

Tackling the achievement gap head on

*A background and discussion paper on the Wilder
Foundation's School Success focus area*

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Tackling the achievement gap head-on

This background and discussion paper on the Wilder Foundation's School Success focus area is an updated version of the 2005 paper with the same title.

An estimated 29,000 St. Paul school-age children are at substantial risk for school failure because they are from low-income families.

The achievement gap is very striking both locally and nationally, and is clearly visible throughout the school years, from grade-school test scores through high school graduation and higher education. It divides American Indian, Asian, Black, Latino, and White students, and it divides the economically advantaged from the disadvantaged regardless of their race/ethnicity. In our community, these two factors overlap a great deal: over 80 percent of the students of color in the Saint Paul Public Schools are from low-income families.

Another factor contributing to the gap is the limited English proficiency of many students enrolled in the Saint Paul Public Schools. These students usually come from immigrant or refugee families. In 2005-06, 35 percent of the students enrolled in the St. Paul schools are receiving English Language Learner (ELL) services.

Of course, students of all racial/ethnic, language, and income backgrounds can and do succeed in our public schools and go on to succeed in college. Poverty and minority status, or not being a native English speaker, do not doom a student to fail, any more than wealthy White students are guaranteed to do well. However, their chances of success are dramatically and persistently different, both locally and across the country. A recent book that looked specifically at White, Black, and Hispanic students put it this way:

Overstating the achievement gap is not easy. The difference in educational attainment between white students, on the one hand, and African American and Hispanic students, on the other hand, is large and persistent. In the last decade it has gotten worse... If the achievement gap could be reduced, the fortunes of blacks and Hispanics would not only be raised, but the social and economic differences that intensify the country's racial tensions would be ameliorated (Chubb and Loveless, *Bridging the achievement gap*, 2002).

Locally, the achievement gap also includes American Indians, and Asians to a somewhat lesser degree, as well as Blacks and Hispanics.

Just to be clear, what is meant here by closing the achievement gap is increasing the proportions of economically disadvantaged and racial/ethnic minority children who become proficient in core academic subjects, graduate from high school, and go on to

enroll in and complete post-secondary education programs. Ultimately, we want all children to have the same high likelihood of doing well in school and completing higher education, regardless of their skin color, their cultural or language background, or their family's income. And we do not want children to suffer in an adult life of poverty or in other adverse conditions associated with poor educational outcomes such as welfare dependency or incarceration.

It starts before school

The achievement gap begins early, before students are old enough to enter school. A recent national study of kindergartners indicated that Black children were more likely to lag behind their peers in other racial groups in health, cognitive achievement, and social and emotional development (Wertheimer and Croan, 2003). This study also found that kindergartners from low-income families (less than \$25,000 a year) lagged behind their peers from higher-income families in these three areas, regardless of race.

Another study found that large differences in children's vocabularies emerged at an early age (Hart and Risley, 1995). Three-year-olds at higher socio-economic levels had more than twice as many words in their vocabulary than 3-year-olds at low economic levels (about 1,100 words compared to 500).

A 2003 study of Minnesota children entering kindergarten showed differences in personal and social development, language and literacy, mathematical thinking, the arts, and physical development (Minnesota Department of Education, 2004). Children with lower family income and those whose parents had less education tended to have lower school readiness ratings.

Preschool screening can be critical for early identification of health and developmental needs that may interfere with learning. The earlier children are screened, the more time there is for them to receive help before entering school. Unfortunately, in St. Paul only about half (52%) of the children are screened by age 4, and 14 percent are not screened until they enter kindergarten when it is mandatory.

Gauging the school-age achievement gap in Saint Paul

School district figures for 2005-06 indicate that 73 percent of the students are racial/ethnic minorities and 71 percent of the students are from low-income families (with income up to 185% of the federal poverty line). Over 80 percent of racial/ethnic minority students are from low-income families.

The following statistics help to describe the current dimensions of the achievement gap among students attending the Saint Paul Public Schools.

Third-grade reading (2005 Minnesota Comprehensive Assessment)

- Only 52 percent of low-income students are proficient in reading, compared to 85 percent of higher-income students.
- Slightly over half (52-60%) of American Indian, Asian, African American, and Latino students are proficient in reading, compared to 85 percent of Caucasian students.
- Race and income each have a strong, independent link to school success. Within each racial/ethnic group, students from higher-income families have better results. However, within each income group, Caucasian students have substantially better results than students of other races/ethnicities. (However, when students with limited English proficiency are excluded, results for Asian students are similar to those for Whites at higher income levels.)
- Third-graders in all income and racial/ethnic groups improved their reading scores during the past five years. The gap by race and income narrowed somewhat but still remains large.

Eighth-grade reading and math (2005 Minnesota Basic Skills Test)

- Only 40 percent of low-income eighth-graders passed the math test and 58 percent passed the reading test, compared to 73 percent and 85 percent of higher-income students, respectively. (Students must repeat this test each year until they pass, in order to graduate from high school in Minnesota.)
- The gaps in passing rates between Caucasian students and racial/ethnic minority students were usually large for both reading and math, but varied by group.
- Passing rates for the math test: 72 percent of Caucasian eighth-graders, 54 percent of Asians, 40 percent of Latinos, 38 percent of American Indians, and 25 percent of African Americans.
- Passing rates for the reading test: 83 percent of Caucasian eighth-graders, 69 percent of Asians, 62 percent of American Indians, 62 percent of Latinos, and 48 percent of African Americans.
- Over the past five years, passing rates improved considerably in reading and slightly in math. The gaps in passing rates for the reading test have narrowed between income groups, and between Asians and Caucasians. Only slight changes have occurred in the gaps by income and race/ethnicity for the math test.

