

Running Head: RUTGERS FUTURE SCHOLARS PROGRAM

Leveling the Playing Field of Opportunity in New Jersey: The Rutgers Future Scholars
Program (RFSP)

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Abstract

Historically, education has played a major role in helping citizens seize opportunities and secure jobs that provide economic and social stability. Educational opportunity through access to top quality schools and commensurate home-based support is frequently available to the affluent, making academic and occupational success a likely outcome for those from that income stratum. Low-income neighborhoods however, rife with unemployment, crime, teen pregnancy, and high school dropouts lack the community, home, and school-based resources needed to counterbalance the effects of these social ills. This keeps talented youth ensnared in a poverty trap. In this paper, issues surrounding neighborhood poverty are discussed and suggestions for remediation through the Rutgers Future Scholars Program (RFSP) are presented. Program details and its potential to liberate impoverished youth are described so that other colleges and universities can replicate this model.

Leveling the Playing Field of Opportunity in New Jersey: The Rutgers Future Scholars Program (RFSP)

“Students in my community face crimes, peer pressure to join gangs, teenage pregnancy, and broken homes. They have to deal with overcrowding and an inadequate school system. Some kids go to school on an empty stomach because they don’t get enough to eat and some go to school not knowing if they will make it home alive. Violence is always one corner away. Last summer three college students were senselessly murdered in the playground of my school over their cell phones. As a student, I face these situations everyday in my community and I have vowed not to let them keep me from succeeding in school. I believe that this scholarship will help me to pursue a college education that will lift me out of these circumstances.”-Lenda, Seventh-Grade Student and Rutgers Future Scholar, Newark, New Jersey

Background

Students living in Newark, Camden and New Brunswick, New Jersey face crime, substance abuse, familial dysfunction, and hunger. Poverty in those cities as per Census reports from 1999 was as high as 28.4 percent, 35.5 percent and 27 percent, respectively (<http://quickfacts.Census.gov/qfdlstates/34/3451210.html>). Among the affluent in this State however, books, computers, top quality schools, and two-parent families are normal elements of life. Few or no books, stressed single parent families, substandard living conditions and frequent fear mark the lives of poor children before they even reach first grade (Barton & Coley, 2007). This makes the playing field of opportunity demonstrably uneven in New Jersey.

As long as profound inequity persists, we, as citizens of New Jersey, will collectively fall behind. Supporting the growth and education of youth from disadvantaged neighborhoods is not just a moral imperative rather it is for the good of all living in this State. Accordingly, Governor Jon Corzine recently stated, “...to sustain a robust economy and compete in the 21st century marketplace, we must have an educated workforce” (New Jersey Higher Education Student Assistance Authority [HESAA],

2005, p.3). New Jersey's marketplace includes many of the nation's leading companies in pharmaceuticals, communications, biotech, finance, and healthcare. To retain such businesses in the State, highly skilled workers are needed. If, however, we continue to allow countless disadvantaged students to drop out of high school and never earn a post-secondary degree we will lose human capital. We will erode our standing as formidable competitors in the global market. We will fail to be viewed as a prosperous, safe place in which to live and raise families. We will lose State funds from lost taxable wages and we will be burdened by exorbitant incarceration costs and fees for social services. Such are the consequences of a two-classed State.

The United States, also, cannot live off its past accomplishments (Hanushek et al., 2008). Instead, we must produce more college-educated workers with high cognitive skills (Hanushek et al., 2008). Alas, we are already lagging behind. The United States has fewer natural science and engineering graduates in comparison to other countries throughout the developed world (Bowen, 2006). Results from the National Assessment of Educational Progress show that, between 1964 and 2003, students in the United States have slipped in performance while their peers in the Netherlands and Finland have improved (Hanushek et al., 2008). Issues of educational attainment and human capital translate into dollars. When the average number of years of schooling increases, economic growth grows in kind (Hanushek et al., 2008).

In this paper, the Rutgers Future Scholars Program (RFSP) will be described, as well as the population this program is designed to serve. The compelling economic and social reasons for instituting such a program will be shown, revealing the potential importance of RFSP for the health and prosperity of all those living in the State of New

Jersey and beyond. For comparison and analysis, descriptions of similar programs will be presented.

Poverty Costs Money

Economic data

Economic data illustrate the billions of dollars spent on poverty in the United States. Holzer, Schanzenbach, Duncan, and Ludwig (2007) assert that childhood poverty costs approximately 500 billion dollars per year, which is equivalent to almost four percent of the Gross Domestic Product (GDP). As a result of growing up at or near poverty, approximately 170 billion dollars per year of aggregate output is lost. Costs of crime amount also to approximately 170 billion dollars per year and increased health expenditures amount to 149 billion dollars per year. Despite the enormous amounts of money spent -- and lost -- on attending to the issues of the poor in this country, one out of four American working families currently earn wages so low they struggle to survive financially. Currently, the assistance needed for such families and children is not provided. In 2006, 14 million seniors were lifted out of poverty, reducing the number of elderly living below the poverty line by 80 percent. The same was true for only 33 percent of children, leaving 20 percent of our nations' youth in poverty (United States Conference of Mayors Taskforce on Poverty, Work and Opportunity, 2007).

Lost Resources from Incarceration, Unemployment and Teenage Pregnancy

Costs of incarceration.

Incarceration costs in New Jersey are staggering. It now costs \$46,880 to imprison an adult for one year. In 2003, 14,727 prisoners entered the system at a cost of 690 million dollars. A large portion of the prisoners housed in correctional facilities

throughout the State come from two counties: Essex, where Newark is located, and Camden. Specifically, almost 33 percent of all those imprisoned in New Jersey are from those two locales (Kleykamp, Rosenfeld, & Scotti, 2008).

Unfortunately, the numbers of those incarcerated are now rising. Over one in 100 American adults are presently imprisoned (“Racial Inequity and Drug Arrests,” 2008). Increased rates of imprisonment exist along racial lines so that one-in-thirty-six Hispanic men aged twenty to thirty-four are serving time and an astonishing one-in-nine black men of the same age range are jailed (“Racial Inequity and Drug Arrests,” 2008).

High school dropouts.

High school dropouts are four times more likely to be from low-income versus high income families (National Center for Educational Statistics [NCES], 2004). Those who have not finished high school have unemployment rates that are three times higher than their college educated counterparts, as per statistics from 1995. Alarmingly, one third of high school students drop out (“Hard Roads Ahead,” 2008). It has been reported that one-out-of-every-two high school graduates leave their secondary education with significant skills deficits, making them ill-equipped to manage employment or college coursework (“Hard Roads Ahead,” 2008). This renders many blocked from a middle class livelihood made possible through educational attainment.

Dropping out of high school is also correlated with increased crime and gang involvement. This problem has led Colin L. Powell to create a children’s advocacy group called America’s Promise Alliance focused exclusively on reducing high school dropout rates throughout the nation. The America’s Promise Alliance awarded the State of New Jersey, as well as thirteen other states, \$25,000 to create plans for combating this

problem. Consequently, Governor Jon Corzine recently created a multiagency initiative to elevate high school graduation rates in the State called the New Jersey High School Graduation Campaign, led by the attorney general's office ("A Plan to Cut the High School Dropout Rate," 2008). A spokesperson for the alliance named Colleen Wilber stated, "Dropouts are more than just a problem for schools, because those students are more likely to become a burden to society – ending up in jail, on welfare rolls or without any health insurance." Specifically, almost 35 percent of Hispanic women, 50 percent of Black women and nearly 30 percent of White women who drop out of school are reliant upon Medicaid (National Women's Law Center, 2007). In addition, according to figures presented by the America's Promise Alliance, "dropouts from the class of 2007 will cost the nation more than \$320 billion in lost wages, taxes and productivity over their lifetime" ("A Plan to Cut the High School Dropout Rate," 2008).

Teenage pregnancy.

The lost tax revenue generated from those who fail to graduate high school, coupled with financing incarceration, allocating funds for welfare and other forms of public assistance and paying to fight crime, reflect only fractions of the money lost due to poverty. Teenage pregnancy costs society as well. Nineteen billion dollars was spent by the Federal Government to support families headed by teens in 1987 (Fielding and Williams, 1991). The merger of parental immaturity, father absence, economic instability and contextual unrest frequently leads to diminished physical and intellectual attainment on behalf of children born to teens (Fielding and Williams, 1991). This creates a generation that will require additional public assistance and government funded remediation.

Single teen mothers.

Teen fathers are often absent. Few teen pregnancies result in the formation of solid marital partnerships on behalf of parents. The statistics bear this out: Only 8 percent of teen mothers married their child's biological father within one year of the baby's birth. Those from the same group, who do not marry the biological father six months after the child's birth, are 51 percent less likely to ever marry (The National Campaign to Prevent Teen Pregnancy, 1996). Fifty point four percent of births in 2006 were to mothers' out-of-wedlock ("A Dubious Milestone," 2008). Among black mothers during the same time, a staggering 80 percent of births were out-of-wedlock ("A Dubious Milestone," 2008).

Invest in Youth Now or Incur High Costs Later

Participation in illegal economies, dropping out of secondary school, and imprisonment greatly increase the likelihood that minorities born into poverty will remain disadvantaged. Consequently, citizens of all income levels must watch their hard-earned tax dollars be used to pay for the escalating costs of maintaining prisons and funding unemployment insurance. Indirect costs are incurred by taxpayers due to lost tax contributions, the loss of child support from inmates as well as the loss of both forms of funding from those who are unemployed. Financial losses are expanded by the failure of those just named to contribute to our State's economic growth. These outcomes lead to the conclusion that assisting those residing in poor neighborhoods by providing opportunities for educational attainment, drug rehabilitation and job training would yield far reaching benefits that outweigh the initial costs.

The value of strengthening the New Jersey State economy through the provision of educational opportunities is reflected by recent legislation, permitting undocumented residents who have completed high school within the State to pay in-state, instead of out-of-state tuition rates, to attend institutions of higher learning (Governor's Blue Ribbon Advisory Panel on Immigrant Policy, 2008). Out-of-state tuition costs are often two times higher than in-state rates, making college attendance and completion unaffordable for many immigrants. Consequently, higher education will now be more accessible to academically qualified youth born into undocumented families.

The projected outcomes of this measure include: increased intellectual capital among State residents, greater capacity for the New Jersey labor force to compete in an increasingly global, open market, and incentives for undocumented residents to complete high school and college. Those who formerly avoided college attendance will generate more revenue for higher institutions, simply by increasing enrollment. In addition, as the number of skilled workers increases, the high technology industries relying on such labor will wish to remain in the State. Thus, the calculus for this initiative is in part, similar to that driving the establishment of the Rutgers Future Scholars Program.

A hedge fund manager's calculation.

George Weiss, a highly successful member of the finance industry currently managing billions of dollars, calculated the potential fiscal gains derived from instituting his pre-college program, "Say Yes to Education". Specifically, he determined the cost of funding a child from kindergarten through high school with his Program to equal \$45,500. That sum, added to the cost of four years of college -- assuming student eligibility for Pell and other grants-- would amount to \$89,500. The average college

graduate, according to the US Census Bureau, will earn approximately \$900,000 more than their peers with high school degrees only. This yields a 906 percent return on the initial investment. From a purely financial perspective, this is clearly impressive (Kahn, 2007). Add the benefits derived from increased social and human capital to the equation and it becomes clear that investing in those born to disadvantage should be a national priority.

Dysfunctional Lives of the Urban Poor

Life in poverty is hard. Low income working families pay over a third of their income for housing and over 33 percent have a parent without health insurance. Twenty percent of jobs in this country cannot keep a family of four above the poverty level and provide few or no benefits (Waldron, Roberts, Reamer, Rab, & Ressler, 2004).

Dead-End Work

Many parents living in underprivileged urban areas work hard at low paying jobs often located far from their neighborhoods. Work in such low-level positions frequently requires employees to leave home early and then return home late in the evening in order to assume overtime hours and make ends meet. Consequently, many spend much time away from their children, who are in many instances, schooled and cared for in sub-standard conditions. For example, Phyllis Hampton, who worked as an aide in a nursing home, said she worried about her daughter all day at work:

I've been callin' all day to see if my daughter went to school. They took the phone off the hook. She goes to Southern High School. After the shooting [at the school] she said she wasn't going back. It's dangerous. My sister went there. It was dangerous then" (Polakow et al, 2004, p. 105).

