This paper examines the latest elementary, middle school, and district level Maryland student achievement and teacher experience data to argue that schools today are segregated not only along student backgrounds, but also along teacher expertise. The very students who need school the most to break out of the intergenerational cycle of poverty and diminished opportunities also lack access to teachers who have the expertise to provide them quality teaching. The paper describes the School-University Partnership to Prepare Outstanding Responsive Teachers (SUPPORT) Project between a Maryland university and four of the five largest local educational agencies in Maryland, which begins to redress a number of these structural inequities. Project SUPPORT uses tests and access to teacher data to better prepare teachers and to more equitably allocate educational resources to schools. Finally, the paper proposes a number of recommendations to provide disadvantaged students access to quality teachers, including (1) revamping teacher education by moving to an apprenticeship model of teacher preparation, (2) connecting public school teaching rewards to teaching assignment difficulty, and (3) holding universities accountable for the quality of teachers they produce. (Contains 22 references.) (SM)
Using high-stakes test scores
to provide outstanding responsive teachers to disadvantaged kids

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there are two kinds of inequality among the human species: one, which I call natural or physical because it is established by nature, and consists in a difference of age, health, bodily strength and the qualities of the mind or of the soul, and another, which may be called moral or political inequality because it depends on a kind of convention, and is established or at least authorised by the consent of men. This latter consists of the different privileges which some men enjoy to the prejudice of others, such as that of being more rich, more honoured, more powerful or even in a position to exact obedience.

*A dissertation on the origin and foundation of the inequality of mankind*,
Jean Jacques Rousseau

It is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education... Such an opportunity is a right which must be available to all on equal terms.

*Brown v. The Board of Education*

I. Introduction

The 1983 report of the National Commission on Excellence in Education, *A Nation at Risk: The Imperative for Educational Reform* ignited a wave of school reforms focused on increased graduation requirements and testing. The standards movement to hold schools accountable for student learning and achievement, however, on the whole, has ignored the tremendous disparities in educational opportunities, especially access to qualified teachers, amongst students from different socioeconomic backgrounds.

In this paper, I examine the latest elementary and middle school and district level Maryland student achievement and teacher experience data¹ to argue that schools today are segregated not only along student backgrounds, but also along teacher expertise. The very students who need school the most to break out of the intergeneration cycle of poverty and

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¹ The state of Maryland, with an estimated population of 5,071,600 ranks nineteenth in population among the fifty states. Maryland has 984,273 total public and nonpublic students enrolled in the pre-K through 12th grades, with 818,583 enrolled in the 24 public school systems and 1,301 public schools and centers (MSDE, 1997). Of the 818,583 students, approximately 56.7% are White, 35.6% African American, 0.3% American Indian/Alaskan
diminished opportunities also lack access to teachers who have the expertise to provide them quality teaching.

Next, I describe the School-University Partnership to Prepare Outstanding Responsive Teachers (SUPPORT) Project between a Maryland university and four of the five largest local educational agencies (LEAs) in Maryland that begins to redress a number of these structural inequities. Project SUPPORT uses test and access to teacher data to better prepare teachers and to more equitably allocate educational resources to schools.

In the final section, I propose a number of recommendations to provide disadvantaged students access to quality teachers, including: 1) revamping teacher education by moving to an apprenticeship model of teacher preparation; 2) connecting public school teaching rewards to teaching assignment difficulty; and 3) holding universities accountable for the quality of teachers they produce. Because the institutional barriers that limit disadvantaged students' access to qualified teachers are so deeply built into public school and teacher education institutions, without drastic changes in educational policy and practice from PreK-university, access to quality schooling will become a privilege reserved for increasingly smaller segments of our society.

II. The Persistence of Inequitable Educational Opportunities in the U.S.

More than four decades after the Brown v. Board of Education decision, public schooling in the U.S. continues to be separate and unequal. African American and Hispanic American students continue to be concentrated disproportionately in neighborhoods and public schools that are hyper-segregated not only racially, but also economically (Massey & Denton, 1993; Orfield, 1993; Waquant & Wilson, 1993). Though some progress has been made in
equalizing funding between school districts through litigation and legislation since the 1960s (Darling-Hammond, 1995; Maryland Task Force on Funding Equity, Accountability, and Partnership, 1998; Massey & Denton, 1993), tremendous disparities in educational resources persist along economic and racial lines. Disparities in school funding allow wealthier school districts to offer higher teacher salaries to selectively recruit teachers, provide students and teachers smaller classes across grade levels, and greater instructional tools and professional support services than their poorer counterparts (Darling-Hammond, 1995; NCTAF, 1996).