On-time high school graduation rates (2005)

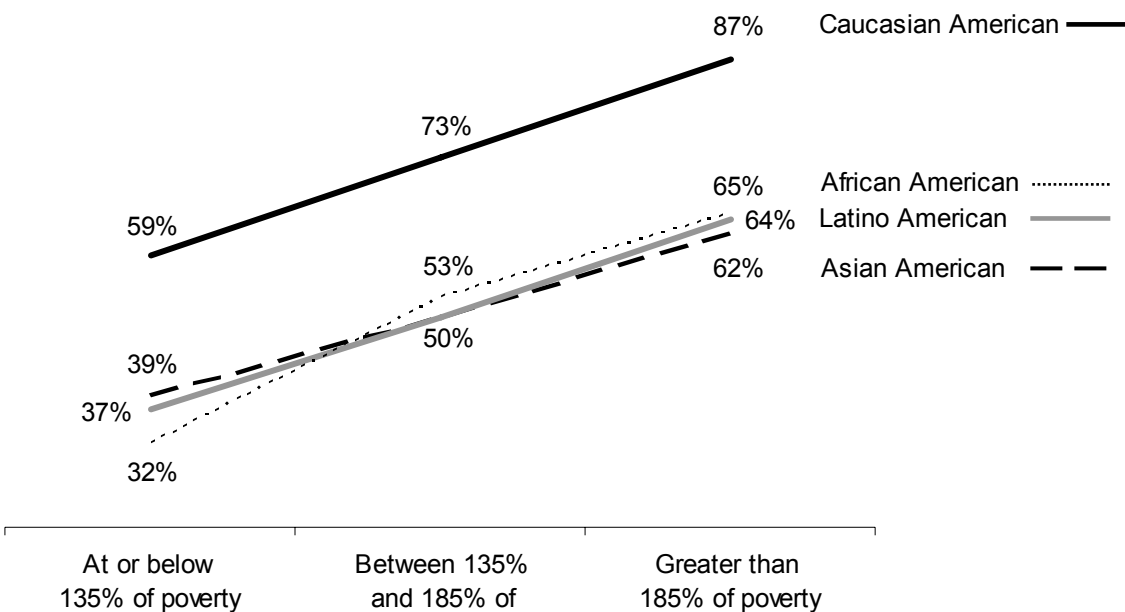
- The on-time graduation rate was 63 percent in the Saint Paul Public Schools in 2005. Graduate rates differed within racial/ethnic groups.
- 75 percent of Caucasian students graduated on time in 2005, compared to 70 percent of Asian students, 48 percent African American students, 43 percent of Latino students, and 27 percent of American Indian students. Many students who do not graduate on time continue to be enrolled in high school.

Income, race, and language play a role

In short, the majority of students attending Saint Paul Public Schools are at risk for underachievement or school failure. This estimate is based on the 73 percent of St. Paul students who are of race/ethnicity other than White and the 71 percent in low-income families. Many students fall into both categories.

Both race/ethnicity and low family income contribute to the achievement gap. That is, although racial/ethnic differences in family income contribute to the achievement gap, they do not come close to accounting for the differences by race/ethnicity. This is clearly seen with third-grade reading and math achievement in St. Paul, shown in the graph.

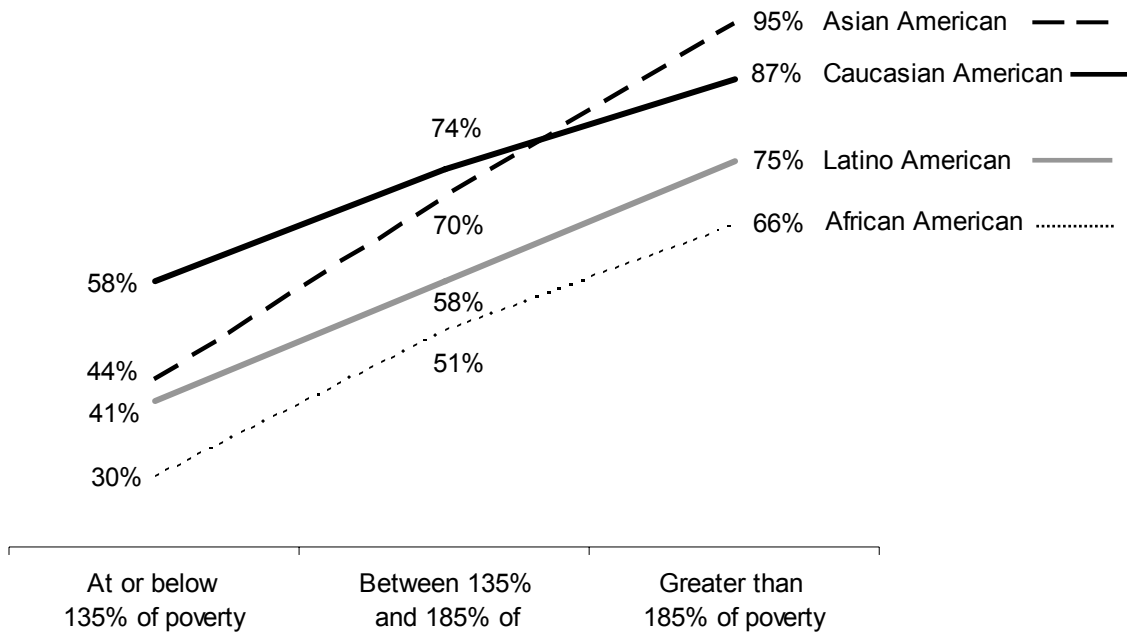
Third-graders proficient in both reading and math, by family income and race/ethnicity (Saint Paul Public Schools, 2004-05)*



* There were too few American Indian students to report results.

English language proficiency is a factor in the gaps that continue to persist by race/ethnicity, after family income is taken into account. When only students fluent in English are included, the gap between Asian and Caucasian students changes dramatically at higher income levels as indicated in the graph. Asian students do as well as Caucasian students or better at higher income levels. The gap between Hispanic and White students narrows somewhat while results change little for African American students.