Crime

Parents living in Newark, Camden, and New Brunswick live with similar fears on a daily basis regarding the safety of their children. Newark Police Crime Department Stats (2007) indicate 80 murders, 47 rapes, and 845 robberies, 880 cases of aggravated assault, 1225 burglaries, 3307 thefts and 3524 auto thefts. Such numbers are down in some instances by 2 percent and in others by 42 percent in comparison to the prior year. Nonetheless, the prevalence of crime in that community is staggering. On a national level, there is a shocking statistic indicating a sharp increase in the murder rate among young black men (“Affirmative Distraction,” 2008).

An Alarming Community Snapshot

Camden, named the nation’s most-dangerous city in 2004, is an equally disturbing environment: 50.8 percent of grandparents are raising their grandchildren, 31.3 percent of its adult residents do not have a high school diploma, 60 percent of families are led by a “female householder” with related children under five years of age, and, in 1999, 25 percent of households earned less than \$10,000 per year (Bureau of the Census, 2000). For those trying to survive on a household income below \$10,000 per year, 60 percent of their income would be spent on energy costs alone (Children’s Sentinel Nutrition Assessment Program [C-SNAP] & Citizens Energy Corporation, 2007).

Poor Health

Local crime is not the only hazard afflicting the poor. Pollution, drug use, excessive alcohol consumption, obesity, vitamin deficiencies, cigarette smoking, and stress resulting in diminished immunity are all weighty factors compromising the health of those who are disadvantaged (Government Accountability Office [GAO], 2007). For

example, 30 percent of those living below the poverty line smoke cigarettes in comparison to 21 percent of those living above it. Leisure time engaged in exercise is less likely to occur among the poor and fresh fruits and vegetables in low-income neighborhoods are costly and often in short supply. Consequently, it is not surprising to note that women living beneath 130 percent of the poverty line were 50 percent more likely to be obese than their counterparts (GAO, 2007).

Homelessness

Tens of thousands are homeless in the State of New Jersey (Corzine, 2008). The highest levels of homelessness continue to exist in poor communities like that of New Brunswick, Camden and Newark. Nonetheless, the current economic downturn in the United States and abroad is causing this problem to spread. Today, even more affluent regions throughout the State are facing housing instability (Ragonese, 2008).

Academic research has shown that homelessness is strongly related to societal dysfunction. Almost 33 percent of the homeless are severely mentally ill and over one third have severe substance abuse problems. Over 50 percent have been in jail, and 25 percent have served time in state or federal prisons for criminal behavior (Kondratas, 1991). This makes daily survival and personal protection from several dangers a weighty struggle for those living in towns where many lack homes.

Educational Failures

If education is the primary vehicle through which upward mobility and escape from poverty are realized, then the following statistics are disheartening: eleven point three percent of adults in the State of New Jersey between the ages of 18 and 64 lack a High School Degree or GED, 29.3 percent of adults ages 18-64 only have a High School Degree or GED, 19.5 percent of adults in the same range have only some Post-Secondary

Education but no degree, and 13.6 percent of adults ages 18-64 have difficulty speaking English very well. Four point eight to 13.3 percent of New Jersey residents between the ages of 18 and 64 speak English poorly or not at all (Working Poor Families Project, 2006). Most surprisingly, 48 percent of adults 16 years or older in New Jersey have Literacy Levels of 1 or 2, which according to the National Adult Literacy Survey, are levels insufficient for assuming positions that pay family living wages in our knowledge based workplace (Working Poor Families Project, 2006). Remediating this problem among adults is daunting and the results have been poor. Only 3.5 percent to 5.1 percent of 25-44 year olds were enrolled as part-time undergraduates in New Jersey during the year 2004 (Working Poor Families Project, 2006). Therefore, it is very hard to recruit and retain the adult working poor in post-secondary programs due to prohibitive college and childcare costs. Finding the off-hours childcare required for taking night classes and completing homework are also challenges many of the adult working poor cannot reconcile. This makes it even more important to enroll disadvantaged persons when they are young.

Educational Failure and Low Socioeconomic Status

A strong, positive correlation exists between educational attainment and socioeconomic status. As family income increases, educational level rises in kind. For example, the rate of attending college among high-achieving low-income high school graduates is almost the same as those among the lowest achieving students from high-income families. Only 54 percent of high school graduates from the lowest income quartile enter college, in comparison to 82 percent of their peers from the highest income quartile. Among those attending the most elite 25 percent of colleges, 74 percent come

from the highest socioeconomic quartile and 3 percent come from the lowest quartile (Sawhill, 2006). This illustrates the importance of supporting low-income students so they can seize the same educational opportunities frequently available to the affluent.

Disadvantage Starts in the Home

Not surprisingly, the intellectual atmosphere in the home varies as a function of socioeconomic status (SES) as well. “By the end of four years children of professional parents hear approximately 35 million more words” than children from welfare families (Barton & Coley, 2007, p. 19). Accordingly, 62 percent of kindergarteners from affluent families are read to every day by their parents in comparison to only 36 percent from the lowest socioeconomic group. Television watching varies in kind. Fifty nine percent of Black eighth graders spend at least four hours per day watching television while only 24 percent of their White peers do so (Barton & Coley, 2007). It is hard to quantify the effects of these and countless other factors that make the road to college that much harder for disadvantaged children to travel. Nonetheless, 66 percent of the variance amongst states in National Assessment of Educational Progress (NAEP) reading scores can be explained by four variables: single parent families, hours spent watching television, parents reading to young children on a daily basis, and the frequency of school absences (Barton & Coley, 2007).

Disadvantage in the Community

Children and adolescents living in poor, crime-ridden urban communities see few adult role models succeed in college. Watching others succeed or fail on similar tasks serves as a key source of information regarding whether one can succeed. This knowledge is learned vicariously, through observation (Miller, 2002). Also important in

generating perceptions of one's capacity to achieve specific goals are personal past performances. These former experiences may or may not be positive due to the lifestyle strains faced by those born into disadvantage. Thus, the information learned by past experiences and from watching others who are similar to oneself, potentially can lead many from poor neighborhoods to believe they are not capable of finishing high school and attending college.

In addition, high status peers who are admired for their appearance or popularity, and who do not pursue studies in institutions of higher education, provide information regarding what is valued and accepted in a local culture. Vicarious learning about urban social norms powerfully influence the thinking and corresponding behavior on behalf of the youth residents living therein. These pulls can be countered however, by examining and appraising the relative benefits, and costs, of local social success or quick gratification. Equally important are the formulation of alternate, long-term goals and an understanding of the pathways leading towards these other endpoints.

For example, the news station WNYC aired on October 14, 2008 a gripping personal tale entitled "Growing Up in the System", created by Shirley "Star" Diaz. Her personal story, deemed a "Best Documentary, Silver Award Winner" by The Chicago Public Radio International Audio Festival, details her feelings as a twenty-one-year-old girl, nearly aged out of the foster care system. Shirley was placed in foster care several years prior as a result of her father having killed her mother. Her father was a boxer in Puerto Rico who came to the United States; he carried feelings of intense anger and violently displayed those frustrations. His externalization of anger climaxed when he fatally shot his wife. After the shooting, he was incarcerated. Nine children were left

behind. Shirley told her tale of longing: for a family, for a sense of purpose, for a home. Her teen sister in foster care recently had a baby; seeing her sister have something to love made her feel envious. Having a child seemed to her like a way to feel special, responsible, grounded, and part of a family. Soon, Shirley too, was pregnant. The father of the baby she carried already had two children, for whom he was not responsible. He had no intention of supporting this baby either. Much to Shirley's dismay, she lost the pregnancy.

When her award winning personal story was aired on the radio, lawyers from a nearby firm listened, reached out, and offered to hire her so she could earn a salary and secure her footing in the world. Shirley accepted the job, worked in her role effectively, and again, got pregnant. She is now five months along and she is concerned about finding proper childcare for her baby when she returns to work at the firm to make ends meet. Again, the father does not wish to have any involvement with this child, which to Shirley, is to be expected.

What has hurt her deeply is the communication Shirley recently had with her biological father. After writing him a letter and sending it to him in prison, he responded with a note containing no regret or remorse for having killed her mother. He also misspelled his daughter's name and asked if her next letter could be written in Spanish.

The pain of feeling alone and facing other kinds of dysfunction renders many young girls born into disadvantage at risk. The lures of having a baby are hard to combat when relevant peer role models do the same. If however, young at-risk girls receive mentoring, support, financial knowledge, and role models who communicate the value of

being educated, many may postpone having a family until growing up themselves. These life choices make all the difference.

Disadvantage in K to 12 Education

Poor school quality.

At the most basic level, elementary, middle and secondary schools frequently vary, in part, as a function of the neighborhoods each serves (Halpern-Felsher, Connell, Beale Spencer, Aber, Duncan, Clifford, Crichlow, Usinger, Cole, Allen, & Seidman, 1997). This is because teaching and non-teaching staff are often drawn from a local pool of applicants, and if the educational levels of local residents are relatively low, then the staff qualifications may reflect that degree of professional preparation (Halpern-Felsher et al., 1997). Of additional concern are the limited resources within low-income neighborhood schools, the lack of academic rigor, the reduced access to college recruitment materials, and the limited offerings of Advanced Placement and Honors courses. Instead, much attention and funding is frequently directed towards immediate matters within the school, like safety (Klugman & Butler, 2008). Alternatively, the degree to which healthy community and church related youth activities draw students in and away from participation in illegal economies and gang activity, school quality is increased (Halpern-Felsher et al., 1997).

Disturbing evidence from the New Jersey School Report Card, 2006-2007.

Snapshots of educational inequity can be derived by comparing outcome measures between a high performing and a relatively disadvantaged district. A significant percentage of our Scholars reside in the latter. On the high performing end, Millburn has been labeled an excellent school system in Essex County. During the

2006-2007 school years only 0.9 percent of students entered and left the district and most families living there are affluent. Specifically, the median family income in Millburn is \$158,888. Only one point two percent of families residing there live below the poverty level (www.twp.millburn.nj.us). Of those attending Millburn High School, two percent are Latino, 87.3 percent are White, one percent is Black, 8.8 percent are Asian, and one percent is listed as “other” (http://www.greatschools.net/cgi.bin/nj/district_profile/).

Fifteen minutes, or slightly less than nine miles away in Newark -- another town in Essex County -- family income and student outcomes are drastically different. The median family income rates in Newark totaled \$64,470 in 2006 (www.nj.com/news/index.ssf/2007/08census_newarks_median_income_u.html), which, while higher than it was in years past, is less than half the median income of those living in Millburn. One of the high schools serving the students in Newark, the Malcolm X Shabazz School, reports that 28.8 percent of students entered and left the school within 2006 and 2007. Of those attending the Malcolm X Shabazz School, 59 percent are Black, 33 percent are Hispanic, 8 percent are White, and less than one percent is Asian or Native American (http://www.greatschools.net/cgi.bin/nj/district_profile/).

High School Proficiency Assessment (HSPA) scores during the same time frame in Language Arts Literacy at Malcolm X Shabazz revealed partial proficiency among 54.5 percent of students, proficiency among 45.5 percent of students, and no advanced proficiency. In Millburn however, HSPA scores in the same subject for the same year revealed partial proficiency among a mere 2.4 percent of students; 45.8 percent of students demonstrated proficiency and a whopping 51.8 percent of students demonstrated advanced proficiency in Language Arts Literacy.

Math scores for 2006-2007 were even more dichotomized between these two high schools. Eighty five point nine percent of students at Malcolm X Shabazz were only partially proficient in math. In Millburn, 3.9 percent of students showed the same level of limited proficiency. Zero point four percent of students at Malcolm X Shabazz demonstrated advanced proficiency in math on the HSPA, whereas 64.5 percent of students in Millburn demonstrated the same.

Science scores on the HSPA showed a similar pattern. At Malcolm X Shabazz, 82.7 percent of students demonstrated partial proficiency and no one demonstrated advanced proficiency during 2006-2007, whereas in Millburn 56.6 percent were proficient in Science and 40.1 percent showed advanced proficiency.