Despite class action suits and legislation to reform school funding formulas based on the percent of students receiving free/reduced price meals to equalize school funding in many states, significant disparities exist. Take, for instance, the case of Maryland. For the 1991-1992 school year, Maryland had one of the most equitable funding formulas in the United States. The per pupil expenditure in Caroline County, the school district with the lowest per pupil expenditure in Maryland, was $4,931.00 while the per pupil expenditure for Maryland's richest school district, Montgomery County, was $7,419.00. In contrast, the per pupil expenditure in Texas, the state with the greatest range in per pupil expenditure, was $2,570.00 for Bluff Dale and $40,505.00 for Laureles (National Center for Education Statistics, 1995). The District of Columbia and Hawaii each have a single school district. The District of Columbia and Hawaii per pupil expenditure for the 1991-1992 school year were $8,404.00 and $5,045.00, respectively. The ratio between the highest- and lowest-spending public school districts for the next group of states, West Virginia, Maryland, and Florida, were all approximately 3 to 2. The per pupil expenditure in the highest- and lowest-spending public school districts in West Virginia were Pleasants County ($6,342.00) and Morgan County ($4,311.00) and in Florida were Washington County ($5,943.00) and Clay County ($3,868.00), respectively. The ratio between the highest- and lowest-spending public school districts in states such as Alaska, Arizona, California, Colorado, Idaho, Illinois, Indiana, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Vermont, and Washington are between 4 to 1 and 13 to 1.

Nationally, public school teachers working in schools with a high percentage of low-income students earned 28% less on average in 1993-1994 than teachers working in schools with a low percentage of low-income students ($45,547.00 versus $35,496.00) (National Center for Education Statistics, 1997).

Nationally, not only do poor school districts have difficulty attracting teachers, but they also have difficulty attracting teachers who are prepared in the subject areas they teach. In high-poverty schools (that is, schools in which 40% or more of the students receive free or reduced-price lunch), almost 50% have neither a college major nor minor in their primary field (National Center on Education Statistics, 1997).

The average class sizes for Kindergarten, elementary (grades 1-5), middle (grades 6-8), and high school (grades 9-12) in Baltimore City for the 1995-1996 school year were 25.0, 30.4, 29.0, and 30.0, respectively (Baltimore City Public School System, 1996a). By a way of contrast, the average class sizes for Kindergarten, elementary (grades 1-6), middle (grades 7-8), and high school (grades 9-12) in Howard County public schools for the 1995-1996 school year were 22.0, 25.0, 20.5, and 23.0, respectively (Howard County Public Schools, 1996). Montgomery County Public Schools reported similar numbers. The average class sizes for Kindergarten, elementary (grades 1-6), middle (grades 7-8), and high school in Montgomery County Public Schools for the 1995-1996 school year were 22.0, 25.1, 23.9 (for English classes and 25.3 for non-English classes), and 25.1 (for English classes and 26.5 for non-English classes), respectively (Montgomery County Public Schools, 1996b). Furthermore, since these numbers include the number of special education students who often participate in classes with very small pupil to teacher ratio, they underestimate the disparities. When the disproportionately large number of special education students in BCPSS are taken into account, many non-special education classes in BCPSS are significantly larger than suggested by the aggregate student-to-teacher ratio.
III. Inequitable Access to Quality Teachers: Further Shortchanging Disadvantaged Students

Of all the educational inputs, perhaps none is as critical to promoting student learning and achievement as teaching (NCTAF, 1996). Without qualified teachers, increased graduation requirements and testing, new courses and curricula, the latest technology, and the best facilities will do little to improve student learning and achievement (NCTAF, 1996). Unfortunately, the forces that underlie housing and school segregation and inequitable school financing—institutionalized barriers stemming from racial and economic prejudice—also impact the recruiting, training, rewarding, and ultimately the distribution of teachers. As a result, the economically disadvantaged and ethnoracial minority students have access to the smallest pool of and least qualified teachers. Together, the disparities in funding between wealthier and poorer school districts and the lack of access to quality teachers for schools that serve high concentrations of poor and/or minority students have all but excluded them from receiving quality schooling.

6 In Maryland, school districts with the highest percentages of poor and minority students had the least number of applicants per student. For the 1996-1997 school year, Baltimore, the third largest (with 108,759 students) and poorest (with 66.8% of the students receiving free or reduced price meals) school system in Maryland, hired 826 (that is, 45.9%) of its 1,800 applicants (Baltimore City Public School System, 1997). By a way of contrast, Montgomery County, the second largest (with 122,505 students) and the wealthiest school system in Maryland (based on 1990 U.S. Census median family income figures), hired 665 (that is, 11%) of 6,109 applicants (Montgomery County Public Schools, 1997). Similarly, Howard County, the sixth largest (with 38,857 students) and the second wealthiest school system (based on 1990 U.S. Census median family income figures), hired 270 (5.1%) of its 5,336 applicants (Howard County Public Schools, 1997).

