Addressing Achievement Gaps:
Progress and Prospects for Minority and Socioeconomically Disadvantaged Students and English-Language Learners

Documenting and Understanding the Gaps

ETS Vice President for Assessment Development **Stephen Lazer** kicked off the symposium. In his opening presentation, he reminded the audience that to address gaps in educational achievement, we must first be able to identify and understand the gaps, as well as determine whether or not they are closing. He cited several problems that policy makers face in interpreting achievement gaps ranging from a lack of consistency in how states set achievement levels, to changes in how groups are defined, to the measurement of error when comparing gaps over time. Even with these challenges, however, Lazer stated that measuring and documenting the achievement gap continues to be important as a gauge of system performance and fairness. He also noted that it is helpful to have and examine multiple measures of gaps. For example, in addition to average scores, it is important to examine gaps in the scores of the highest-performing students and the lowest-performing students.

> *If we believe it's a fundamental right for all children to benefit from what we know, then perhaps we should join with civil rights advocates to lobby for education as a civil right.*
>
> —*Edmund Gordon*

Lazer reminded the audience that performance gap measurements must take into account the size of the gap, trends in the gap, group definitions, and the nature of the measure itself. Using data from the National Assessment of Educational Progress (NAEP), he showed that the size of a gap is affected by what's being examined, and that whether a gap appears to be opening or closing may depend on how it is being measured. Because state

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THIS ISSUE –
HIGHLIGHTS FROM THE ETS SYMPOSIUM ON ADDRESSING ACHIEVEMENT GAPS

More than 190 prominent scholars, practitioners, educators, and policymakers gathered at ETS on October 20-21, 2004, to participate in a symposium dedicated to addressing achievement gaps for minority and socioeconomically disadvantaged students and English-language learners. This issue of *ETS Policy Notes* provides an overview of the symposium presentations, organized in two sections: "Documenting and Understanding the Gaps" and "Addressing the Gaps." The speakers, their affiliations, and their e-mail addresses are listed in a separate section at the end of this newsletter.

ETS Vice President of the Policy Evaluation and Research Center (PERC), Michael T. Nettles, convened and hosted the symposium.

Through PERC, ETS continues its longstanding tradition of providing educational policy research and program evaluation services to a variety of clients. The three-fold mission of PERC is to:
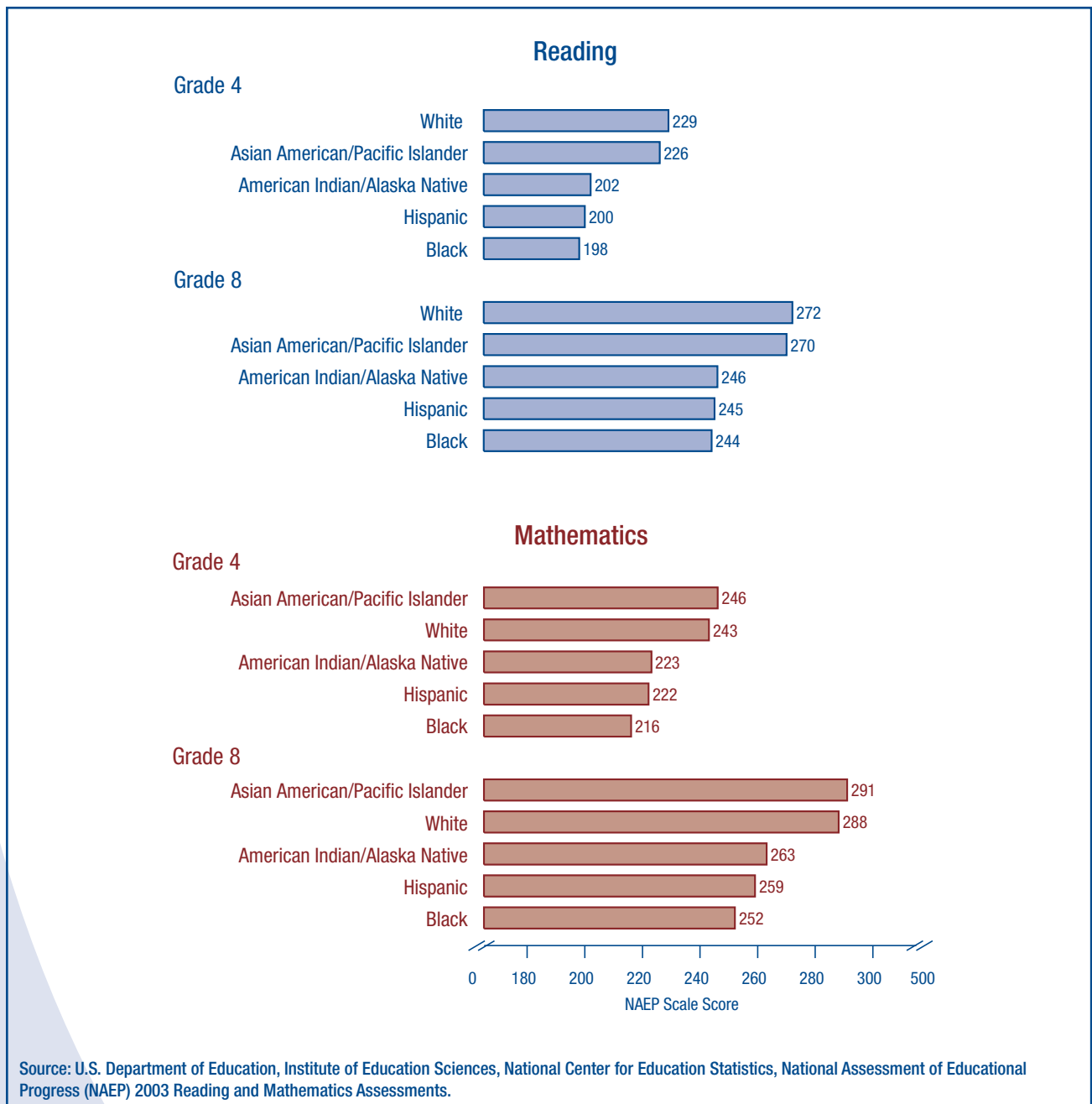
- Conduct evaluation research on public and private investments in education