The comparison between Advanced Placement (AP) results between the two locales is no less striking. Eight hundred and seventy five students in Millburn scored a “3” or better on their AP exams. Only two students from Malcolm X Shabazz did the same. Accordingly, 99.6 percent of regular students in Millburn graduated by passing the HSPA; this was true for only 45.2 percent of regular students in Newark at Malcolm X Shabazz High School.

Based upon the results just recorded, large disparities in Scholastic Assessment Test (SAT) results would be expected. The divergence in scores between the two districts however, was astounding. Average scores on math, verbal and essay components of the SAT during 2006-2007 on behalf of students in Millburn were 628, 597, and 605, respectively. Average scores on math, verbal and essay components of the SAT on behalf of students at Malcolm X Shabazz during the same time frame were 348, 339, and 347, respectively. Perhaps this is one reason why a mere 25.4 percent of

students from Malcolm X Shabazz intended to attend a four-year institution upon graduating in 2006-2007. Further fueling their intention to pursue avenues other than college is the concern some of their parents harbor regarding the potential for higher education to conflict with, or erode, family cultural heritage and/or connection (Klugman & Butler, 2008). In Millburn however, where parents worry more about the prestige of the college their child will be attending than whether they will attend at all, ninety three point seven percent of graduating in 2006-2007 intended to pursue four-year collegiate study (<http://education.state.nj.us/rc07/dataselect.php?datasection%5BO%5D=environment&da...>).

It is important to note that the outcome data on student achievement within Newark should not be used to support a deficit perspective of that locale or those individuals living therein. To do so would be both a self-fulfilling prophecy and a bias against those who have been constrained by a socially pathological structure (Wilson, 1997). Rather policy makers and educators must focus their energy and resources on the possibilities in teaching and learning that are the building blocks of a framework of opportunity (Tiezzi & Cross, 1997). These initiatives reflect the goals of the Rutgers Future Scholars Program.

School Segregation.

Noteworthy is racial and economic isolation at the primary, middle and secondary school level, and this was reflected by the racial composition of Millburn and the Malcolm X Shabazz Schools (Chambers, Boger, & Tobin, 2008). Research conducted by the Civil Rights Project has shown that “in 2006, 51 percent of all African-American

students in the Northeast, 46 percent in the Border states, 42 percent in the Midwest and 30 percent in the South now attend schools that are 90-100 percent minority” (Chambers et al., 2008, p.1).

Lack of resources for test preparation.

Limited resources available for test preparation pose additional challenges to the poor in this country: “Two point six percent of test-takers with family incomes less than \$40,000 (in Virginia) scored better than 1300, whereas over 14 percent of those with incomes over \$70,000 scored in excess of 1300.” Why? In part, because low-income students cannot afford the demonstrable benefit of coaching or test prep and cannot afford to take the test on multiple occasions (Breneman, 2006).

Disadvantage on the College Level

Allocation of aid.

Understanding how disadvantage is perpetuated by our educational system is complex. The allocation of aid for college study is one variable: In 92-93’ low income/high SAT students received four point nine times as much institutionally awarded grant aid as their low SAT peers (McPherson & Schapiro, 2006). In addition, “among low SAT students, the estimated gain in institutional grant aid at privates was smallest for the high-Expected Family Contribution (EFC) group (i.e., the group with the greatest expected ability to pay); among high SAT students, it was the largest” (McPherson & Schapiro, 2006, p. 71). Thus, those who have the highest SAT scores and are most able to pay as per a high-Expected Family Contribution are increasingly allocated grant aid.

This confounds the provision of financial support from one of aiding those who are most

eligible as a function of income with providing such support to those who are the most appealing to recruit, as in the case of merit aid packages.

Rates of success must change. Only 28 percent of working poor dependent students who began a certificate or degree program in 1995-1996 earned their bachelor's degree by 2001 in contrast with 44 percent of their higher income peers (McSwain & Davis, 2007). Furthermore, current affirmative action programs fall short. Black economic gains over the next twenty-five years are slated to provide only a 17 percent increase in the participation of African American students on campuses in comparison to those present today. Accordingly, Stephen L. Carter (2008) asserts, "For both parties, affirmative action represents a way to pretend to be doing something—what I have long called racial justice on the cheap" ("Affirmative Distraction," 2008).

The 21st Century Labor Market

Low Educational Attainment is related to Low-Income in a Knowledge-Based Workplace

The issues of poverty and educational failure are particularly relevant when viewed in light of our 21st Century labor market. Few jobs pay living wages for those without college degrees in New Jersey and throughout the United States. Why is this so? In part, thirty years ago, manufacturing jobs and positions that supported "middle management" were in great supply. To work in the manufacturing sector, one needed stamina and basic manual labor skills. Work as support staff of middle management required entry-level employees with high school diplomas to calculate expenditures, revenue, and other statistics that now can be easily tracked technologically and interpreted by one manager, instead of an entire hierarchy of staff (Taylor, 2005, Lecture 1). The jobs of the past paid employees a living wage, conferred health and other benefits, and left families safer from the threat of poverty.

Today, such jobs no longer exist. Manufacturing can now be executed via robots or through the outsourcing of inexpensive labor in other countries. Labor statistics from June 2008 show a loss of 33,000 manufacturing jobs (“Outlook Darker as Jobs are Lost,” 2008). Jobs that paid living wages to many high school graduates in the 1970’s are now available only to those who have the advanced training and education required to perform complex tasks within a technological workplace (Hanushek, Jamison, Jamison & Woessmann, 2008).

In Michigan, a wave of newly unemployed residents wish to receive training for “technical, medical or so-called green jobs”, as these seem to comprise the “in-demand” local industries (“New Fears Arise in Michigan, Where the Hard Times Started Several Years Ago,” 2008, p.33). Yet experts have estimated that a sizable number of residents lack the basic skills, such as an essential knowledge of English, required to complete this kind of training. The number of college graduates from Michigan is also slightly below the national average, ranking 35th (“New Fears Arise in Michigan, Where the Hard Times Started Several Years Ago,” 2008). To protect those in Michigan who have been dismissed from their “old-style manufacturing jobs” requires increasing the educational attainment of its residents. This is necessary, not just for those living near the hub of our crumbling auto industry, but for all who wish to be financially self-sufficient in the 21st century (GAO, 2007).

Workplace

Globalization

Outsourcing is only one aspect of our new global marketplace. Currently, food supplies, oil prices, inflation, and the valuation of various currencies impact markets worldwide making our prosperity inextricably linked to that of other countries. Pools of

available trained talent are now global not regional commodities (Hanushek et al., 2008). For example, the newest board member to Goldman Sachs is the steel magnate Lakshmi N. Mittal. Mr. Mittal was born in India and owns many residences in Great Britain. The inclusion of this international employee was a deliberate attempt to engage in corporate decision making on a global level (“New Board Member Reflects Global Influence on Goldman,” 2008).

A Two-Tiered Job Market

Positions as janitors, nursing home attendants and security guards are slated to grow in number throughout the 21st Century and are often the only vocational options for the working poor living in Camden, Newark, and the New Brunswick area. Middle skilled jobs such as call center work, assembly line jobs, and tax return preparation can now be performed by computers or inexpensive offshore laborers (Levy & Murnane, 2006). Highly skilled jobs such as those performed by radiologists, attorneys, and architects require expert judgment and person-to-person transactions, making them lucrative and in-demand. This creates a newly dichotomized job market with positions opening primarily at the top and bottom of the income scale (Levy & Murnane, 2006).

Specifics on salary level as per educational level.

Salaries reflect the valuation of a skilled laborer. Those with less than a High School degree earn approximately \$17,000 per year. Those with a High School degree earn approximately \$24,000 per year. Adults with some college credits earn, on average, \$27,800 per year. Those with an Associate’s Degree earn an average of \$32,700 annually. Those with a Bachelor’s Degree earn an average of \$44,000 annually, and, those with a Master’s Degree earn \$60,000 per year on average. Why do we see such

salary differentials? To put it simply, when large numbers of people are capable of performing the tasks required of low skilled jobs, demand for those workers is low and the pay coincides (Taylor, 2005, Lecture 2).

Self-Sufficiency in the State of New Jersey

A job market with positions lost from the middle makes it hard for families to survive especially when living in the expensive State of New Jersey. For example, a family of four (two adults, one preschooler and one school-aged child) living in the relatively inexpensive Camden County would need to earn an annual salary of \$46,259 (Legal Services of New Jersey Poverty Research Institute [LSNJ], 2008). In Bergen County, New Jersey, the same family would have to earn \$71,128 in order to be self-sufficient. According to the previously mentioned estimates, two adults with Associates Degrees could potentially get by in Camden County however, self-sufficiency would be impossible for the same two adults residing in Bergen County (LSNJ, 2008). Even two adults who graduated from high school and worked full-time could marginally manage to support their family in Camden County. To have real security from poverty, college degrees, and the salaries earned by having such credentials, are the only answer.

Rising Rate of Single Parenthood

It is also important to note that the rate of single parenthood is much higher today than it was two to three decades ago, making it much more likely that one person, particularly the mother, will be the head of family. Sara Gould, President and Chief Executive for the Ms. Foundation for Women (2008), reports that ten point five million women are single mothers, in comparison to two point five million single fathers (“Why the Economy Hurts Women More,” 2008). Of this group, single female family heads have approximately 50 percent of the income and less than 33 percent of the wealth of

other households (“Why the Economy Hurts Women More,” 2008). Sixty-two percent of the five point eight million American families with children living in poverty are led by single mothers (“Why the Economy Hurts Women More,” 2008). Such statistics render the following more alarming: Only 35 percent of Black children live with two parents (Barton & Coley, 2007). International comparisons indicate that the United States ranks highest in the percentage of single parent households while Japan ranks the lowest (Barton & Coley, 2007).

If one income is supporting a preschooler and a school aged child, it would have to equal \$45,583 per year to allow for self-sufficiency in Camden County. To do the same in Bergen County one’s annual income would have to equal \$61,115 per year (LSNJ, 2008). Again this emphasizes the need for adults to earn college degrees as a means of protection from poverty for themselves and their children.

More Single Parent Families as Male Income Drops.

Explanations for the rising numbers of births on behalf of unmarried women abound. Strong relationships between key variables imply that male income levels play a pivotal role. Specifically, males who grow up in poverty are increasingly uneducated. Those who are uneducated earn markedly lower, non-family supporting wages in today’s labor market. Finally, those who are a product of poverty and whose father children are likely to abdicate their parental obligation to support their children. This does not mean that living in poverty causes men to remain absent in the lives of their children, however, the two are strongly related. As poverty increases, father absences increase. For example, native-born black men earning over \$60,000 per year were four times more likely to be married in comparison to their peers who earn three times less. Thus, if we wish for

more men to stand by their choices and remain strong pillars of parental support for their children, providing them with the education that is a prerequisite to job and earning opportunities may be a crucial factor leading to the realization of that goal (“A Dubious Milestone,” 2008).

Occupational and Financial Struggles for Single Mothers

Single, teen mothers struggle to pay their bills as limited job opportunities are available to them. Adding significantly to this problem is the scarcity of affordable, reliable, quality childcare, making high school and college course completion daunting for oft-single teen parents. For example, 83 percent of divorced mothers earned their high school diplomas however, only 61 percent of never married mothers have done so (Besharov, 1995). As per the statistics on the frequency with which teen mothers never marry, it is likely that the high percentages of mothers without high school diplomas are or were teen parents. Diminished educational attainment is strongly related to income such that in 1993, never married mothers with children under the age of 18 earned a median income of \$9,292; divorced women with children under the same age earned a median income of a little over \$17,000. (Besharov, 1995). This documents the way in which poverty, failure to graduate high school, poor outcomes for children of teens, additional consequences of teen pregnancy and other symptoms of poor urban living serve to be reciprocally reinforcing.