7 Darling-Hammond (1995) notes in her review of research on teacher experience and effectiveness that studies consistently find that new teachers tend to be much less effective than their more experienced counterparts. Novice teachers experience a wide range of problems that more experienced teachers have mastered, including problems motivating students, assessing and responding appropriately to students with diverse learning needs, and managing student behavior. In keeping with this view of teacher effectiveness, nontenured teachers, that is, teachers with less than two years of experience, will be treated as less effective than tenured teachers.
A. Poor Teacher Recruitment and Preparation Resulting in Lack of Sufficient Number of Qualified Teachers for Disadvantaged Students

Inequities in access to quality teachers begin with the lack of teacher candidates who want to teach in and the lack of teacher education institutions that recruit and prepare teachers for urban and other high-needs schools (NCTAF, 1996). Although the face of American public schools is fast growing more challenging and diverse, teacher education institutions have not adapted their recruitment and teacher preparation practices to recruit and prepare a high quality of teacher candidates committed to providing quality schooling to all students, especially the poor and other disadvantaged (National Center for Education Statistics, 1998). Moreover, because teacher education institutions are not accountable for the quality of teachers they train, too few teacher education institutions actively recruit students and too many continue to train prospective teachers by having their students read and write papers in university classrooms with very little hands-on experience in the classroom. Even when prospective teachers receive hands-on training, it is usually too brief and in simulated teaching contexts that bear little resemblance to the challenges that await them in the real world of teaching (NCTAF, 1996).

Figure 1 shows that in Baltimore County Public Schools, schools with the highest percentage of non-tenured teachers—that is, schools with the highest attrition and where most beginning and novice teachers are assigned—have the lowest average number of student teacher placements during 1995-1997. Regression analyses revealed that none of the student, teacher, or school background variable was related to student teaching. The lack of a statistically significant relationship between student teaching and percent FRPM or minority students or percent non-tenured teachers is disturbing, for student teaching placements ought to take place in schools with the highest percentage of non-tenured teachers. By failing to provide teacher candidates
apprenticeships in schools where they are likely to be hired, schools and universities are setting beginning teachers up for failure by preparing them for jobs that do not exist for the vast majority of them.

Insert Figure 1 Here

With woefully inadequate preparation to teach in classroom contexts that require the highest level of human and pedagogical skills, many beginning teachers leave the profession of teaching, transfer to other schools, or reluctantly continue for economic reasons. As these teachers leave challenging schools for easier ones, they are replaced by even less experienced teachers who are just as reluctant to and even less prepared to meet the diverse backgrounds and needs of their low-income and culturally diverse students.

Figures 2-5 and Table A show that in Maryland, schools with the highest concentration of free/reduced price meal recipients, minority students, and/or lowest scores on the Maryland State Performance Assessment Program (MSPAP) have the highest percentage of non-tenured teachers.

Insert Figures 2-5 and Table A Here

For 1997, in the Anne Arundel County Public Schools (AACPS), the percent of FRPM students is significantly and positively related to percent of non-tenured teachers. The schools with the highest percent of non-tenured teachers (Group 4, with ~37% non-tenured teachers) had over three times as many FRPM students as the schools with the lowest percent of non-tenured teachers.

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8 Only student teaching data for BCPS were available at the time of this study. The author is currently compiling student teacher data from other LEAs involved in the study.
9 The Maryland School Performance Assessment Program (MSPAP) Tests were developed in 1991 to measure how well schools, school systems and the students in each of the 24 Maryland school districts are working towards state achievement standards. Different subsets of students in grades 3, 5, and 8 are given portions of MSPAP tests in language usage, mathematics, reading, science, social studies, and writing. Although scores are linked to individual students, a composite school grade is calculated to measure school performance and progress.
teachers (Group 1 with 4.5%). In the Baltimore City Public School System (BCPSS), the percent of students achieving satisfactory status on the MSPAP is significantly and negatively related to percent of non-tenured teachers. The schools that score higher on MSPAP have relatively few non-tenured teachers. Likewise, in the Baltimore County Public Schools (BCPS), the percent of minority students is significantly and positively related to the percent of non-tenured teachers; the schools with the highest concentration of minority students had the largest percent of non-tenured teachers. Finally, for the Prince George's County Public Schools (PGCPS), the percent of FRPM students is significantly and positively related to the percent of non-tenured teachers but the percent students achieving satisfactory status on MSPAP was significantly and negatively related to the percent of non-tenured teachers.