achievement-level targets are not consistent, the apparent closing of some gaps may actually mask a persistence of real differences. Changes in policy and social definitions—such as definitions of race/ethnicity, standards for free-lunch eligibility, or identification of students with disabilities—can substantially affect group trends in performance. The use of multiple measures can help compensate for such shifting definitions.

Figure 1 shows one example of the achievement gap using the most recent NAEP data. The graph shows the average reading and mathematics scale scores at the fourth and eighth grades for students grouped by racial/ethnic group in 2003. In both subjects, at both grades, White and Asian American/Pacific Islander students score higher than American Indian/Alaskan Native, Hispanic, and Black students.

Figure 1: Average NAEP Reading and Mathematics Scores for Grades 4 and 8, by Racial/Ethnic Group, 2003

Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 2003 Reading and Mathematics Assessments.

Commissioner **Robert Lerner**, head of the National Center for Education Statistics (NCES) within the U.S. Department of Education's Institute of Education Sciences, described the types of data collected and published by NCES. NCES is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. Among the data collected by NCES are cross-sectional assessments, such as NAEP; sample surveys, such as the Schools and Staffing Survey (SASS); longitudinal studies, such as the National Educational Longitudinal Survey (NELS) and the Early Childhood Longitudinal Survey (ECLS); and international studies, such as the Trends in International Mathematics and Science Study (TIMSS) and the Program for International Student Assessment (PISA). Lerner encouraged conference attendees to take advantage of the data available from NCES in their research.[1] Like Lazer, Lerner noted the dangers inherent in longitudinal studies when definitions and classifications change over a period of time. The more diverse a society becomes, the more difficult it is to measure it accurately.

A diverse society does not necessarily mean an integrated society, however. Measuring the effects of racial segregation on college academic performance was the focus of research presented by Princeton University Professor of Sociology and Public Affairs **Douglas Massey**. Massey noted that 50 years after *Brown v. Board of Education* the United States is more segregated than ever, with 48 percent of African Americans living in hypersegregated urban areas and an additional 21 percent living in highly segregated areas. Using data from the National Longitudinal Survey of Freshmen, he documented that this isolation and reduced social world have a measurable effect on the academic achievement of African American students throughout their college years. Even high-achieving students at selective colleges are adversely affected by family stress (e.g., money worries, frequent and prolonged home visits to help ailing or troubled family members) stemming from past exposure to disadvantaged schools and neighborhoods. This stress can trigger coping behaviors that are at odds with academics.

The long-term effects of segregation are associated with students' exposure to violence (e.g., fighting, gunshots, stabbings, beatings, muggings) and disorder (e.g., homelessness, prostitution, gang activities, drug vending/using) while growing up. Massey also noted that stressful life events can have measurable, negative health consequences.

