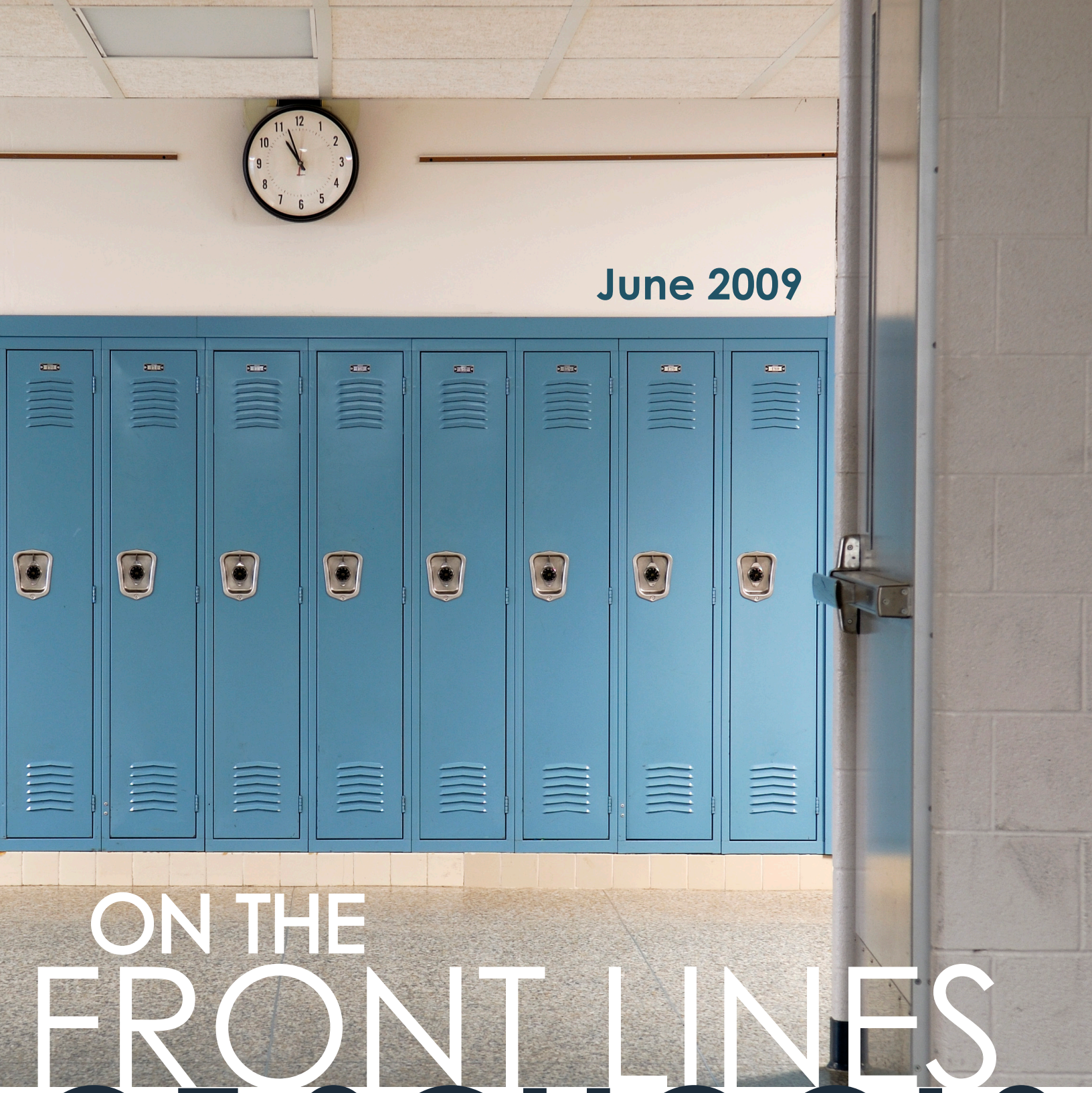


June 2009

ON THE FRONT LINES OF SCHOOLS

Perspectives of Teachers and Principals on the High School Dropout Problem

A Report by Civic Enterprises in association with Peter D. Hart Research Associates for the AT&T Foundation and the America's Promise Alliance

By: John M. Bridgeland, John J. Dilulio, Jr. and Robert Balfanz

TABLE OF CONTENTS

INTRODUCTION

Three years ago, we released a report -- The Silent Epidemic: Perspectives of High School Dropouts -- to better understand the lives and circumstances of the nearly one-third of public high school students, and almost one-half of African Americans, Hispanics and Native Americans, who fail to graduate with their class every year.

We wanted to understand who they were, why they dropped out, and what might have helped them graduate. We discovered that most students who dropped out could have succeeded in school. We also found that the severity of the dropout problem and its consequences to individuals, the economy and society were largely unknown. While the causes of dropout are complex, dropouts gave the nation hope that more students could graduate ready for college and productive work if duly challenged and given appropriate supports.

The response to the perspectives of these young people prompted a national dialogue to address the dropout epidemic. A national summit mobilized more than 100 organizations behind a 10-point plan of action, prompting action from the federal government and continued leadership from all 50 states. The America's Promise Alliance is now leading 100 dropout summits in all 50 states, providing new resources to help schools, communities and states address their dropout challenges. At the early summits, participants asked where the voices of parents were in the dropout discussion. In response, we released One Dream, Two Realities: Perspectives of Parents on America's High Schools, showing that parents with less education, lower incomes and children in low-performing schools were the most likely to see a rigorous education, and their own involvement, as critical to their child's success.

We discovered the views of teachers and administrators were also missing from the dropout discussion. To better understand their views, focus groups and nationally representative surveys were conducted of high school teachers and principals throughout the United States who say that at least a few students drop out of their schools every year, as further described in the Methodology section. A focus group of superintendents and school board members was also included. These interviews took place in large cities, suburbs and small towns with low-achieving, high dropout rate schools. To help interpret the results, we convened a colloquium among teachers and education experts to shed light on the new data, including the most challenging findings. President Barack Obama has made clear that "dropping out of high school is no longer an option. It's not just quitting on yourself, it's quitting on your country." We hope this report provides those on the front lines of education -- our teachers and administrators -- a stronger voice in the dropout debate and more support within schools and communities to help address the challenge. In highlighting both the opportunities and barriers to addressing the dropout problem, we hope to further spark educators, parents, students, policymakers, and others to continue to make this issue an urgent national priority and to make the promise of equal opportunity the President envisions for every student a reality.

EXECUTIVE SUMMARY

Teachers and administrators in public high schools recognize there is a dropout problem, know they are confronted with daunting challenges in classrooms and in schools, and express strong support for reforms to address high dropout rates.

Yet, less than one-third of teachers believe that schools should expect all students to meet high academic standards, graduate with the skills to do college-level work, and provide extra support to struggling students to help them meet those standards. Although more than half of principals believe schools should hold these expectations for all students, significant majorities of both teachers and principals do not believe that students at risk for dropping out would respond to these high expectations and work harder. Our data, focus groups and colloquium indicate that the views of many teachers are shaped by what they see in the classroom, particularly among students who show low skill levels and weak motivation late into high school. Teachers, in large part, believe that they and their students are not receiving the necessary resources and supports. As a result, many teachers are skeptical about the possibility of educating every student for college.

The nationally representative surveys of teachers and principals, together with our focus groups, when juxtaposed to a key finding of the Silent Epidemic report -- that two-thirds of dropouts said they would have worked harder if more were demanded of them -- reveals an expectations gap. This expectations gap, particularly between teachers and students, may be one barrier to closing the achievement gap. Although teachers and principals express strong support for reforms that research tells us would help reduce dropout rates -- such as alternative learning communities, expanding college-level learning opportunities, connecting classroom learning with real world opportunities, and early warning systems to help struggling students as early as elementary school -- none of these efforts are likely to be as successful without the fundamental expectation that all students should meet high academic standards and be provided supports to graduate ready for college and the work force. We clearly need a national dialogue among teachers, administrators, students and parents around these findings to ensure continued progress in meeting the dropout challenge.

THE DROPOUT PROBLEM

Teachers and principals know students who were capable of graduating but failed to complete high school. Most teachers and principals recognize that dropout is a major problem, but our research shows there is confusion over graduation rates.

Most principals (76 percent) and a majority of teachers (59 percent) saw dropout nationally as at least a "major problem." Only 14 percent of principals and 11 percent of teachers viewed the dropout problem as a "crisis." Thirty-five percent of teachers and 24 percent of principals viewed dropout as a minor problem or no problem at all.

Nearly half of teachers (48 percent) and more than half of principals (55 percent) reported their school's graduation rates were 90 percent or higher. Only 23 percent of teachers and 20 percent of principals reported their school graduated less than 80 percent of their incoming freshman class. Research showed the average on-time national graduation rate was in fact between 68 and 75 percent during the time of the survey.

Nearly half of teachers (46 percent) and the majority of principals (58 percent) viewed reported national graduation rates as only somewhat or not accurate and reliable. Among teachers who questioned the reliability of the statistics, the majority (54 percent) felt statistics understated the problem. Fifty-one percent of principals said statistics overstated the problem. It follows that principals were more optimistic (61 percent) than teachers (47 percent) that the dropout rate could be halved in a decade.

Eighty-one percent of teachers and 89 percent of principals felt their school was doing a good or excellent job. Less than 10 percent of teachers and principals rated the nation's schools as excellent, but 24 percent of teachers and 25 percent of principals felt their school was excellent. Even at schools where teachers reported graduation rates below 80 percent, 64 percent of teachers classified their schools as good or excellent.

WHY STUDENTS DROP OUT

Teachers and principals identified many reasons why students drop out, reflecting an understanding of the complexity of the problem. Most cite a lack of parental involvement and support at home as the core problem.

Sixty-one percent of teachers and 45 percent of principals felt lack of support at home was a factor in most cases of students' dropping out, with 89 percent of teachers and 88 percent of principals saying it was a factor in at least some cases. Seventy-four percent of teachers and 69 percent of principals felt parents bore all or most of the responsibility for their children dropping out.

Only 20 percent of teachers and 21 percent of principals felt boredom was a factor in most cases of high school dropout. While 42 percent of teachers felt students who said they dropped out because school was boring were just making excuses, half of all teachers and nearly seven in ten principals (69 percent) felt these former students were speaking to an important cause. Previous research has shown that nearly half (47 percent) of dropouts said they left school because they found it boring and uninteresting and did not see the relevance of school to real life.

Sixty-two percent of teachers and 60 percent of principals cited students being academically unprepared for high school as a factor in at least some dropout cases. Previous research has shown that more than one third of dropouts (35 percent) reported leaving school because they were failing and 45 percent of dropouts stated their previous schooling in middle and elementary school had not prepared them for high school.

Forty-five percent of teachers and 42 percent of principals cited absenteeism, one of the early warning signs, as a key factor in most cases of high school dropout.

They also understood other causes in at least some dropout cases, such as the negative influence of peers not interested in school (78 percent of teachers and principals), needing to get a job and make money (48 percent of teachers, 44 percent of principals), becoming a parent (45 percent of teachers, 39 percent of principals), and caring for a family member (35 percent of teachers, 26 percent of principals).

WHAT MIGHT HELP STUDENTS STAY IN SCHOOL

Our surveys showed strong support among educators for reforms to increase high school graduation rates. Yet, there were disturbing signs that America's commitment to providing every child the opportunity to an excellent education is falling short in our nation's classrooms.

Raising Low Academic Expectations

Less than one-third of teachers (32 percent) believed we should expect all students to meet high academic standards, graduate with the skills to do college-level work, and provide extra support to struggling students to help them meet those standards. Fifty-nine percent of teachers believed we should have a separate track to allow students who are not college-bound to get a diploma without achieving these same high standards. Majorities of both newer teachers (58 percent) and experienced teachers (59 percent) believed we should have a separate track.

In contrast, nearly six in ten principals (58 percent) believed we should expect all students to meet high academic standards, graduate with the skills to do college-level work, and provide extra support to struggling students to help them meet those standards, while only 41 percent wanted a separate track to allow students who are not college-bound to get a diploma without achieving those standards.

Seventy-five percent of teachers and 66 percent of principals did not believe students at-risk of dropping out would work harder if more were demanded of them -- higher academic standards, more studying, and homework -- to earn a diploma. Newer teachers (73 percent) and experienced teachers (77 percent) shared these views. These perspectives are in stark contrast to previous research showing that 66 percent of dropouts said they would have worked harder if more had been demanded of them in the classroom.

More Responsibility From Educators and Schools

When principals and teachers were asked how much responsibility they have for students dropping out, 22 percent of principals held themselves and teachers as largely or solely responsible. Thirteen percent of teachers placed a similar responsibility on themselves. Teachers were more likely to place responsibility on the school system (19 percent), or broader society (18 percent) than on themselves and believed elected officials at the local, state, and federal levels were as responsible as they were (13 percent) for students leaving school.

Educators Recognize Changes Are Needed

When teachers and principals assessed their own high schools, principals more readily acknowledged the need for improvement in a variety of areas, including engaging parents (79 percent of principals felt more work could be done, as did 59 percent of teachers), keeping students interested and engaged in course work (87 percent of principals, 59 percent of teachers), helping students with problems outside of school affecting school work (76 percent of principals, 54 percent of teachers), and providing support for struggling students (75 percent of principals, 47 percent of teachers).

Support for Reform

While they differed in the degree to which they recognized room for their own schools to improve, majorities of both teachers (61 percent) and principals (72 percent) thought some significant improvements were needed in high schools to ensure all students graduate.

More than three-fourths of teachers (77 percent) and 71 percent of principals strongly favored alternative learning environments to reduce the dropout rate. Another 19 percent of teachers and 25 percent of principals somewhat favored this proposal, giving it strong support in both groups. In our focus groups, educators felt these environments would provide at-risk students more choices in finding a school that was more relevant to their lives and goals.

Seventy-five percent of teachers and 54 percent of principals felt reducing class sizes would be an effective way of decreasing the dropout rate. This was one of the reforms thought to have the most potential among teachers who felt that the dropout rate could be successfully cut in half in the next ten years.

Seventy percent of teachers and 71 percent of principals said early warning systems to identify and help struggling students would do a lot to reduce the number of dropouts. Some educators in our focus groups felt their schools were doing a poor job detecting and providing supports to students at-risk of dropping out.

Seventy percent of teachers and 68 percent of principals felt connecting classroom learning to real-world experiences would help a lot in reducing the number of dropouts. In our focus groups, many believed service-learning and hand-on projects would help, but some felt the regimented calendar of daily lessons interfered.

The majority of teachers (63 percent) and principals (51 percent) felt increasing their schools' parental outreach programs would do a lot to reduce the number of high school dropouts. Many in our focus groups believed the parent-school relationship was the key to boosting student performance in school.

Teachers and principals supported other proposals to reduce the dropout rate, such as: expanding college-level learning opportunities (61 percent of teachers, 58 percent of principals) and mandating a national compulsory school age of 18 with support for struggling students (41 percent of teachers, 50 percent of principals).

Teachers and principals did not believe eliminating standardized test requirements to graduate from high school would reduce the number of dropouts. Only 27 percent of teachers and 22 percent of principals believed elimination of such standardized tests would help a lot.

WAYS FORWARD

The perspectives of teachers and principals are central to improving high school graduation rates and preparing all students for successful entry into college and the workforce. To help students succeed, we recommend:

Accurate Graduation Data and College Readiness Accountability

All states need to follow a common calculation of graduation rates, as put forth by the National Governor's Association and adopted by the U.S. Department of Education. States also need to establish ambitious graduation rate goals and make districts and schools accountable for making substantial progress toward these goals. Finally, teachers and administrators need to be brought into the mission to graduate all students prepared for post-secondary education.

Standards-Based Rigorous Curriculum and High Expectations for Every Student

Schools should have fewer, clearer and higher standards aligned with college requirements so that every student has the opportunity to graduate ready for post-secondary education. Principals and teachers

should have high expectations for every student, and be brought into the mission of ensuring every student has the chance to go to college. Research has shown the clear link between teacher expectations, rigor in student coursework and student academic performance, across all student backgrounds and income levels.

Improved Communication, Understanding and Collaboration among Teachers, Parents, and Students

Schools and communities should engage teachers, parents and students in a dialogue about the different perspectives these groups have on the high school dropout challenge to foster better understanding among these three vital partners on paths forward. Teachers and parents need to work together to provide struggling students with the necessary supports to stay on track to graduate. Students, in turn, need to become better self-advocates and seek help from their teachers and parents before it is too late. Schools need to create parent engagement strategies that focus on teacher feedback on a student's academic progress and provide parents better information and tools – such as information on graduation and college admission requirements and homework hotlines.

Secondary School Redesign to Enable Higher Graduation Rates

Secondary schools need to be reorganized to keep all students on the graduation path. The traditional high school is outdated and needs to be revamped. To do this, teachers and administrators need to have the necessary supports and school structure so they are not overwhelmed with the number of struggling students in their classrooms. Excellent models of high school redesign exist, largely centered around a rigorous college and career-ready curriculum, and should be further examined and adapted for more schools.

More Research to Ensure a High Quality Teacher in Every Classroom

Research tells us that good teachers matter, but we do not know enough about what qualifications, characteristics, and classroom practices of teachers are more likely to boost student achievement. More research should be conducted to show the relationships among teacher qualifications, characteristics, classroom practices and improvements in student performance. States and school districts should concentrate on establishing rigorous teacher preparation programs, as well as opening up more alternative licensing routes. They must work to recruit and retain strong teachers by providing professional development, mentoring programs, and competitive salaries.

Eliminate Out-of-Field Teaching

States and school districts need to work together to ensure that every classroom has a teacher educated and certified in that subject area. School districts need to acquire an adequate supply of effective teachers with appropriate subject-matter knowledge, and assign only highly-qualified teachers to low-income and minority students in an effort to close the achievement gap.

Develop Induction Programs for All Beginning Teachers

Schools also should have comprehensive induction programs for all beginning teachers. These comprehensive programs should incorporate: mentoring by highly-effective master teachers in the same subject area, ongoing professional development, common planning times to encourage collaboration, and a network of teachers at other schools.

Authority for Principals to Drive Student Achievement To Scale

Research shows that principals are the second most important factor in student achievement, behind teacher quality. The most effective principals, meaning those who successfully motivate and encourage their staffs to improve student outcomes, are those who have more authority in hiring and firing decisions, and have more control over school budgets.

Early Warning Systems

Schools need to develop district-wide (and eventually state-wide) early warning systems to help them identify students at risk of dropping out and to develop the mechanisms that trigger appropriate supports for these students. Research has shown that schools can predict who is at risk for dropping out with a high degree of accuracy in the later years of elementary school and can identify approximately half of eventual dropouts by middle school. By 9th grade, dropout can be predicted with 85 percent accuracy. The key indicators are poor attendance, behavioral problems, and course failure.

Ongoing Literacy Programs in Middle and High Schools

Research shows that more than 8 million students in grades 4-12 read below grade level. This leads to many students struggling with their coursework, falling behind, and eventually dropping out. Students should be engaged in ongoing literacy programs in middle and high schools, and subject matter teachers should incorporate literacy strategies in their course material.

Alternative Learning Environments

School districts should develop options for students, including a curriculum that connects classroom learning with real life experiences, smaller learning communities with individualized instruction, and alternative learning environments that offer rigorous and specialized programs to students at risk of dropping out. Connections should also be made between classroom learning and real jobs in the workforce, through job shadowing, internships and work study programs.

ON THE FRONT LINES OF SCHOOLS

Each year, more than 1.2 million students drop out of our nation's public high schools with detrimental consequences to them, our society, our economy and civic life.[1]

Nationally, research now puts the on-time graduation rate between 68 and 75 percent. Nearly one-third of all public high school students -- and about one-half of all African Americans, Hispanics, and Native Americans -- do not graduate from a public high school with their incoming freshman class.[2] The dropout epidemic disproportionately affects low-income, minority, urban, single-parent children – with 14 percent of American high schools producing more than half of the nation's dropouts and more than two-thirds of its minority dropouts.[3] In nearly 2,000 high schools in the United States, located in cities with high poverty rates, low wealth rural districts and increasingly in some suburbs, the number of seniors is routinely 60 percent or less than the number of freshmen three years earlier.[4] Although there is some evidence of modest increases in on-time high school graduation rates in the past few years, tragically, high school graduation rates have remained largely unchanged over the last three decades, ever since the 1983 report, A Nation at Risk, warned of the many dangers of American education falling behind foreign counterparts.[5] According to the 2008 Organization for Economic Cooperation and Development (OECD) survey, the U.S. ranked 21st in high school graduation rates and 16th in college graduation rates among developed countries, even though it outspent the majority of them as a percentage of GDP.[6]

The individual and societal impacts of dropping out are severe -- often triggering unemployment, poverty, living on public assistance, poor health, incarceration, and becoming single parents who have children who drop out of school.[7] Dropouts were more than twice as likely as high school graduates to slip into poverty in a single year and three times more likely than college graduates to be unemployed in 2004.[8] Dropouts are more than eight times as likely to be in jail or in prison than high school graduates.[9] Dropouts are four times less likely to volunteer than are college graduates and half as likely to vote or participate in community projects. They represent only 3 percent of actively engaged citizens in the U.S.[10]

The economic impacts of dropout are just as bleak. The average annual income for a high school dropout in 2005 was $17,299, compared to $26,933 for a high school graduate, a difference of $9,634.[11] In the past 30 years, the difference between what college graduates earn compared to high school graduates has climbed to the highest level since 1915, when far fewer Americans pursued a post-secondary degree.[12] College graduates earn on average $1 million more over a lifetime than do high school dropouts.[13] If the students who dropped out of the Class of 2007 had graduated, the nation's economy would have benefited from an additional $329 billion in income over the lifetimes of these students.[14] The government would reap $45 billion in extra tax revenues and lower costs for public health, crime, and welfare payments if the number of high school dropouts among 20-year olds in the U.S., who number more than 700,000 individuals, were cut in half. If our dropout rate remains the same for the next 10 years, the result will be a loss to the nation of $3 trillion.[15]

Analysis of recent census data shows that close to one-third of 18- to 24-year olds who have dropped out of school are simply idle, neither in the labor force nor participating in educational programs. The idleness rate climbs to more than 40 percent for high school dropouts from families with incomes below the poverty level. This means they are not acquiring the skills needed to earn a livelihood, let alone support a family. Compare these rates with the low, 8 percent idleness rates for 18- to 24-year-olds who completed high school.[16]

Even those who graduate from high school may not be college ready. A recent study shows that of the students who wished to go to college, only 41 percent took the necessary steps during their senior year to apply to a four-year university.[17] Recent research reveals that many states do not require students to take specific core courses in math or science in order to graduate from high school.[18] In addition, even for those students who successfully complete their high school's core curriculum, few are ready for introductory college classes. In fact, of those students who took a core curriculum, only one-fourth are ready for college-level work in English, math, social science, and natural science, while one-fifth are not ready in any of these subject areas.[19]

Fundamental to any effort to address the high school dropout epidemic are the nation's educators and administrators – the teachers, principals, superintendents, and school board members – who are on the front lines of education.

EDUCATOR PERSPECTIVES ON THE DROPOUT PROBLEM

Most teachers and principals recognize that lagging high school graduation rates are a major problem, but our quantitative and qualitative research suggests a limited understanding of its scope and confusion over actual graduation rates. Efforts must be undertaken to ensure principals and teachers have an accurate understanding of the extent and dimensions of the dropout problem in their schools.