Third-graders fluent in English who are proficient in both reading and math (Saint Paul Public Schools, 2004-05)*



* There were too few American Indian students to report results.

What these gaps mean for the students and for the community

Low-income students and students of color represent a growing majority of the students attending the Saint Paul Public Schools. The future success of these children, and of their community, depends on them being successful in school. They will need a good education to earn a living wage in the increasingly knowledge-based economy. The gap in wages between those with higher education and those without it appears to be widening. The wages of those with a high school diploma or less are generally not enough to support a household. Hence, at this level, it takes multiple wage earners, or a single wage-earner with multiple jobs, or both, to provide the basic necessities for a family. The American dream of financial security and home ownership is likely to be elusive for workers without at least some education beyond high school.

St. Paul also needs an educated workforce in order to compete and thrive economically. The community must be able to offer a new generation of well-educated employees to attract knowledge-based companies. This will become especially crucial as the relatively well-educated Baby Boom generation begins to enter retirement. The school-age population isn't expected to grow much in the next 20 years. Hence, our education system needs to produce as many well-educated future employees as possible. The new generation of employees will be increasingly made up of racial/ethnic minorities.

Reducing the achievement gap is critical to the vitality of St. Paul and the Twin Cities metro area, and also to the future self-sufficiency of each student in our schools. The social and economic inequality perpetuated by the school achievement gap casts a long shadow on the future of our region.

Current context: The “No Child Left Behind” Act

Obviously, the achievement gap is not a new issue in American education, either locally or nationally. Inequality by race and income are longstanding problems. Significant efforts have been made at the federal level over the years to address the issue. These include the school integration efforts following the Brown v. the Board of Education ruling, Head Start, Title I programs, and other initiatives.

The newest federal effort is the No Child Left Behind Act (2001). This legislation exemplifies the recent political emphasis on accountability in public education. This law requires testing, sets ambitious goals for the academic achievement of all children, and imposes serious sanctions in an attempt to close the achievement gap at the level of the individual school, school district, and state. No Child Left Behind requires continuous and substantial improvement by all groups of students on state tests (including the economically disadvantaged, racial/ethnic minorities, disabled students, and those with limited English proficiency) until all are proficient in reading, math, and science. The target date for all children in all groups to reach proficiency is 2014.

It appears that this law is fostering a strong focus on improving state test results by educators, with a likely narrowing of the curriculum. Educators are feeling pressure to raise test scores at a time when school budgets are being trimmed due to state budget problems. This focus may reduce or force out school programming that is not seen as having a direct influence on test scores.

While No Child Left Behind may be causing an over emphasis on test scores and some related problems, the ultimate goal of the legislation is certainly good. No child can afford to be left behind in school in this day and age, and neither can a community afford to leave them behind.

Factors that contribute to the achievement gap

The achievement gap persists for many reasons, including broad social conditions. A recent review of published research identified 14 factors, related to the school, home, and community that are associated with the achievement gap by race and income (Barton, 2003). Research evidence indicates that students from lower-income families and racial/ethnic minorities (Black and Hispanic students, in particular) tend to have fewer of the following advantages while their higher-income and White counterparts have more.

School factors

- Rigorous curriculum* (taking the more challenging high school courses, taking Advanced Placement exams)
- Teacher preparation (teachers with certification to teach their subjects, or with at least a college minor in the subjects they teach)
- Teacher experience, attendance, and stability (teachers with 3 to 5 years' experience, low teacher absenteeism, low teacher turnover)
- Small class size* (fewer than 25 students per class)
- Technology-assisted instruction (access to and use of computers and the Internet in the classroom)
- Safe schools (little or no fear of being attacked, no gang presence)

Other factors

- Parent participation (attendance at school events, volunteering at school, teachers' high ratings of parent involvement)
- Student stability (rarely changing schools)
- Normal birth weight* ** (avoiding low birth weight)
- Absence of lead poisoning (low lead levels in the blood)
- Adequate nutrition, not going hungry
- Reading to young children (daily for 3- to 5-year-olds)
- Limited television watching (less than six hours per day)

- Parent availability (living with two parents)

- * Difference not established by income level.

- ** Difference not established between Hispanics and Whites.

Data available on several of the “other factors” indicate favorable trends locally. The proportion of children in St. Paul with elevated lead levels in their blood appears to have decreased over the past nine years, dropping from 15 percent of those screened to 6 percent (Minnesota Department of Health, 2004). In Ramsey County, the proportion of infants with low birth weight decreased slightly in the early 2000s to 5.5 percent of all births (Ramsey County Department of Public Health, 2004). Student mobility (mid-year transfers) declined slightly in the Saint Paul Public Schools in the early 2000s, from 29 percent of all students in 2000-01 to 26 percent in 2002-03 (Minnesota Department of Education, 2004). Although the overall trends are favorable, data were not available on trends for racial/ethnic groups separately. Hence, it is not clear whether there was improvement in all groups on these factors.

Additional factors identified in other research (Barton, 2003; Kober, 2001; Lara-Cinisomo, 2004; Reynolds, 2002; Rothstein, 2004; Schellenberg, 1999) as likely contributors to the achievement gap include:

- High concentrations of children from low-income families in the school
- A school climate less conducive to learning
- Teacher expectations (low expectations for student performance and success)
- Summer and after-school learning opportunities
- Cultural and racial discrimination
- Overuse of special education for racial/ethnic minority students
- Student absenteeism, low school attendance
- Negative peer pressure
- School funding disparities

Clearly, if progress is to be made in closing the achievement gap, major and sustained efforts are required on many fronts, both within and beyond the school, starting with early childhood.