How best to prepare students for the transition from high school to college or the workplace has been the subject of much investigation. While high school exit exams are being used in a number of states, more research is needed to determine their effect on dropout rates, said **Keith Gayler** of the Center on Education Policy. Still, he said, some positive responses are associated with exit exams, such as more access to remediation, better alignment of instruction to standards, and increased motivation among some students. Resources are sometimes shifted to lower-achieving students, but there remains a need for more targeted funding for such remediation. Gayler also cited some other problems, including a lack of state-developed study guides. He also noted that school data and tracking information do not uniformly pinpoint students' reasons for dropping out of school, and the potential role of the exit exam is often not explicitly addressed.

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[1] Links to these databases and others can be found on NCES's Web site: http://nces.ed.gov

- Undertake and publish research on educational issues of critical interest to state and national governments, as well as to educational institutions

- Apply research findings toward crafting policy and program ideas for educational improvement.

Current research efforts in PERC focus on improving the quality of instruction in schools, closing the achievement gap for underrepresented minorities, conducting large-scale evaluations, and investigating factors that adversely affect student academic progress at all levels. To learn more about PERC, visit the Web site at www.ets.org/research/perc/index.html.

Operating within PERC, the ETS Policy Information Center conducts a program of research on current education issues and disseminates that research through a variety of publications. To learn more about the Policy Information Center, visit its Web site at www.ets.org/research/pic.

Alford Young, Jr., Associate Professor of Sociology and African American Studies at the University of Michigan, described his research, which centers on race and urban poverty, particularly the life experiences of low-income African American men. Many of these men are high school dropouts, but some have engaged school quite successfully and are preparing to move into white-collar professions. In investigating how the young men in his studies conceptualized social mobility and schooling, Young discovered that personal contact with teachers and parental involvement were the most important motivations for staying in school. While the mothers of the non-achieving students might have valued schooling, they were unable to advise their sons in such matters as setting educational objectives, getting involved in school activities, or navigating schooling. Often these mothers felt that these issues should be handled by the school professionals (the teachers and administrators). Young also found that gang activities at schools and the resulting personal safety issues often took precedence over the goal of pursuing an education.

Issues of environment and reinforcement were also at the center of the presentation by **Eugene Galanter**, Professor of Psychology and Director of the Psychophysics Laboratory at Columbia University. Galanter spoke about research by Betty Hart and Todd R. Risley on the amount of time parents at various socioeconomic levels spend talking to their children and giving positive or negative reinforcement.[2] He concluded that parental talkativeness accounts for most of the verbal/intellectual accomplishments of the child. Talkative parents make about 40 million more utterances to the child than taciturn parents in the child's first three years. That quantitative variable is also associated with the socioeconomic status and/or race of the child. However, he concluded that although socioeconomic level correlated with children's linguistic achievement, the primary causal variable was amount of parent talk, as well as encouragements vs. prohibitions used by the parents.

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[2] Betty Hart and Todd R. Risley, *Meaningful Differences in the Everyday Experience of Young American Children,* Baltimore: Paul H. Brookes, 1995.

Dennie Palmer-Wolf of the Annenberg Institute for School Reform at Brown University reiterated a need for a more differentiated view of English language learners (ELLs) and their learning needs. The U.S. Census Bureau projects that ELL students will constitute as many as 40 percent of the school-age population by 2030. While the immigrant population is currently concentrated in six states that have long-standing ELL populations, the greatest percent growth in that population is in states like North Carolina and Georgia that historically have not had high numbers of ELLs. This means that many districts will have to develop policies and instructional practices needed to cope with the new learners. In addition, the majority of ELL children come from Latin American-born families consisting of many siblings and younger parents who struggle against significant economic barriers, including higher rates of unemployment and low-level jobs. The families of these children also have high rates of mobility and, consequently, the children move more often than other students from school to school. Hence, there is an enormous need to conduct research and publish information about the policies and practices that support children in the acquisition of academic English and the social and metacognitive skills that will enable them to succeed. The same is true for supporting their families in becoming advocates for their children receiving the highest quality education.

According to Palmer-Wolf, many of the school districts flagged for low performance under the No Child Left Behind Act received this designation in part because of the performance of students with disabilities and limited English proficiency. In the high-stakes environments created by state testing and the provisions of No Child Left Behind, it is vital that teaching and learning for ELL students not become constrained to test preparation via narrow practice and skill-building activities. This is an additional reason why it is vital to document the kinds of teaching, learning, and assessment practices that support both basic and higher-order skill development for students who are in the process of learning both a second language and the challenging content of standards-based curricula.