HOW EDUCATORS VIEW THE DROPOUT PROBLEM

While principals (76 percent) were more likely than teachers (59 percent) to see the dropout rate as at least a "major problem" in the United States today, only 14 percent of principals and 11 percent of teachers called it a "crisis." Thirty-five percent of teachers and 24 percent of principals surveyed thought high school dropout was a minor problem or no problem at all. Not surprisingly, teachers and principals who reported they were in schools with graduation rates below 85 percent were much more likely to report that high school dropout was a major problem or crisis nationally, with 84 percent of teachers with reported graduation rates of under 80 percent and 93 percent of principals with graduation rates of under 85 percent reporting that dropout was a major problem or crisis in the United States. But there was confusion over the actual graduation rates of their schools.

CONFUSION OVER GRADUATION RATES

Nearly all of our respondents in the national surveys (82 percent of teachers and 95 percent of principals) said they knew a student who had the potential to graduate, but dropped out early. Although teachers and principals had personal experiences with students who dropped out of school, they did not report graduation rates that reflect national statistics. Almost half of teachers (48 percent) and the majority of principals (55 percent) responded that their school had a graduation rate of 90 percent or higher. Research has indicated that the average national graduation rate is roughly between 68 and 75 percent and that, of the 50 most populous school districts, only 6 have a graduation rate higher than 70 percent.[20] Yet, only 23 percent of teachers and 20 percent of principals in this nationally representative sample reported that their school had a four-year graduation rate below 80 percent.

When asked how many students drop out of their schools each year, 56 percent of teachers and 63 percent of principals responded "just a few." Only 9 percent of teachers and 7 percent of principals felt that "many" students dropped out. The surveys showed that 55 percent of principals and 45 percent of teachers who saw the dropout problem as at least a "major problem" still reported that only a few of their students dropped out each year. Even those teachers who reported having graduation rates lower than 80 percent were still hesitant to claim that "many" students dropped out of their schools, with only 30 percent of teachers saying this. Only 21 percent of principals who reported graduation rates below 85 percent also reported having "many" students drop out.

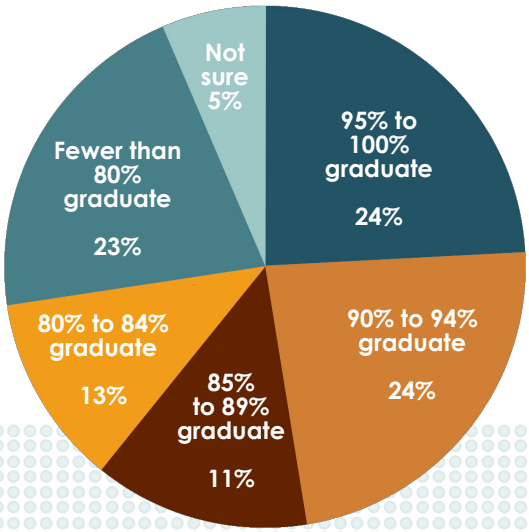
The confusion over dropout rates was evident in focus groups of teachers from low-income, high dropout rate schools. One teacher from Philadelphia reflected, "It's tough to keep track. Who is keeping track of the kids who are just transferring to another school versus completely dropping out of school? No school is doing that. The system isn't doing that." Our respondents said their schools struggled with following students through their high school careers, mentioning that their school did not have an official tracking system and often times, teachers had to rely on word of mouth to determine if a student dropped out or simply moved away.

Graduation Rate at their School

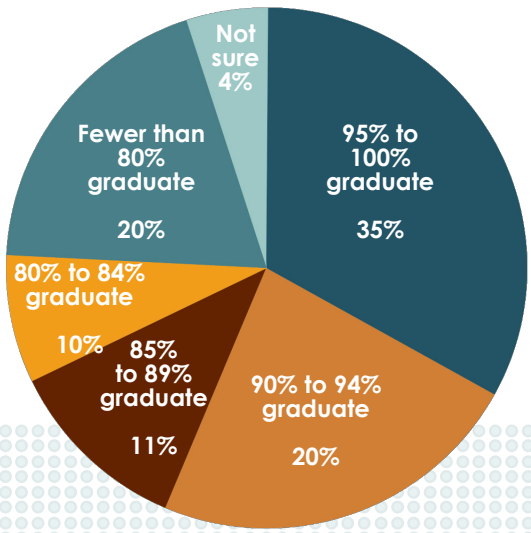
As reported By Teachers and Principals

Of the students who start 9th grade at your school, how many graduate?

TEACHERS



PRINCIPALS



SKEPTICISM OVER THE RELIABILITY OF DROPOUT STATISTICS

When asked about the national graduation rate statistics, nearly half of the teachers (46 percent) and the majority of the principals (58 percent) felt that they were unreliable. Teachers and principals agreed that national graduation rates were inaccurate, but for different reasons. Of the teachers who were less confident in the truthfulness of graduation rates, a majority (54 percent) thought that graduation rates understated the problem. Moreover, nearly one in five teachers (18 percent) felt their principals and school administrators were purposefully underreporting the school's dropout numbers.

Conversely, the majority of principals (51 percent) felt graduation rate statistics were unreliable because they overstated the problem. This could have led principals to be more optimistic than teachers (61 percent to 47 percent) that the dropout rate could be halved within a decade. This discrepancy may be explained by what we heard in our focus groups -- that teachers have direct exposure to the numbers of students who attend their classes on a daily basis and are better able to track attendance. On the other hand, principals are responsible to their school board members and superintendents and may be more cautious about labeling a student a "dropout."

OVER-ESTIMATING SCHOOL PERFORMANCE

About 2,000 schools in America have a graduation rate that is 60 percent or lower, and increasing numbers of high school students graduate without the academic and work skills necessary for a productive future.[21] Yet, a majority of teachers (58 percent) and principals (67 percent) surveyed believed that the nation's high schools were doing a good or excellent job. Furthermore, teachers and principals were more likely to give their own schools even higher marks, as 81 percent of teachers and 89 percent

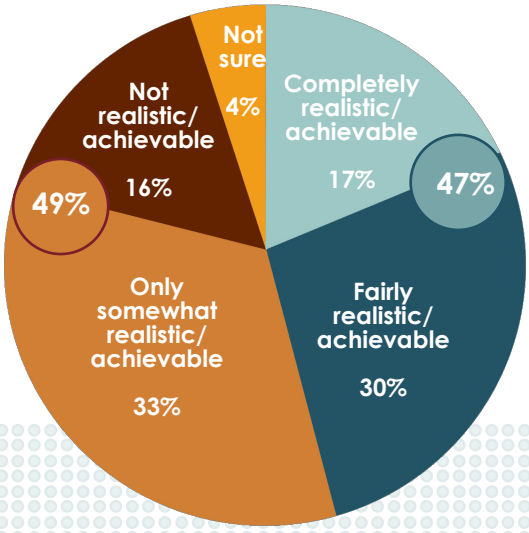
of principals felt their schools were doing a good or excellent job. Less than 10 percent of teachers and principals surveyed felt that, overall, the nation's high schools were doing an excellent job, but were more willing to classify their own schools as excellent (24 percent of teachers and 35 percent of principals). Even among teachers who reported a graduation rate of 80 percent or lower, more than three-fifths classified their school as being good or excellent (64 percent). Principals were equally confident in their school's ability, as 75 percent of all principals who reported a graduation rate under 85 percent claimed their school to be doing a good or excellent job.

When asked whether improvements were needed to ensure that nearly all students graduate, more than a third of teachers (38 percent) felt high schools were already doing a good job in accomplishing that goal and that no improvements were necessary. In our focus groups, we asked educators to rate how well their schools detected students at risk of dropping out. The majority gave their schools above average marks. As one teacher explained, "Our district does an exceptional job at identifying potential dropouts," yet he also mentioned that his school had a 40 percent dropout rate, and a truancy rate that is the "highest in the State of Illinois at 20 percent." This suggests that however well intentioned some current reforms may be, schools struggle to make measurable gains in reducing the dropout problem. Educators must have accurate data, so they can take a realistic look at how well their schools are doing in graduating more students and what more can be done to improve those rates.

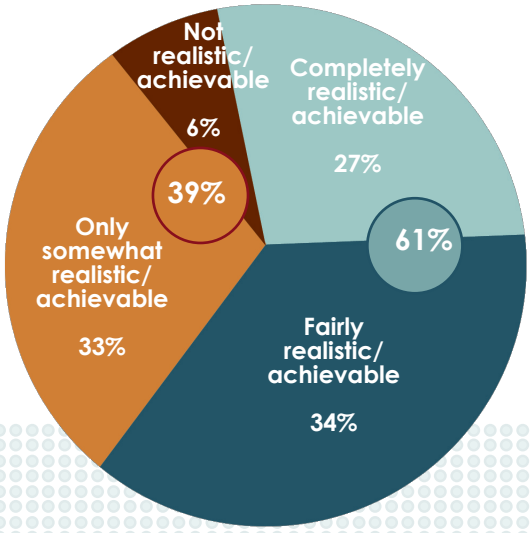
Principals More Optimistic Than Teachers About Cutting National Dropout Rate In Half

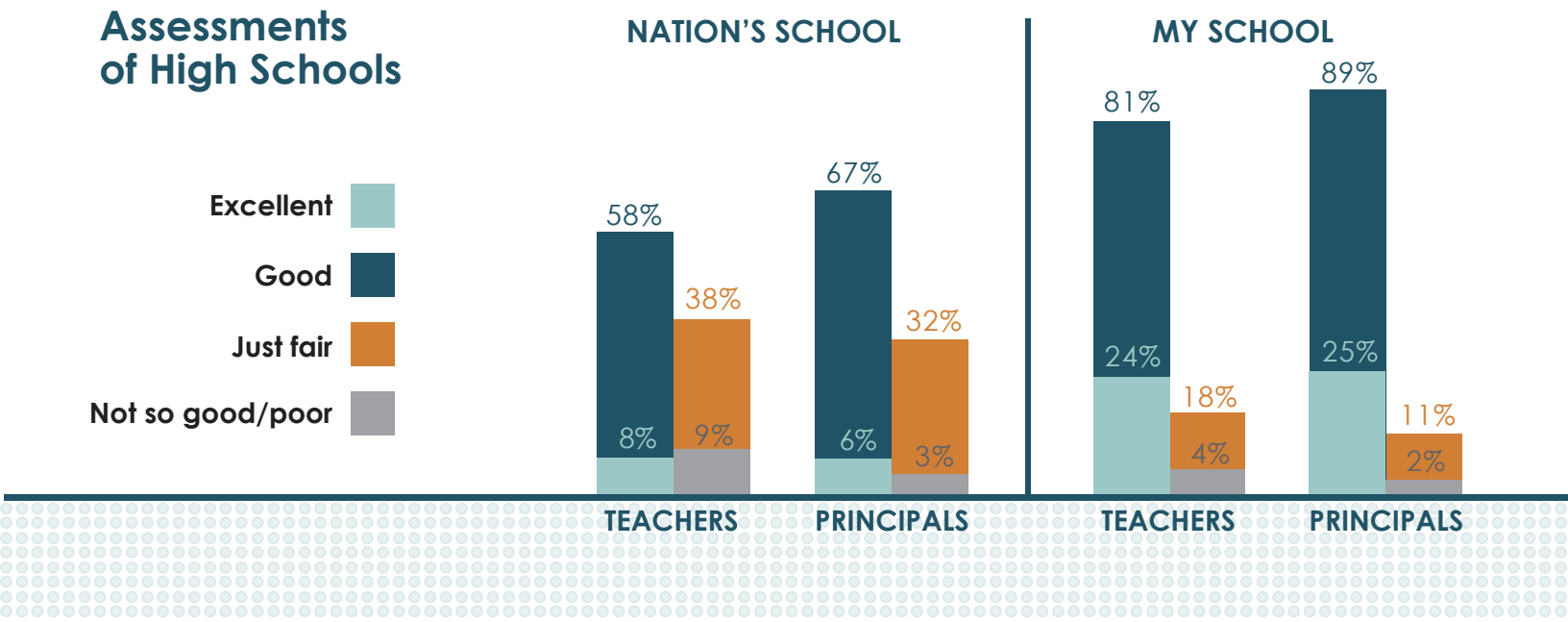
If there were a commitment to making needed changes and reforms at the local, state, and national level, how realistic and achievable do you think it is that the national drop-out rate could be cut in half wthin ten years?

TEACHERS



PRINCIPALS





WHY STUDENTS DROP OUT

Teachers and principals identified a variety of reasons why students drop out, reflecting an understanding of the complexity of the problem. Leaving high school early is not a decision that students make on any given morning, but reflects a slow process of disengagement that produces warning signs along the way.[22] The majority of the educators surveyed for this report cited a lack of parental or familial involvement at home as a leading reason for students dropping out. Few educators, however, placed much responsibility on themselves or the school system, although most recognized that teachers and schools bear at least some of the responsibility.

LACK OF SUPPORT AT HOME FROM PARENTS OR GUARDIANS

When asked to identify the reasons students drop out of high school, not enough support in the home was the top response given by teachers and principals. Sixty-one percent of teachers felt a lack of support at home was a factor in most cases of students' dropping out, with 89 percent saying that it was a factor in at least some cases. Similarly, 45 percent of principals felt that a lack of parental support was a factor in most dropout cases, and 88 percent reported it being a factor in at least some dropout cases. Nearly three-fourths of teachers (74 percent) and 69 percent of principals felt that all or most of the responsibility for students dropping out rested with parents. Principals, however, were more willing to cite "engaging parents" as an area in which their high school could improve, with 79 percent who said that more work could be done and only 21 percent who thought that their school did enough. Nearly twice as many teachers (40 percent) thought their schools adequately involved parents in their child's education.

Teachers and principals in our focus groups understood the relationship between parental involvement and student achievement. A teacher from Cleveland, Ohio explained, "When I look at my honor students, it's amazing. The majority of them come from a two-parent, functional home. And then when I look at the kids who fail the class, 75 percent or 80 percent of them come from dysfunctional homes." Increased parental involvement was universally the most popular reform identified by educators in our focus groups. A lingering question, however, was the extent to which schools were giving parents the information and tools they needed to help strengthen the academic performance of their children.

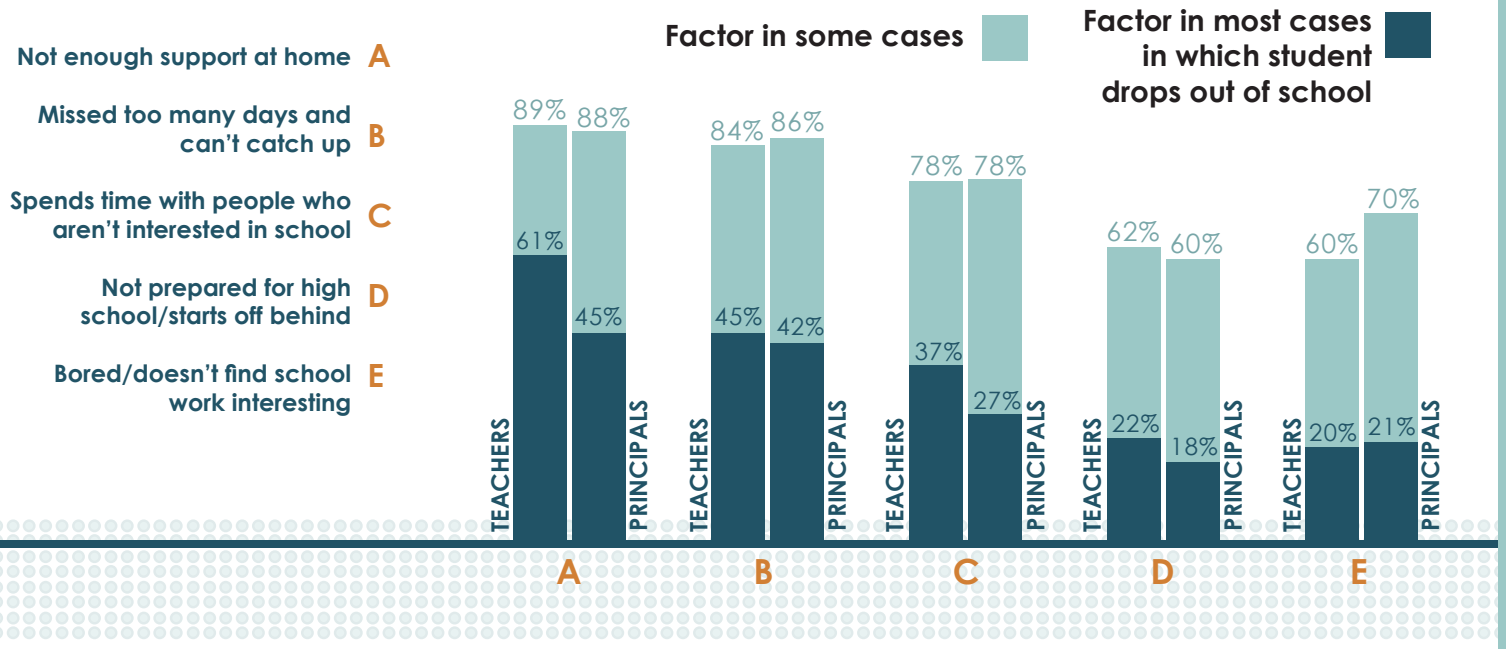
Research has shown that parental involvement can significantly improve student achievement, with the children of engaged parents having a higher likelihood of attending class, having fewer behavioral problems, excelling in school and successfully graduating with a diploma.[23] Research has also shown that students tend to agree, as dropouts felt that more parental involvement would have been helpful in keeping them on track to graduate.[24]

The gap between the attitudes of parents of students in low-performing schools and parents of students in high-performing schools was highlighted in the recent report, One Dream, Two Realities: Perspectives of Parents on America's High Schools. The report showed a large majority of parents with children in high-performing schools (85 percent) said their schools were doing a good job encouraging parental involvement, while less than half (47 percent) of their counterparts with children in low-performing schools reported the same sentiment. Parents with children in low-performing schools were less likely to feel that their child's high school took appropriate and timely steps to inform parents about their child's academic performance, outline the requirements necessary for high school graduation and college admission, and provide a single point of contact for school-related questions.[25]

The importance of parents in a student's education cannot be overstated; however, it is not the "cure all" for combating the dropout problem and dropouts themselves did not identify it as the main reason that led them to leave school. As explained by one principal, "The decision for a student to drop out is more complex than just one reason."

"When I look at my honors students, it's amazing. The majority of them come from a two-parent functional home. And when I look at the kids who fail the class, 75 percent or 80 percent of them come from dysfunctional homes."
-History teacher from Ohio

Reasons for Dropping Out: Top Tier



BOREDOM AND LACK OF RELEVANCE

In The Silent Epidemic, a survey of dropouts found that nearly half (47 percent) said a major reason for dropping out was that classes were not interesting. In addition, nearly seven in ten students (69 percent) responded that they were not motivated or inspired to work hard in school. In the focus groups, these young adults often considered school as something irrelevant and criticized teachers for employing a lecture based method instead of involving them in the classwork.[26]

Only 20 percent of teachers and 21 percent of principals in our surveys saw a student's lack of interest in school as a major factor in most cases of dropout. When asked how they felt about former students naming "boredom" as a main reason for leaving high school, 42 percent of teachers believed students were making excuses for their failure to graduate.

While some educators in the focus groups realized the importance of engaging students in their own education, and half of all teachers recognized that students were speaking to a legitimate cause of dropout, a significant

"I believe that the boring part of school is partly the student's fault because I think that a lot of kids are just spoiled by having video games and everything be so entertaining."
-Geometry teacher from Alabama

number lamented having the responsibility to keep students motivated. As one science teacher from Cleveland put it, "Kids no longer are really excited about learning." Another teacher pointed to the, "instant gratification cultural mindset" that students have, in which teachers cannot compete. Repeatedly, teachers acknowledged the lack of interest students had in their classes and how difficult it was to engage students who were sometimes described as "lazy" and with a "poor work ethic." As one teacher explained, "I believe that the boring part of school is partly the student's fault because I think that a lot of kids are just spoiled now by having video games and everything be so entertaining." Facing large classes, in which many students had individual needs, teachers felt overwhelmed with finding ways to link their curriculum to their students' daily lives.

While principals were more willing than teachers to see boredom as a legitimate cause for students' dropping out of school (69 percent), only a small proportion felt that it was a factor in most cases of dropout. Principals in the focus groups were more likely to recognize that students were struggling with being motivated in their classes. As one principal stated, "I think it's very reasonable that students would say that they're bored, and I don't think that's a cop-out." Other principals connected a student's lack of interest to the quality of the teacher in that classroom, saying "even the lowest-performing, most unmotivated student will say, we want a teacher who loves what they teach and who will spend the time looking for a creative way to teach and to have students love what they're doing."

School district leaders also expressed support for increasing student engagement. As one school district leader from Alabama said, "High school teachers have a responsibility to teach their courses in ways that are extremely engaging and that students will want to come to class." Another commented that new and better teachers needed to be brought in, as "we tend to put our worst teachers in the schools that need the best teachers." They consistently reinforced the importance of teachers building strong personal relationships with the students, and the need to "stick with them and encourage them."

"K through 8th grades, there's no accountability so once the students come to ninth grade, the whole problem explodes."
-Math teacher from Pennsylvania

Not all educators saw student apathy as irrelevant and many teachers, principals, and school district leaders are working to motivate and engage their students. A history teacher mentioned the World War II project he did with his ninth grade students and said, "It was kind of cool because I had students taking me aside and asking questions. They were really interested and wanted to tell me all about it." A principal of an alternative school talked about how his teachers use hands-on activities to engage students and explained it made "a world of difference." Principals talked

about how service-learning motivated students, and how the school was making a conscious effort to make school more relevant. Another principal stated, "We do lots of job shadowing to try to get them to set goals and we bring in speakers throughout the community to allow students to develop a relationship with them." It is clear that some educators have a firm understanding of how improving student engagement will positively affect their school's graduation rate. Even some school district leaders talked about the gains they were making with closing the achievement gap by incorporating more "hands-on math, hands-on science," and by increasing the amount of technology available in schools to keep students interested in their classes.

Notwithstanding the debate as to whether boredom is a legitimate factor, students and educators need to move beyond the "blame game" and devise a plan to meet halfway, with students assuming personal responsibility for their performance and educators making a standards-based curriculum more relevant and interesting.

"Even the lowest performing, most unmotivated students will say, 'we want a teacher who loves what they teach and who will spend the time loking for a cretive way to teach and to have students love what they're doing.'"
-Principal from New York City

LACK OF ACADEMIC PREPAREDNESS

Sixty-two percent of teachers and 60 percent of principals cited students not being academically prepared for high school as a factor in at least some cases of dropout. Research shows that academic failure or not being prepared for high school is a significant cause of dropout.[27] Dropouts themselves felt the same way, as more than one-third said they left school because they were failing in their classes, and 45 percent stated that their previous schooling and middle and elementary schools had left them poorly prepared for the rigors of high school.

In the focus groups, teachers and principals spoke frequently about their frustrations in teaching students with an elementary or low middle school reading level. One history teacher said it was nearly impossible to expect students to read the course textbook since most of them had rudimentary literacy skills and virtually no experience with summarizing or outlining key ideas. Teachers pointed to the "wide range of academic abilities" and their daily struggles to modify their lessons so that they could be adapted to every student. Some were frustrated with social promotion in the lower grades, and explained how students continued to be passed up to higher grades without the necessary skill set. As one math teacher put it, "K through 8th grades, there's no accountability so once the student comes to 9th grade, the whole problem explodes."