Racial Earnings Gap

If economic status is related strongly to admissions to elite institutions and completion of college and race is strongly correlated with economic status, then it is probable that education is the mediator between the relationship between race and socioeconomic status. Why? Because those who have earned college and graduate

degrees earn substantially more than their counterparts who finished high school or earned a GED (Waldron et al., 2004). Alarming, African Americans between the ages of 25 and 29 attain bachelor's degrees at nearly one-half the frequencies of whites, at 34 percent and 18 percent respectively; Latinos of the same age attain their degrees at one-third the rate of their white peers (Haycock, 2006). Over the last 30 years, real wages for workers who do not have a high school degree declined 19 percent and increased 16 percent for workers who do have a college degree (Waldron et al., 2004). Consequently, the earnings gap between blacks and whites has scarcely budged in thirty years.

Increasing Racial and Ethnic Diversity among College Applicants in 2015

Colleges have a vested interest in recruiting increasingly diversified populations because states are facing demographic shifts and alterations in the total numbers of high school graduates. By the year 2015, Kansas, Louisiana, Montana, New Hampshire, North Dakota, South Dakota, Vermont and Wyoming are projected to lose 10 percent or more of their high school graduates and Arizona, Florida, Georgia, Nevada, Texas and Utah are projected to have explosive growth of 20 percent or more high school graduates (Western Interstate Commission for Higher Education [WICHE], 2008). Of those graduating from public high schools in the year 2014-2015, data trends indicate there are to be 54 percent more Hispanics, 32 percent more Asian/Pacific Islanders, 3 percent more Blacks, 7 percent more American Indian/Alaskan Natives, and 11 percent fewer White non-Hispanics (WICHE, 2008). To adjust to these demographic trends, colleges, especially those in less populated enrollment regions, would benefit from devising novel ways to attract and retain more ethnically diverse students. This makes modeling the Rutgers Future Scholars Program a national goal not only for the prosperity of its citizens but for the sustained growth and survival of colleges throughout the nation.

A Solution: The Rutgers Future Scholars Program

To address the multiple factors and unacceptable toll of disadvantage it is critical to open opportunity to those who have come from significantly distressed backgrounds. Incarceration, poverty, substance abuse and crime are tragic outcomes for the thousands of talented students of our State. Instead we must invest in the growth of future leaders who will then make upward mobility for others a reality. This, however, is contingent not only on at-risk, bright students entering college, but completing their post-secondary education. Accordingly, Rutgers has launched an innovative and transformational Program to address the ominous statistics cited previously and create a brighter future of hope and opportunity for all who live in New Jersey.

The Rutgers Future Scholars Program (RFSP) is designed to provide an academically rigorous, intellectually stimulating, and highly supportive pre-college experience for the low-income, bright, talented seventh grade students of Camden, Newark, New Brunswick and Piscataway. All Scholars will be awarded a four-year education at the University, free of charge, if admitted to Rutgers. Even those who wish to attend a “Communiversities” or community college in New Jersey with an articulation agreement with Rutgers can transfer to the University and receive the same financial benefits. All eighth grade Scholars are expected to maintain a “B” average throughout the end of middle and all of high school, to participate in enrichment and other campus activities, to maintain a yearly school attendance rate of at least 98 percent, and to take the requisite high school courses that make college admittance possible. Teacher recommendations, personal essays, grades and other indicators of talent and personal motivation to attend college were used to choose each of the 200 Scholars for this 2008 inaugural year. An additional cohort of 200 Scholars will be chosen annually.

The Rutgers Future Scholars Program is designed to be a countervailing influence against the hopelessness of disadvantage by providing the enrichment often available only to the affluent or solidly middle class. To ensure that all Scholars are provided with the promised support, even those who relocate will be provided with commensurate services in their new locale.

Program components

The Rutgers Future Scholars Program, still in its inaugural stages of execution and development, includes University-based summer programs, campus seminars for students and their parents, tutoring, involvement in on-campus activities such as film discussions and gallery exhibit openings, faculty presentations and exposure to the research conducted in various departments within the University. For example, Scholars who visited the Busch Campus in June had the opportunity to tour laboratories, enjoy hands on physics experiments with Rutgers University students, and learn about the related research. The Future Scholars from Camden engaged in mock courtroom trials after learning more about legal study from distinguished faculty. For additional, more specific examples of activities provided through the summer enrichment camp for Scholars from Piscataway see Appendix A.

Future plans for Scholars include in-class and after school tutoring and targeted academic enrichment, on-campus information seminars, professional development for teachers within partner schools and participation in pre-existing pre-collegiate summer programs at the University. Mentors, who are both undergraduate students and professionals, will be communicating electronically and meeting with Scholars on a regular basis at their local schools and on the University campus. The mentoring role is

being designed to provide every Scholar with a consistent stream of support and guidance.

Central to the mission of Rutgers is harnessing the cultural and intellectual capital within the University and using that to benefit State residents in need as well as to further cultivate the multifaceted growth of the undergraduates equipped to provide such services. To that end, the Rutgers University Civic Engagement and Service Education Partnerships (CESEP) were formed. Executed under the academic leadership of Dr. Maurice Elias, this program enables undergraduates at the University to earn course credit through effectively and thoughtfully assisting those within disadvantaged communities (<http://case.rutgers.edu/>). Rutgers Future Scholar Program Directors are partnering with the University Based Civic Engagement Program, so that our Scholars can derive the benefits conferred by CESEP.

Parental Role.

Built into the Rutgers Future Scholars Program are several campus-based activities for parents and caregivers. At the welcoming ceremony, President McCormick of Rutgers University told parents and Scholars that they are now part of the Rutgers University family. The Program is run in a manner consistent with that belief. Specifically, parents will be welcomed to Rutgers campuses near their home for information sessions on SAT preparation, college entrance requirements, and the application process. These regular meetings are slated to be named either “Future Scholar Parent Support Groups” or “Advisory Committees.” Lunch and time spent getting to know other parents from their hometown as well as program leaders will be a

normal facet of many family-based events. In addition, parents and caregivers will be invited to athletic events, cultural and other campus-based activities.

These practices accomplish two goals: parents learn key information regarding applying and completing a college degree and those who may have felt estranged from educational settings will now feel like integral members of the University community. Most importantly, the academic literature base on parental involvement has shown that as parents learn more about college admission and completion and feel greater comfort in the university environment, they change their expectations for their child's future and envision their sons and daughters as college students (Harvard Family Research Project, 2007). Once this transformation in expectations takes place, parents are more apt to share what they have learned with their fellow community members (Harvard Family Research Project, 2007). This perceptual change and new knowledge base shared by parents and caregivers, positively impacts their children. For example, youth who enroll in academic tracks and participate in multiple extracurricular activities with the intention of entering college do so as a function of parental encouragement (Harvard Family Research Project, 2007). High achieving, economically disadvantaged Latino college students have reported their parents as wellsprings of support and motivation in their attempt to succeed academically (Harvard Family Research Project, 2007). Academic success is viewed by these Latino families as a way out of poverty, and nothing could be truer (United States Conference of Mayors Taskforce on Poverty, Work and Opportunity, 2007).

Most importantly, it is the intention of Rutgers Future Scholars Program leaders to eventually provide additional services for parents that include accessibility to free ESL courses, opportunities for degree completion, job training, and linkages to services

through the “One Stop” Centers situated throughout the State. “One Stop” Centers serve as the central portal through which the working poor within New Jersey receive job training, basic skills training, and other vocational opportunities. As the previously mentioned supports are implemented, it is the intention of Program directors to confer other needed services to the same populace such as health care and free legal assistance.

Targeted Skill Remediation

Rutgers Future Scholars will be provided with the opportunity to take the ACT EXPLORE assessment in order to determine their college readiness. Exam results will reveal deficiencies and strengths in particular skill areas, so the former can be addressed through targeted tutoring and remediation, to be provided during Friday or Saturday University-based enrichment courses. Research published by ACT on college readiness shows that targeted skill remediation in middle school is a far more powerful tool for preparing students for university study than high school interventions such as taking two or three more rigorous courses or by raising grades by one letter (ACT, 2008).

Academic Progress Calendar

In order to ensure all Rutgers Future Scholars take the requisite coursework for college admission, they will be given an academic progress chart. In the chart, “subjects”, “grade level”, “course title information” and “grades” will be recorded by Scholars. “Keys to success” are listed next to each grade level, reminding students and their parents of what they need to do on a yearly basis in preparation for higher educational study. For example, eleventh graders are reminded to take at least twelve academic courses by the end of the year, request their class rank, take the SAT or ACT at least once, call or write for college applications, begin to visit colleges, and continue to

study and get good grades. Parents of eleventh graders are reminded to review their adolescent's courses and other information such as class rank and test scores, visit colleges as a family, attend financial aid workshops, and assist in narrowing down college choices. Other specifics such as the number of foreign language courses required for college admittance as well as the math, English and science classes required are listed clearly in bold. Also proposed by Rutgers Future Scholar Program Directors is the establishment of a partnership with one or more school-based liaisons that will monitor each Scholar's grades, class performance as per teacher appraisal, course schedule, attendance records and other matters pertinent to college readiness.

Customized Academic and Curricular Interests

Rutgers Future Scholars have also been taught how to create their own InfoPacket, which is a customized plan of study, residential choices, and extracurricular activities at the University based upon personal interests (for more information on these and other seminar practices, see Appendix B). By simply typing inforpacket.admissions.rutgers.edu, Scholars can choose many possibilities for their life on campus and then see what it would look like to live within each. For example, the student who is interested in Pharmacy, Nursing and Biology, who wishes to reside in a sorority, and who wants to continue her involvement in dance, can see how these interests translate into real life at the University. If this student's interests change, then she can create another scenario with that new, added information. This makes the abstract notion of attending college one that is instead, grounded and brought into focus.

Scholars were also asked over the summer months to list the three fields of study and future employment they wished to learn more about. Engineering, performing arts

and health professions were listed, therefore a subsequent seminar for the Scholars' in October included presentations on all three reported areas of interest (for more information on this event, see Appendix B).

Strengthening Positive Habits of Mind

The academic enrichment provided to students through the Rutgers Future Scholars Program provides not only substantive learning experiences but it also fosters the habits of mind often held by those from middle to upper class backgrounds. Specifically, Snell (2008) asserts that only 33 percent of students from the lowest income groups read literature during the year surveyed, in comparison to 61 percent from the highest income group. For those attending college from the lowest economic strata, learning is often focused on seeking information in order to correctly answer test questions. These and other practical student behaviors are enacted in order to graduate from a four-year higher educational program and consequently secure a job that will pay stable, family living wages. This is a noble, understandable objective that is consistent with the goals of the Rutgers Future Scholars Program, however learning how to think as a college student is an equally important goal.

Specifically, those who have learned how to think are able to process multiple sources of information and flexibly adapt to the novel demands of a knowledge-based workplace. This entails, but is not limited to, routinely seeking answers to questions. The Rutgers Future Scholars Program is designed to include the kinds of experiences requiring the reading, analysis, and thinking processes that are frequently made available to and exercised by those within the highest economic classes. Such skills will be required of participants in our current technologically advanced, knowledge-based, global

workplace. These capabilities are also required of those who wish to gain admittance to and complete studies at an academically competitive school of higher education, like that of Rutgers University.

Fostering each Scholar's Self-Efficacy

Self-efficacy is a person's sense of being able to deal effectively with a particular task (Miller, 2002). For example, a set of teachers may each be faced with a new class of students that are unruly, but those who feel professionally efficacious will feel confident in their capacity to use pedagogical techniques that will remedy the problem. Those who lack self-efficacy as teachers will not believe in their own ability to affect a positive outcome.

Rutgers Future Scholars will feel increasingly efficacious as students due to the verbal persuasion and experiences they have as Program participants. Specifically, by highlighting the positive past performance of Rutgers Future Scholars-- including the maintenance of a "B" average -- their belief in personal future achievement, or self-efficacy as students, grows. Also provided to the Scholars is credible verbal persuasion about college being within their reach, helping them to believe that with hard work, they can realize their goals. All Scholars are reminded that they belong on campus as part of the Rutgers family, they have been chosen for their role due to their performance and their potential, and that if they continue to achieve, they will be the next graduate of a University that has educated or employed Supreme Court Justices, popular TV personalities, political officials, and groundbreaking spinal cord researchers. Finally, as a means for reducing the anxiety that dampens self-efficacy, the Rutgers Future Scholars Program has been designed to bring its participants into the fun of hands-on exploration

(Miller, 2002). Scholars engage with faculty members who expose them to their research on fascinating topics, and instead of feeling estranged and frightened by scholarship, they feel interested and capable of learning more.