These findings suggest that schools are divided not only along lines of students' social and economic backgrounds, but also along lines of teacher experience and attitudes both between and within school systems. Schools of affluent students are taught by experienced teachers while those of low-income and other disadvantaged students are taught by uncertified, beginning, and novice teachers, many of whom harbor negative feelings towards low-income and other disadvantaged students (NCES, 1997). These findings are especially disturbing, given that even after controlling for teacher salary by examining teacher staffing patterns within school districts, schools with high concentrations of low-income and minority students are staffed by the highest concentration of non-tenured teachers. These findings also reveal that different factors influence teacher attrition differently in different LEAs. In some LEAs, the percent of FRPM students best serves as a determinant for teacher flight while for others, the percent of minority students is a strong predictor for the percent of nontenured teachers. In AACPS, for example, the percent of
FRPM students is the strongest predictor for the percent of non-tenured teachers while for BCPS percent of minority students best predicts the percent of non-tenured teachers.

Figure 6 shows that when the data from the four LEAs are combined and analyzed together, the percent of FRPM students is significantly and positively related while students achieving satisfactory status on MSPAP is significantly and negatively related to the percent of non-tenured teachers in a given school. Although the percent of minority students was the strongest predictor for percent of non-tenured teachers in BCPS, when data from the four districts are combined, it ceases to be a significant predictor for percent of non-tenured teachers.

Insert Figure 6 Here

This highlights the importance of taking into account different contexts of schools and districts when examining the relative strength of relationship between different variables so as not to under- or overestimate effects. In addition, researchers must be careful not to assume that all variables have the same meaning across different schools and districts. For example, a 'high minority' or 'poor' school in Baltimore does not necessarily correspond to a 'high minority school' in Anne Arundel or Baltimore County.

When comparing schools with the highest and lowest percentages of FRPM students or the highest and lowest achieving schools, the differences are even more striking. Table A compares LEA Project SUPPORT Schools with LEA total/average, and LEA 'Blue Ribbon' Schools. These comparisons highlight the extent to which low-achieving schools saddled with high percentages of FRPM and students of color must overcome high percentages of new and non-tenured teachers in their schools for the students to achieve academically.

Unless teacher education institutions and school systems work collaboratively to better prepare teachers, the exodus of teachers from these schools is only likely to increase as the
percentages of low-income and (language and cultural) minority students increase in Maryland and beyond.10

C. Exclusion of Disadvantaged Students from Quality Schooling

As previously noted, the schools that perform the worst on traditional achievement tests are the ones serving students who face overwhelming economic and other problems both at school and home (ACLU, 1994; Casey Foundation, 1997; NCES, 1997). Because the standards that are established to assess student learning disregard the quality of students’ prior schooling, those disadvantaged by poverty and race must not only overcome their diminished life chances outside the school but also those within.

Being subjected to novice teachers learning on the job, low expectations, and high teacher attrition, low-income and other disadvantaged students learn early on that many of their teachers do not care about them and in turn eventually learn not to care about schooling. As schools find their students’ test scores near the bottom of the achievement distribution, they scramble to align their curriculum with those skills assessed on achievement tests. As school becomes increasingly equated with tests that measure short-term learning of tasks students find boring or irrelevant, schools lose more and more of those students who most need education to become contributing members in today’s high tech economy. Yesterday’s curricula promoting mastery of rote information and obedience to authority must be replaced by those which promote critical and flexible thinking to enable students to adapt to the ever-changing demands of today’s information economy (Delpit, 1995; Foster, 1997; NCTAF, 1996).

When taken together, these barriers severely restrict low-income and other disadvantaged students’ access to quality schooling. With each student whose potential goes untapped, each

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10 From 1990-1991 to 1996-1997, the number of students receiving free and reduced price meals has increased by over 56% (from 161,856 to 253,010) while enrollment has increased by only 15% (from 686,568 to 786,452)
teacher whose dream of becoming an outstanding teacher squashed, sound education becomes a privilege reserved for increasingly smaller segments of the population. If we wish to avoid condemning a larger and larger portion of our population to a lifetime of academic, economic, and social marginalization, we must act now.

Efforts to provide sound education for all children must involve sweeping changes in funding, testing practices, and preparation, support, and reward of both teachers and teacher educators. While working to bring about sweeping reforms in the allocation of educational (and other) resources, schools and universities, with governments', businesses', and foundations' support, can work together to remove some of the institutional barriers which keep disadvantaged students from receiving quality schooling.