The reality of having students enter grades that they are not academically prepared for is a real challenge for educators. Research has shown that more than 8 million students in grades 4-12 read below grade level.[28] As a result, many high school teachers struggle to effectively teach their subject matter. The American Federation of Teachers agrees with high school teachers, by stressing the importance of early reading instruction, citing research that shows children who are poor readers at the end of first grade are unlikely to ever read at grade level.[29] In a typical high-poverty urban high school, approximately half of incoming 9th grade students read at the 6th or 7th grade level.[30] In the 2005-2006 school year, only 42 percent of 8th graders in urban districts scored at or above proficient on state tests of reading, and only 46 percent of 8th graders scored at or above 'proficient' on state tests of math.[31] This means that not only do high school teachers have a responsibility for teaching their subject matter to students, but they are given the additional responsibility of foundational literacy and numeracy techniques.

ATTENDANCE POLICIES AND ACCURATE TRACKING OF STUDENTS

Forty-five percent of teachers and 42 percent of principals cited excessive absenteeism as a key factor in most cases of dropout. Research confirms that dropping out of high school is not a sudden act, but a slow process of disengagement. Attendance patterns are the most accurate indicators that a student is falling behind academically and may drop out.[32] Previous research on at-risk youths in Colorado showed that 80 percent of high school dropouts were chronically truant in the year before dropping out. Excessive absenteeism has also been linked to a student's increased chance of behavioral issues in school.[33]

When asked how often chronically truant students end up falling behind in their classwork, 74 percent of teachers and 59 percent of principals said 'very often.' This may be a contributing factor as to why 76 percent of teachers and 74 percent of principals placed the blame of dropping out squarely on the shoulders of the students.

In previous research, dropouts themselves validated some of these assessments. When the former students were asked what led them to drop out, 43 percent claimed they had missed too many days and could not catch up, and the majority said they missed class often the year before dropping out.[34] In the focus groups, students described a pattern of refusing to wake up, missing school, skipping class, and taking long lunches -- each absence making them less willing to go back.

In the focus groups, we consistently heard teachers and principals blame students' irregular attendance, with most educators stating that they could not teach students who simply were not in school. As one teacher put it, "A lot of time, the attendance is a major contributing factor to dropping out because they might be here today and not tomorrow." Another teacher commented on having "30 percent to 40 percent of students absent every day."

REAL LIFE ISSUES LEAD TO DROPPING OUT

Educators identified personal reasons as factors in some cases of dropout. Seventy-eight percent of both teachers and principals felt that a student who spent time with peers disengaged from school became a factor in most or some cases of that student dropping out. About half of teachers (48 percent) and principals (44 percent) mentioned a student's need to get a job and support their family as a factor in most or some cases of dropout. Forty-five percent of teachers and 39 percent of principals mentioned students having a child as a factor in at least some cases. Thirty-five percent of teachers and 26 percent of principals recognized that students caring for a family member was a factor in at least some cases as well. One teacher from Philadelphia said, "We have teen parents. We have children who are responsible for younger brothers or sisters or sick relatives."

Existing research shows that about one-third of the dropouts surveyed mentioned they dropped out for personal reasons. Of these respondents, 42 percent indicated spending time with peers who were not interested in school was a major factor in their decision to drop out.[35] Thirty-two percent said they had to earn an income, about a quarter (26 percent) said they became a parent, and 22 percent left to care for a family member. The students who left for non-school related issues tended to have the highest grade point averages and a strong belief that they could have graduated if they had stayed in school. They were also the most likely to mention that increased support systems would have played a vital role in helping them stay on track to graduate.[36]

WHAT MIGHT HELP STUDENTS STAY IN SCHOOL

In the surveys and focus groups, educators expressed significant support for a wide range of reforms to reduce the dropout rate. It is encouraging that educators realized the deficiencies of the current education system and advocated reforms that would help more high school students graduate on time and with the skills necessary to succeed in college, work and life. Our focus groups, however, also indicated that many educators are not holding all students to the same high academic standards, and in the surveys many advocate a separate, less rigorous track for non-college bound students.

RAISING LOW ACADEMIC EXPECTATIONS

Teachers and principals were read two statements about academic standards (see corresponding chart) and were asked which one comes closer to their point of view. Less than one-third of teachers (32 percent) said, "we should expect all students to meet high academic standards and graduate with the skills that would enable them to do college-level work, and provide extra support to struggling students to help them meet those standards. Lowering expectations for some students is the wrong way to solve the dropout problem." The majority of teachers (59 percent) felt that it was unrealistic to have all students meet high academic standards and that a separate track should be created in schools to allow students who were not "college-bound" to receive their diploma. Both newer teachers (those teaching for less than 10 years) and experienced teachers (those teaching for more than 20 years) shared these views – 32 percent of newer

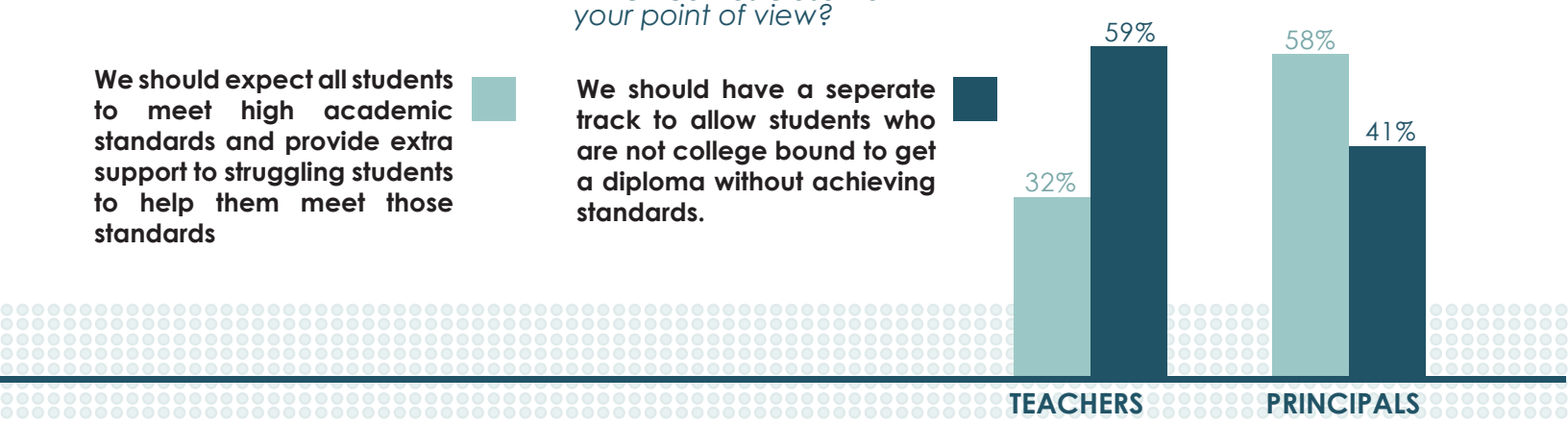
teachers and 31 percent of experienced teachers believed all students should meet high academic standards and graduate with college-ready skills, while 58 percent of newer teachers and 59 percent of experienced teachers believed there should be a separate track.

Different Perspectives On High Standards For All Students

Which comes closer to your point of view?

We should expect all students to meet high academic standards and provide extra support to struggling students to help them meet those standards

We should have a seperate track to allow students who are not college bound to get a diploma without achieving standards.



An overwhelming number of teachers (75 percent) and principals (66 percent) felt that even if higher standards were demanded of at-risk students, students would not work harder to meet those standards. Even for those educators who believed in holding all students to high academic standards, a minority (28 percent of teachers and 38 percent of principals) felt that students would favorably respond, work harder, and decrease their chances of dropout. Only 20 percent of newer teachers and 17 percent of experienced teachers believed students would work harder. As one teacher from Cleveland put it, "There are some students, as we brought up before, that will never get algebra. It's just a given." Other teachers mentioned the difficulty in holding students to high standards, "We let lots of kids slide underneath the bar," and another commented, "On paper it looks as though we're having high expectations, but we're letting a lot of kids just slip through." A math teacher in another focus group explained, "We are requiring everyone to have algebra and geometry but I just don't feel, as a geometry teacher, that that's really what our goal should be for every student."

The importance of preparing college-ready high school graduates cannot be overstated. In today's increasingly competitive job market, the level of one's education is directly related to one's potential earnings. A high school diploma has become the bare minimum for employment, and the nature of work in America has evolved to reflect that. Even jobs that do not require a college degree still demand advanced thinking and problem-solving skills -- characteristics employers are likely to find more in high school graduates than in high school dropouts.[37] The long-term benefits of a high school education grow more significant as Americans live longer, change careers more often, and face increasing competition from foreign workers.

To ensure that high school graduates possess sufficient skills that employers find attractive, states have made graduation requirements more robust. For example, 18 states now have "college and work ready" graduation plans – and 12 other states are currently in the process of implementing these standards – that require every

student to take four years of challenging math, at least through Algebra II, and four years of rigorous English aligned with college and work-ready standards.[38] Along with increasingly rigorous requirements for students to earn a high school diploma, this trend in curriculum aims to better prepare for them for post-secondary course work.

When asked in focus groups about having universally high expectations for students, many teachers stated that they did indeed possess high expectations for their students, but seemed to divorce that belief from believing that all students could be academically prepared for college. Teachers seemed hesitant to agree that all students could be made college-ready, citing daunting home life situations, lack of academic preparedness for high school, and excessive absenteeism as factors that deter many students from graduating from high school with the necessary skills for college. It was evident that the term "high expectations" had become a catchphrase in education policy, and while an overwhelming majority of teachers voiced their agreement, few had similar definitions of the concept.

Whether or not respondents to the survey translated "high expectations" to mean that every student graduates from high school with the necessary knowledge to succeed in collegiate-level courses does not take away from the fact that numerous research studies have shown that a student's achievement level is directly correlated with high expectations and the level of quality instruction provided by the teacher. At the Cesar Chavez Academy, a charter school in Pueblo, Colorado, 63 percent of the students qualify for free and reduced-price lunch. Unlike most high-poverty schools in the state, Cesar Chavez does extremely well on standardized testing, even earning the state's highest academic rating of "excellent." This is a result of the rigorous curriculum, high expectations, small classes and one-on-one tutoring for each student.[39]

The call for a more challenging curriculum has been issued by countless education organizations, including the American Federation of Teachers, Teach for America, and New Leaders for New Schools, as it is a cornerstone of high-performing schools. In schools where a rigorous curriculum is being taught, and high expectations are set for every student and coupled with sufficient student and teacher supports, there is significant improvement in attendance, engagement, academic achievement and course completion, as well as a decrease in behavioral problems.

A case study done by New Leaders for New Schools showed significant gains can be made once high standards and a rigorous curriculum are implemented. The principal of the examined school made a conscientious effort to improve the quality of instruction and created a school-wide expectation that all students would be presented with a challenging curriculum. By the end of the year, the number of 8th grade students who passed the state reading exam increased by 27 percent and the number of students who passed the math portion increased from 5 percent to 48 percent. The danger of having low expectations for students was explained by one school board member in a focus group, "We weren't requiring our teachers, our parents, our students, or our principals to account for their children. And so the bar went lower and lower and lower year by year."

Prior research among parents indicates that the majority of parents of students in high-performing schools (58 percent) felt that their school was doing a good job of challenging students and setting high academic standards, compared to just 15 percent of parents with students in low-performing schools.[40] There was a clear expectations gap. Similarly, while 66 percent of parents of students in high-performing schools reported being very satisfied with the high school being able to help their child reach their full potential, only 24 percent of parents with children at low-performing schools reported the same confidence.[41]

"We weren't requiring our teachers, our parents, our students, or our principals to account for their children. And so the bar went lower and lower year by year."
-School board member from New York

In the surveys for this report, the lack of emphasis by educators on the importance of a challenging curriculum and universally high student outcomes was in direct contrast to the feelings of the dropouts themselves, who expressed strong support for an increase in standards. Previous research on dropouts shows that two-thirds stated that they would have worked harder if their high school had demanded more of them. According to the students, increased rigor and higher standards would have encouraged them to become more engaged in their education and helped them stay on track to graduate. In focus groups, these former students expressed frustration that they were not challenged more and that their classes and teachers were not inspiring. In the survey, more than one quarter of them (26 percent) indicated that they did no homework, and 80 percent indicated they did an hour of homework or less each day.[42] Previous research has shown that students who do little or no homework each week increased their risk of dropping out.[43]

In contrast to teachers, the majority of principals (58 percent) felt that all students should be held to the same high academic standards, regardless of their path after high school. Yet, 41 percent of principals still advocated for a separate track. Many in the focus groups felt that although vocational and technical education should be offered in high schools, all students needed to also complete the same, challenging academic core classes. Principals seemed to feel urgency about providing a strong curriculum for every student. As one principal from Columbus, Ohio explained, "We should still try to make sure that each student has the proper high school experience, and place them in courses that are more challenging."

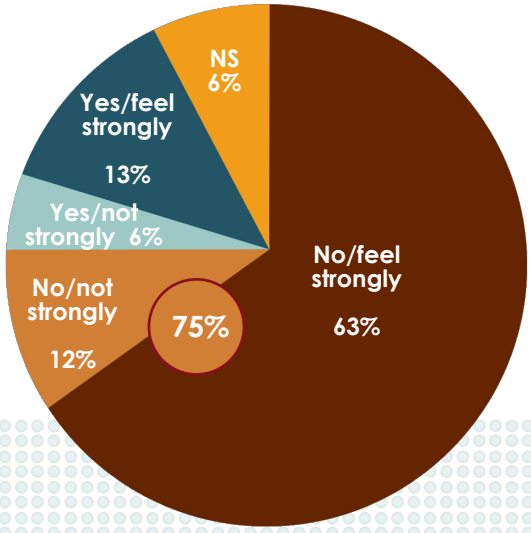
When school district leaders were asked in the focus group what they thought about universally high expectations for all students, most expressed support. One leader insisted that the bar be raised for every child as he talked about a high school in his district with a severe dropout problem -- "The school's graduation rate of 39 percent just didn't happen overnight, it happened because people did not have expectations of our children who were of color or who were poor." Another district leader commented that low expectations would inevitably lead the student to believe, "Well, if the adults think that I can't achieve squat, then I'm not."

The need for a rigorous curriculum and expectations to be raised for all students is crucial to reducing the achievement gap. Before that can happen, however, there needs to be a consensus in schools, homes and communities about what "high expectations" mean, and its relevance to building a culture where everyone is expected to graduate from high school, ready for post-secondary education and a competitive workforce.

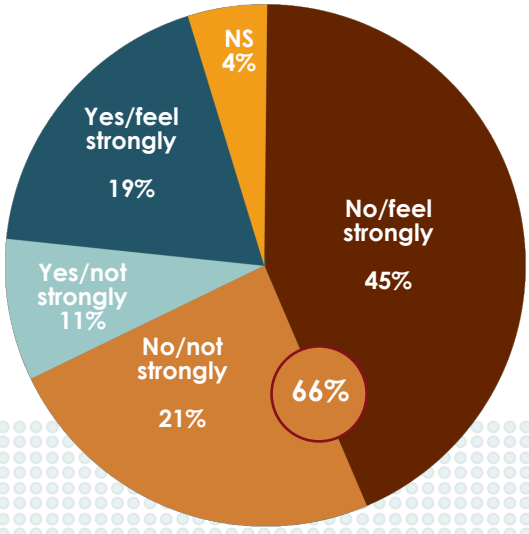
Skepticism About At-Risk Students' Meeting Challenge of Higher Standards

If the nation's public high schools demanded higher academic standards for at-risk students, do you think those students would work harder to meet these higher expetations?

TEACHERS



PRINCIPALS



EDUCATORS AND SCHOOLS: TAKING RESPONSIBILITY

In the surveys, principals were more likely than teachers to shoulder the blame when asked what group bore all or most of the responsibility for students deciding to drop out. Principals were equally likely to say that they themselves (22 percent) and teachers (22 percent) held all or most of the responsibility for students deciding to leave school early, compared to just 13 percent of teachers who answered similarly about themselves. Overall, teachers placed more blame for a student dropping out of school on the school system (19 percent), and broader society (18 percent) than on themselves. In fact, teachers held elected officials at the local, state, and federal levels just as responsible as they held themselves (13 percent) for a student deciding to leave school.

In the focus groups, significant numbers of teachers and principals alike expressed skepticism about the extent of their impact on a student's performance without the student and their parents first assuming a strong work ethic and personal responsibility. Some educators seemed to feel that there was only so much they could do to help students succeed, pointing to students coming to class late, or not at all, not bringing the necessary materials, not completing the previous night's homework, and not studying for upcoming tests. Without students first showing a personal commitment to their education, educators felt limited in their ability to improve student performance.

Notwithstanding, many teachers and principals in the focus groups recognized the need for teachers to improve, particularly when it came to personally connecting with students. Some teachers recognized the vital role they play in the lives of their students, and how they were the most crucial advocates and mentors. As one teacher from New Mexico put it, "We don't make the connections as much as we should. For some kids, we may be the only person or people in their lives who could explain to them why they should engage and care."

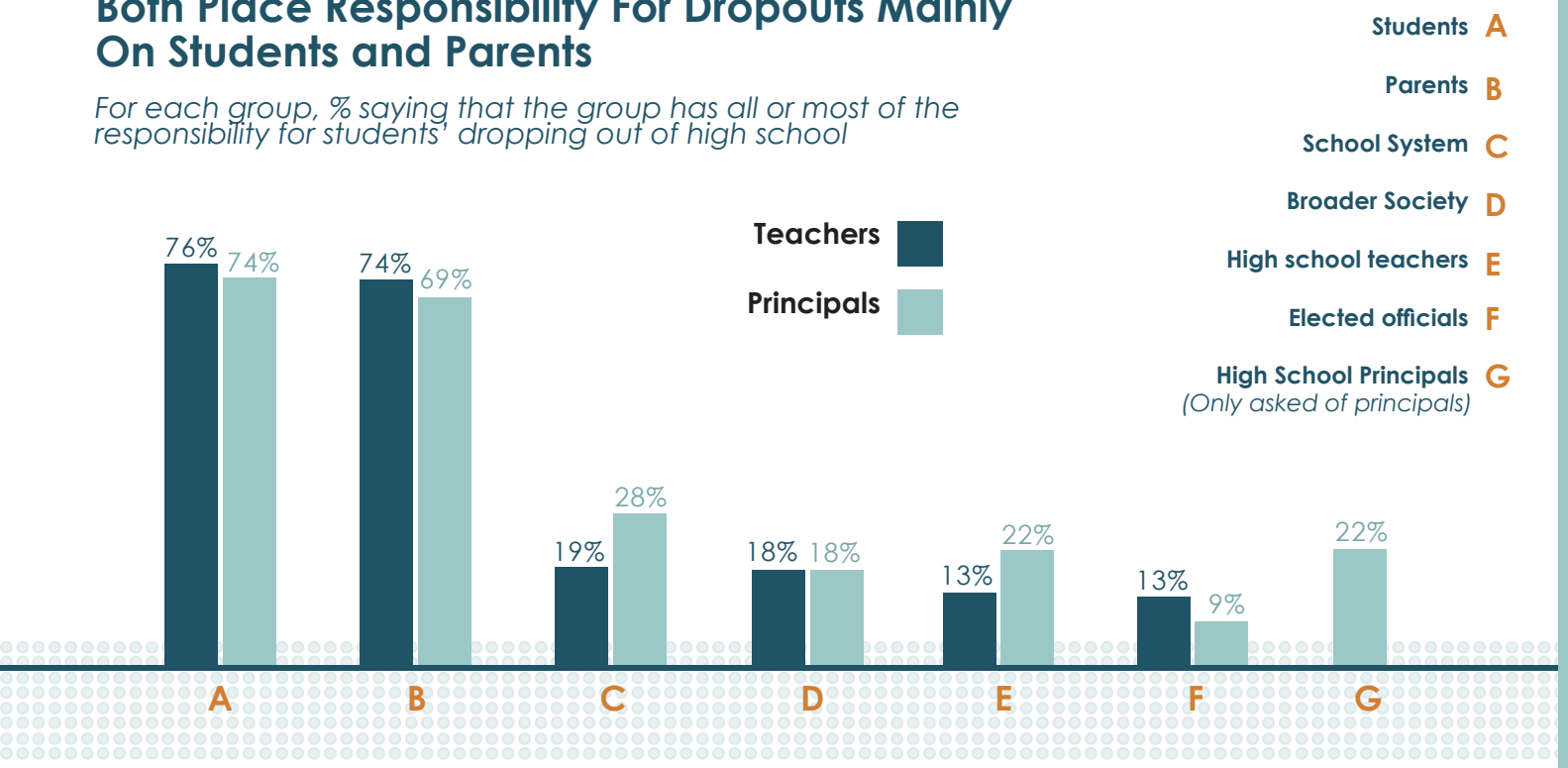
A teacher's confidence in students and themselves cannot be underestimated. Research shows that teachers' perceptions about their own efficacy in the classroom -- their general belief in the ability of students to learn and the teacher's belief in their own capacity to effectively teach students -- has been shown to have powerful effects. Numerous studies have shown the connection between a teacher's sense of efficacy and increased student achievement,[44] student motivation,[45] and students' own sense of efficacy.[46] In addition, research has also recently shown the importance of a teacher's beliefs in the collective efficacy of their school.[47] Research shows that a teacher's level of efficacy is relatively stable once set.[48] Therefore, it is important that beginning teachers receive the necessary supports that allow them to internalize a high level of self-efficacy.

It is clear that some educators assume a "whatever it takes" attitude toward improving student performance. Structural features of schools, such as smaller classes, can boost the ability of teachers to develop closer relationships with students and promote more positive student-teacher interactions. In an era in which one-third of all students are in danger of not graduating from high school, it is essential that educators understand, as one teacher explained, that "the emphasis has to be on the teacher-student relationship and therefore has to be on the teacher. You need to have the best teachers in the classroom."

"We don't make the connections as much as we should. For some kids, we may be the only people in their lives who could explain to them why they should engage and care."
-English teacher from Albuquerque, NM

Both Place Responsibility For Dropouts Mainly On Students and Parents

For each group, % saying that the group has all or most of the responsibility for students' dropping out of high school



Educators identified a variety of improvements to boost graduation rates. Majorities of both teachers (61 percent) and principals (72 percent) thought at least some improvements were needed in high schools. The most common solutions included creating alternative learning environments, smaller classes and schools, more hands-on learning that connects the classroom to real world experiences, stronger early warning systems, and more parental and mentor involvement.

OTHER IDEAS TO REDUCE THE DROPOUT RATE

Alternative Learning Environments

Seventy-seven percent of teachers and 71 percent of principals strongly favored alternative learning environments to reduce the dropout rate. In the focus groups, educators felt that these environments would provide at-risk students more choices and a learning environment that would enable a greater degree of success.

Alternative education programs are generally set up by states and school districts that serve youth who are not succeeding in the traditional public school environment. These programs might be established for students who are failing academically, showing extreme behavioral problems, have learning disabilities, are overage and lack sufficient credits, or are interested in specific types of classes. Many of these programs have flexible schedules, smaller teacher-student ratios and modified curricula. There is a wide range of schools that claim to be alternative learning environments, but those that specifically have a commitment to providing all students with a rigorous curriculum, which prepares them for college or a family-wage job, are the most promising.[49] These non-traditional schools are powerful tools in allowing students to enroll in an environment they find relevant and engaging.