As mentioned earlier, vicarious learning, or ones' learning about what is likely to occur if someone similar engages in specific behaviors, provides a powerful source of information regarding what actions will yield desirable results (O'Donnell, Reeve, & Smith, 2008). If the person observed is of high stature, then the information learned vicariously will be all the more powerful.

Due to the poignant effects of vicarious learning, all Rutgers Future Scholars were provided with the New York Times Bestseller called, "The Pact: Three Young Men Make a Promise and Fulfill a Dream." This text will be one of many provided by the Program to Scholars for their personal library. The authors of this book, Drs. Davis, Jenkins and Hunt, (with writing assistance from Lisa Frazier Page) grew up in Newark, New Jersey, living in severe disadvantage. Poverty and daily life in their crack-infested neighborhoods made life feel like a war zone; danger lurked at every turn. Shootings, beatings, drug deals gone awry, burglaries, and substandard living conditions were elements of the landscape they called home. Fathers, safety, healthy peer groups, predictability, and financial stability, were non-existent.

Dr. Jenkins however, did have a wonderful third grade teacher, a powerful father-like role model, an early experience with a dentist that was both supportive and educative, and an ability to stay off the radar screen among his peers. In addition, his mother was able to move him and his family out of a housing project and into more stable residential conditions. These protective factors, his determination and a certain degree of

luck led him through the minefields of neighborhood poverty with few mishaps. Drs. Hunt and Davis however, faced a life with formidable obstacles and a paucity of nurturance. Both found themselves in juvenile-detention centers before reaching the age of eighteen.

What helped all of them stay on the road towards using their true potential was, in part, to make a pact. The pact was a promise to stick together, graduate from college, and complete medical or dental school. Through their friendship, and through important sources of help from others, they kept their promise (Davis, Jenkins, & Hunt, 2002).

Somehow when a new semester seemed impossible to manage due to textbook costs or inadequate funding for housing, a tiny source of support or personal ingenuity helped the boys get by. Dedication to their goals, a willingness to endure short-term discomfort for long-term gain, and making good choices time and time again when the lures of the street, a girlfriend, or a seemingly easier path came their way, enabled Davis, Jenkins and Hunt to become the men they are today. Now all three doctors serve the residents of the towns in which they were raised. Their lives have come full circle; one doctor is treating patients at the hospital where he was born.

The Rutgers Future Scholars who read this book will be able to see themselves in these doctors, enabling them to learn vicariously how to make, and keep, a similar pact. To facilitate the elaboration of relevant ideas within “The Pact”, RFSP staff will lead group discussions with Scholars on topics such as peer influences, crime, and education. This will be a meaningful precursor for an upcoming event where Davis, Jenkins and Hunt are slated to speak at a Rutgers Future Scholar Seminar on Gender Related Peer Pressure, Social Problems and Peer Support to be held in early 2009.

Cultivating a Collegiate Identity

“To be or not to be” mirrors the question adolescents ask themselves about their identity. In many respects the Rutgers Future Scholars Program answers this question by naming this group of students Scholars and by awarding them a continuum of academic and financial support for nine years. The Rutgers Future Scholars Program shows disadvantaged kids how a college education is valued by society and how they can achieve such a goal. According to middle-school teachers in Camden, the honor of being a Rutgers University Future Scholar has motivated other students to “do whatever it takes to get into RFSP”. The value of these experiences cannot be understated as adolescence is the time wherein students try on roles and decide which ones fit (Miller, 2002).

Connectedness.

Programs such as that of RFSP keep adolescents on track, goal-oriented and forward thinking thereby drawing them away from the temporary forms of gratification that make escape from poverty unlikely. Scholars participate in activities on a regular basis through the University that render them connected to academic research, culture, employment opportunities resultant from college study, scholastic enrichment, campus athletics, tutoring and social engagement with like-minded peers. Disconnectedness however, resulting from dropping out of school or estrangement from structured institutions such as employment sectors, frequently leads teens to engage in unprotected sex, drug use and other risky behaviors (Besharov & Gardiner, 1998).

All of the previously mentioned, recently executed activities and those poised for future execution have been designed in accordance with the academic literature base on facilitating college entrance and completion among those who are frequently

underrepresented in higher educational contexts (Nettles & Millett, 2006). Specifically, empirical research has shown that providing Scholars with positive and high quality faculty interactions, “seeking compatibility with the academic aspects of the institution, and developing a strong commitment and allegiance to the institution”, all serve to be potent factors in facilitating college persistence (Nettles & Millett, 2006, p.141). To that end, we will expand our services for Scholars over time and continue to bring them into the University, on the football field, within laboratories, and everywhere in-between.

Other Programs

Other early awareness and scholarship programs exist throughout the country and detailed descriptions of each are contained in Appendix C. The Rutgers Future Scholars Program is unique in the provision of support, academic enrichment, and full-tuition for all Scholars who are admitted to the University. Other programs provide information on college admissions, SAT test preparation, and financial aid knowledge to those from distressed neighborhoods. Some offer the same services to an analogous population in tandem with academic enrichment. One offers an amalgam of services focused on the multiple needs of its target population (“Say Yes to Education”).

Additional centers of higher education such as the University of Virginia and University of North Carolina Chapel Hill offer forms of financial assistance to those who are admitted to their universities and are economically disadvantaged. Kalamazoo, Michigan offers free tuition to be applied for study at any university within the state for its permanent residents and Indiana has a state-wide program that combines early awareness with tuition assistance for all who qualify. Dartmouth University is instituting a policy of free tuition for families earning less than \$75,000 per year and is currently

executing a “Native American Program” as a means for facilitating the multidimensional development of the said population.

Finally, in Israel, the “Accessibility to Higher Education Program” seeks to level the academic playing field for talented students from economically distressed regions in a manner that is similar (but not identical) to that of the Urban Scholars Program from University of Massachusetts, Boston. This exemplifies the trend both domestically and internationally towards cultivating social and human capital through the conduit of education.

Challenges Faced by Those Implementing Similar Programs

Providing pre-college awareness and extensive forms of enrichment as a means to maximize talent fully among those from disadvantaged, at-risk backgrounds is a weighty challenge. The heft of this enterprise exists, in part, due to the large number of services that must be provided to multiple program participants. Logistically, and financially, this is a large undertaking requiring resources, effective leadership and continued administrative commitment (Klugman & Butler, 2008). Inherent in the planning and execution of the Rutgers Future Scholars Program is an acknowledgement of this. President McCormick has stated on repeated occasions his dedication to supporting the Rutgers Future Scholars Program, despite the current economic climate. RFSP directors are also aware of the pitfalls that can befall a program of this nature, including the challenges that often faced during the early stages of program execution. Outcome measures of other programs, which share similarities to the Rutgers Future Scholars Program but are in key ways markedly different, serve to illustrate the monumental nature of bringing hundreds of disadvantaged youth into the halls of four-year collegiate study all the way to baccalaureate graduation and study or employment beyond.

Specifically, “Say Yes to Education”, is a program that guarantees scholarships to disadvantaged children irrespective of their grades and test scores, in tandem with an array of services ranging from intensive academic tutoring to dental care to legal help. The founder, George Weiss, was initially disappointed by the first year cohort’s results. For every college graduate there was also one felon; of the latter, three were convicted of murder. Over 50 percent of the female participants were pregnant before the age of 18 (Kahn, 2007). George Weiss, the founder of “Say Yes to Education” revealed the following important lessons: Despite his multifaceted efforts to support students in earning straight A’s, some of them will harbor definitions of success that do not include academic and collegiate achievement (Kahn, 2007).

Current program results however, show that the mean number of “Say Yes” students graduate more frequently from high school in comparison to their peers from similar demographic circumstances: In 1998, the Hartford Chapter earned a 79 percent graduation rate (including those who earned their GED), compared to the 54 percent national high school graduation rate that year. In 2000, the Philadelphia Chapter earned an 86 percent graduation rate (including those who earned their GED), compared to the 54 percent national graduation rate that year. Finally, in 2001, the Cambridge Chapter achieved an 87 percent graduation rate (including those who earned their GED), compared to the 51.5 percent national graduation rate that year. Hence, as the program grows and becomes increasingly comprehensive, and as best practices are revealed and subsequently utilized, participant results are improving (www.sayyestoeducation.org).

The Twenty-First Century Scholars, another early-intervention program designed to provide support services and a guarantee of grant aid commensurate to that of public

tuition in Indiana is provided to low-income eighth graders. Participants must pledge to complete high school, maintain a minimum of a “C” average, remain drug and crime free, apply for student financial aid on time and enroll in an Indiana college within two years of high school graduation (St. John et al., 2005). Outcome data on the 1999 cohort indicates the following: four years post-high school, 50.1 percent of Scholars had withdrawn from college in the absence of earning a degree. On behalf of three student categories (those with aid, those without aid, and Scholars), no significant difference was found in their receipt of two-year degrees, four-year degrees, or both. Students receiving aid were more likely than their peers who did not receive such assistance to have completed only a four-year degree, however no significant differences on this comparison were found between Scholars and those who received no aid (St John, et al., 2005). Why might this be true? Low-income students are confronted with a myriad of daunting challenges. Extensive intervention and support is required to redirect disadvantaged students towards a fruitful academic and vocational path.

Positive Outcome Data for Pre-College Programs

Outcome data from some pre-college, enrichment programs show positive results. The Princeton Preparatory University Program (PUPP), which serves 23 academically talented, low-income students from Ewing, Trenton and Princeton per year, reported that as of fall 2006, 70 percent of PUPP graduates are attending selective colleges and universities including Bryn Mawr, Brown, Vassar, New York University, Rutgers University and Middlebury College (http://www.princeton.edu/~tprep/pupp/college_acceptances.htm). A comparable program, The Next Generation Venture Fund, reported their students earned competitive SAT scores, enrolled in more Advanced Placement classes than their peers, elevated their

educational and vocational goals, and over 75 percent of their college age participants have enrolled in highly selective colleges and universities (Nettles & Millett, Educational Testing Service [ETS]).

Analyses between Twenty-First Century Scholars and low-income students only, also reveal a positive picture. For example, within four years 47.1 percent of the Scholars left school or failed to earn a two-year degree, but this was true of 52.4 percent of eligible non-Scholars. In addition, when compared to their low-income peers who received other forms of aid, Scholars were over twice as likely to have earned two-year degrees. This was not true however with respect to earning four-year degrees. Hence, the odds that low-income students will enroll and succeed in college was greater for the Scholars, and Scholars were more likely to attain two-year degrees and no less likely to attain a four-year degree, in comparison to their peers from the same economic strata (St. John, et al., 2005).

It is important to note that The Next Generation Venture Fund and the Princeton Preparatory University Program are in many ways vastly different from Indiana's Twenty-First Century Scholars Program, in large part because the former two are smaller programs. Both provide intense forms of enrichment for those who are academically talented (see Appendix C) whereas the latter is a statewide program for students willing to take the pledge mentioned previously and maintain a "C" average. The "Say Yes to Education" program varies from all those just mentioned in that the students are not chosen as a function of their grades or academic promise. In addition, the services provided start early and are multifaceted, and in comparison to the Princeton Preparatory University Program, larger cohorts are served.

What Works?

George Weiss, the founder of the “Say Yes to Education Program” found that his Program was more effective when kids were captured early and were highly focused on reading. He also recommended extending learning during summers and after-school, providing community support and conferring a broad range of services to the families of students (www.sayyestoeducation.org). Again, his Program serves groups of disadvantaged kids within multiple locales irrespective of their grades and test scores.

The “Say Yes to Education Program” is unique in beginning interventions at the elementary school level. Most who have studied pre-college programs recommend beginning multiyear services before ninth grade, and ideally, in sixth grade (Klugman & Butler, 2008). Summer programs have also proven to be as important as those provided throughout the school-year. This is because the provision of academic training during the summer often compensates for that which is not learned during the school year and it serves to keep students continually connected to academics (Klugman & Butler, 2008).

