



Putting Middle Grades Students on the Graduation Path

A Policy and Practice Brief

Robert Balfanz

Everyone Graduates Center and Talent Development Middle Grades Program

National Middle School Association

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About Everyone Graduates Center

The Everyone Graduates Center (EGC) is located at the Center for Social Organization of Schools at Johns Hopkins University, one of the nation's leading research universities. The mission of the Everyone Graduates Center is to develop and disseminate the know-how required to enable all students to graduate from high school prepared for college, career, and civic life. Through a systematic and comprehensive approach, EGC combines analysis of the causes, location, and consequences of the nation's dropout crisis with the development of tools and models designed to keep all students on the path to high school graduation, and capacity building efforts to enable states, communities, school districts, and schools to provide all students with the supports they need to succeed.



About Philadelphia Education Fund

The mission of the Philadelphia Education Fund is to improve the quality of public education for underserved youth throughout the Philadelphia region. Working closely with school districts, schools, businesses, universities, nonprofit organizations, community stakeholders, and other partners, the Philadelphia Education Fund aims to create high-performing secondary schools (grades 6 – 12) where public school diplomas are synonymous with rigorous and high quality education that leads to post-secondary success; provide all students with access to postsecondary education opportunities and the assurance that they can complete appropriate and rigorous classes to allow them to succeed in college and career; and create strategic alliances to support student success from pre-K through college.

The Philadelphia Education Fund's portfolio of programs and initiatives focus on enhancing teaching and learning, conducting research studies that fuel its work and that of others, directly assisting students to access and succeed in postsecondary education, convening public education stakeholders in support of school reform policy and practice, and informing and engaging citizens as public school advocates.



About National Middle School Association

Since its inception in 1973, National Middle School Association (NMSA) has been a voice for those committed to the educational and developmental needs of young adolescents. With nearly 30,000 members representing principals, teachers, central office personnel, professors, college students, parents, community leaders, and educational consultants across the United States, Canada, and 46 other countries, NMSA welcomes and provides support to anyone interested in the health and education of young adolescents. In addition, NMSA has a network of 58 affiliate organizations in the United States, Canada, Europe, and Australia that strengthens our outreach to the regional, state, provincial, and local levels.

Through the release of our landmark position paper, *This We Believe: Successful Schools for Young Adolescents*, NMSA has been a key resource to middle level educators looking to develop more effective schools. Our message is for schools to be academically excellent, developmentally responsive, and socially equitable for every young adolescent.



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The middle grades will play a pivotal role in enabling the nation to reach President Obama’s goal of graduating all students from high school prepared for college or advanced career training. In high-poverty neighborhoods, in particular, our research and school improvement work indicate that students’ middle grades experiences have tremendous impact on the extent to which they will close achievement gaps, graduate from high school, and be prepared for college. Consequently, there is a need to reconceptualize the role the middle grades play in the public education system. The middle grades, broadly defined as fifth through eighth grade, need to be seen as the launching pad for a secondary and post-secondary education system that enables all students to obtain the schooling and/or career training they will need to fully experience the opportunities of 21st century America.

This brief, drawing on our research and field work, illuminates key policy and practice implications of the middle grades playing a stronger role in achieving our national goal of graduating all students from high school prepared for college or career and civic life. The brief is based on more than a decade of research and development work at the Center for the Social Organization of Schools at Johns Hopkins University.

It also draws on direct field experience in more than 30 middle schools implementing comprehensive reform and a longstanding collaboration with the Philadelphia Education Fund.

Major Research Findings

We first highlight our major research findings in two critical areas—the role of the middle grades in determining the likelihood that a student will graduate from high school and their role in closing achievement gaps.

Role of Middle Grades in Determining the Odds of High School Graduation

Our fundamental finding is that in high-poverty environments a student’s middle grades experience strongly impacts the odds of graduating from high school.

Initial Findings from Philadelphia

Working with the Philadelphia Education Fund, we followed several cohorts of Philadelphia students from sixth grade through one year past on-time graduation. Our central question was: How early in the middle

grades could we see clear signals that students had fallen off the path to high school graduation? Our goal was to find high-yield indicators that shared two critical features: Identifying students who, absent intervention, would have low odds of graduating (25% or lower graduation rates) and collectively identifying a significant number (at least 25%) of future nongraduates or dropouts. In short, we looked for indicators that were not only accurate, but also had practical application.

We found that sixth graders who failed math or English/reading, or attended school less than 80% of the time, or received an unsatisfactory behavior grade in a core course had only a 10% to 20% chance of graduating on time. Less than 1 of every 4 students with at least one off-track indicator graduated within one extra year of on-time graduation.