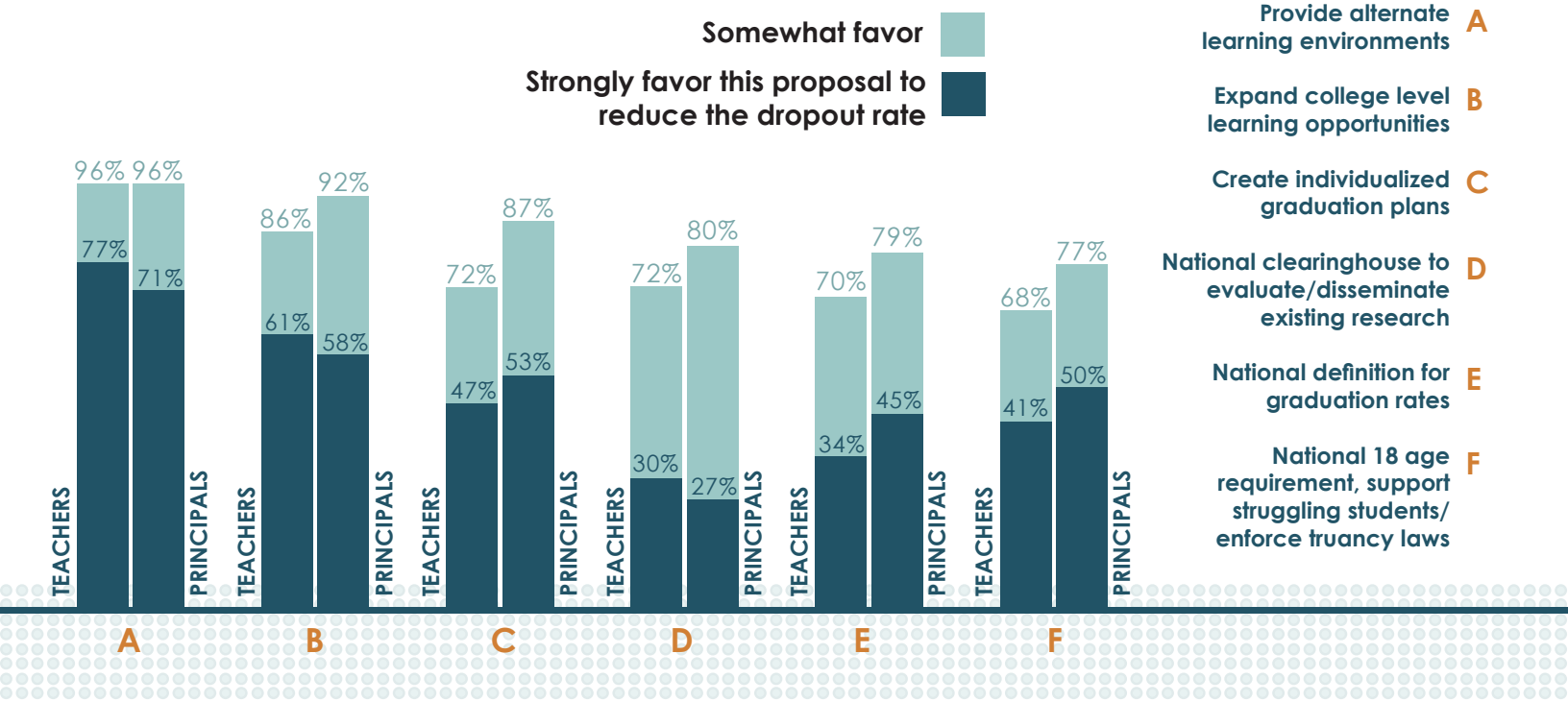
An excellent example of an alternative learning environment that challenges students in a non-traditional setting is the New Technology High School in Napa, California. The school has graduated more than 700 students, many of whom have gone on to the nation's top colleges since its inception in 1996. The unique aspect of this school is its direct connection to technology and its commitment to "project-based learning." Students are given periodic projects that inspire them through creative thinking in the form of creating a website or a photo essay, rather than the traditional daily written homework. In addition to becoming technologically savvy, the students are still required to fulfill all district requirements for graduation as well as additional requirements set by the school, such as engaging in a service-learning project, taking four classes at the local community college, and making a web-based portfolio. This environment allows students to become fully engaged in school, become involved in their local community, and explore their academic curiosities in a variety of creative ways.[50] As a result, the school boasts a 99 percent daily attendance rate and 90 percent of its students go on to college or other post-secondary schools.[51]

Smaller Classes and Schools

In each of the focus groups, teachers repeatedly expressed a desire to reduce the number of students in their classes. They found it extremely difficult to give students the necessary individualized attention when there were upwards of 30 students in the room. Our surveys showed that 75 percent of teachers and 54 percent of principals said cutting class sizes would help a lot to reduce the number of students who drop out of high school. This was one of the reforms thought to have the most potential among teachers who felt that the dropout rate could be successfully halved within the next decade (78 percent of whom thought it would help a lot). In the focus groups, teachers explained that by limiting the number of students in classes, they would be better equipped to track the progress of their students, create individualized learning and graduation plans, as well as create more creative and project-based learning opportunities.

The continuous call by educators for smaller classes has prompted numerous research studies. Some research has shown that smaller learning communities with one-on-one instruction that fully engages students and relates their classroom learning to their lives is promising in lowering dropout rates.[52] Other research, such as a study conducted of North Carolina high school students over a ten-year period, showed that a teacher's experience, test scores and regular licensure all have positive effects on student achievement, whereas class size did not.[53] Another study conducted in Tennessee of 7,000 students found that the performance gap between high-achieving students and low-achieving students was

Proposals Educators Support to Reduce theDropout Rate



greater in the smaller classes of 13 to 17 children than it was in larger classes of 22 to 26 students.[54] Therefore, while the idea of smaller classes is deeply rooted in the minds of educators and the public as the "silver bullet" for reducing the dropout rate, its success has not been empirically proven.

Educators were also interested in forming smaller schools. Fifty-three percent of teachers and 47 percent of principals felt that reducing the number of students in a school to encourage closer relationships with adults would help a lot in reducing dropout. Evidence of school size reduction on student achievement is mixed and not much is known about its impact on dropout prevention. Some research has shown that schools between 600 and 900 students provide the best balance between personalization and marshaling a rigorous academic curriculum.[55] Given educators' strong views on the importance of smaller schools, coupled with their positioning on the front lines, this topic must be further examined.

Effective Early Warning Systems

The need for effective early warning systems was strongly supported by teachers (70 percent), principals (71 percent), and school district leaders as a critical piece to reducing the dropout rate. Research has shown that the accuracy of predicting a high school dropout as early as elementary school is high, and grows to up to 85 percent accuracy by the first year of high school.[56] The three most important indicators, called the ABCs of predicting dropouts, are: absenteeism, behavioral problems, and course failure. In a study, 80 percent of sixth graders who attended schools less than 80 percent of the time, or received a poor final behavior grade, or failed in Math or English, did not graduate within one extra year of their expected graduation date.[57]

In addition to monitoring all high school students, particular attention must be given to incoming freshmen. The 9th grade is often considered the "make-it or break-it" year. More students fail 9th grade than any other high school grade and a disproportionate number of students who are retained their freshman year ultimately end up dropping out.[58] Therefore, it is critical that systems be put in place to monitor students so that educators, parents, and the students themselves can be notified to ensure timely and effective interventions.

More Hands-On-Learning that Connects Classroom Learning to the Real World

Teachers and principals also saw a need for connecting classroom learning to real world opportunities, especially through service-learning, with 70 percent of teachers and 68 percent of principals stating it would do a lot to reduce the number of dropouts. In addition, 60 percent of teachers and 67 percent of principals advocated more hands-on, project-based learning to make school more relevant to their lives. Engaging students in their community, through service-learning projects, would allow students to apply classroom learning through the investigation of a community problem. Students would be encouraged to develop and execute solutions, and then reflect on the experience and the skills acquired through that project.[59]

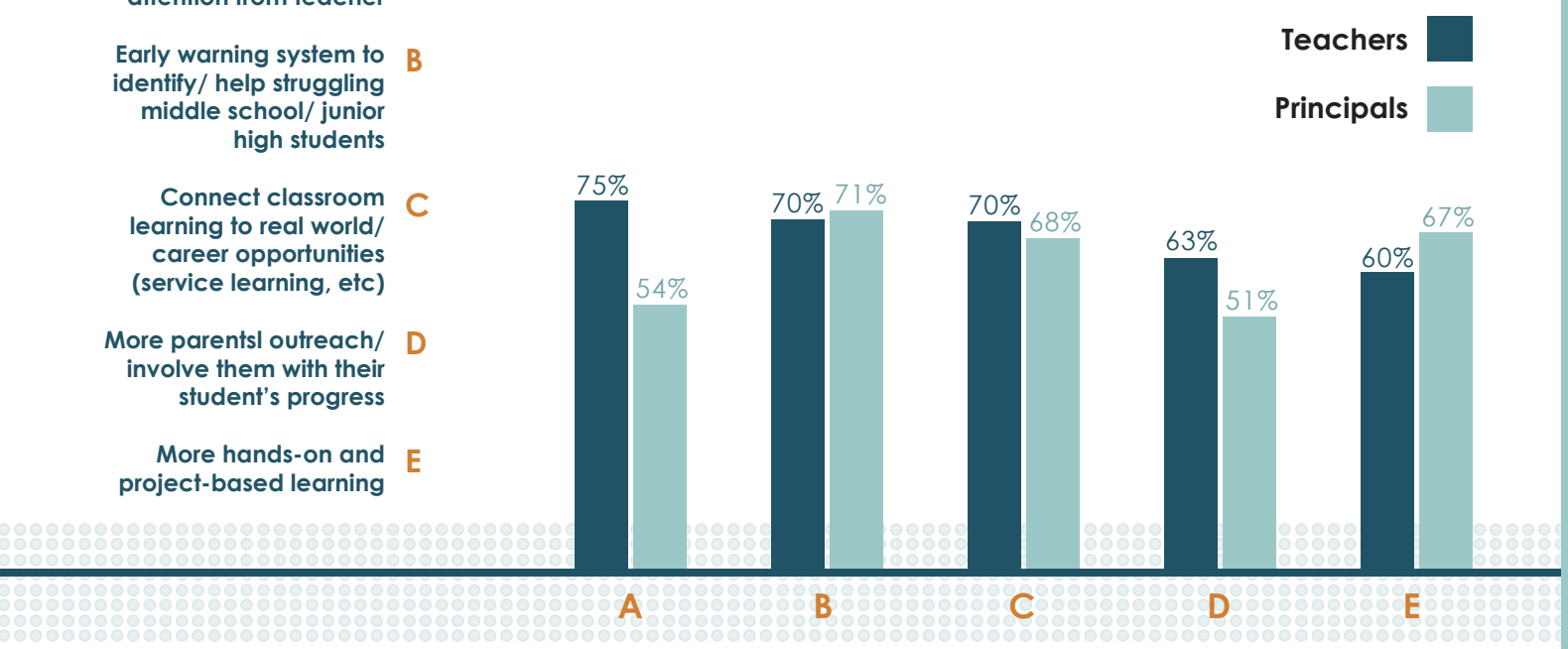
In the report, Engaged for Success, 82 percent of students who participated in service-learning projects said that their feelings about attending high school became more positive and more than half of at-risk students believed that service-learning could have a big effect on keeping potential dropouts in school.[60] In the focus groups, many teachers pointed to the importance of project-based learning and said that students responded favorably when it was used. They were disappointed, however, that they could not do more since they were often strictly tied to a regimented calendar of daily lessons.

Increased Parental and Mentor Involvement

Due to the importance educators placed on parental involvement in a student's education, it is not surprising that the majority of teachers (63 percent) and principals (51 percent) strongly endorsed increasing parental outreach. Studies have shown that high expectations by parents of their children are associated with enhanced academic achievement.[61] One study showed that parental involvement in a student's education is extremely valuable, as schools would have to spend $1,000 more per pupil to reap the same gains in student achievement that an involved parent brings.[62]

Reducing the Dropout Rate: Educators' Suggestions

% saying each would help a lot to reduce the number of students who drop out of high school



School districts across the country have successfully implemented programs that involve parents in their child's education, and they have been shown to positively impact student progress. The Interactive Homework program, a spin-off of the Teachers Involving Parents in School (TIPS) program, developed at Johns Hopkins University, relies on parents and students coming together to work on interactive homework assignments. In evaluation studies, students who were engaged in the Interactive Homework program outperformed their peers, who were engaged in traditional homework assignments, on homework grades and report cards.[63]

In addition to increasing the influence of parents, educators also wanted more mentors for their students. Studies have shown that high school students who are mentored have higher graduation rates, fail fewer courses, attend school more regularly, and spend more time on-task while in class.[64] Educators understand the need for widespread improvements and have largely identified the same reforms that research has shown to be effective in reducing the dropout rate.

Additional Reforms Advocated by Educators

Teachers and principals also supported several other reforms to reduce dropout rates. Sixty-one percent of teachers and 58 percent of principals strongly favored more access to college-level learning opportunities to address the dropout problem. In addition, educators (41 percent of teachers and 50 percent of principals) also strongly favored mandating a national compulsory school age of 18 and providing the necessary supports for struggling students to help deter students from dropping out. Many states have raised their compulsory school age to 18 over the last few years, coupled with support for struggling students.[65]

Overwhelmingly, majorities of teachers and principals did not feel that eliminating standardized testing requirements to graduate from high school would reduce the number of students who left without a diploma. In fact, only 27 percent of teachers and 22 percent of principals believed that eliminating standardized tests would help a lot.

Educators Assess the Need for Their Schools to Improve

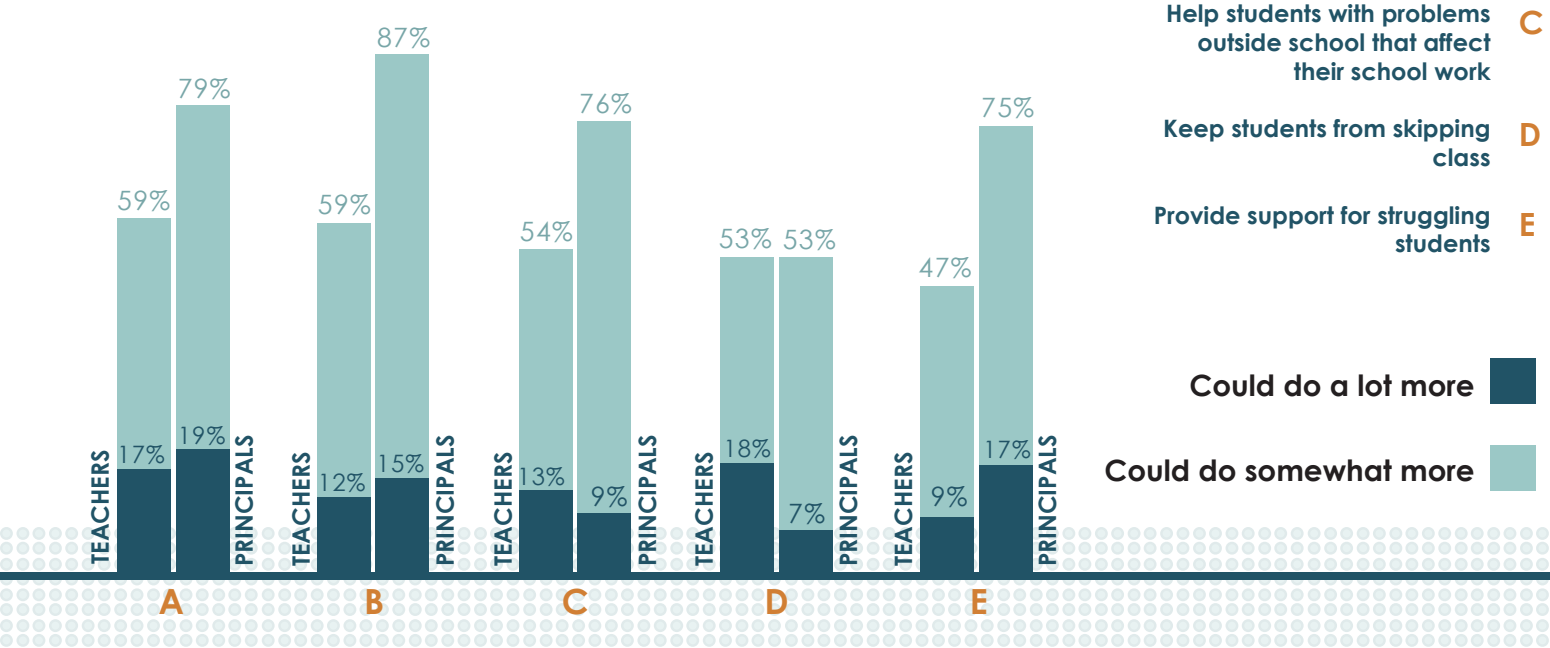
While teachers and principals expressed strong support for many reforms that they felt would do a lot to reduce the dropout rate, they were less willing to embrace their own shortcomings and identify areas of improvement that could be made in their own schools. When asked if their high school did enough in various areas, educators were hesitant to admit that their schools could do a lot more to improve. It is important to remember that while teachers (74 percent) and principals (69 percent) felt that parents had all or most of the responsibility for students' dropping out, and 61 percent of teachers and 45 percent of principals named lack of parental support as a factor in most cases of dropout, only 17 percent of teachers and 19 percent of principals felt that their school could do a lot more to engage parents. In fact, nearly 40 percent of teachers felt that their school needed no improvement in getting parents involved in their children's education.

The same trend can be seen in other areas targeted for improvement, such as keeping students engaged in their course work, mentoring students, preventing truancy, and providing supports for struggling students. In each of these areas, teachers and principals were extremely reluctant to admit that their school could do a lot more to improve, with significant numbers of principals and teachers even refusing to acknowledge that their school could do somewhat more to improve. This may indicate that most educators feel that they have limited agency to improve their schools and establish new policies to effectively reduce the dropout crisis.

Overall, principals more readily acknowledged the need for improvement in a variety of areas. When asked about current efforts to engage parents, 79 percent of principals felt that more work could be in done in their schools, compared to 59 percent of teachers who felt that way about their schools. Similarly, nearly 9 in 10 principals (87 percent) reported that more steps could be taken at their schools to keep students engaged in their coursework, while 59 percent of teachers felt that improvement was needed in this area. Additionally, principals showed more enthusiasm for improvements to help students with problems outside of school that affect their school work (76 percent of principals and 54 percent of teachers said their school could do more), and to provide support for struggling students (75 percent of principals and 47 percent of teachers said their school could do more).

Areas For Improvement

Does your high school do enough in this area?



WAYS FORWARD

The perspectives of educators and administrators in the surveys and focus groups highlighted some of the opportunities for -- and barriers to -- making progress in addressing the high school dropout epidemic. We must continue to improve high school graduation rates and prepare all students for college, work, and life. We cannot accomplish these goals, however, without the engagement of teachers and principals and their allies in schools and communities who can help them boost student achievement.

ACCURATE GRADUATION RATE DATA AND COLLEGE READINESS ACCOUNTABILITY

In our surveys, we found that a near majority of teachers (48 percent) and more than half of principals (55 percent) felt that their schools were graduating at least 90 percent of their incoming freshmen class. Indeed, teachers report an average graduation rate of 83 percent and principals report an average graduation rate of 85 percent. The national statistic for high school graduation is between 68 and 75 percent, which indicates a disconnection between perceived and actual graduation data.

All states need to follow the four-year adjusted cohort graduation rate, as put forth by the National Governor's Association in July 2005 and recently adopted by the U.S. Department of Education. At the state, district and school levels, graduation rates need to be disaggregated by racial, ethnic and economic status, English language learner, and special education populations so that teachers and administrators have clear and accurate information. This data should reveal the school's overall graduation rate, as well as an annual review of how well students are progressing toward graduation. In a time when the high school diploma represents the bare minimum requirement for success in the work force, states and school districts need to have an accurate understanding of the shortcomings of the nation's high schools in order to make improvements.

Better state, district, and school level information on graduation rates, however, is not enough. We also recommend that states establish ambitious graduation rate goals and hold districts and schools accountable for making continuous and substantial progress towards these goals.

Schools, need accurate tracking systems that will allow teachers and administrators to keep tabs on students' progress toward high school graduation and to prompt appropriate interventions if necessary. Too often, teachers find students missing from their classes and do not know if the students have withdrawn from school, transferred to another, or dropped out entirely.

Finally, teachers and administrators need to be brought fully into the mission of graduating all students ready for college and careers. Students cannot be separated into two groups – those who receive a rigorous and challenging curriculum and those who do not. The majority of today's high school students understand that college is important, and have a desire to go. In a survey conducted of high school seniors, 69 percent expected to attain a bachelor's degree or higher, and another 18 percent expected to complete some kind of postsecondary education.[66] In fact, college enrollment rates have increased from 49 percent in 1972 to 69 percent

in 2005.[67] Despite these ambitious goals, many high school students who apply and are accepted to colleges do not end up graduating from college, as they find themselves ill prepared for the rigors of a postsecondary curriculum. The academic struggles of many college students lead to only 34 percent of incoming college freshmen graduating in four years, 64 percent within six years, and 69 percent within eight and a half years.[68]

To improve the prospects for all students to graduate from high school with the appropriate knowledge that will allow them to succeed in college, high school students and educators need to be briefed on the personal, social and economic impacts of dropping out and the demands of the 21st century economy, in which most family-wage jobs require at least a high school diploma based on a rigorous curriculum and high expectations. Our survey results seem to reflect a lack of urgency from teachers and principals that all students need to graduate from high school college-ready, as 35 percent of teachers and 24 percent of principals felt that the dropout problem was either a minor problem or not a problem at all. Similarly, only 17 percent of both teachers and principals felt that their schools needed significant improvement in ensuring all high school graduates have college-level skills. Significant numbers of educators may still be assuming that ample employment opportunities exist for academically deficient high school graduates, when in reality, today's job market provides very few careers for high school graduates who do not possess sufficient reading, writing, and critical thinking skills to earn a family-wage job.

STANDARDS-BASED RIGOROUS CURRICULUM & HIGH EXPECTATIONS FOR EVERY STUDENT

Students should have fewer, clearer and higher standards aligned with college requirements so that every student has the opportunity to graduate ready for a post-secondary education. Providing a rigorous curriculum for students has been shown to have a positive effect on keeping students engaged in school and raising graduation rates in high schools.[69] Secretary of Education Arne Duncan touted its importance during his confirmation hearing when he said, "We have to increase rigor in high schools to prepare young people for the next stage of life."[70]

Studies show that by offering rigorous courses, schools can positively affect their dropout rates. One study found that schools that offered few math courses below the rigor of Algebra I reduced the odds of their students' dropping out by 28 percent, and those that offered a rigorous course, such as calculus, reduced the odds of their students' dropping out by 55 percent.[71] In addition, research shows that a challenging high school curriculum is the best pre-college indicator of one successfully attaining a bachelor's degree.[72] A number of studies have investigated the positive relationship between a rigorous curriculum and high school graduation rates, yet access to challenging high school coursework is unevenly distributed.[73] Low-income students are less likely (28 percent) to be enrolled in a college preparatory track in their high school than medium-income or high-income students (49 percent and 65 percent, respectively).[74] In fact, in 2002, only six percent of students from the lowest-income families earned a bachelor's degree by 24 (typically an individual's 6th year of college) – the same percentage as in 1970.[75] Studies have shown that students who feel that their teachers have low expectations for them quickly adopt this perception of themselves and fail in school.[76]

The idea of holding all students to high expectations, providing them with a rigorous and relevant curriculum, and setting them up for success in a post-secondary environment may be relatively novel and groundbreaking ideas in the education sector. Many teachers may not have been educated on the magnitude of the dropout problem, its multiple dimensions related to factors within and outside school, or the importance of preparing students for a post-secondary education. School districts and teacher preparation programs need to make the extent of the dropout problem as transparent as possible and arm current and future educators with the necessary tools to address the problem for every student.

