnson became an unstoppable advocate for civil rights.

Lyndon Johnson became the President in 1964 following John F. Kennedy's assassination. As part of his political platform, President Johnson decided to declare a "War on Poverty." And as part of this declaration he asserted a commitment to providing educational opportunity for all Americans regardless of race, ethnic background, or economic circumstance. In support of this commitment, Congress established a series of programs to help low-income Americans enter college and graduate. These programs are funded under Title IV of the *Higher Education Act of 1965* and are referred to as the TRIO programs, initially just three programs (ncceop.appstate.edu/triohistory.htm, ¶1). While student financial aid programs help students overcome financial barriers to higher

education, TRIO Programs help students overcome class, social, academic, and cultural barriers to higher education.

The history of TRIO is progressive. It began with Upward Bound, which emerged out of the *Economic Opportunity Act of 1964* in response to the administration's War on Poverty. In 1965, Talent Search, the second outreach program, was created as part of the Higher Education Act. In 1968, Student Support Services, which was originally known as Special Services for Disadvantaged Students, was authorized by the Higher Education Amendments and became the third in a series of educational opportunity programs. By the late 1960s, the term "TRIO" was coined to describe these federal programs (sanjuancollege.edu/pages/1460.asp).

Over the years, the TRIO Programs have been expanded and improved to provide a wider range of services and to reach more students who need assistance. In 1990, the Department of Education created the Upward Bound Math/Science program to address the need for specific instruction in the fields of math and science. The Higher Education Amendments of 1998 authorized the TRIO Dissemination Partnership program to encourage the replication of successful practices of TRIO programs (asu.edu/studentaffairs/trio/).

As a result, colleges and universities across the nation have developed and implemented similar programs that address the same concerns and federal and state legislation have been passed to further expand similar concepts. The 21st Century Community Learning Centers (CLC) and Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR-UP) were also establishment by congressional legislation and provided students with academic remediation and enrichment.

Colleges and universities have also initiated independent programs committing various resources to ensure that underrepresented students have an equal opportunity to succeed academically. The creation of programs that are discipline-specific such as Business Administration and Accounting, Journalism, and the Performing Arts are plentiful. These programs may exist under the sole direction of university administrators, educational non-profit organizations, or may be a result of community, university, and school district partnerships. In addition in recent years the federal government, the corporate sector, and the higher education community have made numerous efforts to create effective programs to address the critical need to attract students into the Science, Technology, Engineering, and Mathematics (STEM) disciplines. As the leadership of the country have acknowledged the rapidly growing crisis that is facing the United States with regards to the inadequate number of qualified individuals to replace the aging baby-boom generation, millions of dollars are being made available to support initiatives that provide enrichment and motivation to students who could possibly become the next astronaut or research scientist.

Confronting the Widening GAP

Educators, legislators, and the corporate sector have invested many resources in an effort to address the emergent and troubling achievement gap. In 2003, the *Journal of Blacks in Higher Education* once again addressed the issue of the increasing gap between Black and White students on the SATs. The author's findings were similar to those cited in the 1999 report, however he/she begins to examine other factors including the correlation between attending a high quality school and the likelihood that Whites students take more honors courses. The author cites data from the late John Ogbu,

professor of anthropology at Berkeley who believed that broad cultural attributes such as parental styles, commitment to learning, and work ethic amongst Blacks bear a heavy responsibility for the Black-White educational gap. Ogbu (2003) wrote in his book *Black American Students in an affluent suburb: A study of academic disengagement* that Black students in the affluent homes of doctors and lawyers are looking at rappers in the ghettos as their role models. There is the controversial yet growing belief that peer culture amongst Black students is more oppositional to achievement (*Journal of Blacks in Higher Education*, 2003).

The 2003 report maintains that the gap is widening but more significant is the fact that gains have been made between the scores of students in the lower economic tier, the widening is amongst students of families considered to be middle class and above. So as efforts are made to improve academic performance in core subjects and reverse the decline in SAT scores for African-American students, addressing modifiable risk factors is just one of a myriad of approaches.

In a recent interview of distinguished individuals with wisdom and knowledge in the fields of education and research, Stephen J. Dubner sought their counsel in an effort to address the black-white achievement gap. The article which was presented in the *New York Times* in March, 2008, included responses from the four interviewees and also numerous responses via a blog from average citizens.

Caroline Hoxby, professor of economics at Stanford University and senior fellow at the Hoover Institution acknowledged that there is no "silver bullet" for closing the gap. She did identify a few policies that she cited as practicable and could be implemented fairly quickly. Echoing the sentiments of other researchers, Dr. Hoxby stressed the

importance of evaluating recommended interventions using scientific methods-experimental methods if possible. She cited most interventions in education such as class size reductions, pre-kindergarten programs, classroom technology, paying students for performance, and drop-out prevention remedies that feel right, which she refers to as the "cardiac test." She states that interventions are not scientifically tested more often because no one bothers to set up the pilot, randomization, or baseline data at the programs inception. Hence very little data exists documenting the outcomes.

Dr. Hoxby also supports teacher rewards based on student learning gains. Citing the success of a New York City Charter school that had extended the school year to 210 days compared to 180 and a 9-hour school day compared to 5.5, she suggested this as a potential remedy for schools that serve disadvantage students. She cautioned that this has not been attempted very much in the past.

The Director of State Relations and Policy Analysis at the American Association of State Colleges and Universities, Daniel Hurley was also one of the respondents. Also acknowledging the complexities, Mr. Hurley responded that a confluence of strategies and an unprecedented level of energy and focus will be required to close the achievement gap in the United States. His four recommendations were in the areas of curriculum alignment, raising expectations, increasing aspirations, and enhancing the visibility in the American consciousness.

Mr. Hurley's recommendations are consistent with most collegiate personnel and address the college readiness and retention rates by increasing the rigor of the high school experience. He advocates for raising the curriculum standards citing successful examples of more affluent districts and the power of setting high expectations for youth. Mr.

Hurley advises that closing the achievement gap involves part public policy and part social marketing. He concurs with the many experts who recognize that current and demographic trends unabated, the United States is at great risk of losing its competitiveness if it fails to increase the educational attainment levels of populations with low college participation and success rates, such as those from low-income households, first-generation college students, minority students and non-traditional students. Mr. Hurley advises the need to engender a more robust college-going culture and that one of the ways by which to accomplish this is to design a campaign espousing the value and need for all citizens to obtain some type of postsecondary credential. He admits that a successful campaign will require the utilization of every medium.

His final recommendation expresses a sense of urgency with regards to K-16 education and public policy at the federal, state, and local levels. He cites the mountains of compelling data that portend a bleak future if educational success rates are not improved.

Dr. Richard J. Murnane, professor of education at Harvard University advises that understanding the reasons why so many black and brown Americans enter adulthood with extremely weak skills and low educational attainment is central to figuring out how to change the future. He cites some of the most documented causes such as poverty and inadequate family resources and low achieving, highly segregated schools. Dr. Murname states that the sources of the problem suggest three complementary policy approaches. The approaches for which he advocates include intensive investment in high quality, full-day preschool, strengthening low income families by reducing disincentives to marry and by increasing resources available to support children, and to dramatically improve urban

public schools. He acknowledges that many initiatives such as small schools, new curricula, and increased technology have enabled any big city in America to create a system of effective schools.

Dr. Murname articulates the two options that he feels will bring about real change. He advocates for the reversal of the series of Supreme Court decisions over the last 35 years that have contributed to the segregation of American schools. He supports increasing the commitment of suburban communities to improving the education of urban students and dramatically changing the middle and high school experience by including travel, apprenticeships with skilled craftspeople, and long-term individual tutorials. He cites these as just a few of the activities through which affluent parents motivate and educate their teenagers. He is confident that there exists many opportunities for urban youth to improve their life chances but doubts the commitment of the country's leadership to pay for dramatic change and to create the governance structures to support it.

The final interviewee was Dr. Andrew Rotherham, the co-director of Education Sector and a member of the Commonwealth of Virginia's Board of Education. Dr. Rotherham emphasized the primary finding from social science research and a fact around which education policy should be organized that many people do not always understand and that is that different schools have different effects on similar students. He stressed that schools matter and that they can be a powerful force to address the gap and that they can do much better with poor and minority students.

Dr. Rotherham stated that unfortunately there is a small industry in the education community built around tacitly giving schools soothing reassurance that they really

cannot do much better with poor and minority children than they are already doing. And that rather than attacking the gaps poor students bring, that they are more worst by giving the least to the very students who need the most. He added that rhetorically, people say that schools matter but public policies do not yet systematically reflect it.

Dr. Rotherham cited research by Sanders and Hanushek who support teacher effectiveness as the most critical element in schools. The research by Sanders and Hanushek and others confirm that children who have a couple of negative experiences with teachers that the harm is often irreparable. Dr. Rotherham advocates for policy makers to be unyielding in their efforts to ensure that there are effective teachers in every classroom. He stated that as critical as the compensation and the training is the leadership creating schools where teachers want to be and are supported in their work.

There were 71 comments posted by educators and average citizens who were split down the middle on whether the experts had innovative and solid ideas. Many commented about the responsibility of the parents and family, more supported Dr. Hoxby but were quite critical of Dr. Murnane. Although those who commented were not experts and this was not a scientific study, it confirms that the achievement gap is a complex problem requiring innovative ideas coupled with financial resources.

Rothstein (2004), details strategies and echoes some of the recommendations of other experts including early childhood education and teacher morale. However his strategies address the achievement gap from a holistic perspective. Dr. Rothstein also addresses societal and policy issues such as income disparity, housing stability, and healthcare. Included in his approach are recommendations for afterschool and summer programs. He emphasizes that the achievement gap between Black and White children

grows the most during summer vacation, when middle-class children have experiences like summer book clubs, going to camp, visiting museums, and traveling, all activities that reinforce their school-year learning, while lower-class children fall further behind. He supports afterschool programs for a myriad of reasons including that every child has a different collection of skills, abilities, and interests. Dr. Rothstein states that it is imprudent to think that lower-class children can achieve, on average, at middle-class levels without similar opportunities.

Supplemental Student Programs – The After-School Program

For decades efforts have been ongoing in an attempt to address the academic deficiencies that plaque poor and minority students. Thousands of programs exist that are federally, state, or funded by private corporations and foundations. Many of these programs are facilitated after regular school hours and provide various services for children including serving as a safe and nurturing setting, providing assistance with homework and tutorial of core subjects. With the investment in supplemental education well into the millions, how effective are these programs? What are the characteristics and benefits of a successful program and what is success measured?

The benefits of after school programming range from providing young people a positive outlet to strengthening academic skills and some also provide recreational and cultural activities in addition to the educational component. In the past 10 years, participation in after school programs have increased steadily, coupled with increased financial support. In parallel a decade of evaluation studies provide a basis on which to assess the educational potential of after-school programs and identify promising practices. To build the knowledge base and to support efforts to improve quality in this

field Harvard Family Research Project (HFRP) has developed and maintains an accessible national database of evaluations of hundreds of afterschool programs.

Evaluations of numerous after-school programs are profiled on the database. One of the programs, the Extended-Service Schools Initiative (ESS) supports 60 different organizations in 17 cities to provide high quality youth development activities in school buildings during non-school hours. Each community adapted one of four nationally recognized extended-service school models: The Beacon and Community Schools which were both originally implemented in New York City, Bridges to Success which was originally established in Indianapolis, Indiana, and the West Philadelphia Improvement Corporation (WEPIC), first established in Philadelphia, Pennsylvania (Grossman, Walker & Raley, 2000).

The purpose of the evaluations which were performed in 1999-2000 and 2000-2001, attempted to answer who the students were, the characteristics of the high quality program activities, the benefits that students gained from the programs and the cost to operate the programs. The data collection methods included interviews/focus groups with staff, partners, students, and parents, observation of program activities, secondary source/data review, and surveys and questionnaires. The secondary source/data review consisted of attendance records and financial reports, initial intake reports completed by parents at the time of enrollment that provided demographic information and reasons for enrolling their children in ESS. Baseline and follow-up surveys were completed by the students to gauge their beliefs, attitudes, and behaviors (Grossman et al., 2000).