Although these numbers are shocking initially, upon reflection they are understandable. Once a sixth grader has demonstrated that he or she lacks either the knowledge to pass tests in math or English or the ability to complete assignments, absent successful intervention, this is unlikely to change on its own. This may be especially true in high-poverty environments, where home and community resources can be limited.

As a result, the student continues to fail courses and may not achieve on-time promotion to the next grade. The student then enters high school, overage for the grade with a history of course failure. Lacking the skills, knowledge, and self-confidence to succeed in high school and feeling distanced from his or her peers, the student continues to fail, does not earn promotion to the 10th grade, and, at this point, may well have reached the legal age for dropping out. Similar trajectories can be seen for 11- and 12-year-olds who miss one or two or more months of school or who receive poor behavior ratings from their teachers. Both clearly signal lack of engagement and participation in school. Absent successful intervention, these behaviors do not typically self-correct over time and lead to course failure, non-promotion, and ultimately, dropping out.

Findings from Replications and Extensions in Additional School Districts

We have subsequently replicated the Philadelphia study in five school districts. These replications confirm the core findings of the Philadelphia study and collectively indicate that, at least in high-poverty environments, it is possible to identify in the middle grades up to half, and sometimes even more, of eventual dropouts. The replications also provide some important nuances.

- **Critical attendance thresholds varied by school district.** In some districts, students who missed a month or more of school (roughly, 90% attendance rates or less) had greatly diminished graduation odds. In other districts, like Philadelphia, students needed to miss two or more months (roughly, attendance of 80% or less) to achieve similar outcomes. This suggests that both the number of days a student misses and how his or her attendance compares with that of peers signal that a student is not fully engaged and is in danger of falling off the graduation path.
- **Mild but sustained misbehavior appears to have an independent effect on graduation odds.** In other words, not paying attention in class, acting out, and not getting along with teachers in sustained fashion signal disengagement. Left unaddressed, behaviors that typically might generate a low mark for conduct or multiple behavior referrals knock students off the graduation path. Thus, schools and districts that do not have data that capture these interactions in a systematic and cumulative fashion ultimately miss some students who are clearly signaling they are off track.
- **Students who fall off track in the sixth grade tend to have one or two off-track indicators.** Relatively few sixth graders have three or four indicators, that is, failing math and English and having low attendance and poor behavior (a pattern, by comparison, that is common in high school). The most common combination was for students to be failing either math or English (not both) and to

have either an attendance or a behavior indicator. A significant subset of students, however, had just one indicator—failing a single class, not attending school regularly, or misbehaving. This suggests that students, at least in the sixth grade, are falling off the graduation path from different avenues. The avenues, moreover, appear to follow basic human reactions to uncomfortable environments. The students are fleeing (not coming to school), pushing back (acting out), or withdrawing (coming to school and behaving, but not paying attention or engaging).

- **The earlier students develop off-track indicators, the lower their graduation odds appear to be.** The first year of the middle grades (typically the sixth grade year), much like ninth grade, appears to be a make-or-break year. Across the school districts we examined, most middle grades students developed their off-track indicators in sixth grade. Moreover, students who signaled that they were falling off the graduation path in the sixth grade had worse outcomes than students who did not begin to develop off-track indicators until at least the seventh grade.
- **Students who exhibit off-track indicators in the middle grades are resilient.** Sixth graders who signaled they were falling off the graduation path typically remained in school for at least five more years. This indicates there is substantial time to intervene and that, despite years of struggle, students, perhaps with diminishing motivation, continue to attempt to participate and succeed in their schooling.
- **Different measures of academic outcomes are often highly correlated, but some are still better indicators than others.** Across the districts, we found that course grades were better indicators; they were both more reliable and had a higher yield (predicted a greater percentage of dropouts) than standardized test scores. Only very low test scores—scores below the 15th percentile on a nationally normed test—had predictive power and useful yields. It was only when course grades were not entered into the analysis that test scores, in

general, showed predictive power. This was because, in general, though not always, students with poor grades also had low test scores. Upon reflection, it is not that surprising that grades predict better than test scores. Grades will, on average, be more sensitive to students' attendance and effort over time. Thus, receiving a failing grade for an entire year likely signals substantial and sustained disengagement as well as skill and knowledge gaps. Moreover, passing courses in high school is key to earning the required credits to graduate. Even states with graduation or exit exams require students to pass their courses to graduate. Thus, middle grades students who have difficulty passing their courses are directly signaling difficulty with the most salient factor in determining whether they will graduate.