Palmer-Wolf pointed out that the period between third and fifth grade is a critical time for addressing the needs of ELLs. In those years, text becomes the major medium of instruction, narrative ceases to be the dominant genre, and the discipline-based content of different subjects becomes increasingly distinct. In many school settings, these grades are the years when special education referrals and retentions for ELL students rise. Wolf argued that we need to address the needs of ELL students by building on their existing skills and addressing their learning needs, not by placing them in special programs.

In further discussions of the achievement gap issues facing ELL students, **Delia Pompa**, Principal Partner, DMP Associates and former Executive Director of the National Association for Bilingual Education, noted that students in low-performing schools often experience *de facto* segregation, poor parent engagement, low expectations, and shortages of appropriate materials and qualified bilingual teachers. Such schools also frequently lack school reform practices that address the needs of limited English proficient (LEP) students, and often lack adequate technology.

The small Native American school-going population presents special challenges for researchers and policymakers alike. While lamenting the limited statistical data available on Native American school children, Jeff Johnson, U.S. Department of Education, Office of Indian Education, praised the mandate by No Child Left Behind to collect data on subgroups of students. According to Johnson, this mandate will make it possible to devise targeted improvements for low-performing schools and students. Districts will be able to use assessment data to determine specific needs in their schools and target resources to meet those needs. Additionally, schools will be able to identify areas in which teachers may need additional support or training. Schools must also design programs for Native American students that increase academic achievement while honoring the culture, language, and traditions of their students.

Addressing the Gaps

Identifying and documenting achievement gaps, however important, is not enough. The ultimate goal is to address those gaps and, ideally, eliminate them. The rest of this newsletter provides some highlights from the symposium's presentations that were related to addressing the achievement gap.

Likening many school systems to archeological digs, where layer is piled upon layer and essential student information is often hard to retrieve, Washington University Professor of Education William Tate advocated the creation of portable testing data for high-mobility, low-achieving students. He sees this approach as a direct way to provide teachers and school administrators with important information about new students in their schools.

Tate, who also serves as a senior researcher at the St. Louis Center for Inquiry in Science Teaching and Learning, suggested that math and science instruction in low-performing schools needs to provide students with more time on task by offering extended school-day opportunities, enrichment and mentoring programs, supplemental learning activities, and tutorials for the students. Expanding opportunity to learn for all students is essential. However, he emphasized the importance of building these programs on data and past student performance, rather than generic efforts. For the teachers, who must present challenging content to all students, he proposed establishing processes for reviewing mathematics achievement goals, ongoing professional development focused on content and student thinking about content, effective instruction, and curriculum design that provides sufficient exposure to difficult concepts.

Several speakers focused their attention on specific steps their respective states have taken to address achievement gaps. Among the state efforts described were those in Pennsylvania, Mississippi, North Carolina, and Washington.

Mary I. Ramírez, Director of the Bureau of Community and Student Services of the Pennsylvania Department of Education (PDE), highlighted the essential principles of her state's Pre-K–12 system: quality teaching in every classroom and every school, quality leadership in every school and school system, artful use of infrastructure, and a continuous learning ethic. She described results of the Pennsylvania System of State Assessment, which uses a value-added methodology, and she enumerated the many ways Pennsylvania is working to reduce the achievement gap in its 501 school districts.

Among these programs is the Pennsylvania Achievement Gap Effort, a three-year program that establishes school-community teams; implements successful, research-driven practices; and promotes creative and strategic use of school staff and time. Other initiatives that focus on research-based practices include Project 720, directed at high schools, after-school programs, tutoring, early childhood activities including Head Start, Reading First academies, and 103 new full-day kindergarten programs. PDE awards accountability block grants and conducts a number of ELL efforts that also reach migrant students. Recently, the PDE sponsored the first statewide Latino Education Summit.

Henry L. Johnson, State Superintendent of Education in Mississippi, focused on how educational policy can affect curriculum, instruction, assessment, and accountability. To illustrate his message, he recounted the steps taken in North Carolina under his leadership—steps that are currently being replicated in Mississippi. Johnson created the first North Carolina Office of School Improvement and Office for Closing Gaps, which reviewed the best curricular standards, student performance standards, and accountability standards for teachers and administrators from other states and other countries, and then proceeded to apply these in North Carolina.