The data showed improved attitudes towards academics and school and increased homework assignment completion in general. More telling was the information that

compared student participant to student performance. One additional day of attendance per week was associated with a 27% increase in the likelihood that students would have "a very high sense" of school belonging, a 52% increase in the likelihood that a child would report almost always paying attention in class, and a 31% decrease in the likelihood that a child would start skipping school. The researchers also found no significant relationship between program attendance in ESS and parents involvement with their children (Grossman et al., 2000).

Other relevant studies in the database profiled the Foundations School-Age Enrichment Program which operates in many urban and rural schools in the mid-Atlantic and northeastern regions of the United States, the New York City Department of Youth and Community Development's Out-of-School Time (OST) Programs for Youth Initiative, and Studio 3D (Digital, Design, and Development), which is designed to bring advanced computer technology projects to economically disadvantaged youth in Minneapolis and St. Paul, Minnesota. All reported student improvement in academics and positive changes in student attitudes (hfrp.org/out-of-school-time/ost-database).

Several recent studies which focused primarily on middle school students provide evidence explaining how after-school programs might be stimulating positive youth outcomes. For example, a study of promising after-school programs found that middle school youth who attended high-quality after-school programs reported more favorable change patterns regarding misconduct and substance use than did students with less exposure to structured, adult-supervised time after school (Vandell et al., 2006). Similarly, a study focused on delinquency found that middle-grades students' participation in afterschool programs reduced their incidence of delinquent behavior by

strengthening participants' intentions not to use drugs and increasing their associations with positive peers (Gottfredson, Gerstenblith, Soule, Womer, & Lu, 2004).

The study performed by Russell, Mielke, Miller, and Johnson (October, 2007), analyzed the effects of after-school programming on students who were enrolled in middle grades during 1998-1999 through 2001-2002. The study examined whether their experiences in The After-School Corporation (TASC) programs based in New York City, were associated with measurable achievements during the high school years, when compared to the achievements of similar students who did not participate in TASC programs. The study cited positive outcomes in high school attendance, credit accumulation, and graduation rates for former middle-grade TASC participants. The sample group was rather large and included 2,390 former middle-grade participants from 28 TASC programs throughout the city and 12, 464 non-participants who attended grades 6-8 in the same 28 TASC host schools during the same period.

According to the researchers, the relative strength of the findings is consistent with the findings from previous studies, which found that early participation in after-school programs was associated with reduced delinquency and lower dropout rates in the high school years.

Supplemental Student Programs –The Summer Program Component

For decades educators and researchers have asserted that summer vacations have an adverse affect on the learning process. Many feel that two months without classroom instruction or academic enrichment causes some deterioration of the skills and knowledge that students have gained over school year. Architects of the federal programs felt that the research affirmed this and mandated that in addition to a year-round afterschool or

Saturday program, each program must provide a summer enrichment component.

On college campuses throughout the nation, middle and high school students can be found traipsing across college campuses during the summer months, living in dormitories, and attending classes in an effort to improve their scholastic aptitude. This summer enrichment experience is also designed to immerse the student in the collegiate environment and engage them in a process that will hopefully impact their collegiate and career choices.

Summer programs have various designs and approaches. Many are designed as remediation and tutorial programs that address academic deficiencies and attempt to strengthen students' skills in English and Mathematics. These programs are often designed for students in ninth through 12th grades. SAT preparatory classes are also a staple in these programs.

But summer programs began to evolve some 25 years ago when collegiate faculty and administrators began to recognize the potential role that they could play in the development of high school students who aspired to attend college. Individuals in various academic departments began to identify major fields of study and career opportunities as potential program designs. Summer programs for high school students can be found on most college campuses with varied designs, scopes, and objectives. Most programs contain remediation and enrichment in English and Mathematics and also have a SAT preparation component. Workshops that introduce students to the admissions process and provide information about financial aid are regular components of these programs. As government and industry officials began to raise serious concerns about the low numbers of students entering science, technology, engineering, and mathematics

(STEM) careers, collegiate officials attempted to respond. Hundreds of programs have been created to address this issue however the challenges remain.

SAT Preparation

Research shows that most after-school programs offer SAT Preparation to their high school students although none of the studies evaluated this component. However the achievement gap is seldom discussed and documented without measures and comparisons of SAT scores, college readiness, enrollment, retention, and graduation rates. Hence, access to college preparatory or coaching services must be addressed. And studies have been conducted on the effectiveness of SAT preparatory courses and whether the ability to access these services further impacts the achievement gap.

One of the major criticisms of coaching involves the issue of accessibility. The significant economic and racial gap between the students who have access to test preparation and those who do not has spurred much debate as the courses have increased in popularity. The companies that have made SAT coaching available have created a multi-million dollar industry that gives those that can afford it another advantage and creates yet another obstacle for poor and minority students (Perkins, 2001).

The coaching industry which includes Kaplan and Princeton Review amongst some of the more successful and profitable companies maintain that coaching efforts consisting of test familiarization, drill, test-taking strategies, highly focused content teaching, and practice testing under simulated conditions will produce improved test scores (Johnson & Wallace, 1989). Detractors including the Educational Testing Service (ETS) which develops and administers the test dispute the effectiveness of coaching and assert that exams such as the SAT measure capacities that are developed gradually from

exposure and achievement in academic content and will not have a significant impact on test scores.

In 1984, the National Association for the Advancement of Colored People (NAACP) financed a study to understand the misuses and limits of aptitude tests and towards methods for reducing cultural bias in these instruments (Johnson & Wallace, 1989). Although the project studied a number of issues, of particular interest was the examination of coaching effects on performance and relative to that an investigation on fairness. In essence, if certain categories of items are more coachable, then they could be described as less fair to students who have not been coached. However, they were cautious in their supposition that if coaching improves performance overall, it may contribute to the improvement of skill level.

This document reports the findings of SAT preparatory courses on 35 Black students in three major urban cities. The quantitative analysis focused primarily on the mathematics section and measured the effects of coaching on algebraic, geometric, and general mathematical problem solving, requiring reasoning and applications relative to understanding the subject matter. It found that moderate gains were made in this area with coaching by students with less than strong backgrounds in mathematics.

Their findings in short support that coaching methods involving review of mathematical concepts, theories, and applications, preparation via a variety of formats, techniques for anxiety reduction, methods to increase confidence in test-taking settings are effective in increasing test scores. The researchers concluded that the workshops helped to improve quantitative skill and present test-taking strategies that assist the student in using the time given to test more effectively, thus completing more of the test.

While many object to the significance placed on the scores attained on the SATs and maintain that there is no correlation between students' SAT scores and their ability to perform well academically at the undergraduate level, advocates for minority students recognize that while questioning its relevance, they must continue to make every attempt to help to increase the scores required by many institutions for admission. In 1988, the College Board acknowledged that the SAT was an achievement test that measured developed abilities instead of aptitude (Brazziel, 1988). Donald Stewart, president of the College Board and former president of Spelman College, a historically black institution affirmed that performance on the SATs was consistent with the availability and successful completion of a full schedule of college preparatory classes in high school.

This new view of the SAT became the more compelling reason to develop a course of action to improve the tests score of Black students who aspired to college. The author provides two graphic illustrations of the inequities in the educational system that often prevented Black students from achieving academic success or simply serve as a deterrent and limits the ability to be successful in this venue. The first suggests that until the early 1980s the gap between Black and White student achievement went unnoticed and that the U. S. Department of Education had to make a special computer program to generate data on the black/white gap in college prep enrollments (Brazziel, 1988). The results of the study were produced in a report entitled *High School and Beyond* that revealed that only 36% of Black high school graduates were enrolled in college preparatory curricula (Brazziel, 1988) about one-third fewer than those who took the SAT and ACT tests for that year compared to almost 50% of the White students.

The second example is illustrated in *Keeping Track* by Jeannie Oakes (1986)

which chronicles her research where she attended a number of general and college-preparatory classes to compare the learning experiences of both groups. Not surprising were the results of the content of the general education classes where a significantly higher number of Black students were enrolled versus the college preparatory classes that were comprised of predominantly White students. In an effort to further validate the findings, Ms. Oakes obtained a report from the College Entrance Examination Board comparing SAT scores of Black students who took college preparatory curricula with those enrolled in general courses. There was a 124-point differential in the aggregate scores to support the results.

While pursuit of college preparatory curricula by greater numbers of black students must be basic in any effort to raise their SAT scores, such a quest is not without its challenges inasmuch as these obstacles are deep-rooted. As Brazziel confirms, "This tracking begins on the first day of school and involves entrance and readiness tests" (¶86). It involves pretesting in Kindergarten, placement in accelerated or slow classes, competent and patient teachers versus the opposite, and accelerated pace and material covered versus a slower pace. Each year standardized tests are administered to gauge student progress and for the students who have been fortunate to review much if not all of the material on which they will be tested, they will continue to prosper. However, for the students who have not been exposed to similar content, they will naturally not perform as well on the tests and will continue to fall further behind.

In the article the author quotes a wise person that said "that one could receive a good education in America without scoring well on tests, but would probably not be allowed to do so" (¶86). This certainly impacts when the preparation for the SATs begins

and given this, can intervention namely SAT preparation coaching mitigate such circumstances.

Coaching for the Scholastic Aptitude Test: Further Synthesis and Appraisal is an analysis by Becker (1990) of the results of 23 studies performed more than two decades ago. All of the results that were reviewed indicate that coaching helped to increase SAT scores. However, the two studies that disputed the findings were sponsored by the ETS. The paper explored the various methods implored in coaching, the relevance of program duration, the quality of the studies, disparity in mean gains of the various reports, motivation and the selectivity of the samples, and the differential effects of coaching for the verbal versus the math section.

Despite the variability in the results, they are consistent in their findings that overall coaching is effectual in increasing test scores.

The EAA AfterSchool Enrichment Program

The Educational Advancement Alliance, Inc. (EAA) was founded in 1990 by then Pennsylvania State Representative Chaka Fattah, who is currently serving in the United States Congress. Education has always been the centerpiece of Congressman Fattah's platforms and legislation and the Alliance was created in an effort to provide Pre-K – 16 students in Philadelphia with supplemental services that address literacy, provide tutorial and mentoring services, and offer information and support that ultimately increase their opportunities to matriculate and graduate from college.

The Afterschool Enrichment Program (ASEP) is just one of the capstone programs offered by the EAA. The ASEP offers students in the Philadelphia area in grades 8 through 12 an opportunity to address skill deficiencies in Mathematics,

Language Arts, Science, History, and Foreign Language, enhance present skillsets, and pursue a more rigorous curriculum in a college readiness program that supports students in a number of critical areas. The ASEP provides the opportunity for inner-city students attending comprehensive middle and high schools the kind of out-of-school experiences that create excitement about learning, help students master new skills, and prepare students for a positive future.

For almost a decade, the ASEP program has provided students with a program that has improved their math and reading skills, helped them to increase their SAT scores, and have ensured that they are better prepared for their collegiate experience. The weekly workshops that are offered to students include the college admissions and financial aid processes, how to select a college and a major, introduces students to the various departments on a university campus, and provides guidelines and instruction for improving study skills and time management.

The Educational Advancement Alliance understands the importance of assessment and has engaged an independent evaluator to analyze the impact of the program. The EAAs process of data collection and evaluation is used to determine the success of the educational programs based on performance indicators that document achievement, measure students interest and aptitude in core subjects and also incorporate feedback from students, teachers and other program participants through annual surveys.

Empirical data collection is an ongoing process. Student files are maintained on participants in ASEP and summer programs with completed program applications, report cards, pre-assessment exams, SAT scores, and other pertinent data collection information.

Over the past four years, students have been asked to complete a survey at the end of each session. The academic year comprises one session and the summer program is the other. The survey contains statements that gauge students' perceptions about the location of the program, school counselors and teachers, EAA and summer program staff and teachers, parental awareness, and peer influence and requires students to record a response of true or false in the first part of the survey. The second part of the survey focuses on the personal impact of the program on students in the areas of grades, college aspirations and expectations, attitude motivation, academic skills, confidence, knowledge, and preparedness. The first section of the second part contains statements that seek a true or false response. The second section elicits responses to open-ended questions pertaining to what the student liked most and least about the program and solicits recommendations for improvement.