The majority of teachers and a significant minority of principals in our surveys think that "we should have a separate track that would allow students who are not college bound to get a high school diploma without achieving" high academic standards. From a policy perspective, this brings significant concerns to the forefront, as it begs the question, at what point is a student determined to be either "college-bound" or "non college-bound?" Many students enter high school at age 14 or 15 and it would be a disservice if they were immediately determined as worthy or not worthy of being held to high expectations. The idea of having separate tracks for different groups of students leads to questions dealing with at what age or grade is this decision made? And by whom? Is a student's input, or that of their parent, considered? Who decides?

It is important to reject the idea of "educational predestination," by assuming certain students can more readily achieve than others. Research has shown that students rise to the level of expectation once they sense they are considered smart and capable, and are provided appropriate support. They often become engaged in the curriculum and work harder to reach their academic goals. Regretfully, poor performance is too often associated with low ability and intelligence. This mindset must be corrected. Many students who end up graduating from high school, and later attend college, largely attribute their success to "having one person who believed I could do it."[77]

IMPROVED COLLABORATION BETWEEN TEACHERS, PARENTS, AND STUDENTS

When read together -- the surveys and focus groups of educators, the perspectives given by parents in One Dream, Two Realities that showed the level of parental engagement in high- and low- performing schools, and The Silent Epidemic that chronicled the viewpoints of dropouts — there seems to be a significant level of misunderstanding and miscommunication among educators, parents, and students surrounding the behaviors and experiences that lead to dropping out.

Many educators and administrators do not see boredom as a factor in most cases of dropout. Dropouts do. The majority of teachers do not believe we should expect all students to meet high academic standards, graduate with the skills to do college-level work, and provide extra supports to help them meet those standards. Research shows the power of high expectations, a challenging curriculum, and extra supports for struggling students in boosting academic achievement. Dropouts themselves wanted more demanded of them and wanted to be inspired and motivated to work harder. Strong majorities of both teachers and principals did not believe students at-risk of dropping out would work harder if more were demanded of them to earn a diploma, when strong majorities of dropouts said the opposite.

Large majorities of teachers and principals felt a lack of parent engagement was a key factor in some or most cases of dropout, yet parents of students trapped in low-performing schools see the need for a rigorous curriculum and their own involvement the most. That said, most of these parents do not feel their schools effectively communicate with and engage them, and want better information and tools to help their children succeed academically.

Working as a community, these series of disconnects can be addressed. We recommend that schools create parent engagement strategies that focus on simple things such as teacher feedback to parents about class participation, missed assignments, grades and upcoming tests. Schools should also provide parents more information about graduation requirements and college admission and homework hotlines so they can help their children stay on track. Schools cannot be expected to fix dysfunctional family structures or assume responsibility for a student when they are not in school, but they can be proactive in creating a web of supports that enables students to attend and succeed in school. Other strategies that would be beneficial include incorporating homework assignments that involve families, recruiting parent volunteers to serve as liaisons between the school and other parents (particularly those who speak another language), and distributing course information and teacher contact information to every parent at the beginning of each semester.[78]

In addition to increasing parental involvement, there must also be an increase in the use of adult mentors and community wrap-around support systems. The National Association of Secondary School Principals recommends that every high school student have a mentor who can help personalize the education experience.[79] Adult advocates can be invaluable in assisting schools with struggling students, including through attendance monitoring, school and peer counseling, mentoring, tutoring, internships, service-learning, job shadowing, summer school programs and after-school programs.[80]

Schools also need to have frank conversations among students, educators, and parents on the levels of student effort, attendance, and attention, the need for rigorous instruction and challenging curricula, and the adequacy of student supports that are essential to prepare students for success in and after high school.

All three parties need to actively communicate with one another with the single goal of preparing college-ready high school graduates, particularly for students in low-achieving schools. As an important next step, dialogues should be held in communities and schools across the country to address these disconnects and opportunities among teachers, parents and students to boost student engagement, achievement and ultimately high school graduation rates.

SECONDARY SCHOOL REDESIGN TO ENABLE HIGHER GRADUATION RATES

When teachers call for more parental involvement, smaller classes, early warning systems, and more alternative learning environments, they are calling for making the challenge of graduating all students more manageable. The typical middle school or high school was built for another era, in which many students completed their formal schooling at the conclusion of high school. As a result, the standard teacher load of five classes with 25 to 30 students each, leading to a total of 150 students, typically organized along department lines, made sense from an efficiency standpoint.

The assumption was that a teacher would teach a good lesson and then it would be up to the students how much they wanted to make of it. The students who put forth the most effort and had good prior instruction did well and were moved along a college preparatory track and those who did not were simply asked to complete enough assignments with sufficient quality to pass onto the next grade -- under the assumption that their schooling would end with high school. That era no longer exists, though it is clear from the teacher and administrator interviews that its structures and many of its explicit and implicit assumptions still do exist.

To move forward, there needs to be a redesign of secondary schools, so that they are supportive of all students graduating from high school to be college and career ready, and help teachers and administrators in achieving this objective. This will not occur, as said by one of the teachers attending our colloquium, if we continue to have high schools in which 500 high school freshmen need extra supports to succeed. Nor will schools succeed if teachers continue to teach students in isolation, as is the case in many elementary schools where teachers are responsible for educating their students in all subject areas. In these situations, teachers cannot single-handedly provide the appropriate outreach and supports to their struggling students.

Fortunately, alternative models do exist. Although more rigorous scientific evidence is needed, there is some evidence that secondary schools can be redesigned to enable all students to succeed. The U.S. News and World report recently identified 100 high schools that met its gold standard criteria for preparing their students regardless of their background for success in college. Among the 100, there were more than a few schools that educated large percentages of low income and minority students.[81] A 2005 report by the Education Trust similarly identified a number of high schools that, despite having high concentrations of low-income and high-minority students, produced high rates of graduation and achievement. The report goes on to identify the characteristics of these outstanding schools, such as having a school culture centered on college and academic excellence, as well as providing necessary supports for struggling students that allow them to continue with their college-preparatory courses.[82]

Similarly, Mass Insight's school redesign program, the Turnaround Challenge, also aims to implement dramatic and comprehensive interventions in low-performing schools that produce significant gains in student achievement. These components are also outlined in the recent Institute for Educational Science Practice Report on Dropout Prevention and can be found in comprehensive whole school reform design with strong track records like the Talent Development High School model.

The need to improve the quality of middle and high schools has been recognized by the federal government and its lawmakers. The Graduation Promise Act authorizes $2.5 billion in new funding for secondary school reform in the nation's lowest performing high schools, as well as advancing research to identify more highly effective secondary schools in hopes of using them as models. Similarly, the Success in the Middle Act targets reforms at the middle school level by providing funding for developing early warning systems in schools, as well as providing more high quality professional development opportunities for teachers and principals.

More work needs to be done to build upon and to test with rigorous evaluations these promising designs, and local, state, and national officials need to recognize that effective secondary school designs may not be driven so much by their governance model as by their attention to combining rigorous college and career ready curricula with multiple layers of teacher and student supports. In addition, schools need to have an organizational structure that enables teachers and administrators to work as teams with manageable numbers of students while continuously using data to guide and evaluate their success. Moreover, some of the most successful redesign programs have been able to incorporate a second contingent of adults -- from community-based organizations, national service volunteers, integrated student support providers, and after school programs -- to make sure that each student receives a skilled and committed adult outside of school.

MORE RESEARCH TO ENSURE A HIGH QUALITY TEACHER IN EVERY CLASSROOM

According to the No Child Left Behind Act of 2001, a "highly qualified teacher" is defined as an individual with a bachelor's degree, a state certification of licensure, and who can prove they know their subject area by passing a state examination. There are also stipulations in the Act that allow uncertified teaching candidates in alternative-route programs to teach for up to three years while seeking certification. These qualifications, according to the Center for Teaching Quality, call for "minimally"– not "highly"– qualified teachers.[83]

Education researchers have consistently pointed out that an underlying cause of our nation's dropout crisis is having under-qualified and ineffective teachers in classrooms. Studies have shown the uneven distribution of quality teachers across school districts -- with low income and minority schools receiving the fewest of these teachers. According to a study done in New York, 7 percent of white students were taught by a teacher who had failed the licensure exam the first time, compared to 21 percent of nonwhite students.[84] Overall, only about 15 percent of expert teachers (experienced teachers who have proven they can produce above-average gains in student achievement) teach in high-poverty, underachieving schools.[85] Organizations, including the American Federation of Teachers, cite improving teacher quality as the "most important factor in improving education."

The importance of having high quality teachers has been empirically proven in research studies. In a study done on 9th grade students in Chicago Public Schools, researchers found that if students were given a teacher who was one standard deviation higher in quality for one year, those students scored 22 percent higher on the state math exam given at the end of the year. The greatest improvements were seen in African-American and low-income students.[86]

A similar study was done in Los Angeles and the results showed that students who were taught by teachers in the top 25 percent of effectiveness gained, on average, 5 percentile points relative to their peers. On the other hand, if the students were taught by teachers in the lowest 25 percent of effective teachers, they lost, on average, 5 points relative to their peers.[87]

In order for a sufficient supply of highly effective teachers to be created, attention must be paid to teacher preparation programs. Educational researchers have called the "inadequate training of teachers as the single most debilitating force in American high schools" and have commented on how unappealing the teaching profession is for highly intelligent and motivated individuals.[88] It is important that proper attention be given to the admission requirements, curriculum, and graduation policies of the nation's teacher preparatory programs. In addition to passing state licensure and subject matter exams, candidates in these programs must also show proficiency with effective teaching methods.

Individuals who wish to become teachers do not have to follow a traditional certification process, and many opt for alternative licensure programs. This serves as an effective tool to increase the candidate pool. Schools may choose to partner with regional college and universities, as they have many intelligent and qualified students who may be intrigued by the challenge of working in hard-to-staff schools. This has successfully been done by Teach for America, a nationally recognized service organization that recruits exceptional college students to teach for a minimum of two years in low-income schools.

Schools also should look at undergraduate students who are not enrolled in teacher preparation programs, especially students majoring in math, science, or bilingual education. Studies have shown that large proportions of science, engineering, and math undergraduates are interested in K-12 teaching.[89] In addition to seeking potential teachers through college and universities, school districts also can turn to programs that train adults who see teaching as a second career, help capable substitute teachers and teachers' aides with attaining licensure, and implement licensure reciprocity agreements to recognize out-of-state teacher licenses as valid.

The idea of "merit pay," the process of giving financial incentives to outstanding teachers who improve student performance, has been explored by many states, as well as the federal government. In 2006, the federal government signaled its commitment to rewarding effective teachers with the Teacher Incentive Fund, administered by the U.S. Department of Education. The Fund, however, has been met with criticism from many education experts, as they find it to be insufficiently funded, poorly regulated, and it has become a point of contention among federal lawmakers.

At the state level, using merit pay to recruit and retain teachers in the form of signing bonuses, increased salaries for high student achievement, and even housing incentives, has produced mixed results. Many recent studies have shown merit pay as beneficial to reducing teacher attrition and increasing student achievement,[90] with the greatest results seen in high-poverty schools and when only given out to relatively few teachers.[91] Another study showed that for every $1,000 increase in teacher salary, a 6 percent decline in teacher turnover resulted.[92]

Many school districts across the country are facing the challenge of recruiting, placing and retaining high quality teachers in classrooms. Reducing the dropout rate, closing the achievement gap and producing well-educated high school graduates all hinge on the availability of highly effective teachers.

ELIMINATE OUT-OF-FIELD TEACHING

The reality of placing a highly effective teacher in every classroom cannot be realized without assuring that each of those teachers is teaching a subject for which he or she is trained or licensed. Research shows that middle and high school teachers with demonstrated knowledge of their subject are more likely to produce stronger student achievement results, especially in mathematics and science.[93] The most current School and Staff Survey (SASS) from 2003-2004 shows that in secondary schools across the country, far too many students are being taught by teachers with neither an academic major nor state certification in the subjects they teach.[94] This problem is especially prevalent in middle schools, math and science classes, and in high-poverty, high-minority schools.

Teachers are often not responsible for their out-of-field placement, as it is usually a result of principals and school board members facing budgetary constraints and not being able to hire another teacher, or not having an adequate supply of highly qualified teachers in a certain subject area. While states have a responsibility to use highly qualified teachers in classrooms correctly placed in their subject matter, significant discrepancies exist between what the state reports to the Department of Education and what teachers themselves say in the SASS. For example, according to the Education Trust, the State of Ohio reported that 93 percent of teachers in core academic classes were teaching "in field," while the SASS reported that only 63 percent of core academic classes were being taught by highly qualified and certified teachers in that state.[95]

To eliminate the problem of out-of-field teaching, states and school districts need to attract an adequate supply of effective teachers with appropriate subject-matter knowledge, assigning only highly-qualified teachers to low-income and minority students, and monitoring the progress of these teachers by producing accurate data. Certain states have made notable strides in attacking the problem of out-of field teaching on their own by partnering with private organizations and universities.[96]

By eliminating out-of-field teaching, teachers will be correctly placed in subject areas in which they are licensed. Teachers must have strong background knowledge of their subject matter and allow them to more enthusiastically and more confidently relay that knowledge onto their students. Research shows that a highly qualified teacher, who is knowledgeable and engaging, is the single greatest advantage a student can have to raise their academic potential.[97]

DEVELOP TEACHER INDUCTION PROGRAMS FOR ALL BEGINNING TEACHERS

As a result of the steep challenges beginning teachers face, states and school districts have rapidly increased the amount of mentoring and induction programs they offer. A 2006 American Association of State Colleges and Universities report estimates that 80 percent of teachers receive some version of these supports, up from 40 percent in 1990.[98] While mentoring usually involves "one-on-one" interaction between veteran and beginning teachers, "induction" programs are assumed to be more comprehensive. Often times, induction programs are poorly managed and merely exist to help novice teachers "survive" their first year in the classroom. Instead, according to the Alliance for Excellent Education, induction programs should be comprehensive programs that combine mentoring, professional development and support, and formal assessments for teachers in their first two years.[99]

Research has shown that comprehensive induction programs, because they are cost effective, reduce the time it takes for novice teachers to perform at the same level as an experienced teacher, and cut teacher turnover rates in half.[100] Currently, only 1 percent of teachers receive comprehensive induction, and while recent studies have found that 30 or more states have some form of required mentoring programs for beginning teachers, only 16 states finance these programs, and only 5 states provide the program for a minimum of two or more years.[101]

We urge that all states have comprehensive induction programs for all beginning teachers during their first two years of teaching. States should give priority to those schools and teachers working in low-income and low-performing schools. A 2004 report showed that a new teacher's decision to transfer out of a low-income school rested on the degree of support he or she received from highly effective mentors and help with understanding and presenting the curriculum.[102]

A key component of the comprehensive induction program is the process of matching a highly effective veteran teacher with a novice one. States and school districts need be especially conscientious when selecting these mentors and appropriately matching mentor and mentee by the same subject area. Research shows that the best mentors have strong content

knowledge, a proven ability to raise student achievement, and measurable success working with linguistically and ethnically diverse students.[103] Mentor teachers, or "master teachers" as some are often called, should be rewarded for their efforts with a stipend, or a larger annual salary as a means of encouraging highly-effective classroom teachers to apply for the position.

ENHANCE PRINCIPAL'S AUTHORITY TO DRIVE STUDENT ACHIEVEMENT TO SCALE

Principals and school leaders have been cited as the second most important factor in student achievement, behind teacher quality, and they must be the driving force behind recruiting and retaining highly effective teachers.[104] Autonomy and strong leadership are key characteristics of highly effective principals. They must have more control over the hiring, firing, and development of their staff. They must exhibit experience within the field, especially those placed in low-performing schools. Research has shown the opposite. On average, principals at high dropout rate schools have 3.6 years of administrative experience compared to the 9.6 years by their peers in low dropout rate schools.[105]

Research shows the most effective principals at increasing student achievement and reducing their school's dropout rate are those with more freedom to hire and fire teachers, set budgets, and avoid micromanagement that seems to incapacitate high school principals.[106] Like teachers, principals also need high-quality professional and leadership development.

Principals must also work to establish a common tone of high expectations, hard work, and collaboration within the school. They must act effectively as the school's CEO, as they mobilize both staff and students toward a common goal of academic excellence. To further enable principals to succeed with additional autonomy, a new set of standards needs to be developed, which incorporate the most effective research. These standards need to focus on key areas of school operation, including professional development of teachers, implementing a college and career ready curriculum for all students, and providing extra supports for students to succeed.

EARLY WARNING SYSTEMS

A student does not abruptly decide to drop out of school. Rather, it is a process of disengagement that produces visible warning signs along the way. We recommend that early warning systems be established in every school in order to identify those students most likely to drop out.

The three most predictive factors that a student will eventually drop out are: absenteeism, behavioral problems, and course failure. Research has shown that 64 percent of students who repeated a grade in elementary school eventually dropped out of school.[107] Dropouts can be predicted with 85 percent accuracy by 9th grade.[108] Chronic absenteeism is, by far, the most significant predictor. For instance, of the 8th graders in Philadelphia who attend school less than 80 percent of the time, 78 percent of them ended up dropping out.[109] Research has shown that the transition into high school is a highly vulnerable time for a student and a large number of those who do not successfully complete their freshmen year are at a significant risk of not graduating. Therefore, it is important

that schools establish "Freshmen Academies," which operate as a "school within a school" where groups of 9th graders share classrooms and teachers in order to get the necessary attention. There are other ways, such as establishing small learning communities for the entire school, as done in Talent Development High Schools and First Things First. In all cases, by establishing early warning systems, especially for these three areas, school district leaders, educators, parents, and students would be able to take appropriate action to keep the student on track to graduate.

The Graduation Nation guidebook outlines ways in which schools and communities can establish early warning systems and provides numerous suggestions and examples of schools in which these systems have proved beneficial. These early warning systems could take advantage of monitoring different "at-risk indicators," as well as students' grades, and identify those most in need of one-on-one intervention.[110]

Schools also need to provide teachers with more comprehensive information about their students. Teachers should be able to easily access a student's past grades, attendance records, and any behavioral issues that occurred during a student's academic career. This extra information would allow teachers to identify which students would be most likely to need extra supports. With the advent of efficient technologies, school district leaders and administrators need to establish a database, in which teachers can freely access and share information on students, with appropriate privacy protections. This would allow educators to track students through middle and high school and monitor their progress.

ONGOING LITERACY PROGRAMS IN MIDDLE AND HIGH SCHOOLS

According to the UNESSCO Institute for Statistics' Report, U.S. students score among the best in the world in 4th grade reading assessments That quickly changes, as American students fall to lower ranks in grade eight, and finally to one of the lowest rankings in the world by grade ten.[111] In addition, the No Child Left Behind law has also created public indicators that show American adolescents with high rates of under-proficiency on state reading assessments and on the National Assessment of Education Progress, a national standardized exam.[112] This ultimately results in having a large number of students being inadequately prepared for post-secondary education, employment and citizenship.

According to the Alliance for Excellent Education, more than 8 million students in grades 4-12 read below grade level, and only 31 percent of America's 8th grade and 12th grade students read "proficiently" on standardized tests.[113] As a result of having students reading at below grade level when they enter high school, many teachers struggle to effectively teach their subject matter. Organizations such as the National

Association for Secondary School Principals stress the importance of ongoing literacy programs at the middle and high school levels.[114] Content-area classes, in addition to teaching their subject matter, must also focus on literacy techniques, such as reading comprehension and summarizing.

Research has shown that high school literacy programs are beneficial to students. In a recent report, four states working in conjunction with the Harvard Graduate School of Education and the National Governors Association effectively improved the literacy policies in their high schools. In all four states, creating support for high-quality literacy instruction through professional development was critical. These states found it necessary to educate their teachers and principals on literacy best practices that could be incorporated into a high school subject matter class.[115] States should examine a model similar to that of Alabama's Reading Initiative (ARI), which has a goal of 100 percent literacy among all students, a commitment by 85 percent of the faculty to attend a two-week intensive summer literacy institute, appointment of full-time reading coaches to work with teachers and students, collaboration between schools and higher education faculty partners, who serve as mentors, and partnerships with local businesses. As a result, ARI schools have out-performed non-ARI schools. Specifically, the ARI was seen to have the greatest positive impact on minority students.[116]

ALTERNATIVE LEARNING ENVIRONMENTS

School districts should develop options for students, including a curriculum that connects classroom learning with real life experiences, smaller learning communities with individualized instruction, and alternative learning environments that offer rigorous and specialized programs to students at risk of dropping out.

While there are a wide variety of alternative learning programs and schools, they are often characterized by their flexible schedules, smaller teacher-student ratios and modified curricula. They provide an alternate pathway for students who are not succeeding in traditional high schools, since these environments are generally tailored to meet the specific needs of the student. While many of these learning environments are found in separate schools, often specializing in a certain type of curriculum (i.e. technology, math and science, music, dance, etc.), they can also be found as programs within schools that divide students up on the basis of their interests and strengths. For example, students who are interested in medicine and health care can be placed on a separate track with courses that specifically target their interests, such as biology and anatomy. This allows students to receive the individualized attention they need, while maintaining the rigorous curriculum and high expectations that research shows improves student achievement. Connections should also be made between classroom learning and real job opportunities, through internships, job shadowing and work study programs.

In light of the fact that our current education system produces one-third of students who do not graduate from high school, and another one-third who are not sufficiently prepared by the education they have received to be college ready, then a structural change may be warranted.[117] States and school districts, particularly those suffering from high rates of dropout, need to offer and test with evaluations a variety of highly rigorous alternatives for students who are not succeeding in a traditional school.

CONCLUSION

This report has documented a mix of hopeful views and challenging statistics concerning how, and how well, those on the front lines of America's schools -- teachers and principals -- understand the nation's high school dropout crisis.

As noted in the introduction, we conducted surveys, focus groups and convened a colloquium of teachers and education experts to gather and interpret our findings. For the most part, the data is somewhat unsettling: When it comes to describing, analyzing, and responding to the nation's high school dropout crisis, there is an expectations gap between the views of teachers and principals, and those of parents and students.

Similarly, when it comes to characterizing and assessing school performance or graduation rates, in particular, the two groups see the same realities rather differently. Based on all the available evidence, however, many teachers and principals have both lower expectations for students and rosier assessments of schools than would be warranted by the best available data and studies relating to their perspectives.

At the same time, however, the view from the front lines of schools does in certain respects mirror what the most relevant empirical research teaches, and the views on curbing high school dropout rates and improving school expressed to us by so many teachers and principals are poignant, timely, and telling.