The spring issue of *The Future of Children* (2005) identifies key factors in the achievement gap between White and Black/Hispanic children before kindergarten (i.e., differences in school readiness). These factors substantially overlap with the previous list and are strongly related to socio-economic differences between Whites and Blacks/Hispanics. The authors estimate how much of the gap in school readiness might be explained by each factor:

- Parenting (amount of talking and reading to child, nurturance and discipline). Estimated 25-50 percent of difference between Whites and Blacks/Hispanics.
- Equalizing access of Hispanic children to preschool and center-based child care. Estimated up to 26 percent of Hispanic-White gap.
- Child's health (attention deficit hyperactivity disorder, asthma, lead poisoning). Estimated 13 percent of Black-White gap.
- Maternal breastfeeding. Estimated 6 percent of Black-White gap.
- Maternal depression. Estimated 6 percent of Black-White gap.
- Improving the quality of Head Start programs. Estimated 4-10 percent of Black-White gap and 4-8 percent of the Hispanic-White gap.
- Low birth weight. Estimated 4 percent of Black-White gap.

We cannot simply add up the percentages associated with each of these factors and conclude that together they account for all or most of the school readiness gap. Many of these factors are overlapping and interrelated, such as maternal depression and parenting. Nevertheless, it appears that over half of the gap in White-Black/Hispanic school readiness is accounted for by differences in socio-economic status, child and maternal health, parenting, and preschool experiences.

Closing the achievement gap

Effective strategies for closing the achievement gap

Research evidence, although quite limited, indicates that addressing some of the factors listed above can boost the academic achievement of economically disadvantaged and minority children. That is, there is evidence that if these children have greater exposure to some of the advantages and positive factors on that list, their academic performance will improve. With the exception of studies of high-quality preschools, the strongest research evidence is for school-related factors rather than for factors beyond the school. This may be partly because more research has been done on factors within the school's purview. In examining effective strategies to close the achievement gap, we will now consider strategies to close the school readiness gap as well as the school achievement gap.

Preschoolers: Closing the school readiness gap

High-quality, center-based preschool programs. The most promising strategy is to increase access to high-quality, center-based early childhood education programs for 3- and 4-year-olds. If more economically disadvantaged and minority children could participate in such programs, the school readiness gap would likely be narrowed considerably. Research indicates that these programs can have a long-lasting impact on the school success of low-income and minority children. High-quality programs have low child-staff ratios, well-educated staff, and strong supervision. They include an emphasis on developing cognitive skills, which tends not to be an emphasis of Head Start programs (*The Future of Children*, 2005; Monk, 2001; Neuman, 2003; Sherman, 2001; Thompson and O'Quinn, 2001).

In the spring 2005 issue of *The Future of Children*, the following features are recommended for preschool programs serving disadvantaged children:

- *High-quality learning environments* – cognitively stimulating curriculum delivered by B.A.-level teachers with training in early childhood education, in small classes with high teacher-student ratios.
- *Teacher training regarding children's behavioral problems* – to enable teachers to identify children with significant behavioral problems and work effectively with them to improve their emotional and social skills.
- *Parent training* – to better equip parents to foster their children's development and reinforce what the teacher is doing through such things as reading to the child daily and dealing effectively with behavior problems.

- *Home visits* – to all families in the program to enable staff to identify health problems in children and assist parents in getting ongoing health care for their children, and to screen for parent mental health problems or other issues.
- *Integration with kindergarten* – to ensure strong alignment with the kindergarten programs children will be attending so that the transition is successful for children, parents, and teachers.

School-age children: Key characteristics of schools closing the gap

Previous research and evaluation studies have identified some core elements of schools that are effective in improving the academic achievement of low-income and minority children. Here are those core elements:

Focus on teaching and learning. First and foremost, the school must have a strong focus on teaching and learning. That is, the instructional program needs to be at the heart of what the school is about, driving daily efforts. This may mean protecting instructional time against intrusions and minimizing other distractions during the school day (Corallo and McDonald, 2002; Kannapel and Clements, 2005; Muijs, Harris, Chapman, et al., 2004).

Challenging, rigorous curriculum. All students need a challenging (but realistic) curriculum if the achievement gap is to be reduced. At present, large racial disparities mark the participation rates in more rigorous or advanced courses, or Advanced Placement coursework in high school. To even out this disparity, students of all races need to be offered challenging curriculum and instruction beginning in elementary school so that they are prepared to take more rigorous or advanced courses in secondary school. Teachers' expectations strongly influence students' effort and performance (Haycock, Jerald and Huang, 2001; Kannapel and Clements, 2005; Kober, 2001; Thompson and O'Quinn, 2001; Lucas and Gomoran, 2002; Singham, 2003; Williams, Kirst, Haertel, et al., 2005).

Alignment of curriculum, instruction, standards and assessment. The curriculum, the way it is implemented in the classroom, the standards of performance which students are expected to reach, and the assessment of student progress toward those standards all must be aligned. This helps to channel efforts toward the same goals and makes those goals clear to teachers, students, and parents (Corallo and McDonald, 2002; Muijs, Harris, Chapman, et al., 2004; Snipes and Casserly, 2004; Williams, Kirst, Haertel, et al., 2005).

Teacher professional development program. Teacher professional development is a critical part of a strong curriculum and instructional program. Professional development must be focused on implementing the curriculum effectively in the classroom. Elements of an effective teacher training program include both theory and practical application to

the classroom, demonstration, and coaching and feedback as the teacher implements the curriculum (Corallo and McDonald, 2002; Muijs, Harris, Chapman et al., 2004; Snipes and Casserly, 2004).

Use of test results to improve. Regular assessment of students that is tied to the curriculum being taught, and use of student performance data in decision-making, characterize effective schools. Test results help identify gaps in learning and can be used to guide or adjust instruction. Teachers need training and support to effectively use test data (Corallo and McDonald, 2002; Kannapel and Clements, 2005; Muijs, Harris, Chapman, et al., 2004; Snipes and Casserly, 2004; Symonds, 2004; Williams, Kirst, Haertel, et al., 2005).