IV. Project Goals and Partners

To investigate the effects of providing disadvantaged students access to quality teaching, the University of Maryland Baltimore County (UMBC), Maryland State Department of Education (MSDE), Anne Arundel County Public Schools (AACPS), Baltimore City Public School System (BCPSS), Baltimore County Public Schools (BCPS), and Prince George's County Public Schools (PGCPS) have established a partnership to:

- change how prospective teachers are recruited and trained by giving them extended apprenticeships with expert teachers in schools serving high percentages of disadvantaged students;
- change how expert teachers of disadvantaged students are supported and rewarded by providing them financial incentives and instructional support; and
- provide state-of-art educational and extracurricular classes in a university setting to students most disadvantaged by inadequate schooling, poverty, and race both at and outside school.

(Maryland Task Force on Education Funding Equity, Accountability, and Partnerships, 1998).
V. Strategies for Achieving Project Goals

To address teacher flight stemming from inadequate support for teachers of low-income and other disadvantaged students, inadequate preparation of teachers, and inadequate schooling for disadvantaged students, Project SUPPORT:

- Changes how prospective teachers are recruited and trained; and
- Changes how expert teachers of disadvantaged students are supported and rewarded by providing them financial incentives and instructional support;
- Provides disadvantaged students state-of-art education both in and out of school to improve their academic achievement.

A. Change How Prospective Teachers are Recruited and Trained: Preparing Prospective Teachers for the Real World

To better recruit and prepare prospective teachers for the realities and challenges of teaching in schools where they are likely to find employment, teacher education institutions not only must change their pre-service teacher training practices, but also transform how they reward their faculty. As a rule, most colleges and departments of education neither aggressively recruit students for the profession of teaching nor reward teacher educators for providing their students the labor-intensive type of training required for teacher candidates to succeed as professionals.

There are many reasons for this. Historically, many research-oriented teacher education institutions have rewarded their faculty for winning research grants and publishing rather than for preparing teacher candidates. As a result, they have neglected the preparation of teacher candidates. If we are to improve teacher preparation, universities must support education colleges and departments to aggressively recruit, support, and reward outstanding teacher educators and teacher candidates.

To begin changing how universities recruit and prepare prospective teachers for the challenges of teaching in schools where beginning teachers are assigned, Project SUPPORT has established fellowships to recruit the best and the brightest to pursue careers in urban education.
Too many teacher education institutions of higher education do not or minimally recruit candidates (NCTAF, 1996). As a result, the teaching profession is saddled by too many individuals who have made poor career choices who do not come to terms with their poor career choices until they are well into their teacher training programs or after they are certified. To minimize the proportion of individuals who have made poor career choices, the recently formed Urban Teacher Education (UTE) Program at UMBC provides fellowships in urban education to recruit a highly selective pool of candidates committed to long-term teaching in urban schools.

Three features distinguish the UTE Program from typical teacher education programs. One, UTE courses integrate rather than separate field experience, foundations, and methods courses. By integrating these three components, UTE Program students learn about various pedagogical methods in classrooms where most beginning teachers are assigned while working with exemplary teachers of disadvantaged students. Two, the UTE Program provides extensive and intensive field experience/internship experiences in schools that serve high concentrations of low-income and minority students. The two-year internship with model teachers of disadvantaged students provides teacher candidates the opportunity to learn, practice, and begin to master the skills required to become outstanding and responsive teachers. By providing prospective teachers intensive and extended apprenticeships coupled with experience-based coursework, Project SUPPORT provides its teacher candidates the state-of-the-art teacher preparation recommended by NCTAF (1996), Interstate New Teachers Assessment and Support Consortium (INTASC) (1992) and others. Three, the UTE Program is performance based. UTE teacher candidates graduate from the UTE Program when they consistently demonstrate competent teaching in the classroom, and not when they complete a prescribed number of courses.
In addition, as part of their independent clinical field experience, SUPPORT fellows work on Saturdays (during the school year and on weekdays during summer) with students identified by their teachers and counselors as having the greatest academic and other difficulties. By working with K-12 students on weekends at UMBC, SUPPORT fellows have ample opportunities to develop and apply their teaching talents while providing students a day of state-of-the-art educational and extracurricular activities.

As part of their SUPPORT internship agreement, SUPPORT fellows work in that or a near-by SUPPORT school for a minimum of three years upon satisfactory completion of their two-year apprenticeship. For their outstanding teacher training, SUPPORT fellows will be credited a year of teaching and begin on a second-year teacher salary. By rewarding SUPPORT interns for their state-of-art pre-service teacher training, SUPPORT interns will be rewarded financially throughout their participation in the Project.