"Notwithstanding tough challenges, we as teachers must hold high expectations for every child- and foster the belief that every child can go to college. Otherwise, some students, who could beat the odds won't because their teachers didn't believe in them. My experience tells me that students will rise to your level of expectation, and if you need extra help, you must hunt it out until you get the child what he or she needs."
-English teacher from Ohio

Let us, therefore, conclude this report with the wise and inspiring words from two individuals, a teacher and a principal, who are committed to improving the lives of their students. From one teacher in Ohio, "Notwithstanding tough challenges, we as teachers must hold high expectations for every child—and foster the belief that every child can go to college. Otherwise, some students who could beat the odds won't because their teachers didn't believe in them. My experience tells me that students will rise to your level of expectation, and if you need extra help, you must hunt it out until you get the child what he or she needs." And from one principal in rural Arkansas,

"The choice should be made by the kids, not for the kids. We push all our kids, even the special education students, as many as we can. You know, we're not always successful, but we have a lot of success stories. You set the goal high and then you help them achieve it."

"The choice should be made by the kids, not for the kids. We push all our kids, even the special education students, as many as we can. You know, we're not always successful, but we have a lot of success stories. You set the goal high and then you help them achieve it."
-Principal from Arkansas

METHODOLOGY

Peter D. Hart Research Associates, Inc., conducted a national survey among 603 public high school teachers who say that at least a few students drop out of their school and fail to complete their high school education each year. The survey was conducted by phone from July 14 to 16, 2008. The statistical margin of sampling error is ±3.9 percentage points, although sampling tolerances for subgroups are larger.

Hart Research also conducted a national survey among 169 public high school principals who say that at least a few students drop out of their school and fail to complete their high school education each year. The survey was conducted online and by phone from July 18 to August 25, 2008. The statistical margin of sampling error is ±7.5 percentage points, although sampling tolerances for subgroups are larger.

In June 2008, Hart Research conducted focus groups among teachers and principals in low-achieving schools, as well as a group among school district leaders across the country. This research was conducted to provide context and inform the development of the survey instruments. The qualitative research included the following: Three focus groups among teachers in low-achieving or high dropout rate high schools:

One in Cleveland, OH; one in Philadelphia, PA; and one conducted by telephone with teachers from locations across the country.

Two telephone focus groups among principals in low-achieving or high dropout rate schools across the country.

One telephone focus group among school superintendents and school board members in districts across the country that have at least one low-achieving or high dropout rate high school.

ACKNOWLEDGEMENTS AND NOTES

The authors would like to give special thanks to Geoffrey Garin and Abigail Davenport of Peter D. Hart Research Associates, and Morgan Gieseke, Mary McNaught, Becky Schamore Friant, Meredith Copley, Samantha Miller and Ted Minturn of Civic Enterprises for the creative and cooperative effort that led to this report. Civic Enterprises is a public policy development firm dedicated to informing discussions on issues of importance to the nation. The authors also would like to thank Ben Bartholomew for designing this report.

The authors, together with Peter D. Hart Research Associates, would like to give thanks to the teachers, principals, superintendents and school board members who shared their insights and reflections with courage and honesty.

The views reflected in this document are those of the authors and do not necessarily reflect the views of the AT&T Foundation.

[1] Editorial Projects in Education (2008). Diplomas Count 2008: School to College, Can State P-16Councils Ease the Transition? Special Issue, Education Week, 27(40).

[2] Swanson, Christopher B. (2004). Who Graduates? Who Doesn't? A Statistical Portrait of Public High School Graduation, Class of 2001. Washington, DC: The Urban Institute. Accessed at: http://www.urban.org/publications/410934.html; Greene, Jay P. & Marcus Winters (2005). Public High School Graduation and College Readiness Rates, 1991-2002. New York: The Manhattan Institute for Policy Research. These graduation rates are widely referenced by experts and others. Because there are many ways to calculate graduation and dropout rates, however, we note that there are different statistics. We also note that there are concerns that official graduation rates reported by the states and the federal government are believed to be leading and too optimistic. See also: Editorial Projects in Education (2008).

[3] Balfanz, Robert (2007). Locating and Transforming the Low Performing High Schools Which Produce the Nation's Dropouts. Presented at Turning Around Low-Performing High Schools: Lessons for Federal Policy from Research and Practice, August 16, 2007.

[4] Balfanz, Robert (2007). Locating and Transforming the Low Performing High Schools Which Produce the Nation's Dropouts.

[5] National Commission on Excellence in Education (1983). A Nation At Risk: The Imperative for Educational Reform. A report to the Nation and the Secretary of Education. Accessed at: http://www.ed.gov/pubs/NatAtRisk/title.html.

[6] Organization for Economic Co-Operation and Development (2008). Education at a Glance 2008. Accessed at: www.oecd.org/edu/eag2008. The U.S. ranked 5th in expenditure as a percentage of GDP for all levels of education, excluding college, behind: Luxembourg, Switzerland, Norway and Iceland. The U.S., however, far outspends all other OECD countries on colleges and universities as a percentage of GDP. We note that in some countries, children are chosen from an early age as either suited for an academic track or not, which could play some role in boosting graduation rates vis-à-vis other countries.

[7] Bridgeland, J.M., Dilulio, J.J. & K.B. Morison (2006). The Silent Epidemic: Perspectives of High School Dropouts. Civic Enterprises and Peter D. Hart Research Associates. For the Bill and Melinda Gates Foundation.

[8] Bridgeland, Dilulio & Morison (2006).

[9] Bridgeland, Dilulio & Morison (2006).

[10] National Conference on Citizenship (2006). America's Civic Health Index: Broken Engagement. In association with CIRCLE and Saguaro Seminar. See also: Balfanz, J., Bridgeland, J., Fox, J. & M. McNaught (2008). Graduation Nation: A Guidebook to Help Communities Tackle the Dropout Crisis. For the America's Promise Alliance.

[11] U.S. Bureau of the Census (2006). Income in 2005 by Educational Attainment of the Population 18 Years and Over. Table 8. Washington, DC: U.S. Government Printing Office. Accessed at: http://www.census.gov/population/www/socdemo/education/cps2006.html

[12] Goldin, Claudia & Lawrence F. Katz (2002). The Race Between Education and Technology: The Evolution of U.S. Educational Wage Differentials, 1890- to 2005. NBER Working Paper No. 12984, 2007.

[13] Amos, Jason (2008). Dropouts, Diplomas, and Dollars: U.S. High School and the Nation's Economy. Alliance for Excellent Education. Accessed at: http://www.all4ed.org/files/Econ2008.pdf. 47

[14] Alliance for Excellent Education (2007). The High Cost of High School Dropouts: What the Nation Pays for Inadequate High Schools. Washington, DC.

[15] Levin, H., Belfield, C, Muennig, P & C. Rouse (2007). The Costs and Benefits of an Excellent Education for All of America's Children. Prepared under grant support from Lilo and Gerry Leeds to Teacher College, Columbia University.

[16] Balfanz, Bridgeland, Fox & McNaught (2008).

[17] Roderick, M., Nagaoka, J., Coca, V & E. Moeller (2008). From High School to the Future: Potholes on the Road to College. For the Consortium on Chicago School Research at the University of Chicago.

[18] ACT (2007). Rigor at Risk: Reaffirming Quality in the High School Core Curriculum.

[19] ACT (2007).

[20] Editorial Projects in Education (2008). See also: Swanson, Christopher (2008). Cities in Crisis: A Special Analytic Report on High School Graduation. For the EPE Research Center.

[21] Balfanz, Robert (2007). Locating and Transforming the Low Performing High Schools Which Produce the Nation's Dropouts. Presented at "Turning Around Low Performing High Schools: Lessons For Federal Policy from Research and Practice." For the U.S. Senate, Washington, D.C. We note that these are estimates based on comparing 12th grade enrollment to 9th grade enrollment and that there are alternative methods and implications. See Miao, J & Haney, W. (2004) High School Graduation Rates: Alternative Methods and Implications. Education Policy Analysis Archives, 12.

[22] Bridgeland, Dilulio & Morison (2006).

[23] Rumberger, Russell (1995). Dropping Out of Middle School: A Multilevel Analysis of Students and Schools. American Education Journal, 32: 583-625; Rumberger et al. (1990). Family Influences on Dropout Behavior in One California High School. Sociology of Education, 63: 283-299; Astone, Nan Marie & Sara S. McLanahan (1991). Family Structure, Parental Practices and High School Completion. American Sociological Review, 56(3): 309-320.

[24] Bridgeland, Dilulio & Morison (2006). While 59 percent of students said that a parent or guardian was involved in their education, it was often the result of being notified that the student was having behavioral problems or was at risk of failing or dropping out. In addition, respondents who said that their parents were not involved in their education were more likely to drop out of high school during the first two years. A significant majority of students (71 percent) advocated for more parental involvement and said that improving the lines of communication between teachers and parents would be beneficial

[25] Bridgeland, Dilulio, Streeter & Mason (2008). One Dream, Two Realities: Perspectives of Parents on America's High Schools . Civic Enterprises and Peter D. Hart Research Associates. For the Bill and Melinda Gates Foundation

[26] Bridgeland, Dilulio & Morison (2006).

[27] Rumberger, Russell W. (revised 2001). Why Students Dropout of School and What Can Be Done. Paper prepared for the Conference, "Dropouts in America: How Severe is the Problem? What Do We Know About Intervention and Prevention?" Civil Rights Project, Cambridge, MA: Harvard University; Bridgeland, Dilulio & Morison (2006).

[28] National Center of Educational Statistics (2004). Long-term Trends: Reading. Washington, DC: U.S. Department of Education.

[29] American Federation of Teachers (2007). Charting the Course: The AFT's Education Agenda to Reach All Children. Washington, DC.

[30] Balfanz, R., McPartland, J.M. & A. Shaw (2002). Re-conceptualizing Extra Help for High School Students in a High Standards Era. Baltimore, MD: Center for Social Organization of Schools, Johns Hopkins University.

[31] Council of the Great City Schools (2008). Supporting Successful Transitions to High School. Research Brief.

[32] Bridgeland, Dilulio & Morison (2006).

[33] Seeley, Ken (2008). Trajectories for Dropping Out of School: Attendance, Truancy and School Engagement. A presentation given at the National Coordinating Committee on School Health and Safety "Keeping Students in School: Reducing Absenteeism and Preventing Drop Out."

[34] Bridgeland, Dilulio & Morison (2006). 65 percent of 9th graders said they missed class often, as did 61 percent of 10th grade dropouts, 59 percent of 11th grade dropouts, and 63 percent of 12th grade dropouts).

[35] Ibid.

[36] Bridgeland, Dilulio & Morison (2006).

[37] ACT Inc. (2006). Ready for College and Ready for Work: Same or Different? ACT Policy Alert.

[38] Achieve (2008). Closing the Expectations Gap, An Annual 50-State Progress Report on the Alignment of high School Policies with the Demands of College and Careers . Washington, D.C.

[39] Education and the Public Interest Center (2007). Dropout Policies: Research-Based Strategies. School of Education, University of Colorado at Boulder. Accessed at: http://www.colorado.edu/education/faculty.

[40] Bridgeland, Dilulio, Streeter & Mason (2008).

[41] Bridgeland, Dilulio, Streeter & Mason (2008).

[42] Bridgeland, Dilulio & Morison (2006).

[43] Kaufman, Philip (2001). The National Dropout Data Collection System: Assessing Consistence. Paper presented at "Dropouts in America: How Severe is the Problem? What Do We Know about Intervention and Prevention?" Civil Rights Project, Cambridge, MA: Harvard University.

[44] Anderson, R., Green, M., & P. Loewen (1988). Relationships Among Teachers' and Students' Thinking Skills, Sense of Efficacy, and Student Achievement. Alberta Journal of Educational Research, 34(2): 148- 165; Armor, D., Conroy-Oseguera, P, Cox, M., King, N., Mconnel L., & A. Pascal (1976). Analysis of the School Preferred Reading Program in Selected Los Angeles Minority Schools, Santa Monica, CA: Rand Corporation; Ashton, P.T. & R.B. Webb (1986). Making a Difference: Teachers' Sense of Efficacy and Student Achievement. New York: Longman; Ross, J.A. (1994). Beliefs that Make a Difference: The Origins and Impacts of Teacher Efficacy. Paper presented at the annual meeting of the Canadian Association for Curriculum Studies.

[45] Midgley, C., Feldlaufer, H. & J. Eccles (1989). Change in Teacher Efficacy and Student Self- and Task- Related Beliefs in Mathematics During the Transition to Junior High School. Journal of Educational Psychology, 81: 247-258.

[46] Anderson, Greene & Loewen (1988).

[47] Goddard, R.D., Hoy, W.K. & Hoy A. Woolfolk (2000). Collective Teacher Efficacy: Its Meanings, Measure and Effect on Student Achievement. American Education Research Journal, 37(2): 479-507.

[48] Tschannen-Moran, Megan & Anita Woolfolk Hoy (2001). Teacher Efficacy: Capturing an Elusive Construct. Teaching and Teacher Education, 17: 783-805; but also see Raudenbush, S.W., Rowan, B., & Cheong, Y.F. (1992). Contextual Effects on the Self-Perceived Efficacy of High School Teachers. Sociology of Education, 65, 150-167.

[49] Aron, Laudan (2006). An Overview of Alternative Education. The Urban Institute. For the U.S. Department of Labor.

[50] New Technology High School website. Accessed at: http://www.newtechhigh.org.

[51] Borja, Rhea (2002). High Tech Haven. EdWeek. Accessed at: http://www.edweek.org/ew/articles/2002/05/29/38newtechhigh.h21.html

[52] Kerr, Kerri A. & Nettie Ledgers (2004).

[53] Clotfelter, Charles, Ladd, Helen & Jacob Vigdor (2007). How and Why Do Teacher Credentials Matter for Student Achievement? National Bureau for Economics Research, Working Paper No. 12828.

[54] Jacobson, Linda (2008). Class-Size Reductions Seen of Limited Help on Achievement Gap. EdWeek. Accessed at: http://www.edweek.org/ew/articles/2008/02/27.

[55] Rumberger, Russell W. (2001); See also: Lee, Valerie E. & Julia B. Smith (1997). Restructuring High Schools for Equity and Excellence: What Works, which analyzed federal data relating to almost 10,000 students in more than 750 public and private schools of different sizes, and concludes that size affects such things as community within the school (negatively if the school is too big) and the ability to offer a solid curriculum (negatively if the school is too small). See also: Lee, Valerie E. (2004). Effects on High-School Size on Student Outcomes: Response to Howley and Howley. Education Policy Analysis Archives, 12(53). See also: Lee, Valerie E., and Julia B. Smith (1996). High School Size: Which Works Best, and for Whom? Paper presented at the annual meeting of the American Educational Research Association, New York.

[56] Barrington, Bryon L. & Bryan Hendricks (2001). Differentiating Characteristics of High School Graduates, Dropouts, and Nongraduates. Wisconsin: University of Wisconsin Center at Wausau. See also: Balfanz, Bridgeland, Fox & McNaught (2008).

[57] Balfanz, Robert & Liza Herzog (2005). Keeping Middle Grade Students on Track to Graduation: Initial Analysis and Implications. Presentation given at the second Regional Middle Grades Symposium, Philadelphia, PA. Accessed at: http://www.betterhighschools.com/docs/NHSC_ApproachestoDropoutPrevention.pdf. Eighth-graders who miss five weeks of school or fail math or English have at least a 75 percent chance of dropping out of high school. Neild, R.C., & R. Balfanz (2006). Unfulfilled Promise: The dimensions and characteristics of Philadelphia's dropout crisis, 2000-2005. Baltimore: Center for Social Organization of Schools, Johns Hopkins University.

[58] Herlinhy, C. (2007). State and District-Level Supports for Successful Transition into High School. Washington, DC. Accessed at: http://www.betterhighschools.org.

[59] See Billig, S. (2007), Unpacking What Works in Service-Learning: Promising Research-Based Practices to Improve Student Outcomes, In Growing To Greatness 2007; see also National Research Council, Committee on Increasing High School Students' Engagement and Motivation to Learn (2004). Engaging Schools: Fostering High School Students' Motivation to Learn. Washington, DC: The National Academies Press.

[60] Bridgeland, J.M., Dilulio, J.J. & S.C. Wulsin (2008). Engaged for Success: Service-Learning as a Tool For High School Dropout Prevention. Civic Enterprises and Peter D. Hart Research Associates. For the Bill and Melinda Gates Foundation.

[61] Fan, X.T. & M. Chen (2001). Parental Involvement and Students' Academic Achievement: A metaanalysis. Educational Psychology Review, 13: 1-22.

[62] Houtenville, Andrew & Karen Conway (2008). Parental Effort, School Resources, and Student Achievement. Journal of Human Resources, 43: 37-453. Accessed at: http://www.unh.edu/news/docs/Conway_May08.pdf.

[63] Van Voohis, F.L. (2003). Interactive Homework in Middle School: Effects on Family Involvement and Science Achievement. The Journal of Education, 96: 323-338.

[64] Cragar, Mary (1994). Reducing the High School DCT Cooperative Education Drop Out Rate Through and Employer/Student Mentor. Practicum Papers. Accessed at: http://eric.ed.gov.

[65] Bridgeland, J.M., Dilulio, J.J. & R. Streeter (2006). Raising the Compulsory School Attendance Age: The Case for Reform. Civic Enterprises and Peter D. Hart Research Associates. With support from The Bill & Melinda Gates Foundation, The Case Foundation and The MCJ Foundation.

[66]National Center for Education Statistics (2006). The Condition of Education: Indicator 23, Student Effort and Educational Progress . Accessed at: http://nces.ed.gov/programs/coe/2006/section3/indicator23.asp.

[67] National Center for Education Statistics, "Fast Facts." Accessed at: http://nces.ed.gov/fastfacts/display.asp?id=51.

[68] Goldrick-Rab, Sara & Josipa Roksa (2008). A Federal Agenda for Promoting Student Success and Degree Completion. For the Center of American Progress. Washington, D.C.

[69] Toch, Thomas, Jerald, Craig & Erin Dillon (2007). Surprise – High School Reform is Working. Phi Delta Kaplan, 88(6): 433-437.

[70] Duncan, Arne (2009). Testimony of Education Secretary-designate Arne Duncan before the Committee on Health, Education, Labor and Pensions. United States Senate. Given on January, 13. 2009.

[71] Lee, V.E. & D.T. Burkham (2000). Dropping Out of High School: The Role of School Organization and Structure. Paper presented for the conference Dropouts in America: How Severe Is the Problem? What Do We Know About Intervention and Prevention? Civil Rights Project, Cambridge, MA: Harvard University.

[72] Adelman, C. (1999). Answers in the Tool Box: Academic Intensity, Attendance Patterns and Bachelor's Degree Attainment. U.S. Department of Education. Washington, DC. See also: Chait, Robin & Andrew Venesia (2009). Improving Academic Preparation for College. For the Center for American Progress. Washington, D.C. This report reviews the research surrounding academic preparation for college curricula and presents policy recommendations to ensure college readiness.

[73] Lee, Valerie E., Smith, Julia B. & Robert G. Croninger (1997). How High School Organization Influences the Equitable Distribution of Learning in Mathematics and Science. Sociology of Education, 70. See also: Chait & Venesia (2009).

[74] Kirst, Michael W. & Kathy R. Bracco (2004). Bridging the Great Divide: How the K-12 and Postsecondary Split Hurts Students, and What Can Be Done About It." In Michael W. Kirst and Andrew Venezia, eds., From High School to College: Improving Opportunities for Success in Postsecondary Education, Jossey-Bass. See also: Chair & Venezia (2009).

[75] Sacks, Peter (2007). How Colleges Perpetuate Inequality. Chronicle of Higher Education, 53 (19).

[76] Gonder, Peggy Odell (1991). Caught in the Middle: How to Unleash the Potential of Average Students. Arlington, VA: American Association of School Administrators.

[77] California Department of Education (1990). Enhancing Opportunities for Higher Education Among Underrepresented Students. Sacramento, CA.

[78] Bridgeland, Dilulio, Streeter & Mason (2008).

[79] Alliance for Excellent Education (2004).

[80] Balfanz, Bridgeland, Fox & McNaught (2008).

[81] U.S News and World Report (2008). Best High Schools: Gold Medal List. Accessed at: http://www.usnews.com/articles/education/high-schools/2008/12/04/best-high-schools-gold-medal-list.html

[82] Education Trust (2005). Gaining Traction, Gaining Ground: How Some High Schools Accelerate Learning fro Struggling Students.

[83] Barnett, Berry (2007). Highly Qualified Teacher or the Highly Expert Teacher. Center for Teaching Quality. Accessed at: http://teachingquality.typepad.com/building_the_profession/2007/04

[84] Lankford, Hamilton, Loeb, Susanna & James Wykoff (2002). Teacher Sorting and the Plight of Urban Schools. Educational Evaluation and Policy Analysis, 24(1): 37-62.

[85] Amrein-Beardsley, A. (2007). Recruiting Expert Teachers Into Hard-To-Staff Schools. The Education Digest, 73(4): 40-44.

[86] Aaronson, Daniel, Barrow, Lisa & William Sander (2007) Teachers and Student Achievement in the Chicago Public High Schools. Journal of Labor Economics, 25(1).

[87] Gordon, R., Kane, T.J. & D.O. Staigler (2006). Identifying Effective Teachers Using Performance on the Job. Washington, DC: Brookings Institution.

[88] Casey, Samuel (2000). No Excuses, Lessons from 21 High-Performing, High-Poverty Schools. Washington, DC: Heritage Foundation.

[89] Moin, L., Dorfield, J.K. & C.D. Shunn (2005). Where Can We Find Future K-12 Science and Math Teachers? A Search by Academic Year, Discipline, and Academic Performance Level. Science Education, 89(6): 960-1006.

[90] Some studies have fund that a significant teacher salary increase leads to better student achievement and decreased teacher attrition rates: Amrein-Beardsley (2007); Clotfelter, C., Glennie, E., Ladd, H. & J. Vigdor (2007). Would Higher Teacher Salaries Keep Teacher in High-Poverty Schools? Evidence from a Policy Intervention in North Carolina. Sanford Institute of Public Policy, Duke University; Bond, C.K. (2001) Do Teacher Salaries Matter? The Effects of Teacher Salaries on Teacher Recruitment, Teacher Retention and Student Outcomes. Dissertation Abstracts International, A: The Humanities and Social Sciences, 62(2); Hanushek, E., Kain, J., & S. Rivkin (2004). Why Public Schools Lose Teachers. Journal of Human Resources, 39(2): 326-354. Other studies have found that financial incentives do not substantially increase teacher performance and retention: Piercynski, M., Matranga, M. & Pettier, G. (1997). Legislative Appropriation for Minority Teacher Recruitment: Did It Really Matter? Clearing House, 70(4): 205-206.

[91] Figlio, David & Lawrence Kenny (2004). Individual Teacher Incentives and Student Performance. National Bureau of Economic Research, Working Paper No. W12627.

[92] Kirby, Shelia, Berends, Mark & Scott Naftel (1999). Supply and Demand of Minority Teachers in Texas: Problems and Prospects. Educational Evaluation and Policy Analysis, 21 (1): 47-66.

[93] Goldhaber, D. & D. Brewer (2000). Does Teacher Certification Matter? High School Teacher Certification Status and Student Achievement. Educational Evaluation and Student Achievement, 22(3): 129-145. See also: D.H. Monk (1994). Subject Area Preparation of Secondary Mathematics and Science Teaches and Student Achievement. Economics of Education Review, 13, 125-145.