One of the most successful moves was to send the state's best teachers and administrators to the 15 lowest-performing schools in the state for three years. As a result of these efforts, school performance has risen dramatically over the past seven years. Johnson emphasized the importance of adhering to stringent requirements. He noted two that have had a direct effect on student performance: (1) developing state assessments that are like NAEP, and (2) requiring elementary

school teachers to have a minimum of 15 hours in reading preparation. Another noteworthy innovation in Mississippi is the Student Progress Monitoring Program, a test item bank, accessible to schools and teachers, that can be used as often as desired to construct tests that are aligned with the state curriculum standards. The institution of such accountability policies, says Dr. Johnson, reflects the realization that we must not only expect more from students in terms of academic achievement, we must require more from them.

William Demmert, Professor of Education at Western Washington University, noted that research has shown that culturally-based education improves the academic performance of Native American students. He identified six critical elements of culturally-based education: (1) recognition and use of Native American languages; (2) pedagogy stressing cultural characteristics and adult-child interactions; (3) teaching strategies that are congruent with traditional culture and ways of knowing and learning; (4) curriculum that is based on traditional culture and recognizes the importance of Native American spirituality; (5) strong community participation (e.g., of parents and elders) in educating children and planning and operating schools; and (6) knowledge and use of the social and political mores of the community.

The coercive and culturally insensitive history of Native American education in the United States exerts a strong influence on the perceptions of many Native American children, said **Denny Hurtado**, a member of the Skokomish Indian Tribe and the Indian Education Director for the Public Instruction Office of Washington State. Native American populations have long viewed education as an enemy of their culture, the instrument of cultural genocide. In order to earn the trust of these communities, teachers and schools

must use programs that address the cultural and sociolinguistic discontinuity that leads to the low reading scores and high dropout rates of Native American students. Native American children often arrive at school with underdeveloped communication skills. Hurtado cited research that notes that linguistic, cognitive, and academic development are interdependent processes, and must all be supported simultaneously.

The Native American Literacy Curriculum Project seeks to address these issues through a culturally appropriate reading curriculum for Native American students. The project was a collaboration between the Indian Education Office/Office of the Superintendent of Public Instruction and the Center for Educational Improvement at Evergreen State College. A team of cultural specialists, curriculum developers, Native writers, and illustrators collaborated to develop three thematic units on the topics of Hunting and Gathering, The Canoe, and The Drum. The curriculum is based on the latest research and best practices on how to teach reading, is aligned with the state standards, and a heavy emphasis on family/community involvement is embedded in the curriculum.

In the last few years, schools that have been using the curriculum have experienced academic gains, fewer discipline referrals, and an increase in community/family involvement. The project is currently soliciting publishing companies to work with in order to make the curriculum more widely available. The curriculum, available on CD ROM, can be obtained from the Indian Education Office. There is also a training video that accompanies the curriculum.[3]

Arguing that we should be able to separate social divisions such as class, gender, race, and first language from academic achievement, **Edmund W. Gordon**, Professor Emeritus at Teachers College, Columbia University, stressed the importance of access to *education-related capital* for our low-achieving students. These students need access to educated adults, good health, cultural enrichment, and polity capital. Nonpedagogical interventions such as these are associated with high academic achievement and undergird what Gordon and **Beatrice L. Bridglall** (co-presenting with Gordon) are calling *supplementary education*. Bridglall described the very successful Meyerhoff Project at the University of Maryland, Baltimore County, where research-based interventions nurture the academic and social integration of minority students by providing them with a faculty mentor, requiring them to participate in summer programs, and helping them form peer study groups for motivation and academic support.

Ana Maria Villegas, Professor of Curriculum and Teaching at Montclair State University, spoke about conceptualizing teaching quality in a multicultural society. Current and future U.S. demographics demand culturally responsive teaching, said Villegas. In California, Hawaii, Mississippi, New Mexico, and Texas, students of color are already a majority of the K–12 population, and by 2035 this will be true nationwide. Dropout rates are unacceptably high for Hispanic students, who are also the fastest-growing population group.

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[3] For additional information, contact Joan Banker at 360-725-6160.

Villegas noted that *culturally responsive teachers* focus on advancing academic goals while building on their students' diverse cultural backgrounds. These teachers

- understand how learners construct knowledge;

- know about their students' lives, aspirations, interests, and families;

- are skilled in presenting subject matter in ways that build on what the students already know, but that take them well beyond that knowledge;

- possess a high level of sociocultural consciousness;

- have affirming attitudes about diversity and toward students of diverse background; and

- see themselves as part of an educational community working to make schools more equitable and just.