School culture conducive to staff learning and collaboration. Improving and effective schools tend to have an atmosphere of professional respect among staff, good communication, and teamwork or collaboration among teachers. These schools cultivate a learning environment for teachers as well as students. Staff have clear and high expectations for students and clearly communicate those expectations. The school environment is safe and orderly. Student behavior is under control and disciplinary procedures are in place, supported by parents, and carried out effectively. Teacher absenteeism and turnover tends to be low (Corallo and McDonald, 2002; Muijs, Harris, Chapman, et al., 2004).

Effective leadership. No specific style of leadership has been found to be most effective in creating and sustaining the kinds of school features just described. This may be because leadership style needs to be adjusted to fit the circumstances. In the long run, a more distributed or democratic form of leadership, involving teachers, probably works best. The leadership focus is primarily on instructional excellence rather than administrative or other issues. (Corallo and McDonald, 2002; Kannapel and Clements, 2005; Muijs, Harris, Chapman et al., 2004; Reynolds, 2002).

Comprehensive school reform programs bring together many of the core elements just described into one package. These programs seek to integrate instruction, testing, classroom management, teachers' professional development, parent involvement, and school management to achieve school-wide academic improvement. The best of these models have boosted student academic achievement and reduced achievement gaps. Models with the strongest evidence for their effectiveness include Success for All, Direct Instruction, and the School Development Program (Borman, et al., 2003). Locally, the Achievement Plus initiative, in which Wilder is a partner with the Saint Paul Public Schools and others, is an example of a comprehensive school reform effort. The Achievement Plus package includes instructional reform, extended learning, and student and family support services. Remarkable improvement in student academic achievement has occurred at two of the three Achievement Plus schools recently.

Other factors that help close the gap

If a school has the core elements in place, or most of them, there are a number of things that can provide further help in improving student achievement and closing the achievement gap. Conditions that can support or enhance a sound school program include the following:

Well-qualified teachers. Good teaching is especially critical for children at higher risk. Ensuring that students in high poverty/high minority schools have excellent, well-prepared, and experienced teachers can make a big difference. Often these schools have less-prepared and less-experienced teachers. Research affirms that teacher effectiveness is a major factor in students' academic growth from year to year (Haycock, Jerald and Huang, 2001; Sherman, 2002; Monk, 2001; Thompson and O'Quinn, 2001; Reynolds, 2002; Singham, 2003).

Small class size. Children benefit from small class size (17-20 students), especially in kindergarten through third grade. To benefit, children need to be in smaller classes at least two years during the early elementary grades. Research results show that minority students and students from low-income families benefit the most from smaller classes. Smaller class size is associated with higher engagement of students, fewer discipline problems, and students receiving more individualized attention from the teacher (ERIC Digest, 2003; Research Points, 2003).

Smaller schools. Students who attend small schools (elementary enrollments of 150-250, middle school enrollments of 300-400, high school enrollment of 450-600) tend to have higher academic achievement. The benefits of attending small schools appear to be greater for economically disadvantaged and minority students, although students with these characteristics in urban areas are more likely to attend large schools. A current approach called "schools within a school" aims to create small-school characteristics within larger public schools, by dividing them into smaller autonomous groups. Such an effort is occurring in Saint Paul high schools. Proponents believe that the benefits will be similar to those of small schools, although this has not yet been conclusively demonstrated (S. Dewees, 1999; K. Cotton, 1996).

Individual tutoring for students in need. One-on-one tutoring that supplements the regular curriculum can be an effective approach to improving student achievement. It is most effective when it is provided early to students in danger of falling behind. Certified teachers are the most effective tutors (Monk, 2001; Thompson and O'Quinn). In some cases, tutoring may occur as part of after-school or summer programs.

Strategies with weaker or inconsistent evidence for their effectiveness in closing the achievement gap

School readiness gap

Some efforts to improve conditions for low-income families and their children haven't had much impact on reducing the school readiness gap:

- *Incrementally raising incomes of low-income families.* There is little evidence to date that increasing the incomes of poor and near-poor families somewhat through earned income tax credits, minimum wage, or child tax credits improves the school readiness of children in these families.
- *Increasing access to health insurance.* Increasing low-income children's access to health insurance doesn't appear to eliminate disparities in health based on the experience of the United Kingdom and Canada with universal public health. Building a health care component into early childhood programs, including home visiting, may be more effective.
- *Adult education for mothers.* While increasing maternal education could potentially have an impact on children's school readiness, to date interventions that have tried to increase mothers' education by 1 to 2 years haven't been very successful.

These efforts to improve conditions for low-income families and their children haven't reduced the school readiness gap although they may have benefited the families in other ways (*The Future of Children*, 2005). More direct approaches to influencing child and parent behaviors described earlier hold more promise.

School achievement gap

After-school programs. To date, evidence that after-school programs can have an impact on the achievement gap is mixed. The first federal study of 21st Century Community Learning Centers programs showed no effects on academic achievement (Baron, 2003). However, some other studies have found links between after-school programs and academic improvement among low-achieving students (Lauer, Akiba, Wilkerson, et al., 2003).

Student and family support services (or learning supports). These services may reduce or eliminate conditions that interfere with a child's learning, such as behavioral and health problems, family stresses and instability, and problems in meeting the child's basic needs. This would address some of the "other factors" listed above, which have been found to contribute to the achievement gap (such as high student turnover, poor nutrition,

and lack of parent participation in the child's education). During the preschool years, these services could address factors associated with gaps in school readiness through providing parent training or support and child health interventions (e.g., attention deficit hyperactivity disorder). To date, evidence has not strongly linked these types of interventions with improved academic achievement (Center for Mental Health in the Schools at UCLA, 2004). Efforts of this kind would likely need to be long-term and widespread to have a measurable impact on reducing the achievement gap. These efforts take an indirect approach to academic success, in the sense that they do not seek to directly increase learning but seek to create conditions where more learning can occur.