- **Ds seem important, too.** In Philadelphia we found that focusing on math and English grades only provided strong predictive power, while in other districts we saw that any course failure and even overall GPA were also effective indicators. How much course performance information is used becomes a judgment call balancing predictive power and yield (the likelihood a student will graduate versus how many future nongraduates are identified). This tension can clearly be seen in the question of Ds. Across the districts we found course failure—typically defined as receiving an F or a grade below 60% or 65%—was more predictive than receiving the grade just above failing, typically a D. Students who received Ds, however, still had considerably lower graduation odds than students with C averages or higher. Also, Ds tended to be predictive of Fs. So, here is the judgment call: Does it make sense to include students who receive Ds in an early warning system to signal that, absent successful intervention, these students likely will not graduate, even if it means that a greater proportion of the students who receive additional supports may not have needed them? In the case of Ds, we believe the answer is yes, but we highlight this question to show the importance of using local judgment as well as solid empirical analysis in establishing the set of on- and off-track indicators a school, district, or state will use.

- **Students who come every day, behave, and get good grades graduate in high numbers.** Across the districts we examined, middle grades students who had 95% or better attendance, B averages or better, and no record of misbehavior graduated in relatively large numbers, even when they attended low-performing schools in high-poverty districts.
- **Similar schools serving similar student populations had different percentages of students with off- and on-track indicators.** This indicates that schools can have a powerful influence on shaping student behavior. This provides a clear goal to schools and districts: Drive down the number of students exhibiting off-track indicators and drive up the number of students exhibiting on-track indicators.
- **Middle grades schools within districts also often have unequal distributions of off-track students.** In every school district we examined, every middle school had some students exhibiting off-track indicators. In some this amounted to a small percentage of students, and in others, it amounted to half or more of all students. This suggests that while all schools can employ these indicators and benefit, some schools will need substantially more resources than others to respond effectively.

Role of the Middle Grades in Closing Achievement Gaps

Efforts to keep students on the graduation path should be paired with efforts to close achievement gaps. It is during the middle grades, particularly in lower-performing schools that serve high-poverty populations, that achievement gaps often become achievement chasms. To achieve the nation's goal of graduating all its high school students ready for college and career, it will be essential for students to enter high school with at least close-to-grade-level skills and knowledge. Many high schools have been able to provide additional supports for succeeding in high standards environments if their students enter with skill and knowledge levels equal to those of average seventh or eighth graders. However, the number of programs able to achieve similar results

with students entering with upper elementary level skills—those typical of fifth and sixth graders—is much smaller. Yet in high-poverty environments, nonselective high schools often educate primarily students who enter with the skill levels of typical fifth or sixth graders. In short, these are students who lack a solid middle grades education.

Moreover, while it is arguable that a long-term solution involves better pre-K through elementary instruction so that nearly all students enter the middle grades having mastered elementary skills, middle grades schools must find ways to accelerate student learning and close rather than widen achievement gaps.

Core Findings from Philadelphia

To date, the research we have conducted on closing achievement gaps has been limited to Philadelphia and has focused primarily on mathematics. Specifically, we examined the 23 middle grades schools in Philadelphia serving student bodies that were at least 80% minority with at least 80% of students qualifying for free and reduced-price lunch. Thus, our results are illustrative rather than definitive.

The fundamental questions we explored were: What factors enable middle school students to make large, gap-closing achievement gains? What factors constrain middle school students from making those gains? In these investigations we defined large gains as increases of 10 percentile points or greater on standardized tests. Thus, if a student started sixth grade scoring at the 30th percentile on a nationally- or state-normed test and left the eighth grade at the 40th percentile, we would classify this as a large and gap-closing achievement gain. The student's achievement gap was not fully closed. He or she was still below the 50th percentile but left the middle grades much closer to it than when entering.

Achievement Gap Closing Within and Between Middle Grades Schools

Middle grades students in these 23 schools either significantly closed their achievement gaps or fell further behind. Within each of the schools, two sets of students were having very different experiences.

While some students were making impressive gains, others were leaving the middle grades further behind than when they entered. Within each school, roughly a quarter to a third of students made very large gains, while the majority of students lost ground. In a few schools, only 10% to 15% of students made gains, but in a few others more than 40 percent did. This indicates that with relatively similar populations in the same city, some schools witnessed three times as many students making gap-closing gains as other schools did. In no school, however, did half or more of the students experience large achievement gains.

Across the 23 middle grades schools, average achievement gains for the school could lead to false impressions. When the outcomes of the gap-closing and gap-increasing students are averaged at the school level, it creates the illusion of either small school-wide improvements or declines. In truth, what distinguished one school from the next was not whether they were making small improvements for all students but how widespread an opportunity they were creating for students to make large achievement gains.