B. Change How Expert Teachers of Disadvantaged Students are Supported and Rewarded by Providing Them Financial Incentives and Instructional Support

1. Global changes in teacher candidate placement and internship criteria

In the past, student teaching, field placement, and Professional Development School (PDS) sites were selected based on university request and availability of supervising teachers at requested sites. Now, through Project SUPPORT, placement of teacher candidates is based on the needs of school systems—through the use of a formula to assess teaching assignment difficulty (operationalized as the average of the percentage of low-achieving, low-income/high poverty, and ethnoracial minority students, and high teacher attrition schools). This revised criterion for assigning teacher candidates is much more responsive to the needs of teacher
candidates, supervising teachers, and public school students by providing supervising teachers and a helping hand while s/he learns how to teach.

In addition to changing the student placement criterion, the Project has changed the duration of placements allowed by LEAs. The days of two eight- to ten-week student teaching and field placement rotations are over. Now, teacher candidates apprentice for a minimum of a semester to a year.

Finally, the nature of field placements and internships has changed. In the past, teacher candidates served the role of the observer or the role of the teaching assistant. Now, they play the role of the coteacher/intern. These changes have made field placements much more teacher friendly and simultaneously improve the quality of the learning opportunity for teacher candidates.

2. Targeted changes

With funds from federal and state sources, Project SUPPORT has established fellowships to recruit and prepare teacher candidates, and to recognize, reward, and support outstanding teachers of disadvantaged students to test whether drastically changing the recruiting, training, and support of teachers has a noticeable impact on student learning and attainment\(^{11}\). Teachers who are identified as exemplary or master teachers of disadvantaged students by a joint committee of school and university personnel, are recruited to serve as supervising teachers for two years to students seeking a masters degree in education. To concentrate the efforts of the Project, three to five supervising teachers, along with their interns, are identified for each school.

\(^{11}\) Previous studies (for example, Ferguson, 1991) that have investigated the relationship between student achievement and teacher characteristics have not controlled for the high correlation between teachers' performance on teacher exams (for example, the NTEs), teacher background characteristics, and student characteristics. These studies have found that, in general, white teachers have higher test scores than Black and Hispanic teachers on NTEs and other standardized tests and prefer working in predominantly white school systems (Ferguson, 1991; NCES, 1997). Because white teachers with higher test scores choose to teach in predominantly affluent, white, and high
Each identified supervising teacher is responsible for mentoring a teacher candidate for a period of two years. In return, the supervising teacher has the services of a graduate education student for a minimum of 20 hours per week the first year and 20 to 40 hours of work the second year. In addition, each supervising teacher is given extra planning time during the school year and summer, assistance from university faculty in curriculum development and implementation, and a modest stipend. In so doing, Project SUPPORT professionally supports and financially rewards, rather than punishes, outstanding and responsive teachers of disadvantaged students and begins the process of linking teacher reward and support to teaching assignment difficulty.12

C. Giving Disadvantaged Students a Chance by Providing Them Intensive State-of-Art Educational Activities to Improve Their Academic Achievement

Students of Project SUPPORT teachers and instructional assistants immediately benefit from the increased individual and small-group attention they receive from their teachers. With more individualized instruction, students are less likely to act out from boredom or being lost. While the improved instruction disadvantaged students receive is likely to limit the achievement gap between these students and their more socioeconomically privileged counterparts, it is unlikely to close this gap. If students who have been disadvantaged by years of inadequate schooling, poverty, and biased treatment are to close the achievement gap between their more privileged competitors and them, schools, universities and the communities they serve must work together to provide these students additional educational and social opportunities.

To minimize this gap, students most disadvantaged by poverty, race, and lack of access to quality schooling receive additional educational and extracurricular services on Saturdays and achieving schools, we cannot infer the impact of providing “highly capable” teachers to students who historically have not had access to such teachers on their learning and achievement.12 Teaching assignment difficulty was operationalized as the percent of students failing to achieve satisfactory status on the Maryland State Performance Program + percent of FRPM students + percent of minority students + % nontenured teachers.
summer in the Elementary School To University (ESTU), Middle School To University (MSTU), and High School To University (HSTU) Programs. In contrast to ‘Gifted and Talented’ Programs that provide additional services to those most advantaged by their background, the ESTU, MSTU, and HSTU Programs are ‘accelerated’ or ‘gifted and talented’ programs for ‘at risk’ students. By providing students extra educational and extracurricular activities in a university setting, students who are most underrepresented in post-secondary schooling are given a chance to realize academic success and work towards getting ready for college.