School funding. Simply providing more funding/resources to schools may not have much impact on the achievement gap, unless the schools are clearly underfunded. Schools that are currently struggling or ineffective may not have the management or leadership capacity to use extra resources in ways that will lead to improvement in student achievement (Muijs, Harris, Chapman, et al., 2004).

School choice. In recent years much attention has been devoted to creating more school choice or options in public education (such as charter schools, vouchers for private education, magnet schools, and open enrollment). Proponents believe that by introducing market forces and decentralization into public school systems, the quality of education available to all children, including children from disadvantaged backgrounds, will improve. At this point, there is no consistent evidence that such benefits will result.

A note on non-cognitive skills and school success

Recently, some have contended that non-cognitive skills may be at least as important as cognitive skills to success in school and the workplace (Harms, 2004; National Research Council and Institute of Medicine, 2000). While non-cognitive skills aren't likely to be reflected in achievement test scores, they are important to success or achievement long-term. Non-cognitive skills refer to emotional and social skills such as self-discipline, dependability, perseverance, and self-confidence. Non-cognitive skills also include such "soft skills" needed to succeed in school and in the workplace as communication skills, ability to work in a team, positive attitude, and adaptability. Similar to cognitive skills, there appears to be a gap in non-cognitive skills by race and income.

Early childhood education programs (e.g., Perry Preschool Project) can potentially have the largest impact on non-cognitive skills. While IQ or cognitive benefits may fade over time, the socialization benefits of effective preschool programs may persist. These social skills benefits may be manifested later in less use of special education services, less likelihood of being on welfare, less criminal behavior, and higher wages (Harms, 2004; Rothstein, 2004; Schweinhart, 2004).

Some specific approaches have been developed to intervene with preschool children showing signs of behavioral problems or poor school adjustment (e.g., Incredible Years, Primary Mental Health Project). Evidence indicates that such interventions can improve students' social skills and reduce problem behaviors (Center for Mental Health in the Schools at UCLA, 2004). These outcomes may foster better school adjustment or attachment, which is a potentially important protective factor for children in high-risk circumstances, and may lead to more success for these children in the long run.

How some community organizations have worked with public schools to close the gaps

Intermediary organizations

Intermediary organizations work to improve and reform various aspects of service delivery systems for children, youth, and families (Blank et al., 2004). They seek to help communities make better use of resources to achieve desired goals, in ways such as these:

- Convene diverse constituencies that share an interest in an issue (such as academic achievement gaps) to increase public awareness and involvement, problem-solve, and develop new ways to improve the cost-efficiency or the results of services.
- Promote standards for service quality and results, and the effective use of data for continuous improvement and the measurement of results.
- Broker and leverage public and private funds that single organizations may not be able to attract on their own.
- Promote effective policies through education of policymakers and funders, and bring greater influence to bear on specific issues through partnerships and consensus-building.

Local Education Funds

Local Education Funds are intermediary organizations in the education arena. They are independent nonprofits that operate as intermediaries between the community and school districts, with the aim of improving schools and increasing student achievement in low-income communities throughout the country. Local Education Funds often see themselves as agents of change or catalysts for school reform. They began with a grant from the Ford Foundation to the Public Education Fund in 1983 and many were recipients of Annenberg Challenge funds in the 1990s. Local Education Funds now operate in 34 states and work with more than 16,000 schools.

Local Education Funds see their role as bridging the gap between a community and its schools by encouraging citizen involvement in public education. They convene forums in their communities and bring disparate groups together to discuss and take action on education issues. They engage in fund-raising, promote local partnerships, award grants, implement programs, and evaluate results (Brophy, 2001; Useem, 1999).

Major areas of activity for Local Education Funds include the following:

- Professional development of teachers
- Parent or family involvement
- Public engagement
- Programs that connect families, schools, and health and social services
- Literacy/reading development
- Transitions from school to college and careers
- Content standards and assessment
- Technology and education

Overall, the impact of Local Education Funds and Annenberg Challenge-funded efforts on public education has been quite modest. Impediments to effective implementation of school initiatives include:

- Rapid turnover of school leadership and management
- Entrenched school cultures and school district bureaucratic practices
- School staff's resistance to change or lack of capacity to implement change
- Politics of urban school districts
- Lack of leadership from school administrators, such as principals

A Rand Research Brief (2002) on school reform concluded that “schools are not, by and large, fertile ground for ‘break the mold’ ideas...”

The best results of Local Education Funds seem to be in the area of teacher professional development. Giving teachers a sustained opportunity to improve their classroom skills appears, thus far, to yield the best return for the investment.

Wilder's efforts and results in school success

Wilder's plan FY06-08

Goal

Ensure that poor children are successful in school.

Strategies

1. Serving those children and families who are struggling in school due to social and emotional barriers through a broad array of individual, family and school-based services.
2. Partnering with the Saint Paul Public Schools, parents and community organizations to sustain and expand Achievement Plus.
3. Understanding the achievement gap and how to close it.
4. Mobilizing people and partners to ensure that the resources and initiatives that will close the achievement gap are available in the community.

Programming

Specific Wilder programming to address barriers to learning includes a number of evidence-based programs as well as promising services or practices. Most of these programs and practices, which are listed below, have been implemented in the past five years and plans are to continue them over the next three years, expanding them where possible. Prior research has not clearly linked these programs with improved academic achievement. However, research has shown that they can improve social skills and school adjustment, and reduce problem behaviors that interfere with learning (Center for Mental Health in the Schools at UCLA, 2004).