The statements are designed to assess the feelings of students about the location and environment, the usefulness of the tutorials and workshops, whether attendance and participation has improved grades and increased the likelihood of attending college amongst other factors. The surveys are analyzed and the evaluator generates a comprehensive report on the findings. This report annually affirms the positive effect that the program is having on its student participants. The final product are reviewed and discussed by the staff and efforts are made to address weaknesses as well as ensure that the positive aspects are maintained. It has been the feeling of the staff that a quantitative analysis is needed to truly gauge the impact. This study looks to quantify the impact of the program and compare outcome with studies of similar programs.

Summary of the Literature Review

Inner-city neighborhoods, where young people most often need safe, interesting, and challenging activities, generally have limited after-school options. The programs that exist tend to focus on risks and problems rather than cultivating children's skills and talents, and exposing them to math, science and technology. The context of urban environments in general and urban schools in particular, escalates the demand for after-school programs that attend to children's assets by reinforcing and cultivating their strengths and interests. Quality after-school programs are essential; unless the United States does a much better job of successfully educating urban children, the country will be faced with a large pool of individuals who are unprepared for responsible citizenship and unable to meet the demands of a global and technological society.

The research confirms that afterschool activities have the potential to counteract the impact of a range of factors that contribute to urban children's lack of opportunities and underachievement. In particular, quality after-school programs can buffer children against negative outcomes by providing supervised, constructive activities and positive enhancement of critical skills, an organized program for reinforcing the school curriculum and cultivating strengths, and more time for academic instruction.

Regardless of the when, where, and how enrichment programs are facilitated and whether they include various components is not the issue. Success of these programs has been documented at various levels. And although there does not appear to be significant research on programs that contain all of these components, there is evidence that minority students in greater numbers are graduating from high school and pursuing higher education, many of whom are products of an enrichment program.

This study measured the impact of year-round tutorial, summer enrichment, SAT preparation, educational and recreational activities and trips on the students who participated in the EAA programs. It further measured the relevance of factors including length of participation and grade level and whether there were any quantitative differences in the Math and English grades and SAT scores of the students who participated in both the afterschool and summer components versus those who attended solely the afterschool program.

CHAPTER III

METHODOLOGY

Context of the Study

The study was conducted using data from the 2006, 2007, and 2008 academic years and corresponding Intensive Summer Science Program (ISSP) sessions. Students who attended the AfterSchool Enrichment Program (ASEP) sponsored by the Educational Advancement Alliance, Inc. (EAA) voluntarily completed applications to participate in the ISSP at Delaware State University.

The ASEP is a supplemental program for Philadelphia area high school students providing tutorial in all academic core curricula and enrichment courses such as Introduction to Japanese Culture and Language, Creative Mathematics, and African American History. This program is offered after regular school hours during the academic year. Recruitment is done primary in comprehensive public schools in Philadelphia, however the program is available to students in magnet, charter, parochial, and private schools who live in Philadelphia and surrounding suburbs. The EAA also operates a program in Washington, DC and designates a few spaces for students from that area.

The Admissions Process

Acceptance into the AfterSchool Enrichment Program requires completion of a simple application which includes submission of the most recent report card and students

may join at anytime during the academic year. At the beginning of the academic year a mandatory orientation is held and periodically orientations are held for new students and their parents. The orientation offers information on the attendance policy, class offerings, the code of conduct, and other pertinent information. Students with known behavioral issues may be accepted on a probationary status however students are subject to various disciplinary actions including dismissal for violations.

The admissions process for the ISSP program which offers rising 9th through 12th grade students an opportunity to receive an introduction to the courses in which they will be enrolled in the upcoming school year and provides an intensive SAT preparation program is a little more complex. The term *rising* is an adjective used to recognize students who are going to the next grade in the upcoming academic year. The required documentation is not negotiable but EAA student acceptance may be.

Applications are made available in early March. Completed applications which include an information form, an essay, a copy of the student's most recent report card, and two letters of recommendation are reviewed by the EAA personnel and forwarded to Delaware State University. Although ISSP has strict criteria, as the primary sponsor, the EAA is allotted about 85% of the slots and on occasion have persuaded Delaware State University officials to admit students who may not have performed well as indicated on their report cards. These students are given special consideration based on their attendance at ASEP and personal characteristics that suggest that the student is not only capable but would also benefit from a strong academic program. The application packet also contains information regarding residential living, request for medical and insurance information, and a form that must be signed by parents granting permission for EAA to

receive copies of grades (Appendix A), SAT scores and other pertinent quantitative data. The form also allows for students to be photographed and videotaped during their participation in any and all classes and activities within the program.

Population and Sample Selection

Over the three year period for which the study was performed, comprehensive data exists for approximately 470 which represents close to 50% of all students who have attended ASEP on a regular and consistent basis for one year or more. The criterion that was used for this study were that students must have graduated from high school, had taken the Scholastic Aptitude test and that copies of their scores were on file, and the signed parent consent was also on file during the 2007-2008 academic year. Some 362 students were identified as meeting the criteria. Of this population, 126 were males and 226 were females. The records indicated that 11 students were not enrolled during the 2007-2008 academic year and four had never attended a college or university. Of the 351 students who were enrolled in college during that time period, 104 were freshman, 86 were sophomores, 83 were juniors, and 78 were seniors. All of the students were African-American with 326 students residing in an urban center and 36 in the suburbs. While the EAA had a sizeable Vietnamese population, the files were incomplete. It could not be ascertained whether the language barrier was part of the problem or that these students appear to guard their privacy more closely. This would be worth researching. The majority of the students (218) attended public schools while 96 attended public charter schools, 43 attended parochial schools, and 5 were enrolled in private schools.

Program Description

The ASEP is offered utilizing the classrooms and computer laboratories at a number of local colleges and universities including the Community College of Philadelphia, Lincoln University's Urban Campus, and the University of the Sciences in Philadelphia. The goals of the ASEP is to improve students' attitudes toward school, increase expectations for school achievement, develop better work and study habits, and most importantly provide the additional academic support and instruction in an effort to improve grades and test scores.

The staff at the EAA believes that all children can learn to high standards if they are provided with appropriate support and if all stakeholders are held accountable to fulfill the same vision. The ASEP operates four days per week, Monday through Thursday and students are encouraged to attend the program at least twice per week from 4:00 P.M. to 6:30 P.M. The classes focus on instructional strategies that support the daily classroom curriculum. A variety of enrichment classes are also available to students including "Creative Mathematics" and the "Science Discovery Laboratory."

Computers and software programs serve as resources in implementing the interventions. Success in implementing program interventions is monitored by the EAA staff and instructors through tracking students' performance, attendance, and grade reports and through feedback obtained at teacher and family member conferences. Students who successfully complete the program are recognized at an awards ceremony held at the end of the spring semester. All enrolled students receive a certificate of participation. Students are able to participate throughout their secondary school years. In addition, students can take advantage of the career exploration activities, college campus

visits, and an array of field trips to complement the academic curricula. Residential summer programs at local universities are also offered with similar classes and activities.

The EAA staff understands that "visuals motivate" and there is a concerted effort to incorporate field trips in the learning process. The holistic approach includes cultural, educational, and recreational activities including college campus visits used to introduce students to higher education and motivate them to improve academic performance and establish career goals. Recreational trips to venues such as amusement parks also help students to explore science and math concepts such as wind velocity and the significance of geometrical concepts such as planes in the design of park rides.

Exposure to science disciplines such as botany, ecology, astronomy, and aeronautics are emphasized in trips to Longwood Gardens in Pennsylvania, NASA Goddard Space Flight Center in Maryland, and the New Jersey Aquarium. Campus tours to colleges and universities in the Middle Eastern State region also provide students with an opportunity to visit these institutions of higher learning with a critical view helping to determine what type of environment will be most conducive to his/her learning style. Other issues such as the size of the student body, teacher/student ratios, majors that are offered, extracurricular activities, and whether an urban, rural, or suburban setting are more to their liking are very important when students make application and eventually their final selection. The field trips allow students to employ actual experiences which may prove critical in the college and career decisions that will undoubtedly impact their futures.

In most instances it is necessary to provide students with textbooks and workbook the subjects for which tutorials are provided. As in many urban districts students are

often not given textbooks to take home and/or the textbooks are antiquated. As a result of the research that was gathered prior to the creation of the AfterSchool Enrichment Program, a provision of transportation and meals is a necessity. These were obstacles that students felt would prevent them from participating or impact regular attendance. In a continuing effort to make certain that students have the needed to tools to achieve academic success, the books and materials (calculators, flash drives, etc.) are provided to accomplish that goal.

College admissions, financial aid, and life-skills workshops, special events and activities, are an integral part of the ASEP. Students receive individual assistance in selecting college majors and/or identifying areas of interest, obtaining information about colleges or universities they may wish to attend, completing the college application process, and securing financial aid and assistance for college tuition and other expenses. Providing students with comprehensive services is paramount in this program. Workshops are facilitated on Mondays for the 8th and 9th grade students, Tuesdays for sophomores, Wednesdays for juniors and Thursdays for seniors every week throughout the academic year exploring an array of topics that assist students beginning with deciding their majors and potential college choices through the admissions and financial aid processes. The workshops continue with subjects that help students transition from high school through the start of their freshman year. The workshops are most often facilitated by the EAA staff but may also feature admissions and financial aid representatives from local colleges and universities.

The EAA staff has also welcomed individuals from TD, Citizens, and Sovereign Banks to provide pertinent information on saving, investing, and credit counseling.

These workshops not only provide students with valuable information that will be helpful to them in the future as they consider options for financing college and purchasing long-term and on credit, but presenters have discussed the varied career options in the banking industry.

In an effort to celebrate February's Black History Month in a unique way and highlight the accomplishments of scientists, physicians, educators, and individuals and organizations that made discoveries, inventions, and contributions that have impacted all facets of our lives, the EAA staff created the High School All-Star Challenge. It is in a game-show style test of knowledge and High School All-Star Challenge (HSASC) students work together in teams to learn over 1,000 questions and answers in an effort win educational-based prizes intended to promote the desire to go to college and make learning fun.

The second major activity, The Career Information Fair, held annually in March was created to expose high school students to various career fields and employment options. Representatives from various industries, corporations, and organizations present information to student attendees. The Career Information Fair seeks to expose students to the diversity of career possibilities available to them by providing direct access to professionals willing to discuss their careers in a personal setting. The academic school-year begins with EAA's participation in the national showcase of afterschool programs "Lights on Afterschool," an event launched by the Afterschool Alliance, a nonprofit organization dedicated to ensuring that all children have access to quality, affordable afterschool programs by 2010. Each year the EAA hosts an event that celebrates our commitment to this ideal.

In addition to the growing partnerships with NASA, Cheyney, Drexel, Lincoln, Temple Universities, the Community College of Philadelphia, EAA has collaborated on a number of initiatives with the Free Library of Philadelphia. Additionally, the aforementioned entities have provided representatives to present materials relevant to the admissions and financial aid processes and their institutions.

The 4-week residential program began each year on the last Sunday in June and operated through the third Saturday in July. Students attended four classes per day with each class lasting for two hours. Students were enrolled in math classes such as Algebra I or II, Geometry, and Calculus. The science classes were offered were Biology, Chemistry, and Physics. Classes in English and Computer Science were also provided. On each Monday evening, students took the new Scholastic Aptitude Test (SAT) that was purchased from the College Board.

> The College Board is a not-for profit examination board in the United States that was formed in 1900 as the College Entrance Examination Board (CEEB). It manages many different standardized tests which generally cater to individuals in the third or fourth year of high school planning on continuing their educations at a post-secondary level. The SAT, the most well-known of these, is a test widely used for admission to universities in the United States. (Wikipedia, ¶1)

The SAT Reasoning Test was utilized to assess students' competencies. The SAT is the actual exam that was administered in the prior year. There are many variations of the test and eight different exams with answer keys were purchased from the College Board. The exam is comprised of three sections including critical reading, mathematics, and written composition. It assesses knowledge in grammar, vocabulary, and

comprehension in the verbal section and tests the students' understanding and application of mathematics concepts and theories in Algebra, Geometry, Trigonometry, and Elementary Functions. Each section is worth up to 800 points, offering a perfect score of 2400. The newly elongated exam that was updated and renamed as the SAT Reasoning Test in 2005 also now includes a written component that poses questions about sentence structure, identification of grammatical and syntax errors. It also contains an essay question that represents 30% of the writing section score. Except for the essay, all other questions on the exam are in the multiple-choice format. The test contains 3 hours and 45 minutes of actual timed sections, although most administrations, including orientation, distribution of materials, and completion of the biographical sections, run about 4 hours long (Wikipedia, ¶5).