Enablers and Constraints of Achievement Gap Closing

1. **In line with prior research, we found that teachers had the strongest impact on whether or not a student would close or widen achievement gaps during the middle grades.** If, for two of the three years, students were in classrooms in which the average student witnessed more than a year's growth in a year's time, all were considerably more likely to close their achievement gaps.
2. **Attendance, behavior, and effort all had independent and additive impacts on the likelihood that a student would close achievement gaps.** This indicates that to close achievement gaps, students needed not only strong teachers, they also had to show up, behave in class, and try hard to learn. Research shows school actions can positively impact all of these behaviors. This reinforces the point that schools need to pay attention to shaping both learning opportunities and student motivations.

3. **For large numbers of students to close their achievement gaps, all of these factors must operate in concert.** When students were in a high-gain classroom for at least two years, came to school 95% of the time, on average had excellent behavior marks, and put forth greater-than-average effort in math class, a remarkable 77% closed their achievement gaps during the middle grades. However, across the three representative middle grades schools we studied intensely, only 20% of the students experienced these conditions and exhibited these behaviors.

Implications for Policy and Practice

What do these research findings on the role of the middle grades in determining high school graduation and in closing achievement gaps, particularly in schools that serve high-poverty populations, imply for policy and practice in a college-and-career-readiness-for-all era?

First and foremost, the research demonstrates that the middle grades matter—tremendously. During the middle grades, students in high-poverty environments are either launched on the path to high school graduation or knocked off-track. It is a time when they can close achievement gaps and enter high school ready or at least close to ready for standards-based instruction that leads to college readiness. Alternatively, it is a time when students' achievement gaps widen, forcing them to enter high school still in need of a good middle grades education.

These findings also demonstrate why reform is difficult, as no single reform stands out as the major action required. Using our combined Philadelphia data from our achievement gap and staying on the graduation path studies, we were able to model explicitly the contributions of major school reform elements. Essentially, we found that everything one might think matters, does so, but modestly at best. This included parental involvement, academic press, teacher support, and the perceived relevance of what was being taught and its intrinsic interest to students. Some of these

factors influenced attendance, others influenced behavior or effort, and they either indirectly or directly impacted course performance, achievement gains, and graduation outcomes. It was only when all the elements were combined in a well-functioning system that major gains were observed.

The ABCs of Putting Middle Grades Students on the Graduation Path

The research, development, and school improvement work we have done on the factors that throw middle grades students off the graduation path and the actions that lead to large achievement gains in the middle grades tell us much the same thing. This is fortunate because it enables the formation of a unified middle grades improvement strategy that will lead to both increased academic achievement and higher graduation rates. When combined with good middle grades practices such as those detailed in publications such as *This We Believe: Successful Schools for Young Adolescents*, *This We Believe in Action: Implementing Successful Middle Level Schools*, *Success in the Middle: A Policymaker's Guide to Achieving Quality Middle Level Education*, *Making Middle Grades Work*, and *Breaking Ranks in the Middle*; curricula and instructional practices linked to college and career readiness; and enhanced teacher quality, our research and experience suggest that the following actions and practices can accelerate and magnify the impact of the middle grades on student success.

Attendance

School districts with low graduation rates usually have significant—and often unrecognized—chronic absenteeism in the middle grades. It is in the middle grades that students learn they can miss first a few and then a growing number of school days with few or no repercussions. It is also during the middle grades, especially in urban areas, that students start taking mass transportation to school—municipal buses and subways—sometimes involving a transfer. This provides them the opportunity to set off for school but not quite get there or to leave during the school day. In some cities we have examined, the majority of middle grades students in some schools

and neighborhoods miss 20 or more days (a month or more) of school. In one large city, we tracked students over time and found that 40% of students missed a year or more of school cumulatively over a five-year period beginning with sixth grade. This indicates that one source of the growing achievement gaps in the middle grades, in some locations and for some students, is the simple fact that they are not in school enough to keep up. Consequently, middle schools must monitor attendance more carefully and make strong efforts to prevent students from developing poor attendance habits.