- *Primary Mental Health Project* – early intervention program for kindergarten to third-grade students showing signs of poor school attachment. The project is operating in two Achievement Plus schools and has recently been extended to include students attending preschool at these sites. Plans are to expand to three more schools.
- *Families and Schools Together (FAST)* – builds family cohesion as a protective factor for children ages 4 to 12 using weekly support groups for families. The program seeks to strengthen the connection of both the child and parent to schools, and to address violence and school dropout rates. This program (called “Hmong Working

Together”) currently serves Hmong middle school students and their families in two St. Paul middle schools, with plans for expansion to an elementary school.

- *Aggression Replacement Training (ART)* – Wilder staff are piloting ART in one special education site within the St. Paul schools.
- *The Incredible Years* – a curriculum for students pre-K through age eight, their parents and their teachers that aims to prevent conduct disorder and oppositional behavior in children who show signs of aggressive behavior. Wilder staff provides training and consultation to Head Start staff in implementing this program. Plans are to expand the program to three additional Head Start or other school sites and obtain teacher and group certification at the Child Development Center.
- *Project Kofi* – mental health program for African-American boys in grades 3 to 6, and their families. Currently operates in five St. Paul schools, including two Achievement Plus schools, with plans to expand to two more schools. *Strengthening Multi-Ethnic Families*, a promising practice, is used as the parent support component of this program.
- *Other School Success programs* – other mental health programs include the Child Guidance Clinic and the Southeast Asian Youth Programs. The Child Development Center is also included in Wilder’s School Success efforts, providing child care and education to for children 16 months to 12 years, specializing in integrating children with special behavioral and developmental needs.

In addition, Wilder is involved in a comprehensive school reform initiative with the Saint Paul Public Schools called *Achievement Plus*. The initiative provides student and family support services, extended day programs, and instructional reform (two elementary schools and one K-8 school). Efforts are underway to extend Achievement Plus to a St. Paul middle school.

Objectives

Key change objectives over the next three years include the following:

1. Expand core services in St. Paul schools (Primary Project, FAST, Kofi)
2. Institute new approaches to removing social and emotional barriers to learning (e.g., truancy, preadolescent/adolescent girls’ issues)
3. Develop and implement service model for Achievement Plus middle school
4. Expand services into schools beyond the Saint Paul Public Schools
5. Increase funding from private sources (insurance and individual donors)

Results over the past five years (FY01-05)

Service volume

Service to individuals: About 2,500-3,600 people, mainly children and child care providers, were served per year, including students enrolled at Achievement Plus schools. Note: Services provided to entire classrooms of students in non-Achievement Plus schools are not included in these figures.

Service to organizations: Training and consultation hours varied widely over the five-year period. At its peak in FY03 (when Safe Schools, Healthy Students was fully implemented), over 4,000 hours of consultation and 1,000 hours of training were provided.

Community leadership: Wilder staff produced a handbook on school-based mental health, for use by school staff and community organizations. A Wilder Research paper, “Tackling the achievement gap head on,” was used by the school district and community groups. Achievement Plus has played a major part in the St. Paul schools’ instructional reform initiative and was recently successful in obtaining funds to expand to a middle school. A “perspective series” event was held for community leaders on school success and achievement gap issues.

Service effectiveness

- Accelerated academic achievement has occurred at Achievement Plus schools, particularly 2 of the 3 schools.
- The two Achievement Plus schools with strong academic progress also had improved “order and discipline” and “school climate” (based on staff ratings).
- Reduction in chronic student absenteeism (15+ days absent) was seen at Achievement Plus schools.
- Improvement in emotional-behavioral functioning as a result of school-based mental health services met the performance target in most cases.
- Satisfaction with school-based mental health services (by clients, parents, and school staff) was high, generally meeting performance targets.
- The proportion of school staff seeing the value of Achievement Plus increased greatly at two of the three schools over the five-year period (increasing from 4 in 10 staff to 9 in 10 staff).

For more detailed results, see *Evaluation report on Wilder Foundation strategic plan: Results for FY01-05* (Mueller, 2005).

Lessons learned

Here are some lessons learned by Wilder service providers and Wilder Research evaluators working on school-linked programs that aim to remove learning barriers and promote achievement.

- Intervening to remove barriers to learning, without more direct academic intervention, is likely to have only a marginal impact on students' achievement just as failing to address learning barriers can compromise the results of academic interventions.
- Schools can be unpredictable partners in program implementation due to high turnover among leadership and staff, shifting priorities, political pressures, and budget cutbacks.
- Given this reality in working with the schools, it is important when entering into cooperation or collaboration with schools to have a strongly aligned agenda, a strong commitment from the school and school district (including some monetary commitment), and strong operational leadership within the school district for the project. Even then, other pressing issues in the school environment can make implementing evidence-based practices with fidelity very challenging.
- Even solid support for a project from the central administration of the school district can be altered by the decision-making authority of local site councils of individual schools.
- Staying power can be crucial to the success of an initiative. Often teachers and other school staff are skeptical of new programs and initiatives. They may have seen many come and go over the years and may take the stance that "this too shall pass." They may be worried that outsiders will take over their jobs. To overcome this barrier and enlist school staff support and investment in the effort, staff will need to be convinced that the program will be around for a while and that it will help them in their work, not replace them.
- School staff members tend to have a bias toward direct services and meeting immediate needs. This can make it difficult to implement indirect services (system change, consultation, and training) and can lead to drift in the actual (versus intended) work that project staff do.

Directions to consider

To reiterate, what is meant here by closing the achievement gap is increasing the proportions of economically disadvantaged and racial/ethnic minority children who achieve proficiency in core academic subjects, graduate from high school, and go on to enroll in and complete higher education.

Under the federal No Child Left Behind Act, the Saint Paul Public Schools (like other districts across the country) face the very daunting challenge of bringing all children up to proficiency in core subjects (reading, math, science) regardless of their backgrounds or circumstances. Whatever one thinks of the specifics of the federal legislation, its stated goal is worthy and would go a long way toward closing the achievement gap if met.