The tests were administered and graded by the ISSP staff and scores are shared with each student individually and students scoring the highest in each grade are rewarded and acknowledged before the group. The students are tested on four consecutive Mondays during their participation in the program.

Weaknesses are identified by the staff and mandatory SAT prep classes comprised of small groups according to grade level and scores are facilitated in preparation for the next week's exam. Students receive a total of four hours of college prep instruction per week. The prep classes consist of content and test-taking strategies that enable students to become better prepared for the next exam. The EAA has a rolling admissions process where student can join the program at any time during the academic year. They may also enroll in any year during their high school career.

Data Sources

Existing records that have been retained in students' files were used in the data collection process. Students whose files contained evidence of graduation from high school (usually in the form of a final transcript from high school), the scores from the SAT Reasoning Test, and a signed parental consent form were utilized to in the comparison study. The scores were taken from the highest available for the English and Math sections. Copies of the actual report were submitted or scores were recorded on the report cards. The exam is comprised of three sections including critical reading, mathematics, and written composition. It assesses knowledge in grammar, vocabulary, and comprehension in the verbal section and tests the students' understanding and application of mathematics concepts and theories in various levels of mathematics from Algebra 1 through Trigonometry.

An application requesting a waiver from the federal requirements that usually govern the study of human subjects was submitted to the Institutional Review Board (IRB) at Rowan University. The exception was requested because the study utilized existing data in which written consent was given by parents and students. In correspondence dated February 25, 2009, approval was granted for the study with the exemption (Appendix D).

Students who participated in the ISSP also received report cards at commencement. Each year the EAA received a copy (Appendix B) of each student's report card at the conclusion of the program. This information became part of the students' permanent file and assists the EAA in their ongoing efforts to document student participation and success in EAA programs.

Data Analysis

This quantitative research analysis sought to quantify the impact of the ASEP and the summer programs and to gauge whether students who participated in both aspects of the program performed any better than those who participated solely in the ASEP. The verbal, math, and cumulative SAT scores for each student meeting the aforementioned criteria were entered into a table (Appendix B) for the purpose of making comparisons and recording the results. The independent variables in this study included gender, residential environment of the students, type of school, and grade level. The impacts of the independent variables on the dependent variables were studied using descriptive statistical analysis, calculation of mean scores for the various groups, and further analyzed using the analysis of the variance, commonly referred to as the ANOVA test to identify any relationships that may be present to further measure the impact of one and/or both of the EAA programs via SPSS.

Comparisons are made to determine the relevance of each variable. An examination of these data was used in relationship to the research questions.

CHAPTER IV

FINDINGS

Profile of the Participants

The purpose of this study was to perform a quantitative evaluation of the impact of the Educational Advancement Alliance' (EAA) AfterSchool Enrichment Program (ASEP) and the Intensive Summer Science Program (ISSP) utilizing three years of existing data. The subjects for this study were students of the EAA who attended the ASEP some of whom may have also participated in the ISSP at Delaware State University. The students were all alumni of the Educational Advancement Alliance and participated in EAA programs between 2001 and 2007 and were enrolled college in 2006, 2007, and/or 2008.

The Statistical Package for Social Sciences (SPSS) was used to compute student participation in the ASEP and ISSP based on gender, school, and community types. Various statistical analyses were performed utilizing the frequencies, descriptive, and crosstab applications to illustrate to demographic composition of the subjects. Additionally, a comparison of the mean SAT scores was performed for students at various levels, and to determine if certain characteristics and/or variables influenced the SAT scores. A further examination of the mean scores was made using an analysis of the variables referred to as ANOVA.

General Student Demographics

An evaluation of the existing files yielded 362 candidates that met the criteria for the study. This population included 136 males and 226 females, 104 of whom were college freshman, 86 sophomores, 83 juniors, and 78 seniors at the time the study was conducted. Of the 11 young people who were not in college during the three-year period that was studied, only four had never attended college. Of the 362 students, 326 were residents of Philadelphia proper with the other 36 students residing in suburban communities in Delaware and Montgomery counties, and southern New Jersey. Three-fifths or 218 students attended public schools, 96 attended public charter schools, 43 were enrolled in parochial schools, and 5 attended private schools. It should be noted that just over 15% or 33 students who attended public schools resided in suburban communities.

Using the cross-tabulation application, a clearer picture emerged about the demographics of the student population that was analyzed in the study. The composition of the students is reflected in Table 4.1. All 96 charter school students resided in Philadelphia which may be consistent with the reform efforts to address the dismal state of urban education and offer alternatives. Additionally, the breakdown reflected that females represented almost two-thirds of the student participants.

Table 4.1

Cross-tabulation of Students by Gender, School Type, and Community Type (N = 362)

	Male	Female	Gender	Urban	Suburban	Community
Public	81	137	218	185	33	218
Charter	32	64	96	96	0	96
Parochial	22	21	43	42	1	43
Private	1	4	5	3	2	5
Totals	136	226	362	326	36	362

The raw data for participation in the ASEP and the ISSP were calculated and analyzed. Table 4.2 reflects that almost two-thirds (232) of the students participated in the ASEP for two or three years with 134 or just under 58% of those students also attended the ISSP program. Of the 64 students who attended the ASEP for one year, 36 did not attend the summer session. It should be noted that many students join the EAA programs in their senior years in high school making them ineligible for the ISSP as the final eligible summer for students in the summer prior to the start of their senior year. It could not be determined by the data that were extracted how many or what percentage of the 64 students who attended ASEP for one year were seniors. As the table indicates, 29 students attended both ASEP and ISSP for four years and 10 students participated in both programs for five years, yielding a total of 39 students who attended EAA programs during their entire high school career. On average students attended the ASEP 2.5 years and participated in the ISSP for 1.75 years.

Table 4.2

Cross-tabulation of Student Participation in ASEP and ISSP

	Years in Summer Programs						
Years in ASEP	0	1	2	3	4	5	Totals
1	36	28	0	0	0	0	64
2	22	43	56	0	0	0	121
3	14	19	26	52	0	0	111
4	3	6	11	11	26	0	52
5	0	0	0	1	3	10	14
Totals	75	96	88	64	29	10	362

Analysis of the Data

Research Question 1: What were the combined mean SAT scores of the EAA alumni and the effect if any of variables such as gender, school type, or type of community in which they reside?

Student gender, school type, and the type of community in which they reside were tested as potential moderators of achievement outcomes. The method of analysis that was utilized to assess the data was an examination of the mean scores by the three variables involving student background characteristics. With males averaged almost 902 and their female counterparts had a mean score of 909, it appears that the gender of the student did not yield a distinctive advantage to either. As Table 4.3 shows, a more stark contrast was evident when community and school type were isolated. The 326 students who resided in Philadelphia had a mean score of 893 while their suburban counterparts scored on average 1029. Public, charter, parochial, and private school students mean SAT scores were 882, 879, 1058, and 1176 respectively.

Table 4.3

Independent Mean SAT Scores by Gender, Community, and School Type

	Mean SAT Score	n=
Male	902	136
Female	909	226
Urban	893	326
Suburban	1029	36
Public	882	218
Charter	879	96
Parochial	1058	43
Private	1176	5

Grouping the variables paints a different picture. As Table 4.4 shows, overall,

males attending public schools in Philadelphia averaged just over 836 while their female counterparts had a mean score of 870. Similarly, the 13 males who attended public schools in suburban areas averaged close to 964 while the 20 female students who attended public schools in suburban towns had a mean score of 1057. However, the 32 males who attended charter schools in the city averaged just under 892 while the 64 females had a mean score of 873. The 21 male students who attended parochial schools outscored their female counterparts 1074 to 1044. All of the students who attended parochial school resided in Philadelphia.

Table 4.4

Mean SAT Scores Combining Gender, Community, and School Type

Gender	Community	School	SAT Score	Frequency
M	Urban	Public	836	68
M	Urban	Charter	892	32
M	Urban	Parochial	1074	21
M	Suburban	Public	964	13
F	Urban	Public	870	117
F	Urban	Charter	873	64
F	Urban	Parochial	1044	21
F	Suburban	Public	1057	20

Students who attended public and charter schools obtained mean scores of 882 and 879 respectively while students who were educated at parochial schools scored 1058 on average. Similarly, students who resided in Philadelphia had a mean score of 893 versus those who resided in suburban communities who averaged 1029.

Research Question 2: Is there a difference in the combined SAT scores of students

who attended both the ASEP and the ISSP versus students who attended only the ASEP?

There appears to be a difference in the combined SAT scores of students who attended both programs versus the students who attended the AfterSchool Enrichment Program solely. The mean scores increased for each year of participation in the ASEP program and on average were incrementally higher when students also attended the ISSP. For example, students who attended ASEP for three years but did not attend ISSP had a mean score of 869. Moreover, students who attended ASEP and ISSP for each of the three years averaged almost 107 points higher at 975. While the differential varied for each level, higher scores were achieved consistently by students who augmented their attendance at the ASEP with participation in the ISSP. Figure 4.1 reflects the mean scores of students who participated in both facets of the EAA programs equally. The figure also shows that the larger the pool the more significant the difference. As there were 362 subjects in this study and 75 students did not attend the ISSP at all. That statistic amounts to just over 20% of the pool of students who did not attend the summer program at all, with students who attended for two or three years representing approximately 42% of the population.

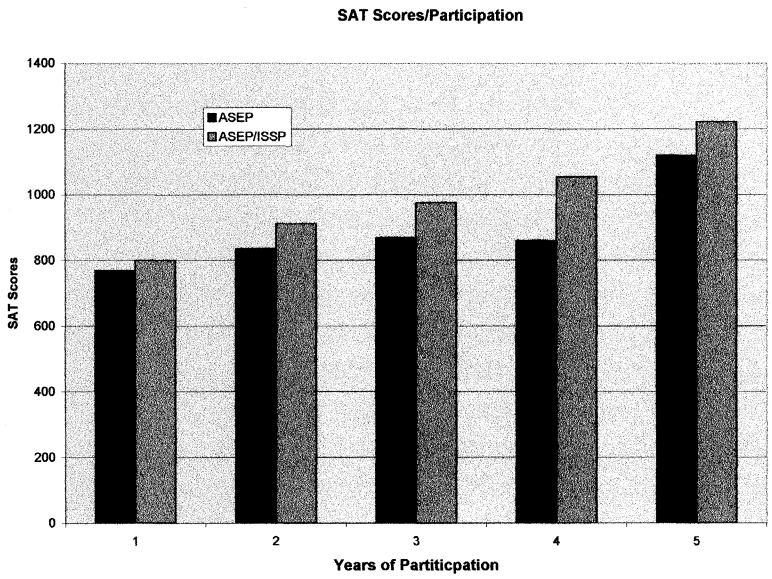

Figure 4.1. A comparison of SAT scores for program participants based on years of participation in ASEP solely or in combination with ISSP.

Research Question 3: Is there a relationship between the years of participation in EAA programs and the mean SAT scores?

There does appear to be a relationship between participation in EAA programs and the achievement of higher SAT scores. Utilizing a Pearson product moment correlation, the strength of the relationship between two variables was analyzed. In this case participation in the ASEP and the mean cumulative SAT scores and similarly participation in the ISSP and mean cumulative SAT scores was evaluated. The correlation coefficient as reflected in Table 4.5, for students participating in both the ASEP and the ISSP was significant at .721. Hence the indication is that the relationship between participation in both the ASEP and ISSP programs and achievement of higher SAT scores is direct and very strong. The probability is .000 which results in the rejection of the null hypothesis and a declaration that the difference is statistically

significant. Additionally, Pearson *r* for ASEP and ISSP as indicated in Table 4.5 was .587 and .645 respectively indicating a moderately strong relationship between the years of participation.