The academic approach of the ESTU, MSTU, and HSTU Program is to provide students multi-disciplinary hands-on activities that students find interesting and those which facilitate the development of students’ basic, cultural, and technological skills. All activities place the student at the center of her/his learning and attempt to relate the world to the backgrounds, interests, and needs of the student. By validating and valuing the knowledge that students bring with them to the Program, the Program allows students who all too often are in a position where they feel a lack of expertise to take on the role of expert.

By providing students most disadvantaged by poverty, race, and lack of access to quality schooling state-of-the-art educational and extracurricular services at school and the university, Project SUPPORT gives those traditionally disregarded by the school system and society a chance to pursue their dreams. In doing so, Project SUPPORT provides added quality educational for those who most need it while preparing beginning teachers, and supporting expert teachers of disadvantaged students.
VI. Policy Recommendations

The importance of access to quality schooling is more important than ever before in today’s information- and technology-based global economy. Basic and technological literacies are essential for academic and workplace success. Blue-collar jobs that were once plenty and which enabled past generations to live comfortably have all but disappeared and by the year 2000, they will constitute only 10% of the total jobs in the U.S. (NCTAF, 1996). For this generation’s young people to adapt to the new demands of today’s economy, students must receive quality schooling so that they can master the higher skills required of them for success in the workplace and beyond. Failure to do so has life-long socioeconomic costs.

If we are to breakdown structural barriers that limit the educational opportunities of the socioeconomically disadvantaged, we need to make sure that efforts to improve disadvantaged students’ educational opportunities must ensure that all students have access to outstanding responsive and well-supported teachers. This involves three broad areas of reform:

- Linking public school teacher reward and support system to the notion of teaching assignment difficulty
- Defining teacher quality based on performance measures that incorporate “a desire to teach economically and racially disadvantaged students”
- Making teaching assignment based on the needs of students
- Moving away from assigning the least qualified teachers to the most challenging classroom situations

- Making universities, at least partly, accountable for the quality of teachers they produce
- Moving teacher preparation to an apprenticeship model whereby teacher candidates apprentice with master teachers in settings that mirror their likely first teaching assignment
- Restructuring university reward system to promote producing quality teachers
- Articulate teacher candidate and teacher evaluation form to performance standards in real life settings

- Factor in teaching assignment and ‘learning environment’ difficulty when assessing student outcomes
- Hold teachers and universities accountable for providing developmentally and culturally appropriate and personally meaningful curricula/activities
Make pursuit of higher education a viable option for disadvantaged students through offering strong programs at school and beyond.

Only through simultaneously tackling the institutional barriers that systematically exclude disadvantaged students from receiving quality schooling in public schools, can we begin to improve the life chances of those who most need quality schooling to break the intergeneration cycle of poverty and diminished opportunities.
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FIGURE 1: Number of Student Teachers
Per School in BCPS by Nontenured Teacher Grouping 1995-1997

- Lowest Group of Nontenured Teachers
- Second Lowest Group of Nontenured Teachers
- Third Lowest Group of Nontenured Teachers
- Highest Group of Nontenured Teachers

Number of Student Teachers Per School


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FIGURE 2: % Students Achieving Satisfactory Status on MSPAP, % Minority and FRPM Students by % Nontenured Teacher Grouping for AACPS 1997

Groups (Average % Nontenured Teachers)

- Group 1 (4.5%)
- Group 2 (13.3%)
- Group 3 (19.9%)
- Group 4 (37.4%)

Legend:
- % Achieving Satisfactory Status on MSPAP 1997
- % FRPM Students 1997
- % Minority Students 1997

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FIGURE 3: % Students Achieving Satisfactory Status on MSPAP, % Minority and FRPM Students by % Nontenured Teacher Grouping for BCPSS 1997

- % Achieving Satisfactory Status on MSPAP 1997
- % FRPM Students 1997
- % Minority Students 1997

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</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>(18.4%)</td>
</tr>
<tr>
<td>Group 2</td>
<td>(27.2%)</td>
</tr>
<tr>
<td>Group 3</td>
<td>(35.2%)</td>
</tr>
<tr>
<td>Group 4</td>
<td>(47.7%)</td>
</tr>
</tbody>
</table>

Best Copy Available
FIGURE 4: % Students Achieving Satisfactory Status on MSPAP, % Minority and FRPM Students by % Nontenured Teacher Grouping for BCPS 1997

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10.2%)</td>
<td>(20.8%)</td>
<td>(32.6%)</td>
<td>(49.9%)</td>
</tr>
</tbody>
</table>

- % Achieving Satisfactory Status on MSPAP 1997
- % FRPM Students 1997
- % Minority Students 1997
FIGURE 5: % Students Achieving Satisfactory Status on MSPAP, % Minority and FRPM Students by % Nontenured Teacher Grouping for PGCPS 1997