[94] School and Staff Survey (2003). Accessed at: http://nces.ed.gov/surveys/sass/

[95] Ingersoll, Richard (2008). Out of Field Teaching Persists in Key Academic Courses and High-Poverty Schools. Education Trust.

[96] Report on University of North Carolina Production of Teacher Education Graduates and Alternative Licensure Completers 2005-06. Report to the Joint Legislative Education Oversight Committee of the General Assembly Regarding Teacher Education Enrollment Plans: University of North Carolina General Administration. North Carolina set a goal to triple the number of math and science teacher it produces by 2010. Cities are also working to eliminate out-of-field teaching, such as Boston who is creating their own additional supply of teachers, in the form of district-based teaching programs, to supplement the number of teachers they receive from the State's local colleges of education.

[97] Berry, B. (2004). Recruiting and Retaining "Highly Qualified Teachers" for Hard-to-Staff Schools. NASSP Bulletin 88: 5-27.

[98] American Association of State Colleges and Universities (2006). Teacher Induction Programs: Trends and Opportunities. Policy Matters, 3(10).

[99] Alliance for Excellent Education (2004). Tapping the Potential: Retaining and Developing High-Quality New Teachers.

[100] Villar, Anthony (2004). Measuring the Benefits and Costs of Mentor-Based Induction: A Value-Added Assessment of New Teacher Effectiveness Linked to Student Achievement. Paper prepared for the American Educational Research Association Annual Conference. See also: Alliance for Excellent Education.

[101] American Association of State Colleges and Universities (2006).

[102] Johnson, Susan Moore et al. (2004). The Support Gap: New Teachers' Early Experiences in High- Income and Low-Income Schools. Article prepared for the 2004 Annual Meting of the American Educational Research Association, San Diego: CA.

[103] Alliance for Excellent Education (2004).

[104] New Leaders for New Schools (2008). Key Insights of the Urban Excellence Framework: Defining an Urban Principalship to Drive Dramatic Achievement Gains. Volume 3.

[105] Christle, Christine, Jolivette, Kristine & Michael Nelson (2007). School Characteristics Related to High School Dropout Rates, Remedial and Special Education, 28 (6): 325-339.

[106] Casey, Samuel (2000).

[107] Insert appropriate endnote here. Is it Barrington and Hendricks?

[108] Alexander, K.L., Entwistle, D.R. & C. Horsey (1997). From First Grade Forward: Early Foundations of High School Dropout. Sociology of Education, 70 (2): 87-107. See also: Balfanz & Nield (2006). Several, but surprisingly few, longitudinal or retrospective studies of cohorts of students have analyzed the indicators of dropping out from as early as first grade. See also: Rumberger (2001); Garnier, H.E., Stein, J.A. & J.K. Jacobs (1997). The Process of Dropping Out of High School. American Educational Research Journal, 34 (2): 395-419.

[109] Nield, R.C. & Robert Balfanz (2006).

[110] Allensworth, E. & J.Q. Easton (2007). What Matters for Staying On-Track and Graduating in Chicago Public High Schools: A Close Look at Course Grades, Failures and Attendance in the Freshmen Year. Chicago: Consortium on Chicago School Research.

[111] UNESCO Institute for Statistics. (2007). PISA 2006: Science Competences for Tomorrow's World. Paris, France: Organization for Economic Cooperation and Development.

[112] Snow, Catherine, Martin Twakia and Ilene Berman (2008). State Literacy Plans: Incorporating Adolescent Literacy. Harvard Educational Review, 78(1): 211-230.

[113] Alliance for Excellent Education Fact Sheet. Accessed at: http://www.all4ed.org/publications/FactSheet

[114] National Association of Secondary School Principals (2005). NAASP Legislative Recommendations for High School Reform.

[115] Boling, Charlotte and William Evans (2008). Reading Success in the Secondary Classroom. Preventing School Failure, 52(2): 59-66.

[116] Salinger, Terry & Amy Bacevich (2006). Lessons and Recommendations from the Alabama Reading Initiative. Sustaining Focus on Secondary Reading. For the Carnegie Corporation of New York.

[117] Greene & Winters (2005).

BIBLIOGRAPHY

Aaronson, Daniel, Barrow, Lisa & William Sander (2007). *Teachers and Student Achievement in the Chicago Public High Schools*, Journal of Labor Economics, 25(1).

Achieve, Inc. Accessed on Sept 3, 2008 on http://www.achieve.org/

Achieve (2008). Closing the Expectations Gap, An Annual 50-State Progress Report on the Alignment of high School Policies with the Demands of College and Careers . Washington, D.C.

Ad Council (2006). College Access: Results from a Survey of Low-Income Parents and Low-Income Teens. Accessed at: http://www.strivetogether.org/documents/adcouncil.pdf.

Adelman, C. (1999). *Answers in the Tool Box: Academic Intensity, Attendance Patterns and Bachelor's Degree Attainment.* U.S. Department of Education. Washington, DC.

Akujobi, Clifford & Robert Simmons (1997). "*An Assessment of Elementary School Service-Learning Teaching Methods: Using Service-Learning Goals.*" NSEE Quarterly, 23(2): 19-28.

Alexander, K.L., Entwistle, D.R. & C. Horsey (1997). *From First Grade Forward: Early Foundations of High School Dropout.* Sociology of Education, 70: 87-107.

Alexander, K.L. & A.M. Pallas (1984). *Curriculum Reform and School Performance: An Evaluation of the "New Basics."* American Journal of Education, 92: 391-420.

Allen, J.P., Kuperminc, G. Philliber, S. & K. Herre (1994). *Programmatic Prevention of Adolescent Problem Behaviors: The Role ofAutonomy, Relatedness, and Volunteer Service in the Teen Outreach Program,* Journal of Community Psychology, 22:617-638.

Allensworth, E. & J.Q. Easton (2007). *What Matters for Staying On-Track and Graduating in Chicago Public High Schools: A Close Look at Course Grades, Failures and Attendance in the Freshmen Year.* Chicago: Consortium on Chicago School Research.

Alliance for Excellent Education (2007). *The High Cost of High School Dropouts: What the Nation Pays for Inadequate High Schools.* Washington, DC.

Alliance for Excellent Education (2004). *Alliance for Excellent Education Commends NASSP Report, Breaking Ranks II for Its Hands on Approach.* Washington, DC: Alliance for Excellent Education.

Alliance for Excellent Education Fact Sheet. Accessed at: http://www.all4ed.org/publications/FactSheet

Alliance for Service-learning in Educational Reform (1995). *Standards for School-Based andCommunity-Based Service-learning Programs.* Alexandria, VA: Close Up Foundation.

American Federation of Teachers (2006). *Redesigning Schools to Raise Achievement.* Washington, DC.

American Federation of Teachers (2007). *Charting the Course: The AFT's Education Agenda to Reach all Children.* Washington, DC.

Amos, Jason (2008). *Dropouts, Diplomas, and Dollars: U.S. High School and the Nation's Economy.* Alliance for Excellent Education. Accessed at: http://www.all4ed.org/files/Econ2008.pdf.

Amrein-Beardsley, A. (2007). *Recruiting Expert Teachers Into Hard-To-Staff Schools.* The Education Digest, 73(4): 40-44.

Anderson, L.W. & Shirley (1995). *High School Principals and School Reform—Lessons Learned From a Statewide Study of Project Re-learning.* Educational Administration Quarterly, 31(3): 405-423.

Anderson, R., Green, M., & P. Loewen (1988). *Relationships Among Teachers' and Students' Thinking Skills, Sense of Efficacy, and Student Achievement.* Alberta Journal of Educational Research, 34(2): 148-165

Anderson, V., Kinsley, C., Negroni, P. & C. Price (1991). *Community Service- Learning and School Improvement in Springfield, Massachusetts*, Phi Delta Kappan, 72:761-764.

Angrist, Joshua & Jonathan Guryan (2008). *Does teacher testing raise teacher quality? Evidence from state certification requirements. Economics of Education Review,* 27(5):483-503.

Armor, D., Conroy-Oseguera, P, Cox, M., King, N., McDonnell L., & A. Pascal (1976). *Analysis of the School Preferred Reading Program in Selected Los Angeles Minority Schools,* Santa Monica, CA: Rand Corporation.

Ashton, P.T. & R.B. Webb (1986). *Making a Difference: Teachers' Sense of Efficacy and Student Achievement.* New York: Longman

Astone, Nan Marie & Sara S. McLanahan (1991). *Family Structure, Parental Practices and High School Completion.* American Sociological Review, 56(3): 309-320.

Bacolod, Marigee P. (2001). *The Role of Alternative Opportunities in the Female Labor Market in Teacher Supply and Quality:* 1940-1990, UCLA Department of Economics.

Balfanz, R, Bridgeland, J., Fox, J., & M. McNaught (2008) *Graduation Nation: A Guidebook to Help Communities Tackle the Dropout Crisis.* For the America's Promise Alliance.

Balfanz, Robert (2007). *Locating and Transforming the Low Performing High Schools Which Produce the Nation's Dropouts.* Presented at Turning Around Low-Performing High Schools: Lessons for Federal Policy from Research and Practice, August 16, 2007.

Balfanz, Robert (2007). *What Your Community Can Do to End Its Drop-Out Crisis: Learnings from*

Research and Practice. Baltimore, MD: Center for Social Organization of Schools at Johns Hopkins University.

Balfanz, Robert & Liza Herzog (2005). *Keeping Middle Grade Students on Track to Graduation: Initial Analysis and Implications*. Presentation given at the second Regional Middle Grades Symposium, Philadelphia, PA. Accessed at: http://www.betterhighschools.com/docs/NHSC_ ApproachestoDropoutPrevention.pdf.

Balfanz, Robert & N. Legters (2004). *Locating the Dropout Crisis: Which High Schools Produce the Nation's Dropouts? Where Are They Located? Who Attends Them?* Center for Research on the Education of Students Placed at Risk at Johns Hopkins University. Accessed at: www.csos.ihu.edu

Balfanz, R., McPartland, J.M. & A. Shaw (2002). *Re-conceptualizing Extra Help for High School Students in a High Standards Era.* Baltimore, MD: Center for Social Organization of Schools, Johns Hopkins University.

Balfanz, Robert & N. Legters (2001). *How Many Central City High Schools Have a Severe Dropout Rate, Where are They Located, and Who Attends Them?* Paper presented at the Dropouts in America: How Severe is the Problem? What do We Know about Intervention and Prevention? Civil Rights Project, Cambridge, MA: Harvard University.

Bamburg, Jerry (1994). *Raising Expectations to Improve Student Learning.* Oak Brook, Illinois: North Central Regional Educational Laboratory.

Bandura, A. (1993). *Perceived Self-Efficacy in Cognitive Development and Functioning.* Educational Psychologist, 28(2): 117-148.

Barlow, Dudley (2008). *The Education Digest*, 73(9): 67-70. Retrieved August 14, 2008.

Barnett, Berry (2007). *Highly Qualified Teacher or the Highly Expert Teacher.* Center for Teaching Quality. Accessed at: http://teachingquality.typepad.com/building_the_profession/2007/04

Barrington, Bryon L. & Bryan Hendricks (2001). *Differentiating Characteristics of High School Gradates, Dropouts, and Nongraduates.* Wisconsin: University of Wisconsin Center at Wausau.

Barton, Paul E. (2005). *One-Third of a nation: Rising Dropout Rates and Declining Opportunities,* Policy Information Center: Educational Testing Service.

Benbow, C. P., & Stanley (1980). *Intellectually Talented Students: Family Profiles*, Gifted Child Quarterly, 24: 119-122.

Berry, B. (2004). *Recruiting and Retaining "Highly Qualified Teachers" for Hard-to- Staff Schools.* NASSP Bulletin 88: 5-27.

Billig, S. H. (2007). *Unpacking What Works In Service-Learning: Promising Research-Based Practices to Improve Student Outcomes*, In J. Kielsmeier, M. Neal, and N. Schultz (Eds.), Growing to Greatness 2007: The State of Service-Learning. Saint Paul, MN: National Youth Leadership Council.

Billig, S.H. & M.M. Klute (2003). *The Impact of Service-Learning on MEAP: A Large-Scale Study of Michigan Learn and Serve Grantees.* Presentation at National Service-Learning Conference, Minneapolis, MN.

Boling, Charlotte & William Evans (2008). *Reading Success in the Secondary Classroom.* Preventing School Failure, 52(2): 59-66.

Bond, C.K. (2001) *Do Teacher Salaries Matter? The Effects of Teacher Salaries on Teacher Recruitment, Teacher Retention and Student Outcomes.* Dissertation Abstracts International, A: The Humanities and Social Sciences, 62(2).

Botstein, Leon (2008). *A Second-Rate Secondary Education: High schools need to start treating their students with the same respect colleges do*, Newsweek, 152(8).

Bridgeland, J. M., Dilulio, J.J., & K. B. Morison (2006). *The Silent Epidemic: Perspectives of High School Dropouts.* Civic Enterprises and Peter D. Hart Research Associates. For the Bill and Melinda Gates Foundation.

Bridgeland, J.M., Dilulio, J.J., Streeter, R.T. & J.R. Mason (2008). *One Dream, Two Realities: Perspectives of Parents on America's High Schools.* Civic Enterprises and Peter D. Hart Research Associates. For the Bill and Melinda Gates Foundation

Bridgeland, J.M., Dilulio, J.J. & S.C. Wulsin (2008). *Engaged for Success: Service-Learning as a Tool for High School Dropout Prevention.* Civic Enterprises and Peter D. Hart Research. For the Bill and Melinda Gates Foundation

Campbell, K. Celeste & Dale R. Fuqua(2008). *Factors Predictive of Student Completion in a Collegiate Honors Program,* Journal of Student Retention, 10(2):129-153.

California Department of Education (1990). *Enhancing Opportunities for Higher Education Among Underrepresented Students.* Sacramento, CA.

Carlin, Lori (2008). *Expecting AVID Success: The Teacher Perspective.* Dissertation for a Doctorate of Philosophy from North Carolina State University.

Carnegie Council on Adolescent Development (1989). *Turning Points: Preparing American Youth For the 21st Century.* New York: The Carnegie Corporation.

Casey, Samuel (2000). *No Excuses, Lessons from 21 High-Performing, High-Poverty Schools.* Washington, DC: Heritage Foundation.

Center for Teaching Quality (2007). *The 'Highly Qualified' Teacher or the 'Highly Expert' Teacher.* Accessed at: http://www.teachingquality.org/nclbhqt/index.htm

Chait, Robin & Andrew Venesia (2009). Improving Academic Preparation for College. For the Center for American Progress. Washington, D.C.

Christle, Christine, Jolivette, Kristine & Michael Nelson (2007). *School Characteristics Related to High School Dropout Rates,* Remedial and Special Education, 28(6):325-339.

Clotfelter, Charles, Ladd, Helen & Jacob Vigdor (2007). *How and Why Do Teacher Credentials Matter for Student Achievement?* National Bureau for Economics Research, Working Paper No. 12828.

Clotfelter, C., Glennie, E., Ladd, H. & J. Vigdor (2007). *Would Higher Teacher Salaries Keep Teacher in High-Poverty Schools? Evidence from a Policy Intervention in North Carolina.* Sanford Institute of Public Policy, Duke University.

Clotfelter, Charles, Ladd, Helen, Vigdor, Jacob and Roger Aliaga Diaz (2004). *Do School Accountability Systems Make It More Difficult for Low-Performing Schools to Attract and Retain High-Quality Teachers?* Journal of Policy Analysis and Management, 23(2): 251-271.

Committee on Increasing High School Students' Engagement and Motivation to Learn (2003). *Engaging Schools: Fostering High School Students' Motivation to Learn National Research Council.* National Research Council.

Conrad, D. & D. Hedin (1991). *Schoolbased Community Service: What We Know from Research and Theory.* Phi Delta Kappan, 743-749.

Corcoran, S.P., Evans, W.N., & R.M. Schwab (2004). *Changing labor-market opportunities for women and the quality of teachers,* 1957–2000. American Economic Review, 94(2): 230–235.

Council of Chief State Officers (2002). *Key State Education Policies on PK-12:* 2002 (Washington, DC).

Council of the Great City Schools (2008). *Supporting Successful Transitions to High School.* Research Brief.

Cragar, Mary (1994). *Reducing the High School DCT Cooperative Education Drop Out Rate Through and Employer/Student Mentor.* Practicum Papers. Accessed at: http://eric.ed.gov.

Craig, Jerald and the Center for Public Education (2007). *Keeping Kids in School. Lessons for Research about Preventing Dropouts.* The National Association of School Boards.

Darling-Hammond, L., Berry, B. & A. Thoreson (2001). *Does Teacher Certification Matter? Evaluating the Evidence.* Educational Evaluation and Policy Analysis, 23:51-71.

Decker, Paul, Mayer, Daniel & Steven Glazerman (2004). *The Effects of Teach for America on Students: Findings from a National Evaluation.* Mathematica Policy Research. For the Smith Richardson Foundation, the William and Flora Hewlett Foundation and the Carnegie Corporation.

Deloney, Patricia & Richard Tompkins (1994). *Rural Students AT-Risk in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. Policy and Program Implications for Rural At-Risk Students.* SEDL.

Deye, Sunny (2006). *A+ for Rigor.* State Legislatures, 32(9): 34-38.

Duncan, Arne (2009). *Testimony of Education Secretary-designate Arne Duncan before the Committee on Health, Education, Labor and Pensions.* United States Senate. Given on January, 13. 2009.

Duncan, G. J. & K.A. Magnuson (2005). *Can Family Socioeconomic Resources Account for Racial and Ethnic Test Score Gaps?* The Future of Children, 15: 35-54.

Eckman, E.W. (2004). *Similarities and Differences in Role Conflict, Role Commitment, and Job Satisfaction for Female and Male High School Principals.* Educational Administration Quarterly, 40(3): 366-387.

Editorial Projects in Education (2008). *Diplomas Count 2008: School to College: Can State P-16 Councils Ease the Transition?* Special Issue, Education Week, 27(40).

Education and the Public Interest Center (2007). *Dropout Policies: Research-Based Strategies.* School of Education, University of Colorado at Boulder. Accessed at: http://www.colorado.edu/education/faculty.

Ehrenberg, Ronald & Dominic Brewer (1994). *Do School and Teacher Characteristics Matter? Evidence from High School and Beyond.* Economics of Education Review, 13(1): 1-17.

Ekstrom, R B., Goertz, M.E., Pollack, & D.A. Rock (1986). *Who drops out of high school and why? Findings from a national study.* Teachers College Record, 87:356-373.

Englund, Michelle, Egeland, Byron & W. Andrew Collins (2008). *Exceptions to High School Dropout Predictions in a Low-Income Sample: Do Adults Make a Difference?* University of Minnesota Journal of Social Issues, 64(1):77-94.

Epstein, David (2005). *It Takes a Counselor, Not a Village*. Inside Higher Ed, 5. Accessed at: http://insidehighered.com/news/2005/07/05/aid.

Epstein, J.L., Sanders, M.G., Simon, B.S., Salina, K.C., Jansorn, N.R., & F.L. Van Voorhis (2002). *School, Community, and Community Partnerships: Your Handbook for Action* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Fan, X.T. & M. Chen (2001). *Parental Involvement and Students' Academic Achievement: A meta-analysis.* Educational Psychology Review, 13: 1-22.

Ferguson, Ronald & Helen Ladd (1996). *How and Why Money Matters: An Analysis of Alabama Schools, chapter in Ladd, Helen, ed., Holding Schools Accountable: Performance- Based Reform in Education,* The Brookings Institute.

Fetler, Mark (1989). *School Dropout Rates, Academic Performance, Size and Poverty: Correlates of Educational Reform.* Educational Evaluation and Policy Analysis, 11(2): 109-116.

Figlio, David & Lawrence Kenny (2004). *Individual Teacher Incentives and Student Performance.* National Bureau of Economic Research, Working Paper No. W12627.

Frasier, M.M., Hunsake, S.L., Lee, J., Finley, V.S., Frank, E & J.H. Garcia (1995). *Educators' perceptions of barriers to the identification of gifted children from economically disadvantaged and limited English proficient backgrounds.* (Report RM-95216). Storrs, CT: University of Connecticut, National Research Center on the Gifted and Talented.

Fredricks, J. A., Blumenfeld, P..C. & A.H. Paris (2004). *School engagement: Potential of the concept, state of the evidence.* Review of Educational Research, 74:59–109.

Gamoran, A. & E.C. Hannigan (2000). *Algebra for Everyone? Benefits of College-Preparatory Mathematics for Students with Diverse Abilities in Early Secondary School.* Educational Evaluation and Policy, 22: 241-254.

Goddard, R.D., Hoy, W.K. & Hoy A. Woolfolk (2000). *Collective Teacher Efficacy: Its Meanings, Measure and Effect on Student Achievement.* American Education Research Journal, 37(2): 479-507.

Goldhaber, D. (2002). *The Mystery of Good Teaching.* Education Next, 2:50-55.

Goldhaber, D.D. & D.J. Brewer (2002). *Does Teacher Certification Matter? High School Teacher Certification Status and Student Achievement.* Educational Evaluation and Policy Analysis, 22: 129-145.

Goldhaber, D.D. & D.J. Brewer (2002). *Why Don't Schools and Teachers Seem to Matter? Assessing the Impact of Unobservables on Educational Productivity.* Journal of Human Resources, 32(3): 505-523,

Goldrick-Rab, Sara & Josipa Roksa (2008). *A Federal Agenda for Promoting Student Success and Degree Completion.* For the Center of American Progress. Washington, D.C.

Goldring, E, Porter, A., Murphy, J., Elliot, S. & X. Cravens (2007). *Assessing Learning- Centered Leadership. Connections to Research, Professional Standards, and Current Research.* New York: Wallace Foundation with Vanderbilt University.

Gonder, Peggy Odell (1991). *Caught in the Middle: How to Unleash the Potential of Average Students.* Arlington, VA: American Association of School Administrators.

Gordon, R., Kane, T.J., & D.O. Staigler (2006). *Identifying Effective Teachers Using Performance on the Job.* Washington, DC: Brookings Institution.

Gottfried, Allen W et al. (2003). *Socioeconomic Status in Children's Development and Family Environment: Infancy through Adolescence.* Socioeconomic Status, Parenting and Child Development, edited by Marc H. Bomstein and Robert H. Bradley. Mahwah, N.J.: Lawrence Erlbaurri Associates.

Graziano, Claudia (2005). *School's Out: The Crisis in Teacher Retention.* Edutopia and the George Lucas Educational Foundation.

Greene, Jay P. & Marcus Winters (2005). *Public High School Graduation and College Readiness Rates, 1991-2002.* New York: The Manhattan Institute for Policy Research.

Greenwald, R. Hedges, L.V. & R.D. Laine (1996). *The Effect of School Resources on Student Achievement.* Review of Educational Research, 66: 361-396.

Griffith, J (1998). *The Relation of School Structure and Social Environment to Parent Involvement in Elementary Schools.* The Elementary School Journal, 99:53-81.

Hall, Daria (2005). *Getting Honest About Grad Rates: How States Play the Numbers and Students Lose.* The Education Trust.

Hamre, B. R. & Robert C. Pianta (2001). *Early Teacher-Child Relationships and the Trajectory of Children's School Outcomes through Eighth Grade.* Child Development, 72:625-88.

Hanushek, E.A. (2002). *Teacher Quality*. In L.T. Izumi & W. M. Evers (Eds.), *Teacher Quality* (pp.1-12). Palo Alto, CA: Hoover Press.