Table 4.5

Bivariate Correlation Scores

		Years of Participation in the ASEP	Years of participation in the ISSP	Mean combined SAT score?
Years of participation in the ASEP	Pearson Correlation	1	.721 (**)	.587 (**)
	Sig. (2-tailed)		.000	.000
	N	362	362	362
Years of participation in the ISSP	Pearson Correlation	.721 (**)	1	.645 (**)
	Sig. (2-tailed)	.000		.000
	N	362	362	362
Mean combined SAT score?	Pearson Correlation	.587 (**)	.645 (**)	1
	Sig. (2-tailed)	.000	.000	
	N	362	362	362

**Correlation is significant at the 0.01 level (2-tailed).

The Analysis of the Variance (ANOVA) test as shown in Tables 4.6 and 4.7 that the mean scores amongst the various groups of students who participated in the ASEP and the ISSP are significantly different with $p<.01$, with $F(4, 356) = 49.594$ amongst the ASEP only group and $F(5, 356) = 56.201$. The mean scores for each of the five levels of students attending ASEP were 782, 871, 938, 1003, and 1170 respectively. The mean scores for each of the five levels of students who participated in the ISSP and the group of students who did not and represent the first score were 810, 830, 926, 990, 1050, and 1223 respectively.

Table 4.6

Analysis of the Variance (ANOVA) – ASEP Only

Descriptives

		N	Mean	Standard Deviation	Standard Error
Mean-What was your cumulative Math & Verbal SAT score? (ASEP only)	one	64	782	100.924	12.615
	two	121	871	124.586	11.326
	three	111	937	110.282	10.468
	four	52	1003	124.063	17.204
	five	14	1170	132.084	35.301
	Total	362	906	144.627	7.601

Descriptives

		95% Confidence Interval for Mean			
		Lower Bound	Upper Bound	Min.	Max.
Mean-What was your cumulative Math & Verbal SAT score? (ASEP w/ISSP)	one	757	807	660	1170
	two	849	894	680	1180
	three	917	958	740	1280
	four	968	1037	780	1250
	five	1094	1246	910	1420
	Total	891	921	660	1420

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Mean- What was your Cumulative Math & Verbal SAT score?	Between Groups	2697165.0	4	674291.262	49.594	0.00
	Within Groups	4853900.4	357	13596.360		
	Total	7551065.5	361			
How many years did you participate in the summer programs?	Between Groups	342.425	4	85.606	102.155	.000
	Within Groups	299.166	357	.838		
	Total	641.591	361			

Table 4.7

Analysis of the Variance (ANOVA) – ASEP w/ISSP

Descriptives

		N	Mean	Standard Deviation	Standard Error
Mean-What was your cumulative Math & Verbal SAT score?	zero	75	810	105.221	12.150
	one	96	830	111.995	11.430
	two	88	926	115.591	12.322
	three	64	990	106.070	13.259
	four	29	1050	95.935	17.815
	five	10	1223	94.405	29.853
	Total	362	906	144.627	7.601
	Total	362	2.53	1.061	.056

Descriptives

		95% Confidence Interval for Mean		Min.	Max.
		Lower Bound	Upper Bound		
Mean-What was your cumulative Math & Verbal SAT score? (ASEP w/ISSP)	zero	786	835	660	1170
	one	808	853	680	1180
	two	902	951	710	1280
	three	964	1017	760	1250
	four	1014	1087	890	1220
	five	1156	1291	1120	1420
	Total	891	921	660	1420

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Mean- What was your Cumulative Math & Verbal SAT score?	Between Groups	3331051.2	5	666210.244	49.594	0.00
	Within Groups	4220014.2	356	11853.973		
	Total	7551065.5	361			
How many years did you attend ASEP?	Between Groups	227.969	5	45.594	91.120	.000
	Within Groups	178.133	356	.500		
	Total	406.102	361			

Research Question 4: Are either mean Verbal or Math SAT scores impacted more or less by participation in the ASEP and ISSP?

As indicated in Table 4.8, while the aggregate scores for each level of participation show an increase with each additional year of participation in the ASEP and the ISSP, the impact does not appear to influence the Verbal or Math scores more

significantly. The variances between the mean score for the Math and Verbal sections of the SAT scores were as few as 1 point for first year participants to 15 points for the students who participated for 5 years. Noticeably, the more significant increase came between years four and five where students gained almost 75 points on average in both the verbal and math sections of the SAT.

Table 4.8

Mean Verbal and Math Scores by Years of Participation

Years of Participation	Mean Verbal Score	Mean Math Score
1	414	415
2	461	463
3	498	491
4	526	524
5	604	619

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMMENDATIONS

Summary of the Study

The purpose of the study was to compare the impact of the Afterschool Enrichment Program and the ISSP on students based on length of participation and/or enrollment in both components. The study used the highest SAT scores to make the comparisons for students enrolled in 2006 through 2008. The study also investigated the relevance of gender, residential community, and the types of school the students attended to assess the impact of these variables on performance.

Study Specifics

The study specifically tracked 362 EAA alumni who had graduated from high school and whose files contained the required information from 2006, 2007, and/or 2008 needed for the analysis. The subjects for this study attended the ASEP and may have participated in the summer enrichment program.

The students were selected based on the criteria that was established, which included having completed files that contained evidence of having graduated from high school, regular attendance in the ASEP, and copies of SAT scores, either via the report or contained on the high school transcript.

Descriptive statistics, mean analysis, correlations, and an analysis of the variance were used to evaluate the student population and SAT scores utilizing the Statistical

Package for the Social Sciences (SPSS) computer software. An examination of the relationship of various characteristics was explored using Pearson *r* calculations and *p* values through the bivariate correlations and analysis of the variance (ANOVA), respectively.

Discussion of the Findings

The female to male ratio of 2:1 is consistent with many studies that examine the widening gender gap with regards to educational attainment, graduation rates, and college attendance. The college matriculation rate for this group of students exceeds 98%, supporting previous studies and reports that identify afterschool programs as a factor that improves students perception of and relationship with their high schools. Rothstein (2004), the Foundations School-Age Enrichment Program, the New York City Department of Youth and Community Development's Out-of-School Time (OST) Programs for Youth Initiative, and Studio 3D (Digital, Design, and Development) all reported student improvement in academics and positive changes in student attitudes. Although most of the studies that were identified in Chapter 2 evaluated students who were in middle schools, few studies could be found on high school subjects except in the area of SAT preparation. As a whole the findings support the work that the Educational Advancement Alliance is doing relative to preparing students for college or at minimum to increase the SAT scores. An examination of the each of the research questions is presented below.

Research Question 1: What were the combined mean SAT scores of the EAA alumni and the effect if any of variables such as gender, school type, or type of community in which they reside?

Utilizing the descriptive means program component, gender was not found to be a relevant factor in relation to SAT scores with the 226 females averaging seven points higher at 909 than their 136 male counterparts. The mean scores for female students who attended urban and suburban public schools were higher than their male counterparts with point differentials of 34 and 93 respectively. Male students attending charter and parochial schools outperformed their female counterparts on average by 19 and 30 points respectively. All of the students who attended charter and parochial schools in this study were residents of Philadelphia, Pennsylvania. While these numbers appear to contradict the many generalizations that have been drawn regarding the gender gap, it can be argued that the difference is intervention. Parental involvement may be a major factor as the parents have sought to finance a better education for their male offspring

When each of the variables was viewed autonomously, the school and community types yielded more significant differences. This would be consistent with Rothstein (2004) a report that delves into the relationship between income disparity and educational success and attainment. It discusses the impact of extra-curricular experiences such as book clubs, camp, cultural enrichment, and travel that all enhance students learning experiences. Income levels often dictate the extent to which children are able to participate in such activities. In *Keeping Track,* Jeannie Oakes (1986) also provides an extensive examination of factors that are found to be relevant in student academic development. Both studies compare the quality of education in urban centers versus those in suburbia and cite the disparities.

The 136-point differential between urban and suburban students supports previous studies and reports tracking student performance on the Scholastic Achievement Tests.

The numbers are equally consistent amongst school types with students who attend private school averaging almost 200 points better than their public school peers and almost 120 points above their parochial school counterparts.

Combining the variables yielded better results as the public school numbers were inclusive of students who attended public schools and resided in suburban communities. This supports previous studies and reports that identify the type of community as one of the most relevant factors in student performance. In Oakes (1986), she chronicled her research as she traveled to different schools in various communities, and documented the differences in resources like the condition and availability of textbooks, curriculum rigor, teacher expectations, and other factors that influence the success of students.

Research Question 2: Is there a difference in the combined SAT scores of students who attended both the ASEP and the ISSP versus students who attended only the ASEP?

The data showed that years of attendance and participation in both the afterschool component and the summer enrichment were both relevant to the SAT score. The data clearly show the added benefit to students the longer that they attend the afterschool program and when they participate in the Intensive Summer Science Program. The most significant statistic is reflected in the difference between students who attended both the ASEP and the ISSP for five years as compared to students who attended only the ASEP for one year. The SAT scores were 1223 and 800 respectively, a notable 423-point differential which would not only suggest but confirm that length of participation in both the ASEP and ISSP during their high school years has a genuine effect on the attainment of higher SAT scores.

Research Question 3: Is there a relationship between the years of participation in

EAA programs and the mean SAT scores?

The bivariate correlations indicate that a strong relationship exists between participation in ASEP and SAT scores as reflected by the Pearson *r* coefficient value of .587. An even stronger correlation is evident when students participate in both programs for a number of years at .721. While it is not clear whether review and tutorial of core subjects or SAT preparatory classes influences the scores more, it is clear that all of the interventions and resources combined provide students with additional support that can be identified as significant in relation to higher SAT scores. If one of the criticisms of coaching involves the issue of accessibility, the EAA has attempted to remove this obstacle in its continuing efforts to address the achievement gap and college preparedness. The findings support previous studies conducted by Perkins (2001), Johnson & Wallace (1989), and Brazziel (1988) that not only explores whether the preparatory courses are beneficial but also argues the issue of accessibility and ultimately the unfair advantage afforded to those who can financially afford it.

This study using quantitative data aligns closely with prior studies like the Foundations School-Age Enrichment Program, the New York City Department of Youth and Community Development's Out-of-School Time (OST) Programs for Youth Initiative that used surveys and focus groups. Although this study does not measure attendance on a daily or weekly basis, it does indirectly support the findings of the Foundations School-Age Enrichment Program and (OST) Programs for Youth that are part of the Harvard Family Research Project that associated attendance with student performance. As indicated, the findings of the study confirm that the longer and greater the participation of the students in EAA programs, the higher the SAT scores.

Research Question 4: Are either mean Verbal or Math SAT scores impacted more or less by participation in the ASEP and ISSP?

The results indicated that the tutorial, enrichment, and SAT preparation yielded similar results in both areas. There were consistent increases in both the Verbal and Math sections of the SAT for students at each level, which would support the contention by Oakes (1986) and Russell, Mielke, Miller, and Johnson (2007) that the more knowledge that students acquire the better their performance on standardized tests. More exposure to literature and advanced mathematical concepts further prepares students for the material that is contained in the SAT. The ability to read effectively, comprehend, and reason at a higher level enables students to attain higher scores.

As the Educational Advancement Alliance continues to invest significant resources in various programs in an attempt to level the playing field, it aims to quantify the programs' impact.

Conclusions

Inasmuch as the study could have included ASEP and ISSP's effects on students grade point averages, the lack of rigor in urban education and lax grading systems would potentially have yielded results that were imprecise. However, the results of the ANOVA computation coupled with the mean SAT score analyses suggest that the participation in the AfterSchool Enrichment Program is a beneficial academic program. Additionally, coupled with the summer component, students are consistently attaining higher scores on the Scholastic Achievement Tests. It further supports that the longer a student participates in the ASEP and ISSP, there is a likelihood that the SAT score will increase.

Recommendations for Policy and Practice

Providing learning opportunities beyond the routine hours, during the regular academic school year is a critical part of the strategy that is needed to close the achievement gap. This study suggests that formal academic instruction outside of the customary school schedule improves academic achievement as evidenced by higher SAT scores. The commitment should be made to ensuring that all students who want to participate in afterschool and summer programs should have the opportunity to do so.