Closing the achievement gap is important to the future quality of life of people from the various races, cultures and socio-economic levels in our community. It is also critical to the economic health of our region, as an educated workforce will be a key to future prosperity.

The public schools cannot close the achievement gap on their own. There is much they can do, but they will almost certainly fall short of this goal without strong community support. The factors perpetuating the achievement gap go well beyond the school setting. By the same token, working outside the schools to close the achievement gap will not succeed without strong efforts within the schools.

Organizations like Wilder, although not in the business of academic education, can make a difference in closing the achievement gap. What Wilder could do on its own in this regard is probably quite modest. However, if we are able to work in concert with other community organizations and groups interested in the issue, a substantial impact is possible.

With these thoughts in mind, the following ideas are offered for consideration as we plan for Wilder's future efforts in the "school success" arena.

1. Focus directly on closing the achievement gap.

For all the reasons given, this is the education issue that most critically needs to be addressed in our community, and it is well aligned with the mission of many community organizations to improve conditions for the poor and vulnerable. Some members of the public may see such an effort as potentially holding back the higher-performing students, but this doesn't have to be a byproduct. In fact, if done well, measures taken to close the achievement gap should be good for all students.

In a recent survey, Wilder stakeholders (community leaders and Wilder donors, volunteers, and staff) saw children's school success and closing the achievement gap as one of the top two critical issues facing the St. Paul area. Of the four current areas of Foundation focus, school success was rated as the area of greatest importance or urgency. Overall, Wilder stakeholders were calling for a broad range of strategies to improve the success of at-risk students – working with young children before they enter school, with students in the schools both during and after school hours, with their families, and with other community organizations. Clearly, Wilder by itself cannot do all of this. However, Wilder might be a catalyst in seeing that key issues are addressed and a partner in launching major initiatives, as was done with Achievement Plus.

2. Improve the school readiness of disadvantaged children, in collaboration with others.

As indicated, poor and minority children tend to be less prepared to enter kindergarten. Hence, they are at a disadvantage from the time they start school compared to their higher income or White classmates. Much can be done to better prepare such children for school. Within the early childhood education area, it would seem that Wilder has much to offer in helping children to develop emotional and social skills (non-cognitive skills). Early childhood interventions can potentially have a large impact on these skills which are crucial to later success, both in school and in the workplace.

Clearly, Wilder is already doing significant work to improve the social skills of young, at-risk children. This work includes, for example, the implementation of the Incredible Years program at Head Start sites and the Wilder Child Development Center, and extending the Primary Mental Health Project to preschool programs at Achievement Plus schools. Project Early Kindergarten, with the St. Paul schools, provides another potential opportunity for Wilder to work with preschool-age children, families, child care providers, and teachers to improve the school readiness of at-risk children, particularly in the area of social skills development.

Given the current attention that the early childhood area is getting locally, other opportunities may emerge to improve the school readiness of at-risk children.

3. Work within schools to improve the chances of high-risk students.

The mental health services that Wilder provides within the Saint Paul Public Schools can contribute to students' success. This is clearly a core competency that Wilder has to offer the schools. Although the effect on academic achievement is indirect and may be difficult to document, addressing emotional-behavioral and family problems can reduce significant barriers to learning for many children. Removing these barriers may become increasingly important as schools do all they can in the classroom to improve the academic

achievement of students from disadvantaged backgrounds. Despite strong and persistent efforts by the schools, achievement scores may begin to plateau due to conditions beyond their control – e.g., adverse conditions in some students’ personal and family lives that make it difficult for them to fully benefit from a high-quality instructional program.

In short, as schools strive to meet the requirements of No Child Left Behind, effective student and family support services may be increasingly seen as an important ingredient in successfully meeting these requirements. If so, there may be a greater call for Wilder’s expertise in this area. In addition, the expansion of Achievement Plus to middle school sites could provide an opportunity for Wilder to continue some of the mental health practices that were successful in the Safe Schools, Healthy Students initiative.

4. Serve as an intermediary organization to foster community awareness, attention, and action on closing the achievement gap.

Wilder may be ideally suited to take on some of the functions of an intermediary organization in an effort to close the achievement gap. These functions or roles could include:

- Bringing disparate groups together to discuss factors contributing to the achievement gap and potential courses of action to reduce those problems.
- Serving as an informed and informative advocate, along with others, for the educational needs of poor and racial/ethnic minority children – for example, helping the public and policy-makers to better understand the issues.
- Conducting and disseminating research on factors contributing to the achievement gap and promising approaches to reducing the gap

Many Wilder stakeholders (community leaders and Wilder donors, volunteers, and employees) see these as appropriate and important roles for the Foundation, based on the recent survey. Often it may be best to carry out these roles in concert with other community groups. Such collaborations can lead to initiatives to directly address factors that keep so many students from reaching their potential in school.

Conclusion

In the end, closing the achievement gap depends on highly effective public schools. It depends on public schools being able to implement many of the things mentioned in the “closing achievement gap” section above. Without effective schools, the work of organizations such as Wilder is unlikely to make a large-scale difference in this large-scale problem.

However, schools cannot do this alone. Wilder, in concert with other community organizations and groups, could mobilize community support to help ensure that public schools have the tools and resources to be effective. For example, a community coalition could help ensure that schools have the resources to hire well-qualified teachers, provide needed professional development, and keep class sizes small, especially in the primary grades. Wilder and other community groups could also potentially work together to better prepare disadvantaged children to enter school, remove barriers to the learning of school-age children, strengthen the support from adults that high-risk children have available for their learning (e.g., from parents, other family members, mentors, or tutors) and increase community support generally for the school success of poor and racial/ethnic minority students.

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