Research on other pre-college programs such as North Carolina’s Mathematics and Science Education Network (MSEN); the English is a Second Language Thirty Hour Program; Project Support, Training and Resources for Educationally Able Minorities (STREAM); Advancement via Individual Determination (AVID); and the Educational Navigation Skills Seminar reveal a number of other “best practices” that will be described below (Clasen, 2006; Goldschmidt, Notzold, & Miller, 2003; Guthrie & Guthrie, 2000; Sedlacek, 1999). Additional findings culled from the “Opening Doors and Paving the Way Forum” hosted by Goldman Sachs and the Princeton University Preparatory Program will be presented (Klugman & Butler, 2008). It is important to note that all of the endorsed practices to be listed were effective in specific contexts.

Therefore, one cannot assume the degree to which these suggestions can be generalized for use in alternate locales, at different time frames or with varied populations.

First, as per longitudinal research on the Advancement via Individual Determination Program and its student outcomes, **face-to-face interviews served to be invaluable when assessing the degree of interest in academic success on behalf of Program applicants.** Consequently, interviews are now an admissions requirement.

Second, leaders of the Advancement via Individual Determination (AVID) Program decided to admit students with average grades, as those with low grade point averages often could not handle the workload and those with high grade point averages tended to drift away from the program. The latter did so ostensibly because the academic supports provided were perceived by high-performing students to be unnecessary (Guthrie & Guthrie, 2002). It is important to note however that some students seeking AVID Program admittance with high grade point averages demonstrated low proficiency in basic skills such as reading, which compelled staff to admit those whose grades appeared to be inflated.

Third, AVID admittance staff required strong parental or caregiver commitment to the pre-college program (Guthrie & Guthrie, 2002). Specifically, **parents and/or caregivers of pre-college program participants should be directly involved in the program and should be asked to discuss their child or adolescent's progress with counselors regularly.** In addition, all parents and/or caregivers should learn about the process of applying for college, as well as the facets of standardized test preparation and the nuts and bolts of completing financial aid paperwork (Guthrie & Guthrie, 2002; Klugman & Butler, 2008).

University accommodations reported by the academic research of other programs included providing pre-college students with a home base for study at the college, as well as teaching pre-college students how to effectively use the university library and university computer system (Clasen, 2006). To that end, it was recommended that pre-college students be quite familiar with one or more higher educational centers. Student participation in Saturday academies and summer residency or bridge programs was also endorsed (Clasen, 2006; Klugman & Butler, 2008). Finally, pre-college program participants benefited from the provision of tutors as well as cooperative learning in dyads (Goldschmidt, et al., 2003; Klugman & Butler). This dyadic activity requires learners to teach each other the material, which is noted by the academic literature base on teaching and learning practices to be an effective pedagogical tool (O'Donnell et al., 2008).

Leaders of regional programs were encouraged to form strong relationships with program participants and to lead with the strength and expectancies of a task-master (Guthrie & Guthrie). Accordingly, leaders of other pre-college programs instituted various consequences for failure to comply with mandated grade point average requirements, school attendance and pre-college program participation expectancies (Guthrie & Guthrie, 2002). Consequences varied for each program; all allowed students to be re-admitted if they “corrected the wrong” and complied with requirements.

Pedagogical approaches advocated by the Advancement via Individual Determination (AVID) included inquiry-based learning. Accordingly, the students' tutors acted as facilitators, who supported learning by posing questions and providing guidance (Guthrie & Guthrie, 2002). These practices were used to effectively help

students think inductively and construct new knowledge schemes. This approach stands in contrast to a teacher-led, expository approach. The latter require learners to think deductively about a hierarchical stream of information presented by the teacher, beginning with overarching principles and closing with specific examples. Finally, the use of problem-based learning was also noted as an effective pedagogical technique (Clasen, 2006).

In-school interventions included curricular alterations such as requiring teachers of every subject to instruct their students on how to write (Guthrie & Guthrie, 2002; Klugman & Butler, 2008). Klugman and Butler (2008) assert the need for consistent collaboration between pre-college program leaders and local partner schools. Also recently stressed by those who have monitored the progress of the Advancement via Individual Determination (AVID) Program was the cultivation of strong math skills on behalf of all participants. To that end, students in the AVID Program were asked to take Algebra in middle school and mathematics coursework in high school leading to Pre-calculus. Also recommended was student participation in Advanced Placement and Honors-level courses (Guthrie & Guthrie, 2002). In essence, any and all practices that ensure academic rigor should be instituted, according to those who have researched effective pre-college programs for low-income students (Klugman & Butler, 2008). To support achievement in challenging courses, tutoring from the AVID Program was provided before school, at lunch and after school. Targeted skill remediation was also provided for those in the process of preparing for standardized tests (Guthrie & Guthrie, 2002).

Use of mentors who are similar in sex, race and/or personality to program participants was recommended as an important tool in supporting economically disadvantaged, talented learners. Contact between participants and their mentors should be frequent and continuous over time (Klugman & Butler, 2008).

The focus on testing and preparation for university admissions was understandably most robust throughout most pre-college program participants' junior and senior years of High School. This included Scholastic Achievement Test (SAT) Preparation, repeatedly writing admissions essays, assistance with completing college applications, and clarifying the many layers of financial aid paperwork (Guthrie & Guthrie, 2002; Klugman & Butler, 2008). Also recommended is the provision of college advisement for the participants' family members (Klugman & Butler, 2008).

Affective and intrapersonal training was also endorsed by those preparing first generation Latino and African-American students for college attendance (Caldwell & Siwatu, 2003). The "Education Navigation Skills Seminar" was an example of such training. Four protective factors were used as the basis for this curriculum. These were self-concept, alienation (or lack thereof), realistic self-appraisal and help-seeking strategies. For example, students were taught to combat obstacles faced when preparing for and attending college by evaluating their family and communal supports, cultural learning strategies, educational dispositions, and social messages. This approach demonstrated that success as a college student was often contingent upon more than cognitive ability, rather knowledge of self and knowing how to manage contextual obstacles proved to be of great importance (Caldwell & Siwatu, 2003). Those who lack

academic preparation, confidence, and resources, which are frequently the case among the disadvantaged, often fail-out or drop-out of college (Klugman & Butler, 2008).

Specifically, the Educational Navigation Skills Seminar (TENSS) was also used to augment a five week Upward Bound program. Practices for this Seminar were based on the non-cognitive variables related to success or lack thereof. These included: understanding racism, determining the availability of academic or social support, cultivating a positive self-concept, and engaging in realistic self-appraisal (Tracy & Sedlacek, 1989). To that end, the goal was to address social alienation, racial identity, academic self-concept, and help-seeking behaviors. Questions such as these were asked: “How will you persist in an unwelcoming environment?”

An example of an actual lesson began with reading a daily affirmation pertaining to the celebration of cultural diversity. Then, the topic of the day was introduced (e.g., fostering a positive self-concept). Next, the facilitator supported a group discussion by posing queries designed to make the conversation meaningful and highly participatory. Questions such as: “What irrational thoughts and beliefs make you feel as if you may not be successful? How does your racial identity feed into that? How can you challenge those stereotypes? How can you realistically appraise your academic competence? What are the skills needed to be successful in college? How would you confront racism, sexism or classism in college?” Following this, participants were asked to role-play scenarios pertaining to the last set of issues. Finally, students were required to describe how they could find help and resources when needed. Specific issues were introduced at that time such as, “How can you find help for coping with homesickness, stressors associated with seeking success, academic uncertainty, alienation, or academic troubles?”

In closing, students were asked to complete a self-assessment inventory pertaining to the topic of the day and then record in their journals the topics and feelings that were discussed.

For the lesson previously described to be well-executed, The Education Navigational Skills Seminar Staff should be culturally literate and understanding of the needs, interests and experiences of program participants. They should also be capable of building trust, competent in using effective questioning tactics, and skilled with facilitating equitable discussions.

Accordingly, suggestions for cultivating wellness on behalf of low-income pre-college students gathered by participants at the “Opening Doors and Paving the Way Forum” held by Goldman Sachs and Princeton University included helping learners cope with emotional stress and providing social skills training. Also recommended was facilitating the development of the following: public speaking skills, networking capabilities, self-advocacy, time management, conflict resolution, and financial management (Klugman & Butler, 2008).

In summary, the goals of most pre-college programs are commensurate. Several of the practices just described such as Saturday Academies, summer programs, the use of tutors, and parental involvement have already been implemented by the Rutgers Future Scholars Program. Additional practices endorsed by “data-driven” programs will be weaved into the Rutgers Future Scholars Program over time; determinations regarding which program components will be introduced will be a function of the needs demonstrated by Rutgers Future Scholars.

Specifically, if information derived from psychometrically sound measures such as the Research Assessment Package for Schools, Middle School Student Measure reveals attitudinal risk factors then the Rutgers Future Scholars Program will provide targeted remediation. Possible areas of risk include: engagement, beliefs about self, interpersonal support, parental support and/or teacher support. Focused remediation will also be provided for Scholars who demonstrate weakness in core scholastic areas as per EXCEL ACT exams. Grades, attendance percentages, standardized test scores, and other indicators of student progress will also be culled and analyzed by Rutgers Future Scholars leaders regularly. Efforts to track Scholar progress and to examine the efficacy of various program elements will shed light upon needed sources of information regarding best-practices for various populations of disadvantaged, pre-college students. All of this information will be made available to researchers, policy makers, and educators so that the Rutgers Future Scholars Program model can be replicated by others throughout the United States and beyond.

Conclusion

The cost of supporting one Future Scholar through college graduation equals approximately \$26,000 - \$28,000 dollars. The cost of inaction, where youth slide along the well-worn path towards additional disadvantage and its attendant social ills, is exponentially greater. Approximately one hundred times greater to be exact, for preventing one young person from turning to a life of crime can save United States citizens 2.3 million dollars (<http://www.higherimpact.org/>). Thus, we must garner hope and use it as a catalyst towards effectively battling neighborhood poverty and its attendant ills. The Rutgers Future Scholars Program is a way to translate hope into real possibilities for a better New Jersey. The time to act is now.

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Appendix A

A Night at The Improv

You know that horrible dream? The one when you're in front of your whole class giving a speech and you don't have a thing to say? That dream will never become a reality for you! Take this class and learn to improvise through easy-to-learn games and activities. Use your newfound skills for classroom public speaking, auditioning for the school play or just for fun! (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Absolutely Abstract

The students will have fun creating at least 7 original abstract works of art in the style of famous modern artists: Jackson Pollock, Henri Matisse, Mark Rothko, Jean Arp, Paul Klee, Piet Mondrian and Keith Haring (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Against the ODDS

We are constantly making estimates of the chance or probability of this or that event occurring. From the flip of a coin to a roll of the dice, we will use the power of mathematics to explore the likelihoods of chance events. We will examine the Monty Hall Problem and use a Monte Carlo method. We will go for a Random Walk and we will see the surprising fact that it is more likely than not to find two people in a class of only 25 students with the same birthday! (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Art in Advertising

This course would be centered around projects associated with illustration and graphic design. Projects would include logo design, character development, and advertisements (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Basketball Fundamentals

From beginners to all-stars, everyone will bring something to the court as we cover skills of dribbling, passing and shooting while practicing teamwork, leadership and sportsmanship. All skill levels will enjoy the games and tournaments and step to the challenge! (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Checkmate!

Chess is more than a classic game. Chess is an academic sport, an art, and a science. This challenging, but fun, class for beginners and experienced players will teach

you how to play chess or how to take your chess skills to the next level. Learn openings, mid-game strategies, and end-game strategies. Learn how to use clocks, how to play speed chess, how to play bughouse, and how to play candy chess. Optional tournament with trophies the last two days of class (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

CO2OL CHeMiSTry

Roll up your sleeves and get ready to make some crazy concoctions. Join us and get ready to enter the world of wet, wild, icky, sticky, foamy, slimy, ooey, gooey chemistry!(R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Creative Cartooning

Learn the basics of cartooning by focusing on shapes, coloring and technique. Draw favorite characters in simple and three dimensional forms. Have fun and learn at the same time with an inspiring instructor (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

CSI

Become a mystery-solving sleuth and join the CSI investigative team! Just like on the TV show, you will solve crimes by analyzing fingerprints, footprints, and (simulated) blood samples! Determine the height of a perpetrator, evaluate ink & fiber samples and see how bugs can help us to solve cases! (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Digital Photography

Have you ever see pictures on the Internet and say, "Is that for real?" Want to know what your face would look like on your favorite music star, athlete or supermodel? Master the basics of digital photography and you can create illusions, new realities and transform your dreams into vivid, larger-than-life color images. Using Photoshop, your pictures will be prize worthy! Best of all, you can take home your projects and show everyone your digital wizardry! (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Lights, Camera, ACTION!