The first recommendation is to increase accessibility to more students falling within the middle income guideline. The Educational Advancement Alliance, Inc. is one of few programs that does not have an income guideline. While outreach is targeted at underrepresented students, participation is open to all students. With the statistics regarding academic performance of American students lagging behind many of their international peers, accessibility continues to be an obstacle although the numbers of programs offering academic augmentation continue to increase. For students whose family incomes fall below the poverty, they are able to take advantage of quality afterschool and summer programs. However, students whose parents earn a little more and/or those that have attended college do not meet the federal guidelines and as such encounter barriers that disallow their participation. At the other end of the spectrum are phenomenal collegiate college-preparatory programs that are costly and also prohibitive to young people who may have the desire to spend their summers productively. Most of these collegiate-sponsored programs require students to pay the cost of tuition in addition to meeting academic guidelines.

Secondly, the corporate sector should recognize the benefit of afterschool and

summer programming and sponsor greater numbers of students who reside in urban centers who do not meet income guidelines and who may not be labeled as mentally gifted. Our greatest failure may be the neglect of the average or slightly above-average student who does not receive the attention or does not have the advocates that their economically disadvantaged or students that demonstrate academic excellence. There are students that with the proper intervention may become the next astronomer, statistician, or journalist.

And finally, educators with the support of federal, state, and local governments and the corporate sector must find ways to make education as attractive as sports and entertainment. With President Barack Obama's ascension to the highest office in the land, young people of all hues and religions appear to be recognizing that school, academics, and intelligence are once again fashionable. The question remains how to capitalize on this tremendous opportunity and in addition to financial resources, what is needed to re-engage young people in the educational/academic processes.

REFERENCES

Becker, B. J. (Autumn, 1990). Coaching for the Scholastic Aptitude Test: Further synthesis and appraisal. *Review of Educational Research, 60*(3), 373-417. Retrieved October 10, 2007 from J-STOR database.

Berlak, H. (Summer, 2001). Race and the achievement gap. *Rethinking Schools Online, 15*(4). Retrieved on June 30, 2008.

Brazziel, W. F. (Winter, 1988). Improving SAT scores: Pros, cons, methods. *The Journal of Negro Education, 57*(1), 81-93. Retrieved October 10, 2007 from J-STOR database.

Davis, B. G., & Humphreys, S. (1985). *Evaluating intervention programs: Applications from women's program on math and science*. Columbia University, NY: Teachers College Press. Retrieved on October 20, 2008.

Dubner, S. J. (2008, March 18). How can the achievement gap be closed? *New York Times.* Retrieved on June 30, 2008.

Gottfredson, D.C., Gerstenblith, S. A., Soule, D.A., Womer, S.C., & Lu, S. (2004). Do afterschool programs reduce delinquency? *Prevention Science, 5*(4), 253-266.

Grossman, J.B., Walker, K., & Raley, R. (2000). *Challenges and opportunities in after school programs*. Philadelphia, PA: Public Private Ventures. Retrieved May 25, 2008 from HFRP database.

Harvard Family Research Project. www.hfrp.org/out-of-school-time/ost-database

Hernstein, R. J., & Murray, C. (1994). *The bell curve: Intelligence and class structure in American life.* New York: Simon and Schuster Adult Publishing Group.

History of TRIO Programs. http://www.asu.edu/studentaffairs/trio/

History of TRIO Programs. http://www.ncceop.appstate.edu/triohistory.htm

History of TRIO Programs. http://www.sanjuancollege.edu/pages/1460.asp

Johnson, S. T., & Wallace, M. B. (Summer, 1989). Characteristics of SAT quantitative Items showing improvement after coaching among black students from low-income families: An exploratory study. *Journal of Educational Measurement, 26*(2), 133-145. Retrieved October 10, 2007 from J-STOR database.

Oakes, J. (1986). *Keeping track: How schools structure inequality.* New Haven, CT: Yale University Press.

Ogbu, J. (2003). *Black American students in an affluent suburb: A study of academic disengagement.* Mahwah, NJ: Lawrence Erlbaum Associates.

Perkins, L. M. (Spring, 2001). Review: Meritocracy, equal opportunity, and the SAT. *History of Education Quarterly, 41*(1), 89-95. Retrieved October 10, 2007 from J-STOR database.

Rothstein, R. (2004). *Strategies for closing academic achievement gaps.* Naperville, IL: Learning Point Associates.

Russell, C.A., Mielke, M.B., Miller, T.D., & Johnson, J.C. (October, 2007). *After-school programs and high school success: Analysis of post-program educational patterns of former middle-grades TASC participants.* Washington, D. C.: Policy Studies Associates, Inc.

SAT reasoning test. *Wikipedia, ¶1 &5.*

Special report: Confronting the widening racial scoring gap on the SAT. (Autumn, 2003). *The Journal of Blacks in Higher Education, 41*, 84-89. Retrieved October 10, 2007 from J-STOR database.

This wasn't supposed to happen: The Black-White SAT gap is actually growing larger. (Autumn,1999). *The Journal of Blacks in Higher Education, 25*, 95-100. Retrieved October 10, 2007 from J-STOR database.

Vandell, D.L., Pierce, K.M., Brown, B.B., Lee, D., Bolt, D., Dadisman, K., Pechman, E., & Reisner, E. R. (2006). *Developmental outcomes associated with the after-school contexts of low-income children and adolescents: A study of promising afterschool programs.* Unpublished manuscript.

APPENDIX A
Release Form

EDUCATIONAL ADVANCEMENT ALLIANCE, INC.
AfterSchool Enrichment Program

RELEASE FORMS

PERMISSION TO TAPE OR PHOTOGRAPH

Student: _____

Date of Birth: _____

I grant written permission to the Educational Advancement Alliance, Inc. to make video tapes or photographs of the above named student.

I further authorize the use of such photographs or tapes for brochures, press releases, or other recruitment materials without prior inspection on my part.

Student Signature: _____

Parent/Guardian Signature: _____

Date: _____

PERMISSION TO COLLECT AND USE DATA

I grant written permission to the Educational Advancement Alliance, Inc. to obtain grades and use the information provided in the participant profile for marketing, recruitment, program evaluation and data analysis purposes.

Student Signature: _____

Parent/Guardian Signature: _____

Date: _____

APPENDIX B
Sample Data Collection Instruments

Oneway

[DataSet1] C:\Documents and Settings\Karen\My Documents\asep.sav

Descriptives

		N	Mean	Std. Deviation	Std. Error
Mean What was your cumulative Math & Verbal SAT score?	one	64	782.19	100.924	12.615
	two	121	871.32	124.586	11.326
	three	111	937.57	110.282	10.468
	four	52	1002.50	124.063	17.204
	five	14	1170.00	132.084	35.301
	Total	362	906.27	144.627	7.601
How many year did you participate in the summer programs?	one	64	.44	.500	.063
	two	121	1.28	.755	.069
	three	111	2.05	1.074	.102
	four	52	2.98	1.276	.177
	five	14	4.64	.633	.169
	Total	362	1.74	1.333	.070

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Mean What was your cumulative Math & Verbal SAT score? * What type of High School did you attend?	362	100.0%	0	.0%	362	100.0%

Report

Mean What was your cumulative Math & Verbal SAT score?

What type of High	Mean	N	Std. Deviation
Public	882.02	218	143.449
Charter	879.48	96	102.673
Parochial	1057.67	43	113.049
Private	1176.00	5	15.166
Total	906.27	362	144.627

Means

[DataSet1] C:\Documents and Settings\Karen\My Documents\asep.sav

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Mean What was your cumulative Math & Verbal SAT score? * What is your Gender?	362	100.0%	0	.0%	362	100.0%

Report

Mean What was your cumulative Math & Verbal SAT score?

What is your Gender?	Mean	N	Std. Deviation
Male	901.84	136	141.501
Female	908.94	226	146.723
Total	906.27	362	144.627

Means

[DataSet1] C:\Documents and Settings\Karen\My Documents\asep.sav

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Mean What was your cumulative Math & Verbal SAT score? * What type of community did you reside in?	362	100.0%	0	.0%	362	100.0%

Report

Mean What was your cumulative Math & Verbal SAT score?

What type of community	Mean	N	Std. Deviation
Urban	892.73	326	139.666
Suburban	1028.89	36	132.056
Total	906.27	362	144.627

Means

[DataSet1] C:\Documents and Settings\Karen\My Documents\asep.sav

Means

[DataSet1] C:\Documents and Settings\Karen\My Documents\asep.sav

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Mean What was your cumulative Math & Verbal SAT score? * How many years did you attend ASEP? * How many year did you participate in the summer programs?	362	100.0%	0	.0%	362	100.0%

Report

Mean What was your cumulative Math & Verbal SAT score?

How many years did	How many year did	Mean	N	Std. Deviation
one	zero	768.61	36	86.624
	one	799.64	28	116.093
	Total	782.19	64	100.924
two	zero	835.00	22	123.240
	one	836.98	43	127.308
	two	911.96	56	112.062
	Total	871.32	121	124.586
three	zero	868.57	14	81.981
	one	851.05	19	71.172
	two	962.69	26	124.437
	three	975.19	52	96.335
	Total	937.57	111	110.282
four	zero	860.00	3	98.489
	one	861.67	6	51.929
	two	903.33	6	84.301
	three	1048.18	11	130.370
	four	1055.00	26	92.315
	Total	1002.50	52	124.063
five	three	1120.00	1	.
	four	1010.00	3	140.000
	five	1223.00	10	94.405
	Total	1170.00	14	132.084
Total	zero	810.40	75	105.221
	one	830.42	96	111.995
	two	926.36	88	115.591
	three	990.00	64	106.070
	four	1050.34	29	95.935
	five	1223.00	10	94.405
	Total	906.27	362	144.627

Descriptives

		95% Confidence Interval for Mean			
		Lower Bound	Upper Bound	Minimum	Maximum
Mean What was your cumulative Math & Verbal SAT score?	zero	786.19	834.61	660	1170
	one	807.72	853.11	680	1180
	two	901.87	950.86	710	1280
	three	963.50	1016.50	760	1250
	four	1013.85	1086.84	890	1220
	five	1155.47	1290.53	1120	1420
	Total	891.32	921.22	660	1420
How many years did you attend ASEP?	zero	1.58	1.99	1	4
	one	1.86	2.21	1	4
	two	2.30	2.56	2	4
	three	3.09	3.31	3	5
	four	3.99	4.22	4	5
	five	5.00	5.00	5	5
	Total	2.42	2.64	1	5

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Mean What was your cumulative Math & Verbal SAT score?	Between Groups	3331051.2	5	666210.244	56.201	.000
	Within Groups	4220014.2	356	11853.973		
	Total	7551065.5	361			
How many years did you attend ASEP?	Between Groups	227.969	5	45.594	91.120	.000
	Within Groups	178.133	356	.500		
	Total	406.102	361			

Descriptives

		95% Confidence Interval for Mean		Minimum	Maximum
		Lower Bound	Upper Bound		
Mean What was your cumulative Math & Verbal SAT score?	one	756.98	807.40	660	1170
	two	848.90	893.75	680	1180
	three	916.82	958.31	740	1280
	four	967.96	1037.04	780	1250
	five	1093.74	1246.26	910	1420
	Total	891.32	921.22	660	1420
How many year did you participate in the summer programs?	one	.31	.56	0	1
	two	1.15	1.42	0	2
	three	1.84	2.25	0	3
	four	2.63	3.34	0	4
	five	4.28	5.01	3	5
	Total	1.60	1.88	0	5

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Mean What was your cumulative Math & Verbal SAT score?	Between Groups	2697165.0	4	674291.262	49.594	.000
	Within Groups	4853900.4	357	13596.360		
	Total	7551065.5	361			
How many year did you participate in the summer programs?	Between Groups	342.425	4	85.606	102.155	.000
	Within Groups	299.166	357	.838		
	Total	641.591	361			