Villegas, who had been part of a team that developed the Praxis III™ tests at ETS, stated that those assessments were founded on principles of culturally responsive teaching.

Ron Ferguson, Lecturer in Public Policy at the John F. Kennedy School of Government and Senior Research Associate at Harvard's Wiener Center for Social Policy Research, directs The Tripod Project, which he created to focus on curriculum content, instructional pedagogy, and teacher-student relationships to foster academic success, especially among minority students. Among other activities, the project conducts surveys of students and teachers. Its findings inform discussions concerning student motivation, classroom management, supports for learning, intellectual engagement, and other factors, as teachers seek to raise achievement for all students and to improve school climate. The Tripod Project and associated research

cultivate and study five conditions for promoting ambitiousness and industriousness:

- feasibility of success;

- relevance of material;

- enjoyment;

- adult support; and

- peer support.

Ferguson described four classroom climates that his studies contrast and compare with regard to their impacts on attitudes and persistence in the classroom:

Low Help Low Perfectionism	Low Help High Perfectionism
High Help Low Perfectionism	**High Help High Perfectionism**

Ferguson finds that when most students are Black or Latino, classrooms where teachers are very helpful ("High Help") but also insist on right answers ("High Perfectionism") achieve better peer climates and much more student persistence across the school year. Helpful teachers and high standards combine to produce success for all, but especially for minority students.

The symposium's final presentation addressed the issue of how well-equipped our nation's children are to handle the challenges of the 21st century. That's the question **A. Wade Boykin** posed while noting the growing demand in the workforce for high-level literacy, numeracy, and technology skills, as well as critical-thinking, analytic, and interpersonal skills. Boykin, Professor and Director of the Graduate Program in Psychology at Howard University and Executive Director of the Capstone Institute for School Reform at Howard University, pointed to the poor results of U.S. students on international assessments such

as TIMSS (Trends in International Mathematics and Science Study): U.S. eighth-graders ranked 18th out of 38 countries in math; and 19th out of 38 in science. These findings suggest that major changes in instruction are needed in order to raise the achievement levels for all U.S. students so that they can be competitive internationally.

Boykin pointed out that closing the achievement gap in U.S. schools will thus require practices that raise achievement for all students, but with the slope much steeper for students at risk, such as African Americans and Latinos. In discussing a variety of gap-closing strategies proven effective with at-risk students, Boykin cited the research of Judith Langer on "beat the odds" teachers.[4] Such teachers operate in districts and schools where the achievement levels are low, but where the students in these teachers' classrooms excel. They are practitioners of *connected learning* (blending learning across lessons, in and out of schools, learning tied to personal experience), *enabling metacognitive strategies* (planning, organizing, reflecting), and *classroom collaboration.* Their teaching follows the constructivist model, rather than the didactic one. Boykin also referred to the work of Deborah Stipek of Stanford University indicating that the single best predictor of the presence of didactic teaching was the percentage of African American students in the school. This

means that many African American children are simply not getting access to the most powerful, research-based teaching strategies available.

Boykin cited the Super Schools project from Howard University, which identified schools in low-income African American communities where at least 50 percent of the students were performing at or above grade level for two consecutive years. The study was national in scope. Boykin and his colleagues extracted five basic features from these high-performing schools:

- staff and student stability;

- multidimensional leadership (principal must be leader, educator, communicator);

- continuous commitment to improvement (professional development for teachers);

- multiple stakeholder involvement (including custodians, crossing guards, lunchroom staff);

- educating the whole student (focus also on affective and social development and students are able to see that what they learned in school is applicable to life outside of school).

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4   Judith Langer, "Beating the Odds: Teaching Middle and High School Students to Read and Write Well," *American Educational Research Journal*, 38, 837-880, 2001.

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One-Third of a Nation: Rising Dropout Rates, Declining Opportunities,
Policy Information Report, February 2005

Unfinished Business: More Measured Approaches in Standards-Based Reform,
Policy Information Report, January 2005

Schooling, Statistics, and Poverty: Can We Measure School Improvement?
William H. Angoff Memorial Lecture, 2004

The Fourth-Grade Reading Classroom, Policy Information Report, September 2004

"Highlights from the ETS African American Education Seminar,"
ETS Policy Notes, Vol. 12, No. 2, Spring 2004

Pathways to Labor Market Success: The Literacy Proficiency of U.S. Adults,
Policy Information Report, October 2004

Affirmative Action and Diversity: The Beginning of the End? Or the End of the Beginning?
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