<table>
<thead>
<tr>
<th>Group</th>
<th>% Achieving Satisfactory Status on MSPAP 1997</th>
<th>% FRPM Students 1997</th>
<th>% Minority Students 1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>(12.7%)</td>
<td>35.3%</td>
<td>21.5%</td>
</tr>
<tr>
<td>Group 2</td>
<td>(21.9%)</td>
<td>30.3%</td>
<td>30.3%</td>
</tr>
<tr>
<td>Group 3</td>
<td>(30.8%)</td>
<td>41.3%</td>
<td>48.3%</td>
</tr>
<tr>
<td>Group 4</td>
<td>(42.9%)</td>
<td>86.2%</td>
<td>60.3%</td>
</tr>
</tbody>
</table>

Best Copy Available
FIGURE 6: % Students Achieving Satisfactory Status on MSPAP, % Minority and FRPM Students by % Nontenured Teacher Grouping for Select Maryland LEAs 1997
<table>
<thead>
<tr>
<th>Local Educational Agency (LEA)</th>
<th>Total Enrollment</th>
<th>Percent (#) FRPM Students</th>
<th>Percent (#) Minority Students</th>
<th>Percent Performing Satisfactory on MSPAP</th>
<th>Percent (#) Nontenured Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCPSS Project SUPPORT Schools</td>
<td>5,053</td>
<td>75.4 (3,980)</td>
<td>94.4 (4,771)</td>
<td>5.0</td>
<td>40.9</td>
</tr>
<tr>
<td>Baltimore City Public School System (BCPSS) Total/Average</td>
<td>108,759</td>
<td>66.8 (72,617)</td>
<td>86.6 (92,570)</td>
<td>13.9</td>
<td>30.2</td>
</tr>
<tr>
<td>BCPSS ‘Blue Ribbon’ Schools</td>
<td>4,150</td>
<td>51.8 (1,752)</td>
<td>67.0 (2,783)</td>
<td>39.3</td>
<td>21.6</td>
</tr>
<tr>
<td>PGCPS Project SUPPORT Schools</td>
<td>3,692</td>
<td>53.3 (1,911)</td>
<td>99.1 (3,657)</td>
<td>20.2</td>
<td>31.0</td>
</tr>
<tr>
<td>Prince George’s County Public Schools (PGCPS) Total/Average</td>
<td>125,198</td>
<td>41.7 (52,148)</td>
<td>84.7 (106,043)</td>
<td>29.5</td>
<td>27.1</td>
</tr>
<tr>
<td>PGCPS ‘Blue Ribbon’ Schools</td>
<td>5,762</td>
<td>16.8 (918)</td>
<td>50.8 (2,925)</td>
<td>58.2</td>
<td>21.8</td>
</tr>
<tr>
<td>Maryland Average</td>
<td>818,583</td>
<td>30.9 (253,010)</td>
<td>43.3 (354,706)</td>
<td>41.8</td>
<td>---</td>
</tr>
<tr>
<td>BCPS Project SUPPORT Schools</td>
<td>5,001</td>
<td>41.9 (2,142)</td>
<td>91.2 (4,560)</td>
<td>25.7</td>
<td>56.7</td>
</tr>
<tr>
<td>Baltimore County Public Schools (BCPS) Total/Average</td>
<td>104,073</td>
<td>26.4 (27,463)</td>
<td>32.8 (34,136)</td>
<td>47.9</td>
<td>28.2</td>
</tr>
<tr>
<td>BCPS ‘Blue Ribbon’ Schools</td>
<td>4,309</td>
<td>4.2 (182)</td>
<td>6.7 (287)</td>
<td>74.3</td>
<td>9.8</td>
</tr>
<tr>
<td>AACPS Project SUPPORT Schools</td>
<td>2,817</td>
<td>46.5 (1,311)</td>
<td>62.5 (1,760)</td>
<td>33.0</td>
<td>42.5</td>
</tr>
<tr>
<td>Anne Arundel County Public Schools (AACPS) Total/Average</td>
<td>77,322</td>
<td>15.6 (11,318)</td>
<td>22.9 (16,794)</td>
<td>46.7</td>
<td>18.0</td>
</tr>
<tr>
<td>AACPS ‘Blue Ribbon’ Schools</td>
<td>3,893</td>
<td>3.8 (143)</td>
<td>8.2 (320)</td>
<td>68.6</td>
<td>10.4</td>
</tr>
</tbody>
</table>
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Author(s): John Y. Lee

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Printed Name/Position/Title: Director, Urban Education

Organizational Affiliation: University of Maryland

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Date: 6-9-99