Oneway

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Descriptives

		N	Mean	Std. Deviation	Std. Error
Mean What was your cumulative Math & Verbal SAT score?	zero	75	810.40	105.221	12.150
	one	96	830.42	111.995	11.430
	two	88	926.36	115.591	12.322
	three	64	990.00	106.070	13.259
	four	29	1050.34	95.935	17.815
	five	10	1223.00	94.405	29.853
	Total	362	906.27	144.627	7.601
How many years did you attend ASEP?	zero	75	1.79	.890	.103
	one	96	2.03	.864	.088
	two	88	2.43	.621	.066
	three	64	3.20	.443	.055
	four	29	4.10	.310	.058
	five	10	5.00	.000	.000
	Total	362	2.53	1.061	.056

Oneway

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Descriptives

Cumulative median SAT score

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
zero	5	899.6600	111.71520	49.96056	760.9473	1038.3727
one	5	899.5520	100.58205	44.98166	774.6629	1024.4411
two	4	906.3775	69.48070	34.74035	795.8182	1016.9368
three	3	981.4533	130.18312	75.16126	658.0605	1304.8461
four	2	956.6650	75.42708	53.33500	278.9796	1634.3504
five	1	1223.0000	.	.	.	.
Total	20	935.1130	114.84909	25.68104	881.3620	988.8640

Descriptives

Cumulative median SAT score

	Minimum	Maximum
zero	768.61	1048.18
one	799.64	1055.00
two	851.05	1002.50
three	861.67	1120.00
four	903.33	1010.00
five	1223.00	1223.00
Total	768.61	1223.00

ANOVA

Cumulative median SAT score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	106160.60	5	21232.119	2.058	.132
Within Groups	144455.38	14	10318.241		
Total	250615.98	19			

Oneway

[DataSet2] C:\Documents and Settings\Karen\My Documents\eaa mean values.sav

Descriptives

Cumulative median SAT score

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
one	2	784.1250	21.94152	15.51500	586.9882	981.2618
two	3	861.3133	43.87247	25.32978	752.3281	970.2986
three	4	888.4075	50.32886	25.16443	808.3231	968.4919
four	5	907.5520	49.64916	22.20378	845.9044	969.1996
five	6	1076.4467	83.08671	33.92001	989.2525	1163.6408
Total	20	935.1130	114.84909	25.68104	881.3620	988.8640

Descriptives

Cumulative median SAT score

	Minimum	Maximum
one	768.61	799.64
two	835.00	911.96
three	851.05	962.69
four	860.00	975.19
five	1002.50	1223.00
Total	768.61	1223.00

ANOVA

Cumulative median SAT score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	194308.82	4	48577.204	12.941	.000
Within Groups	56307.160	15	3753.811		
Total	250615.98	19			

Report

Mean What was your cumulative Math & Verbal SAT score?

What is your Gender?	What type of community	What type of High	Mean	N	Std. Deviation
Male	Urban	Public	835.59	68	122.589
		Charter	891.88	32	106.905
		Parochial	1074.29	21	92.009
		Total	891.90	121	142.731
	Suburban	Public	963.85	13	90.327
		Parochial	1000.00	1	.
		Private	1200.00	1	.
		Total	982.00	15	103.524
	Total	Public	856.17	81	126.704
		Charter	891.88	32	106.905
		Parochial	1070.91	22	91.178
		Private	1200.00	1	.
		Total	901.84	136	141.501
Female	Urban	Public	870.00	117	134.741
		Charter	873.28	64	100.776
		Parochial	1043.81	21	133.097
		Private	1170.00	3	10.000
		Total	893.22	205	138.176
	Suburban	Public	1057.00	20	143.567
		Private	1170.00	1	.
		Total	1062.38	21	142.088
	Total	Public	897.30	137	150.853
		Charter	873.28	64	100.776
		Parochial	1043.81	21	133.097
		Private	1170.00	4	8.165
		Total	908.94	226	146.723
Total	Urban	Public	857.35	185	131.128
		Charter	879.48	96	102.673
		Parochial	1059.05	42	114.056
		Private	1170.00	3	10.000
		Total	892.73	326	139.666
	Suburban	Public	1020.30	33	132.039
		Parochial	1000.00	1	.
		Private	1185.00	2	21.213
		Total	1028.89	36	132.056
	Total	Public	882.02	218	143.449
		Charter	879.48	96	102.673
		Parochial	1057.67	43	113.049
		Private	1176.00	5	15.166
		Total	906.27	362	144.627

Means

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Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Mean What was your cumulative Math & Verbal SAT score? * How many years did you attend ASEP? * How many year did you participate in the summer programs?	362	100.0%	0	.0%	362	100.0%

Report

Mean What was your cumulative Math & Verbal SAT score?

How many years did	How many year did	Mean	N	Std. Deviation
one	zero	768.61	36	86.624
	one	799.64	28	116.093
	Total	782.19	64	100.924
two	zero	835.00	22	123.240
	one	836.98	43	127.308
	two	911.96	56	112.062
	Total	871.32	121	124.586
three	zero	868.57	14	81.981
	one	851.05	19	71.172
	two	962.69	26	124.437
	three	975.19	52	96.335
	Total	937.57	111	110.282
four	zero	860.00	3	98.489
	one	861.67	6	51.929
	two	903.33	6	84.301
	three	1048.18	11	130.370
	four	1055.00	26	92.315
	Total	1002.50	52	124.063
five	three	1120.00	1	.
	four	1010.00	3	140.000
	five	1223.00	10	94.405
	Total	1170.00	14	132.084
Total	zero	810.40	75	105.221
	one	830.42	96	111.995
	two	926.36	88	115.591
	three	990.00	64	106.070
	four	1050.34	29	95.935
	five	1223.00	10	94.405
	Total	906.27	362	144.627

How many year did you participate in the summer programs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	zero	75	20.7	20.7	20.7
	one	96	26.5	26.5	47.2
	two	88	24.3	24.3	71.5
	three	64	17.7	17.7	89.2
	four	29	8.0	8.0	97.2
	five	10	2.8	2.8	100.0
	Total	362	100.0	100.0	

Frequencies

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Statistics

		What is your Gender?	What type of community did you reside in?	What type of High School did you attend?	How many years did you attend ASEP?	How many year did you participate in the summer programs?
N	Valid	362	362	362	362	362
	Missing	0	0	0	0	0

Frequency Table

What is your Gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	136	37.6	37.6	37.6
	Female	226	62.4	62.4	100.0
	Total	362	100.0	100.0	

What type of community did you reside in?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Urban	326	90.1	90.1	90.1
	Suburban	36	9.9	9.9	100.0
	Total	362	100.0	100.0	

What type of High School did you attend?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	218	60.2	60.2	60.2
	Charter	96	26.5	26.5	86.7
	Parochial	43	11.9	11.9	98.6
	Private	5	1.4	1.4	100.0
	Total	362	100.0	100.0	

How many years did you attend ASEP?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	one	64	17.7	17.7	17.7
	two	121	33.4	33.4	51.1
	three	111	30.7	30.7	81.8
	four	52	14.4	14.4	96.1
	five	14	3.9	3.9	100.0
	Total	362	100.0	100.0	

APPENDIX C
SPSS Data Records and Output Summaries

SCHOOL DISTRICT OF PHILADELPHIA

Academic Record of:
[redacted]

Currently Attending School
H.S. OF ENGINEERING & SCIENCE
1600 W. NORRIS ST.
PHILADELPHIA PA 19121

ID *3797145* Sex *Female* DOB *11/21/89* Status *GRADUATED* Grade *12* SSN [redacted]

MARKS: A = 90-100; B = 80-89; C = 70-79; D = 65-69; F = Below 65; P = PASSING

2007-2008 As of: *06/16/2008* Total Credits Earned *6.00* Grade *12*
Attendance: *Present 165.0 Absent 13.0 Late 20* School: *H.S. OF ENGINEERING & SCIENCE*

Subject	Mark	Credit	Subject	Mark	Credit
ENGLISH 4 ADVANCED	B	1.00a	*AFR AMER HISTORY ADVANCED*	C	1.00a
PRE-CALCULUS ADVANCED	C	1.00a	*DRAMA*	C	0.50
ART 2	B	0.50	*ART 2*	B	0.50
PSYCHOLOGY	B	0.50	*ENGINEERING 1*	A	1.00
ADVISORY	A	0.00			

2006-2007 Year Ending *June 2007* Total Credits Earned *8.00* Grade *11*
Attendance: *Present 176.0 Absent 4.0 Late 7* School: *H.S. OF ENGINEERING & SCIENCE*

Subject	Mark	Credit	Subject	Mark	Credit
ENGLISH 3 ADVANCED	C	1.00a	*AMERICAN HISTORY ADVANCED*	C	1.00a
ALGEBRA 2 ADVANCED	D	1.00a	*PHYSICS ADVANCED*	C	1.00a
ART 1	B	0.50	*DRIVER'S EDUCATION*	P	0.25
ADVISORY	B	0.00	*PROBLEM SOLVING*	D	1.00
PHYSICAL EDUCATION 3	A	0.75	*HEALTH 2*	B	0.50
SPANISH 2 ADVANCED	C	1.00a			

2005-2006 Year Ending *June 2006* Total Credits Earned *6.75* Grade *10*
Attendance: *Present 177.0 Absent 2.0 Late 11* School: *H.S. OF ENGINEERING & SCIENCE*

Subject	Mark	Credit	Subject	Mark	Credit
ENGLISH 2	C	1.00a	*SOCIAL SCIENCE*	B	1.00a
GEOMETRY	D	1.00a	*CHEMISTRY 1*	C	1.00a
ADVISORY	A	0.25	*COMPPROG2*	B	1.00a
PHYSICAL EDUCATION 2	A	0.25	*HEALTH 1*	B	0.25
SPANISH 1	C	1.00a			

2004-2005 Year Ending *June 2005* Total Credits Earned *7.25* Grade *09*
Attendance: *Present 179.0 Absent 1.0 Late 0* School: *H.S. OF ENGINEERING & SCIENCE*

Subject	Mark	Credit	Subject	Mark	Credit
ENGLISH 1	C	1.00a	*WORLD HISTORY*	C	1.00a
ALGEBRA 1	B	1.00a	*PHYSICAL SCIENCE*	B	1.00a
BIOLOGY 1	B	1.00a	*ADVISORY*	A	0.25
COMPSCI1	B	0.50	*MATH ENRICHMENT*	C	0.50
PHYSICAL EDUCATION 1	B	0.50	*CMMUNTY SR*	A	0.50

*** Current year courses with no credit show an average mark through the last report period. ***

'a' next to credit - indicates ADVANCED course

<<<<< NOTICE: DOCUMENT NOT OFFICIAL WITHOUT SCHOOL SEAL >>>>>

Scores:

SAT	Date Taken *01/03/2007*	Verbal *370*	Math *430*	Writing *360*
	Date Taken *05/01/2007*	Verbal *400*	Math *380*	Writing *340*
	Date Taken *10/01/2007*	Verbal *440*	Math *330*	Writing *460*

CUM: *83.69821* GPA *3.00* Class Rank: *136 of 201*

Signature [signature] Date 9/9/08

Educational Advancement Alliance, Inc.
After School Enrichment Program (ASEP)
Spring 2009 Application

GENERAL INFORMATION *(please print or type all information)*

First Name:	Middle Name:	Last Name:
Address:		E-mail:
City:	State:	Zip Code:
Gender: _____ Female _____ Male	Age:	Date of Birth:
Social Security Number:		
Home Telephone:	Student Mobile Phone:	

EDUCATION

School Attending:	Current Grade:
The following educational information must accompany this application: _____ Copy of most recent report card _____ Copy of most recent standardized test scores (i.e. PSSA, SAT, ACT)	

PARENT/GUARDIAN INFORMATION

Parent/Guardian #1 Full Name:	
Address:	
Daytime Telephone #:	Email Address:
Evening Telephone #:	Mobile Phone:
Parent/Guardian #1 Full Name:	
Address:	
Daytime Telephone #:	Email Address:
Evening Telephone #:	Mobile Phone:

Educational Advancement Alliance, Inc.
After School Enrichment Program (ASEP)
Spring 2009 Application

PARENT/GUARDIAN CONSENT FORM

Student Name: _____

Parent/Guardian Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Daytime Telephone: _____ Mobile Phone: _____

I, the parent or guardian of the above-named child, hereby register him/her for participation in the Educational Advancement Alliance, Inc. After School Enrichment Program (ASEP) and fully agree to the rules and regulations of the program. I do hereby release EAA and its directors, representatives, employees, and volunteers from any liability. I, the parent or guardian, release EAA from all responsibilities from injuries of any nature incurred while participating in ASEP. I understand that my child will be supervised by a professional at all times, and that medical insurance is my responsibility.