Forget Hollywood, unleash your inner Spielberg and director your own movies! Learn techniques to conquer script and storyboard writing, and then watch your vision come to life! Learn how to direct, film and edit your ideas to produce commercials, short movies, public service announcements or newscasts. Finally, lay your work down on a DVD to share with the world! (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Metric Track & Field

Students will learn about metric abbreviations, units of measurements, estimation, conversions, and calculate speed, power, work and force, using a series of activities related to track and field. (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

News to You

Who will be the next Matt Lauer or Diane Sawyer? Maybe it's you! Join the Spark TV news crew and become a reporter, anchor, or technician and learn the planning and teamwork it takes to become your very own news crew! (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

pHun with pHysics

Nothing is more fun than designing and creating your own roller coaster. In this course you will create amazingly fun projects with household materials and discover that physics is filled with "POTENTIAL" phun and energy! (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

"Write" Back at Ya

Writing shouldn't be a chore; it should be an experience. This course will show you just that through interactive writing techniques. Your imagination has no limits; neither should your writing. (R. Salgado-Rodriguez, personal communication, August, 12, 2008).

Appendix B

Fall Seminar Number One for Rutgers Future Scholars, New Brunswick and Piscataway

Welcome to Your Future Home at Rutgers: Facilities, Fields of Study, Food and Fun!

Agenda

Arrival and Breakfast

Rutgers Admissions Presentation: Describing guide to help plan high school years and creation of personal “InfoPackets”

Receiving the book entitled, “The Pact: Three Young Men Make a Promise and Fulfill a Dream” by Dr. Sampson Davis, George Jenkins, and Rameck Hunt with Lisa Frazier Page

Engineering Workshop

Performing Arts Workshop

Future Scholars Workshop

Health Professions Presentation

Completion of an Interest Assessment, allowing students to see their interest profile and how that corresponds to particular jobs

Lunch

Campus Tours

Appendix C

Princeton University Preparatory Program (PPUP)

The Princeton University Preparatory Program (PUPP) serves academically talented students from Ewing, Trenton and Princeton who come from economically challenged neighborhoods and/or relatively low income homes.

Components of the program include a five to six week summer institute, a Parents' Night, a research symposium, and mandatory academic enrichment on a weekly basis. College admissions workshops, university tours, trips to theatrical performances, museums and the opera, and SAT preparation courses taught by the Princeton Review are also provided. Finally, participants receive financial aid information, and partake in art appreciation classes, college preparatory courses such as mathematics, literature, science and writing workshops.

Next Generation Venture Fund

The Next Generation Venture Fund instituted by Goldman Sachs is designed to support academically talented students in grades 8 thru 12 from disadvantaged families (<http://ngvf.org/approach.html>).

Provided to all participants are summer academic programs, individualized education planning, mentoring from the National Foundation for Teaching Entrepreneurship, SAT preparation, and parental involvement. The summer programs and recruitment services are provided by the Duke University Talent Identification Program, the Northwestern University for Talent Development, John's Hopkins University Center for Talented Youth, and the University of Denver Rocky Mountain Talent Search. Participants can take advanced college level summer classes, engage in

leadership and vocational development programs, and receive college counseling and mentoring.

Urban Scholars Program at University of Massachusetts, Boston

Seventy five high school and thirty middle school students participate in this seven week summer and year round enrichment program designed to increase educational opportunity to those who are academically talented yet born into disadvantage (<http://www.urbanscholars.umb.edu>). All students are assigned tutors with whom they can complete assignments on a daily basis after school.

SEED school of Maryland

A boarding school called the SEED School of Maryland was erected (“Hope in the Unseen,” 2008) for sixth grade students from disadvantaged, violent areas. Tuition for all who are chosen is free, and this school environment is a replica of the academically-competitive, schools with small class sizes frequently accessible only to the elite. Admittance is not merit-based, rather those who are eligible are chosen according to a lottery.

Cristo Rey Jesuit High School

The Cristo Rey Jesuit High School provides “the best college preparatory education available” to the disadvantaged youth of “Pilsen/Little Village Community of Chicago”, for whom private school is unaffordable. The model of urban education used by this high school is so successful that it is now being replicated throughout the country. Creation of this replicable model was achieved through financial assistance from the Cassin Educational Initiative Foundation and the Bill & Melinda Gates Foundation at a sum of \$30 million.

Yearly funding for the students who attend this school is derived in part through a Corporate Internship Program (CIP). This work-study program requires all students to assume employment five days per month in corporations throughout Chicago. Monies derived from this work pay 65 percent of the students' high school educational costs. In addition, the work experience and financial empowerment derived from CIP has helped Cristo Rey students cultivate marketable skills, develop business contacts, increase their work ethic, learn about career opportunities and enhance their self-esteem.

Accessibility to Higher Education Program, Israel

One thousand students per year are chosen to participate in this program used to increase educational attainment on behalf of those living in the economically depressed regions of Negev, Israel. Entrance criteria include: students must perform within the top 20 percent of their classes, teachers must recommend them, and all participants and their families must communicate their commitment to this learning experience. Participants are in the 10th to 12th grade, and all are provided with both a school and university enrichment component. The latter consists of extra tutoring in Math, Physics, and English in preparation for a national examination (analogous to the SAT exam). Specifically, teachers are to provide four to six hours of personal or group tutoring; whether this is on a daily, weekly or other basis was not noted. The former consists of taking coursework for five hours every Friday at Ben Gurion University. Course requirements include two years of coursework on Natural Science or Technology and two semesters' worth of Humanities or Social Science classes. Options for the said courses range from Hematology to Dinosaur Germs to Robotics to Journalism.

Participants are also permitted to engage in college level academic workshops, research groups, and authentic forms of laboratory experimentation. Many participants can finish classes for college credit, especially those in the 12th grade. Every 10th thru 12th grader taking university courses are provided with tutors, most of whom are first year university students.

Urban Scholars Program, City University of New York

Those students showing academic promise and a commitment to attending college, as per recommendations and test scores, and who attend a one of four high schools¹ are eligible to apply (<http://www1.ccny.cuny.edu/ci/urbanscholars/services.cfm>). If admitted to the program, students will receive after-school tutorials, Saturday enrichment classes, summer college experiences, college bridge programs, standardized test preparation and academic counseling. Also provided is behavioral counseling, family conferences, referrals to professional services, self management workshops, college tours, trips to theaters and museums, excursions to theme parks, program retreats and other educational and social activities.

Philadelphia Futures

Philadelphia Futures is a non-profit organization of which the “Sponsor-A-Scholar” program is the centerpiece (<http://www.philadelphiafutures.org>). Scholars are nominated by their teachers and counselors, all have recently earned grades in the “B” to “C” range, all have demonstrated marked academic motivation, and all are eligible for free or reduced price lunches.

¹ APR High School, Bread and Roses, Fredrick Douglass Academy, Law and Public High School or Mott Hall High School

Students admitted to this program are matched with a mentor, provided with SAT preparation, tutoring, study skills training, summer programs at partner colleges (Haverford, Drexel and Eastern University), college visits, and other relevant forms of college preparatory information such as financial aid workshops. Upon completion of the program, participants can collect a total of \$6,000 to be disbursed semester by semester for payment of books, fees and transportation expenses.

Project Excel, Santa Barbara

Project Excel is a pre-college program for Black African American and Native American scholars in grades five through twelve. Applications must be completed by parents on their children's behalf. Parents and guardians are viewed as active program participants, who play a role in choosing the Board of Directors for the Project. All accepted scholars are provided with a mentor and a tutor, with whom they will visit for academic assistance and guidance on a weekly basis. Donated computers are also allocated to those scholars who need them. In addition, individual and collective monthly group meetings are held, where again, tutors and mentors are in attendance. Finally, scholars are allowed to participate in bi-annual field trips to campuses and cultural events (<http://www.projectexcelsb.org/scholars.asp>).

Boys & Girls Harbor Program: Educating Children to Be Their Best

This program serves disadvantaged children from East Harlem, Harlem and the South Bronx on an annual basis. Included in the diverse services they provide -- ranging from day care and preschool to behavioral health -- is a pre-college program. One component of this is through Upward Bound, where academically talented, motivated high school students come to their facility every day after school for test taking

assistance, writing skill support, mentoring, internships, career education, activities for parents, and related services. Program participants are also taken on a weeklong summer tour of six or seven colleges, so they can formulate plans for their lives after high school graduation. Finally, program participants attend a Summer College at Cornell, where they reside in the dorm, take courses, receive tutoring, and partner with a designated faculty member who tracks their progress. Some of the college credits earned in this Summer Program can be applied to degree completion at another center of higher learning (<http://www.boysandgirlsharbor.net/programs/collegepreparation.htm>).

Advancement via Individual Determination (AVID)

Advancement via Individual Determination is a program designed to assist motivated, disadvantaged students from grades four through twelve for college entrance and completion. Parental commitment to the program is a salient factor determining admission of their child or adolescent. Those who are admitted typically demonstrate average academic performance as per grades and test scores.

Students in the AVID Program are taught how to take notes according to the Cornell Note-taking System (<http://academic.cuesta.edu/acasupp/as/619.htm>). Also emphasized in this program is teaching writing to participants in all subject areas; thus, science teachers teach writing as intensively as English instructors. The curriculum for this program is pre-packaged for participating schools. Pedagogical practices espoused by AVID include inquiry-based learning techniques with teacher-as-facilitator of learning, in lieu using teacher-directed expository lectures.

The middle and high school students in the AVID Program take an in-school elective, enabling them to learn study skills, test taking strategies, and positive habits of

mind. For example, lessons may include analysis of reading involving questioning, critiquing, clarifying, and comprehending the text. High School students in the AVID program are strongly encouraged to take Advanced Placement courses.

An increased emphasis on math is now being instituted. This is because many sites using AVID found their students were grappling with significant math deficits; a focus on improving math skills and taking college prep math courses up to pre-calc followed. Improvement of reading skills is now becoming a commensurate goal for those leading the AVID Program.

Capital Region Sponsor-A-Scholar Program

Modeled after the Philadelphia Futures program, students attending public high school in Albany, Schenectady or Troy, New York, with a “B” to “C” average and eligibility for a free or reduced price lunch are eligible for enrichment and college preparatory assistance (<http://www.crsas.org>). Induction occurs in the 9th grade and admission is based on teacher and counselor nominations, letters of recommendation and what is termed “family contact”. Ten students from each of the three “at-risk” high schools just mentioned are chosen to participate from 10th grade through college graduation. Provided to each participant are mentors, who are college graduates, equipped to help students identify college resources, accompany them on college visits and provide similar forms of support. The full-time guidance counselors from each of the three schools serve as Academic Coordinators and in this role they coordinate enrollment, provide support and oversee weekly homework sessions. Homework sessions are led by tutors, who are either classroom teachers or graduate students in the field of Education.

Advanced Placement classes, PSAT and SAT training is also paid for by the Sponsor-A-Scholar Program.

YMCA of Metropolitan Milwaukee Sponsor-A-Scholar Program

Again, this program is designed to provide multifaceted support for disadvantaged students who wish to attend college

(<http://www.ymcamke.org/site/pp.asp?c=fkLQJ9MXKwH&b=970991>). This is accomplished through the provision of a mentor and a sponsor. All practices are a replica of the “Philadelphia Futures Program”.

“I Have a Dream Foundation”

This non-profit foundation works with children beginning in elementary school (K to grade 2) and follows them all the way through college

(http://www.ihaveadreamfoundation.org/html/our_program.htm). Entire grade levels of 50-100 students from “under-resourced public schools or housing developments” are sponsored. Three out of four participants qualifies for a free or reduced lunch.