Hanushek, E.A. (1997). *Assessing the Effects of School Resources on Student Performance.* Educational Evaluation and Policy Analysis, 19: 141-164.

Hanushek, E., Kain, J., & S. Rivkin (2004). *Why Public Schools Lose Teachers.* Journal of Human Resources, 39(2): 326-354

Harmon, D. (2002). *They Won't Teach Me: The Voices of Gifted African American Inner-city Students.* Roeper Review, 24:68-75.

Harvey, James & Naomi Housman (2005). *Crisis or Possibility: Conversations about the American High School.* National High School Alliance.

Haycock, Kati (2001). *Closing the Achievement Gap*. Educational Leadership, 58(6).

Henderson, Anne & Karen Mapp (2002). A New Wave of Evidence: *The Impact of School, Family, and Community Connections on Student Achievement.* SEDL.

Herlinhy, C. (2007). *State and District-Level Supports for Successful Transition into High School.* Washington, DC. Accessed at: http://www.betterhighschools.org.

Hoffer, T.B., Rasinksi, K.A. & W. Moore (1995). *Social Background Differences in High School Mathematics and Science Coursetaking and Achievement* (NCES 95-206). Washington, DC: U.S. Department of Education

Ho Sui-Chu, E., & J.D. Willms (1996). *Effects of Parental Involvement on Eighth Grade Achievement.* Sociology of Education, 69(2): 126-141.

Houtenville, Andrew & Karen Conway (2008). *Parental Effort, School Resources, and Student Achievement.* Journal of Human Resources, 43: 37-453. Accessed at: http://www.unh.edu/news/docs/Conway_May08.pdf.

Houtenville, Andrew & Karen Smith Conway (2005). *Parental Effort, School Resources and Student Achievement: Why Money May Not Matter.* University of New Hampshire.

Ingersoll, Richard (2008). *Out of Field Teaching Persists in Key Academic Courses and High-Poverty Schools.* Education Trust.

Lee, Valerie E. (2004). *Effects on High- School Size on Student Outcomes: Response to Howley and Howley.* Education Policy Analysis Archives, 12(53).

Lee, Valerie E. (2004). *Effects on High-School Size on Student Outcomes: Response to Howley and Howley.* Education Policy Analysis Archives, 12(53).

Levin, H., Belfield, C, Muennig, P & C. Rouse (2007). *The Costs and Benefits of an Excellent Education for All of America's Children.* Prepared under grant support from Lilo and Gerry Leeds to Teacher College, Columbia University.

Hoye, J.D., & Chris Sturgis (2005). The *Alternative Pathways Project: A Framework for Dropout Reduction and Recovery.*

Hunsaker, S. (1995). *Family influences on the achievement of economically disadvantaged students: Implications for gifted identification and programming.* Research Monograph 95206. Storrs, CT: University of Connecticut.

Hunsaker, Scott L (1997). *An Analysis of Teacher Nominations and Student Performance in Gifted Programs.* Gifted Child Quarterly, 41(2):19-24.

Iceland, J. (2000). *Poverty among working families: Findings from experimental poverty measures* (U.S. Census Bureau, Current Population Reports, No. P23–203). Washington, DC: U.S. Government Printing Office.

Ingersoll, R. (2003). *Is There Really a Teaching Shortage?* Seattle, WA: Center for the Study of Teaching and Policy.

Institute on Community Integration, *The Connect & Check Model*. For the University of Minnesota.

Jackson, A. & P.G. Davis (2000). *Turning Points 2000: Educating Adolescents in the 21st Century.* New York: Teachers College Press.

Jacobson, Linda (2008). *Class-Size Reductions Seen of Limited Help on Achievement Gap.* EdWeek. Accessed at: http://www.edweek.org.

Jacoby, Russel, & Naomi Glauberman (1995) *The Bell Curve Debate.* Times Books: New York.

Janosz, M., Archambault, I., Morizot, J. & L.S. Pagani (2008). *School engagement trajectories and their differential predictive relations to dropout.* Journal of Social Issues, 64:21–40.

Jatko, B.P. (1995). *Action Research and Practical Inquiry: Using a Whole Class Tryout Procedure for Identifying Economically Disadvantaged Students in Three Socioeconomically Diverse Schools.* Journal for the Education of the Gifted, 19:83-105.

Johnson, Susan Moore et al. (2004). *The Support Gap: New Teachers' Early Experiences in High-Income and Low-Income Schools.* Article prepared for the 2004 Annual Meting of the American Educational Research Association, San Diego: CA.

Kamras, Jason & Andrew Rotherham (2007). *America's Teaching Crisis.* Democracy Journal, Issue 5.

Kaufman, Philip (2001). *The National Dropout Data Collection System: Assessing Consistence.* Paper presented at "Dropouts in America: How Severe is the Problem? What Do We Know about Intervention and Prevention?" Civil Rights Project, Cambridge, MA: Harvard University.

Kerr, Kerri A. & Nettie E. Legters (2004). *Preventing Dropout: Use and Impact of Organizational Reforms Designed to Ease the Transition to High School.* Dropouts in America. Edited by Gary Orfield. Cambridge: MA: Harvard Education Press.

Kirby, Shelia, Berends, Mark & Scott Naftel (1999). *Supply and Demand of Minority Teachers in Texas: Problems and Prospects.* Educational Evaluation and Policy Analysis, 21 (1): 47-66.

Kirst, Michael W. & Kathy R. Bracco (2004). *Bridging the Great Divide: How the K-12 and Postsecondary Split Hurts Students, and What Can Be Done About It."* In Michael W. Kirst and Andrew Venezia, eds., *From High School to College: Improving Opportunities for Success in Postsecondary Education,* Jossey-Bass.

Kitano, Margie K & Rena B. Lewis (2007). *Examining the Relationships between Reading Achievement and Tutoring Duration and Content for Gifted Culturally and Linguistically Diverse Students from Low-Income Backgrounds.* Journal for the Education of the Gifted, 30:295- 325.

Klonsky, Michael (1995). Small Schools, Big Results. The American School Board Journal, 182(7): 37-40.

Klute, M.M (2002). *Antioch's Community- Based School Environment Education* (COSEED): *Quantitative Evaluation Report.* Denver, CO: RMC Research Corporation Laird, M. & S. Black (2002). *Service-Learning Evaluation Project: Program Effects for At-Risk Students.* Presentation at 2nd International Service-Learning Research Conference, Nashville, TN.

Lankford, Hamilton, Loeb, Susanna & James Wykoff (2002). *Teacher Sorting and the Plight of Urban Schools.* Educational Evaluation and Policy Analysis, 24(1): 37-62.

Lee, V.E. & D.T. Burkham (2000). *Dropping Out of High School: The Role of School Organization and Structure*. Paper presented for the conference Dropouts in America: How Severe Is the Problem? What Do We Know About Intervention and Prevention? Civil Rights Project, Cambridge, MA: Harvard University.

Lee, Valerie E. & Julia B. Smith (1997). Restructuring High Schools for Equity and Excellence: What Works.

Lee, Valerie E., Smith, Julia B. & Robert G. Croninger (1997). *How High School Organization Influences the Equitable Distribution of Learning in Mathematics and Science*. Sociology of Education,

Lee, Valerie E., & Julia B. Smith (1996). *High School Size: Which Works Best, and for Whom?* Paper presented at the annual meeting of the American Educational Research Association, New York.

Levine, Daniel U., Lachowicz, Holly, Oxma, Karen & Ahden Tangeman (1972). *The Home Environment of Students in a High-achieving Inner-City Parochial School and a Nearby Public School.* Sociology of Education, 45:435- 445.

Lumsden, Linda (1997). *Expectations for Students.* Clearinghouse on Educational Policy and Management. College of Education: University of Oregon.

Manzo, Kathleen (2007). *Students in Boston's 'Pilot' Schools Outpacing Others*. Education Week, 27(12):1-14. Retrieved August 14, 2008, from Research Library database.

Matsumura, Lindsay, Slater, Sharon & Amy Crosson (2008). *Classroom Climate, Rigorous Instruction and Curriculum, and Students' Interactions in Urban Middle Schools.* Elementary School Journal, 108(4): 293-312.

Mertz, N.T. & S.R. McNeely (1998). *Women on the Job: A Study of Female High School Principals.* Educational Administration Quarterly, 34(2): 196-222.

McCaffret, Daniel F., Hamilton, Laura S., Stecher, Brian & Stephen P. Klein (2001). *Interactions Among Instructional Practices, Curriculum, and Student Achievement: The Case of Standards-Based High School Mathematics.* Journal for Research in Mathematics Education, 32(5): 493-517.

McKown, C & R.S. Weinstein (2008). *Teacher Expectations, Classroom Context, and the Achievement Gap.* Journal of School Psychology, 46(3): 235-261.

Midgley, C., Feldlaufer, H. & J. Eccles (1989). *Change in Teacher Efficacy and Student Selfand Task-Related Beliefs in Mathematics During the Transition to Junior High School.* Journal of Educational Psychology, 81: 247-258.

Mitchell, Bruce (1986). *Nurturing the Low- Income Child: Selected Vignettes from Project Hunches.* Gifted Child Today, 9:30-32.

Moin, L., Dorfield, J.K. & C.D. Shunn (2005). *Where Can We Find Future K-12 Science and Math Teachers? A Search by Academic Year, Discipline, and Academic Performance Level.* Science Education, 89(6): 960-1006.

Monk, D.H. (1994). *Subject-Area Preparation of Secondary Mathematics and Science Teachers and Student Achievement.* Economics of Education Review, 13: 125-145.

Moon, T.R., & C.M. Callahan (2001). *Curricular Modifications, Family Outreach, and a Mentoring Program.* Journal for the Education of the Gifted, 24:305-321.

Morgan, Michelle F. & Karen B. Moni (2008). *Meeting the Challenge of Limited Literacy Resources for Adolescents and Adults with Intellectual Disabilities.* British Journal of Special Education, 35(2):92-101.

Murnane, Richard & Jennifer L. Steele (2007). *What is the problem? The challenge of providing effective teachers for all children.* The Future of Children, 17(1):15-29.

National Association of Second School Principals (2005). *NAASP Legislative Recommendations for High School Reform.*

National Conference on Citizenship (2006). *America's Civic Health Index: Broken Engagement.* In association with CIRCLE and Saguaro Seminar.

National Center for Education Statistics (2006). *The Condition of Education: Indicator 23, Student Effort and Educational Progress.* Accessed at: http://nces.ed.gov/programs/coe/2006/section3/indicator23.asp.

National Center of Educational Statistics (2004). *Long-term Trends: Reading.* Washington, DC: U.S. Department of Education.

National Center for Education Statistics, "Fast Facts." Accessed at: http://nces.ed.gov/fastfacts/display.asp?id=51.

National Commission on Excellence in Education (1983). *A Nation At Risk: The Imperative for Educational Reform.* A report to the Nation and the Secretary of Education. Accessed at: http://www.ed.gov/pubs/NatAtRisk/title.html.

National Education Association (2007). *Nation's Educations Sound the Alarm on the School Dropout Crisis: NEA's Plan for Reducing the School Dropout Rate.*

National Institute for Excellence in Teaching. *Tap Results*. Accessed at: http://www.talentedteachers.org/tap.

National Middle School Association (2003). *This We Believe: Successful Schools for Younger Adolescents.* Westerville, OH.

Neild, Ruth, Balfanz, Robert & Liza Herzog (2007). *An Early Warning System.* Educational Leadership, 65(2): 28-33.

New Leaders for New Schools (2008). *Key Insights of the Urban Excellence Framework: Defining an Urban Principalship to Drive Dramatic Achievement Gains.* Volume 3.

New Technology High School website. Accessed at: http://www.newtechhigh.org.

Nield, R.C. & Robert Balfanz (2006). *Unfulfilled Promise: The Dimensions and Characteristic's of Philadelphia's Dropout Crisis, 2000-2005.* Baltimore: Center for Social Organization of Schools: Johns Hopkins University.

No Child Left Behind Act (2001). Accessed at: http://www.ed.gov/nclb/methods/teachers/hqtflexibility.pdf

Nye, Barbara, Konstantopoulos, Spyros & Larry Hedges (1004). *How Large Are Teacher Effects?* Educational Evaluation ad Policy Analysis, 26(3): 237-257.

Olszewski-Kubilius, P. (2006). *Addressing the achievement gap between minority and nonminority children: Increasing access and achievement through Project EXCITE.* Gifted Child Today, 29(2):28-37.

Olszewski-Kubilius, Grant, P.B. & C. Seibert (1994). *Social Support Systems and the Disadvantaged Gifted: A Framework for Developing Programs and Services*. Roeper Review, 17(1): 20-25.

Orfield, Gary, ed. (2004). *Dropouts in America; Confronting the Graduation Rate Crisis.* Cambridge, Massachusetts: Harvard Education Press.

Organization for Economic Co-Operation and Development (2008). *Education at a Glance 2008.* Accessed at: www.oecd.org/edu/eag2008.

Parkay, F.W., Currie, G.D. & J.W. Rhodes (1992). *Professional Socialization-A Longitudinal Study of 1st Time High School Principals.* Educational Administration Quarterly, 28(1): 43-75.

Patrikakou, Evanthia & Roger P. Weissberg (2003). *School–Family Partnerships: Promoting the Social, Emotional, and Academic Growth of Children.* Laboratory for Student Success, Temple University; Sam Redding, Academic Development Institute; and Herbert J. Walberg, Emeritus Professor of Education and Psychology, University of Illinois at Chicago--- LSS Review

Patterson, Jean A., Dalia Hale and Martin Stressman (2008). "Cultural Contradictions and School Leaving: A Case Study of an Urban High School." *High School Journal.* 91(2): 1-15.

Peske, Heather & Kati Haycock (2006). *Teaching Inequality.* Washington, DC: The Education Trust.

Phillips, Meredith & Tiffani Chen (2007). *School Inequality: What Do We Know?* School of Public Policy and Social Research, UCLA. Accessed at: http://www.russellsage.org/programs/main/inequality/050516.461131.

Piercynski, M., Matranga, M. & G. Pettier (1997). *Legislative Appropriation for Minority Teacher Recruitment: Did It Really Matter?* Clearing House, 70(4):205-206.

Posner, J. & D. Vandell (1994). *Low income children's after school care: Are there beneficial effects of after school programs?* Child Development, 65: 440-456.

Raffini, James (1993). *Winners Without Losers: Structures and Strategies for Increasing Student Motivation to Learn.* Needham Heights, Massachusetts: Allyn and Bacon.

Raywid, Mary Anne (1996). *Taking Stock: The Movement to Create Mini-Schools, Schools-Within-Schools, and Separate Small Schools.* Madison, Wisconsin: Center on Organization and Restructuring of Schools, and New York: ERIC Clearinghouse on Urban Education.

Reid, C., Romanoff, B., Algozzine, B. & A. Udall (2000). *An Evaluation of Alternative Screening Procedures.* Journal for the Education of the Gifted, 23: 378-396.

Report on University of North Carolina Production of Teacher Education Graduates and Alternative Licensure Completers 2005-06. Report to the Joint Legislative Education Oversight Committee of the General Assembly Regarding Teacher Education Enrollment Plans: University of North Carolina General Administration.

Robinson, N.M., Lanzi, R.G., Weinberg, R.A., Ramey, S.L. & C.T. Rame (2002). *Family Factors Associated with High Academic Competence in Former Head Start Children at Third Grade.* Gifted Child Quarterly, 46: 278-290.

Roderick, M., Engel, M & J. Nagaoka (2003). *Ending Social Promotion: Results from Summer Bridge.* For the Consortium on Chicago School Research.

Ross, J.A. (1994). *Beliefs that Make a Difference: The Origins and Impacts of Teacher Efficacy.* Paper presented at the annual meeting of the Canadian Association for Curriculum Studies.

Ross, Steven, McDonald, Aaron, Alberg, Marty & Brenda McSparrin-Gallagher (2007). *Achievement and Climate Outcomes for the Knowledge is Power Program in an Inner-City Middle School.* Journal of Education for Students Places at Risk, 12(2): 137-165.

Rubie-Daies, Christine M. (2006). *Teacher Expectations and Student Self-Perceptions Exploring Relationships.* Psychology in the Schools, 43(5).

Rudo, Zena, Achaboso, Michelle & Delia Perez (2000). *Collaborative Action Team Process: Bringing home, school, community, and students together to improve results for children and families: Final Research Report.* SEDL.

Rumberger, Russell W. (revised 2001). *Why Students Dropout of School and What Can Be Done.* Paper prepared for the Conference, "Dropouts in America: How Severe is the Problem? What Do We Know About Intervention and Prevention?" Civil Rights Project, Cambridge, MA: Harvard University

Rumberger, Russell (1995). *Dropping Out of Middle School: A Multilevel Analysis of Students and Schools*. American Education Journal, 32: 583-625

Rumberger et al. (1990). *Family Influences on Dropout Behavior in One California High School.* Sociology of Education, 63: 283-299.

Sacks, Peter (2007). *How Colleges Perpetuate Inequality.* Chronicle of Higher Education, 53 (19).

Salinger, Terry & Amy Bacevich (2006). *Lessons and Recommendations from the Alabama Reading Initiative. Sustaining Focus on Secondary Reading.* For the Carnegie Corporation of New York.

Sander, William (2007). *Teacher Quality and earnings.* Economics Letters, 99(2):207-309.

Scales, P.C. & E.C. Roehlkepartain (2005). *Can Service-Learning Help Reduce the Achievement Gap?* In J. Kielsmeier & M. Neal (Eds.), *Growing to Greatness 2005: The State of Service-Learning Project.* Saint Paul, MN: National Youth Leadership Council.

Schmidt, Jennifer, Shumow, Lee & Hayal Kackar (2007). *Adolescents' Participation in Service Activities and Its Impact on Academic, Behavioral, and Civic Outcomes."* Journal of Youth Adolescence, 36: 127-140.

School and Staff Survey (2003). Accessed at: http://nces.ed.gov/surveys/sass/

Scott, Karen (2005). *Reduce Your Dropouts: It's Not as Hard as You Think.* Principal Leadership, 6(3): 38-42.

Seeley, Ken (2008). *Trajectories for Dropping Out of School: Attendance, Truancy and School Engagement.* A presentation given at the National Coordinating Committee on School Health and Safety "Keeping Students in School: Reducing Absenteeism and Preventing Drop Out."

Shacter, J.M. & Y.M. Thum (2004). *Paying for High- and Low-Quality Teaching.* Economics of Education Review, 23: 411-430.

Shumer, Robert (1994). *Community Based Learning: Humanizing Education.* Journal of Adolescence, 17(4): 357-367.

Smith, J.R., Brooks-Gunn, Jeanne & P. Klehanov (1997). *The Consequences of Living in Poverty for Young Children's Cognitive and Verbal Ability and Early School Achievement.* New York: Russell Sage Foundation.

Smith, T & R. Ingersoll (2003). *What are the Effects of Induction and Mentoring on Beginning Teacher Turnover?* American Educational Research Journal, 41(3):681-714.

Snow, Catherine, Twakia, M. & I. Berman (2008). *State Literary Plans: Incorporating Adolescent Literacy.* Harvard Educational Review, 78(1):211-230.

Stewart, Endya (2008). *School Structural Characteristics, Student Effort, Peer Associations, and Parental Involvement: The Influence of School-and Individual-Level Factors on Academic Achievement.* Education and Urban Society, 40(2):179-204.

Swanson, Christopher (2008). *Cities in Crisis: A Special Analytic Report on High School Graduation.* For the EPE Research Center.

Swanson, Christopher (2004). *Who Graduates? Who Doesn't? A Statistical Portrait of Public High School Graduation, Class of 2001.* Education Policy Center, the Urban Institute.

Teaching Inequality: The Problem of Public School Tracking. Harvard Law Review, 102 (1989): 1318-1341.

Tschannen-Moran, Megan & Anita Woolfolk Hoy (2001). *Teacher Efficacy: Capturing an Elusive Construct.* Teaching and Teacher Education, 17: 783-805.

Turkheimer, E., et al (2003). *Socioeconomic Status Modifies Heritability of IQ in Young Children.* Psychological Science, 14:623-628.

UNESCO Institute for Statistics. (2007). *PISA 2006: Science Competences for Tomorrow's World.* Paris, France: Organization for Economic Cooperation and Development.

U.S. Bureau of the Census (2006). Income in 2005 by Educational Attainment of the Population 18 Years and Over. Table 8. Washington, DC: U.S. Government Printing Office. Accessed at: http://www.census.gov/population/www/socdemo/education/cps2006.html

U.S Department of Education, National Center for Education Statistics (2006). *The Condition of Education 2006.* Washington, DC: U.S. Government Printing Office.

U.S. Department of Education (1999). *Taking Responsibility for Ending Social Promotion.*

U.S. Department of Education, National Center for Education Statistics (1988). *Digest of Statistics 1987*, ED 282 359 (Washington, DC: U.S. Department of Education)

VanTassel-Baska, J (2003). *Content-based Curriculum for Low Income and Minority Gifted Learners.* Storrs, CT: University of Connecticut, National Research Center on the Gifted and Talented.

VanTassel-Baska, J., Feng, A., Quek, C., & J. Struck (2004). A Study of Educators' and Students' *Perceptions of Academic Success for Underrepresented Populations Identified for Gifted Programs.* Psychology Science, 46(4): 363-378.

VanTassel-Baska, Olszewski-Kubilius, J.P. & M. Kulieke (1994). *A Study of Self-concept and Social Support in Advantaged and Disadvantaged Seventh and Eighth Grade Gifted Students.* Roeper Review, 16:186-191.

Van Voohis, F.L. (2003). *Interactive Homework in Middle School: Effects on Family Involvement and Science Achievement.* The Journal of Education, 96: 323-338.

Villar, Anthony (2004). *Measuring the Benefits and Costs of Mentor-Based Induction: A Value-Added Assessment of New Teacher Effectiveness Linked to Student Achievement.* Paper prepared for the American Educational Research Association Annual Conference. See also: Alliance for Excellent Education.

Walberg, H.J. (2003). *Raising Learning Productivity Through Teacher Education, Recruitment, Selection and Retention*. In Paper presented April 26 at the Milken National Education Conference, Century City, CA.

Wallis, Claudia (2008). *How to Make Great Teachers.* TIME Magazine.

Washington Times Staff Editorial (2007, June 7). *Education and Inequality.* Washington Times. Weglinsky, H. (2000). *How Teaching Matters: Bringing the Classroom Back into Discussions of Teacher Quality* (Policy Information Center Report). Princeton, NJ: Educational Testing Service.

Wells, Don, Miller, Mark J., & Robert C Clanton (1999). *School Counselors' Accuracy in Identifying Adolescents at Risk for Dropping Out.* Adolescence, 34(135):457-461.

Xu, Zeyu, Hannaway, Janes & Colin Taylor (2007). *Making a Difference? The Effects of Teach for America in High School.* National Center for Analysis of Longitudinal Data in Education Research.

Zientek, Linda Reichwein (2007). *Preparing High-Quality Teachers: Views From the Classroom.* American Educational Research Journal, 44(4): 959-1001.

Zwerling, H.L. & T. Thomason (1995). *Are Public High-School Principals Paid According to their Performance and Working Conditions.*

Journal of Collective Negotiations in the Public Sector, 24(3): 219-232.

CIVIC ENTERPRISES

1828 L Street, NW
Eleventh Floor
Washington, D.C. 20036
Phone 202-467-8894
Fax 202-467-8900
www.civicenterprises.net