EMERGENCY MEDICAL TREATMENT

In the event _____ (student's name) becomes ill or sustains an injury while in the care of or under the supervision of EAA/ASEP staff members, they are given permission to administer first aid for his/her relief. In case of emergency, permission is given to take my child to the nearest appropriate emergency or clinic facility.

Family Doctor: _____ Telephone: _____

Address: _____ City: _____ Zip: _____

Allergies (if any): _____

Name(s) of any medications currently taken: _____

In case parent/guardian cannot be reached in an emergency, please contact:

Name: _____

Relationship: _____ Telephone: _____

I HAVE READ, UNDERSTOOD, AND AGREED TO ALL OF THE ABOVE.

Name of Parent/Guardian (please print): _____ Date: _____

Parent/Guardian Signature: _____

DISCIPLINE POLICY/CODE OF CONDUCT AGREEMENT

In order to fulfill the mission of the After School Enrichment Program (ASEP) all stakeholders (students, staff, parents, and community) must be committed to a strong discipline policy which encourages accountability for all actions. This approach safeguards each student's right to participate in a safe, positive, and orderly environment.

STUDENT CONTRACT

As an ASEP student, I will do MY BEST to adhere to the following:

- I will show consideration for the rights and feelings of others, being careful not to hurt them physically or make them feel bad.
- I will speak to others respectfully, not using profanity or uncomplimentary names.
- I will show respect for all people working or helping in EAA.
- I will show careful regard for both my property and the property of others.
- I will always ask permission before I borrow other people's things and I will return them promptly and in good condition when I am finished.
- I will attend ASEP regularly.
- I will arrive at ASEP and to each class on time and with the necessary materials.
- I will make good use of ASEP time, complete and turn in requested documents and assignments on time.
- I will remain on the grounds of ASEP during the time of programming. I will not leave ASEP unless I am going home and I have notified an EAA staff member.
- I will never bring any "contraband" (i.e. lighters, matches, tobacco, controlled substances, box cutters, mace, pepper spray, guns, knives, etc.) to ASEP or any ASEP- or EAA-sponsored activities.
- I will help keep my personal space and general space clean and tidy.
- I will agree to wear appropriate clothing and footwear in an appropriate manner. Gentlemen will not wear their pants sagging or exposing undergarments. Ladies shall not wear clothing that shows the midriff. Shirts displaying emblems or phrases that contain profanity, illegal activity, sexual innuendos, guns, or anything else deemed inappropriate by EAA staff members will be asked to immediately leave the program.

I HAVE READ THE ITEMS LISTED ABOVE AND UNDERSTAND THAT VIOLATION OF ONE OR MORE OF THESE ITEMS RESULT IN IMMEDIATE REMOVAL FROM THE PROGRAM AND ALL EAA-RELATED ACTIVITIES AND PRIVILAGES.

Signature of Student: _____ Date: _____

PARENT/GUARDIAN CONTRACT

As a parent/guardian of an ASEP student, I will do MY BEST to do the following:

- I will read and discuss with my child the expectation that ASEP has for him or her.
- I will encourage my child to respect the rights and property of others.
- I will know and support ASEP's expectations and responsibilities.
- I will attend ASEP parents' meetings if my schedule permits.
- I will encourage and support my child's effort to learn by providing time and space for my child to study.
- I will assume the responsibility for the regular and prompt attendance of my child.
- I will encourage my child to come to the program ready to learn.

I HAVE READTHE ITEMS LISTED ABOVE AND I AGREE TOADHERE TO THESE GUIDELINES.

Signature of Parent: _____Date: _____

STAFF CONTRACT

As staff members of the Educational Advancement Alliance, Inc. (EAA) After School Enrichment Program (ASEP), we will do OUR BEST to do the following:

- We review the Discipline Policy/Code of Conduct Agreement at the beginning of each semester and as necessary throughout the year.
- We will listen to the opinions of students and have them heard and respected as long as the opinions are expressed in a responsible and timely way.
- We will provide positive activities to promote good behavior and excellent learning opportunities.
- We will encourage students to strive for personal excellence.
- We will serve as role models by demonstrating enthusiasm for learning and teaching.
- We will emphasize the importance of promptness and regular attendance.
- We will provide a safe and caring environment for all students.

WE HAVE READ THE ITEMS LISTED ABOVE AND WE AGREE TO ADHERE TO THESE GUIDELINES.

Signature of EAA Rep: _____Date: _____

CONSEQUENCES FOR INAPPROPRIATE BEHAVIOR

If a student has difficulty recognizing his or her responsibilities in relation to the expectations we have set, an adult in charge will intervene and respond with an appropriate action. These actions may include:

- Restriction of privileges and activities
- Temporary suspension from ASEP
- Parent-student conference will EAA personnel
- Replacement/repair of damaged property
- Parent contact
- Removal from ASEP and all EAA-related activities, including summer programming

As might be expected, the more serious the misbehavior, the more severe the consequence. The following are considered "major" acts of misconduct and will be dealt with by immediate removal from ASEP:

- Physical assault causing pain or injury
- Use of intimidation, coercion, or force
- Initiation activities (i.e. froshing or hazing)
- Behaviors dangerous to self or others
- Possession or use of alcohol, illegal drugs, tobacco, or other contraband items
- Repeated violation of general expectations and program rules.
- Use of and/or possession of a weapon.
- Theft
- Extortion
- Belligerent behavior including profanity or abusive language
- Defiance
- Excessive absences and lateness

PHOTOGRAPH RELEASE FORM

This agreement is made and entered into as of January 1, 2009 to June 30, 2009, by and between the Educational Advancement Alliance, Inc. (EAA) with offices at The Enterprise Center, 4548 Market Street, Philadelphia, PA 19139 and _____ (student's name).

I hereby grant permission for EAA to use photographs for use in any and all media and methods of transmission and/or distribution now or hereafter known, including but not limited to film, print, video, computer, internet website, email, and digital reproduction and distribution for illustration, art promotion, advertising, trade, sales, or any other purpose whatsoever.

I hereby waive any right to inspect or approve photographs or electronic matter that may be used in conjunction with them now or in the future, whether that use is known to the organization or unknown, including but not limited to any re-use, distortion, blurring, alteration, optical illusion or use in composite form, either intentionally or otherwise, that may occur in relation to the finished product.

I hereby agree to hold harmless EAA from and against any claims, and waive any right to royalties or other compensation arising from or related to the use of the photographs.

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

Name of Parent/Guardian (please print): _____ Date:_____

Parent/Guardian Signature: _____

EDUCATIONAL ADVANCEMENT ALLIANCE, INC. AFTER SCHOOL ENRICHMENT PROGRAM (ASEP) AUTHORIZATION TO RELEASE SCHOOL RECORDS

Parent/Guardian Consent

Please print:
Student Name: _____

Date of Birth: _____ Graduation Year: _____

I, the parent or guardian of the above-named student, hereby authorize _____ (student's school's name) to release information from my child's scholastic record, which also includes any transcripts, class schedules, attendance records, scores for standardized achievement, and diagnostic test/assessments to the Educational Advancement Alliance, Inc. (EAA) After School Enrichment Program, with offices at The Enterprise Center, 4548 Market Street, Philadelphia, PA 19139. I hereby grant permission for EAA to use these records for only internal use in EAA's After School Enrichment Program. Use of information will be used for assessing student need, statistical purposes, and program evaluation. This information will be kept confidential.

I HAVE READ, UNDERSTOOD, AND AGREED TO ALL OF THE ABOVE.

Name of Parent/Guardian (please print): _____ Date:_____

Parent/Guardian Signature: _____

For more information, please contact:

Sheronda-Rae Ball, Program Director sball@eaalliance.org (215) 472-2500

Danielle N. Beaton, Program Manager dbeaton@eaalliance.org (215) 472-2500

CONFIDENTIAL RECOMMENDATION FORM

Applicant's Full Name: _____

To the educational or community person writing this recommendation: So that the staff of The Educational Advancement Alliance, Inc. After School Enrichment Program may gather as much information as possible to assess this student fairly, we ask you to complete this recommendation form objectively. Thank you for your help and cooperation.

Please rate the student in the categories listed using the following key:

4=Outstanding; 3=Excellent; 2=Average; 1=Below Average; X=Not Observed

	Academic Performance		Demonstrates Leadership Skills
	Regular Attendance		Self-Discipline/Responsibility
	Participation/Dependability		Quality of Written Expression
	Intellectual Ability		Quality of Verbal Expression
	Initiative/Effort		Individual/Independent Work
	Problem Solving Skills		Completes Assignments on Time
	Level of Reading Skills		Work Habits/Time Management
	Behavior/Self-Control		Creativity/Resourcefulness
	Works Well With Others		

In what capacity and how long have you known the applicant? _____

_____

Please describe this student's skills, abilities, experiences, and any additional qualities you have observed that would be strong points for this program: _____

_____

_____

What are the first words that come to mind when you think of this applicant? _____

_____

This recommendation may be given to the applicant; it may be placed in a sealed envelope by the recommender to be sent with other documentation, or it may be sent directly to The Educational Advancement Alliance, Inc. via fax to (215) 472-2440 to the attention of Ms. Shields.

Signature: _____ Date: _____

Recommenders' Name: _____ Position: _____

Telephone: _____ Email: _____

Educational Advancement Alliance, Inc.
After School Enrichment Program (ASEP)
Spring 2009 Application

STUDENT PROFILE

Please answer the following questions on an additional sheet of paper:

1. We would like to know more about YOU. Please briefly describe yourself (interests, talents, hobbies, skills, activities, and personal philosophy), any activities you have participated in, and anything interesting about you that you like to share. What do you do for fun?
2. Who is the most important person(s) in your life?
3. How did you find out about our program?
4. What do you hope to gain or achieve from ASEP?
5. What is your favorite subject? What interests you most about your favorite subject?
6. What do you plan to do after you graduate high school?
7. Where do you see yourself in the future?
8. What computer programs are you familiar with?

SIGNATURE

If accepted, I agree to fully participate and commit to the Educational Advancement Alliance, Inc. (EAA) After School Enrichment Program (ASEP).

Signature of Applicant (in ink): _____

Date of Application: _____

Please mail or fax your application using the following information:

Educational Advancement Alliance, Inc./ASEP

The Enterprise Center

4548 Market Street, Suite LL04

Philadelphia, PA 19139

Telephone: (215) 472-2500 Fax: (215) 472-2440 Email: dshields@eaalliance.org

APPENDIX D
IRB Approval Letter

Rowan University

February 25, 2009

Karen E. Nicholas
1649 Red Oak Drive
Williamstown, NJ 08094

Dear Karen E. Nicholas:

In accordance with the University's IRB policies and 45 CFR 46, the Federal Policy for the Protection of Human Subjects, I am pleased to inform you that the Rowan University Institutional Review Board (IRB) has approved your project:

IRB application number: 2009-135

Project Title: A Longitudinal Study of the Educational Advancement Alliance, Inc. AfterSchool and Summer Enrichment Programs

In accordance with federal law, this approval is effective for **one calendar year** from the date of this letter. If your research project extends beyond that date or if you need to make significant modifications to your study, you must notify the IRB immediately. Please reference the above-cited IRB application number in any future communications with our office regarding this research.

Please retain copies of consent forms for this research for three years after completion of the research.

If, during your research, you encounter any unanticipated problems involving risks to subjects, you must report this immediately to Dr. Harriet Hartman (hartman@rowan.edu or call 856-256-4500, ext. 3787) or contact Dr. Gautam Pillay, Associate Provost for Research (pillay@rowan.edu or call 856-256-5150).

If you have any administrative questions, please contact Karen Heiser (heiser@rowan.edu or 856-256-5150).

Sincerely,

Tricia Yurak, Ph.D.
Chair, Rowan University IRB

c: Burt Sisco, Educational Leadership, Education Hall

Office of Research
Bole Hall Annex
201 Mullica Hill Road
Glassboro, NJ 08028-1701

856-256-5150
856-256-4425 fax