Consequently, “Dreamers” are not chosen as a function of their high grades, test scores or teacher recommendations.

Six “core strategies” serve as the objectives for execution of this program. These are: “foster expectation of college, ensure academic readiness, cultivate ongoing leadership on behalf of Dreamers, empower Dreamers and their families, ensure financial access, create a context conducive to success” (<http://www.ihaveadreamfoundation.org>).

Leaders of this foundation assert they will do “whatever it takes” to accomplish each objective and “get these students through college”.

The Harlem Children's Zone Project

Run by Geoffrey Canada, the Harlem Children's Zone Project is a non-profit organization, which provides a comprehensive web of services to support, protect and foster the growth of residents within a 97 block zone of Central Harlem. Services conferred to those living within that region include medical and dental care, Charter School education, community centers, foster-care prevention services, The Baby College for parents of young children, and summer camps, among other things. These practices have been implemented in an attempt to "do whatever it takes" to support the healthy development of Harlem youth from infancy through college (<http://www.hcz.org/programs>).

Say Yes to Education

Modeled after the "I Have a Dream Foundation", the "Say Yes to Education" initiative is focused on providing disadvantaged kids in Philadelphia, Harlem, Hartford and Cambridge with means for combating social and emotional obstacles, health related challenges, academic obstacles and financial challenges. To that end, groups of kindergarten age children are chosen to participate in the program; support ends at college completion. Early literacy support is provided in addition to tutoring, parental participation, professional development for teachers, the cultivation of Individual Educational Plans on behalf of leadership teams. Intensive summer enrichment programs are also available to participants, as well as dental, physical and mental health care, legal referrals and free legal services in Harlem, mentoring, social services and counseling. Finally, conflict resolution, financial assistance for parents and siblings, and tuition for books, fees, room and board to be used for attendance at two-year collegiate programs,

vocational preparation and/or four year higher-education programs are provided (<http://sayyestoeducation.org/syte/content/view/38/84/>).

College Begins in Kindergarten

The College Begins in Kindergarten program, executed by the Crafton Hills College, is focused on exposing children to stimulating portrayals of history, art and music. At a Baroque Festival held there, children experience the music and innovation of Johann Sebastian Bach, Isaac Newton, King Louis XIV, Galileo and other Baroque figures. Elementary students are encouraged to participate in learning through various modes when engaged in dance, theatre, music and storytelling. Presentations designed for the children include the European names mentioned as well as Native American lore, African American history, Asia, science, technology and the politics of the Baroque period.

In addition, fourth graders are taught the elements of Emergency Care by ethnically diverse college students. This enables participants to react effectively in emergency situations, such as earthquakes and cultivate a one-to-one relationship with an ethnically diverse college-level partner, who can serve as a model of collegiate success (<http://www.craftonhillsedu/Community/kindergarten/index.php>).

Higher M-Pact

This program, designed to help high-risk urban youth in Kansas City, Missouri, provides intense mentoring for adolescents between the ages of eleven and eighteen. Also provided are life and social skills training, summer internships, opportunities for music production, apprenticeships, and participation in community service projects (<http://www.higherpact.org/index.php/resources/view/programs>).

Talent Search

The Talent Search program is one of the “TRIO programs” sponsored by the Federal Government (<http://www.ed.gov/programs/triotalent/index.html>). The Talent Search program serves 380,000, first generation, low income college students per year. Services provided include test taking and study skills assistance, academic advisement, tutoring, career development, college campus visits and financial aid application assistance.

Upward Bound

As one of the “TRIO” programs just mentioned, Upward Bound is a pre-college program available to high school students from low income backgrounds, who, if eventually admitted to an institution of higher learning will be the first generation from their nuclear family to enter college. The Rutgers University Upward Bound program is one of several in the nation; the program at Rutgers University serves 9th and 10th graders residing in New Brunswick, Plainfield, or Perth Amboy who meet low income requirements, are US citizens or permanent residents, who have maintained at least a “C” average and who intend to go to college (www.state.nj.us/highereducation/precollege2004/ProgDescPage57.html). All who meet the said criteria and wish to participate are required to complete an application and go through a review process.

Those who are admitted engage in a six-week summer academy and participate in programs held from September to June. The residential summer experience enables students to learn more about literature, math, science, writing, language, HSPA preparation, SAT test preparation and personal development

(http://undergraduate.rutgers.edu/upward_bound.shtml). Throughout the academic year, Upward Bound staff visit the students' high schools, meet with school guidance counselors, and spend time with Upward Bound students and their parents. Saturday sessions held once per month include SAT preparation, personal development, career exploration, college planning, college tours, cultural trips (including visits to the theater), and special on-campus events.

College Bound

Much like that of the "Sponsor-a-Scholar" program, 8th to 12th grade students enrolled in DC Metro area public or charter schools can receive mentoring and support used to facilitate the enactment of college enrollment and completion (<http://www.collegebound.org>). Ten eligible students who are mentored for a full year are eligible to receive a \$6,000 scholarship to be used for college expenses.

Five sites in the DC Metro area provide academic mentoring on behalf of volunteers. College Bound also hosts a senior retreat focused on college application completion and financial aid processes. Participants can tour colleges for two days in the fall and four days in the spring, attend "Taste of College Night" which is a college fair and holiday dinner sponsored by the local Junior League, participate in eight to nine weeks of free SAT preparation, and attend Career Night.

21st Century Scholars Program, Indiana

Eighth grade students residing in Indiana, who are eligible for free or reduced lunch from sixth grade onward, can apply for the 21st Century Scholars Program (<http://www.indiana.edu/~iub21cs/program.html>). All must pledge to complete high school, maintain a minimum of a "C" average, remain crime and drug free, apply for

student financial aid on time, and enroll in an Indiana college within two years of high school completion. If the said conditions are met, then the State of Indiana will pay in full each student's tuition and fees (after financial aid awards) at any public college in the state, or an equivalent amount of money will be granted for Scholars to use towards paying tuition at a private college. In addition, the State will provide support services for Scholars such as mentoring, tutoring, college preparatory information, college visits and activities for parents.

The North Carolina State University Mathematics and Science Education Network (MSEN) Pre-College Program

This Program is designed to equip students in grades six to twelve for mathematical and/or scientific study at the university level. It includes academic enrichment and laboratory work for participants at individual schools and a Saturday Academy for the scholars. Saturday Academy activities range from field trips to study of relevant coursework. Participation in a Summer Program is also required of every Scholar. The Summer Program lasts five weeks, enables participants to live in the dorms and includes study of Computers, Math, Science and English. Academic, collegiate and vocational advisement, SAT preparation, math/science competitions (via MSEN Day), recognition and scholarship awards, and two-day leadership retreats are also key program elements. Finally, "Pre-College Academic Chapters of Excellence" clubs for high school students who wish to excel in math and science, as well as "Parents Involved in Excellence" clubs for caregivers who wish to support program activities, are in place (<http://www.ncsu.edu/crmse/programs/msen/>).

PERSIST (Program to Enhance Retention of Students in Science Trajectories)

The Program to Enhance Retention of Students in Science Trajectories (PERSIST) at The College of New Jersey, is designed to support its economically disadvantaged chemistry and biology majors. Eligible students will receive up to \$10,000 per year, in tandem with enhanced support services provided by the College. These financial, academic and social supports are designed to provide the tutoring network, peer-mentoring, and departmental seminars often available only to those of greater financial means. Students from low-income households however, frequently are required to assume year-round employment in order to support their college education. Consequently, many miss opportunities to partner with faculty on research projects and/or attend workshops. Funding for this Program was provided by the National Science Foundation and totals \$600,000 (“New Program Helps Low-Income Bio/Chem Students PERSIST in Their Studies,” 2008).

Access UVa

This program is available to anyone admitted to the university (<http://www.virginia.edu/accessuva/>) who may find payment for their education at University of Virginia (UVa) to be prohibitory. Specifically, all admitted undergraduates will have 100 percent of their financial needs met. Those living at or below 200 percent of the poverty line will have their need-based loans replaced with grants; all need-based loans will be capped at 25 percent of UVa’s in-state costs for attendance and replaced with grants (one year of in-state tuition is \$17,764, which is a figure that includes books, fees, supplies, housing, meals and costs of travel to and from home, making that amount

the maximum quantity to be borrowed through need-based loans). In addition, all who are admitted will receive one-on-one financial aid counseling.

Carolina Covenant

Students who are admitted to University of North Carolina, Chapel Hill, and those whose family is living at or below 200 percent of the poverty line, are eligible to graduate debt free if they work on campus 10-12 hours per week

(<http://www.unc.edu/carolinacovenant/>). Tuition costs remaining beyond those paid for by on-campus work are remunerated by grants and scholarships. All on-campus jobs allocated by the Carolina Covenant are capped at a maximum 10-12 hour workweek.

Native American Program (NAP)/Dartmouth Financial Aid Initiative

The Native American Program (NAP) at Dartmouth is designed to facilitate the multifaceted growth of Native students at the college by allowing their faculty and staff to partner with tribal communities and create a context that respects and supports the Native American identity. To that end, the college hosts many activities ranging from Native American Dance to the exploration of Native spiritual life

(<http://www.dartmouth.edu/~nap/nah.html>).

Dartmouth's financial aid initiative has been enacted as a means for keeping college affordable and accessible to high-achieving students. To that end, tuition for admitted students whose families earn a combined salary below \$75,000 will be free; additional fees for that student populace can potentially be covered through scholarships; scholarship recipients for the class of 2012 will have their loans eliminated, and international students will be admitted on a need-blind basis. Finally, financial aid recipients will be provided with a scholarship of \$2,950 so they can take advantage of

research or internship opportunities that would frequently only be available to those students not receiving financial aid

(<http://www.dartmouth.edu/~news/releases/2008/01/22.html>).

Vincennes University, Project Excel

Vincennes University permits qualified high school students to take college coursework for \$25 per credit hour. Courses are accepted at most colleges in Indiana, and all credits are accepted by Vincennes University. If qualified, interested students qualify for free or reduced lunch, all fees will be waived, making costs per credit free of charge (http://www.vinu.edu/cms/opencms/academic_resources/project_excel/).

Ohio Urban Scholars

Those who are admitted to Ohio University, demonstrate financial need, are academically exceptional (as per their application information), and who are highly motivated to succeed, are eligible for a four-year renewable scholarship (<http://www.ohio.edu/diversity/urbanscholars/>). All Urban Scholars are granted an annual book stipend, participation in a summer pre-matriculation program, academic support seminars (upon commencement of college study), and mentoring services provided by Ohio University alums. Finally, Scholars participate in an annual leadership seminar, a research experience, internship opportunities, technology and research training.

Ohio College Access Network (OCAN)

The Ohio College Access Network (OCAN) is designed to increase accessibility to and completion of higher education for all of its state residents, particularly those who are educationally disadvantaged, first generation college students. Partnerships with

local, state and national organizations are utilized to realize the goals of this initiative. Specifics on the many programs under the umbrella of this statewide coordinating body are described at: http://www.ohiocan.org/Innovative_Practices.aspx. In summary, a total of thirty-five statewide college access programs exist to provide advisement on financial aid, assistance with college application procedures, information on scholarships, career guidance, entrance exam courses, and opportunities for college visits.

Urban Scholars, Marquette University

Ten students from Cristo Rey High School in Chicago or Milwaukee area High Schools with a 3.0 average or above and demonstrated financial need as per Free Application for Federal Student Aid (FAFSA) information will be awarded full-tuition to the University (http://www.marquette.edu/student/ugrad/scholarships_urbanscholars.shtml). Also required is completion of college preparatory courses as well as demonstrated leadership in curricular and extracurricular activities.

Kalamazoo Promise

Any student who graduates from the Kalamazoo Public Schools and can be admitted to a college or university in Michigan is potentially eligible to earn their bachelors degree, free of charge (<https://www.kalamazoopromise.com/>). The financial benefits just mentioned vary according to years of continuous attendance in the Kalamazoo Public School System. Specifically, those who attended the Kalamazoo Public Schools from grades 9 through 12 receive a benefit of 65 percent paid tuition; any who attend the school system less than that duration of time receive no benefits.