Schools must

- **Measure attendance in informative and actionable manners.** At a policy level this will involve recording not simply average attendance in a school, but keeping track of how many students have very good attendance, i.e., miss 5 or fewer days a year; are moderately absent, missing between 10 and 19 days; are chronically absent, missing 20 or more days; or extremely chronically absent, missing 40 or more days.
- **Take measures to increase the number of students with very good attendance and decrease the number who are chronically absent.** This means that every absence needs to elicit a response. At first this can be simple outreach to let students know they are missed and to solve any problems standing in their way of attending school. If the absenteeism persists, more structured responses are required. For better or worse, acknowledge that middle grades students are starting to make independent decisions about their level of school engagement. As important as parents are, the extent to which schools encourage good attendance and help problem solve attendance issues, matters.
- **Recognize good attendance regularly through public acknowledgement and social rewards (i.e., earning privileges).** Positive peer pressure can also be activated by recognizing not only good individual attendance but collective success as well (i.e., homeroom or classroom and grade level attendance).

- **Separate attendance from course performance.** Student grades should not be administratively affected by poor attendance (e.g., lowering grades if students miss a certain number of days). Rather, give students a structure for making up missed assignments. Then address the source of the student's absenteeism, whether disengagement or issues in school, at home, or in the community. Similarly, students who are chronically absent should not be suspended. Having students miss more school because they missed too much school has not proven to be an effective response. This does not mean that students should not be held responsible for their own attendance, as it is clear that at least some students are making a choice not to attend on a given day. But the consequences need to be modulated so that they lead to improved attendance behaviors and do not knock students off the graduation path.
- **Be and be perceived as safe and engaging places.** Schools should regularly survey students on the reasons they miss school, their perceptions of school safety and climate, and their levels of engagement. Surveys should be analyzed by whatever units the school uses to organize students (homerooms, core groups, pods) to help identify clusters of students whose micro-experience differs in negative ways from that of their classmates. A group of disaffected or uneasy students may encourage and enable each other to miss school.

Belief, Behavior, and Effort

Central to increasing the positive impact of the middle grades on the nation's graduation rate is engaging students in the quest. Middle grades students need to believe that hard work will bring life success, that positive behavior is recognized and desired, and that they need to invest their personal agency and apply effort to succeed. In many low-performing middle schools, however, what students learn is that rules and rewards are applied capriciously (i.e., each teacher has different rules), that school is something to be endured, that negative behavior gets attention, and that doing just enough to get by and pass is acceptable. Policies and practices that promote

good behavior, engagement, and effort and build upon student assets include:

- **High engagement electives that provide avenues for short-term success and positively recognize asymmetrical skills levels.** Students who enter the middle grades with poor preparation require time to build up their formal academic skills to the point where they feel successful and are recognized as such. This is too long to wait for most adults, let alone young adolescents. Thus, students need other educational experiences that provide avenues for short-term success. Experiences like debate and drama in which students with strong verbal skills but weaker writing skills can show their talents or robotics and chess in which students with good engineering or logic abilities but limited formal mathematics skills can demonstrate strengths are essential.
- **Activities that honor and use middle grades students' desire for adventure and camaraderie.** Some students cut class or act out for the sheer thrill, or because they want to belong to the group of students who earn social recognition from their peers for such behaviors. Students need positive alternatives that allow them to work collectively on activities that are meaningful to them. Group rather than individual service learning projects, for example, encourage students to put their collective energy to use solving problems and helping others.
- **Recognition at both the individual and group level for positive behavior.** Make students responsible for managing part of the effort. Have them work with teachers to develop short and common lists of positive behaviors and recognize individuals, classes, and groups that achieve them.
- **Teaching organizational and self-management skills.** In moving to college and career readiness for all, we must now teach some skills formerly learned by students on their own. All students need lessons and modeling of study and work skills like time and task management, note taking, and assignment

completion strategies as well as social skills like working cooperatively with others and resolving conflict. Equally important is modeling the level of effort needed for adult success and building upon and expanding students' resilience.

Course Performance

The most critical challenge is finding ways to improve the quality of middle grades coursework and course performance. Students who receive high-quality instruction and course assignments will learn and advance and, ultimately, graduate college-ready. Those who do not, will not. To meet this challenge, progress and improvements in several areas will likely be required. Some reconceptualization of what constitutes student achievement in the middle grades may also be needed.

- **Encouraging quality coursework may require new forms of assessment.** Benchmark testing, which provides teachers formative assessments of students' progress toward mastering skills and standards, can play an important role. Its primary focus, though, is usually identifying the subset of skills in a topic or concept that a student has or has not mastered. Focusing only on discrete skills or knowledge, however, misses a key component of quality coursework: the ability to integrate a series of skills and a set of knowledge to produce an intellectual product such as a persuasive essay, a substantive science experiment; an equation, table, or graph that helps solve a problem; or analysis of a historical event that provides insight. If these are the desired outcomes—and analysis of emerging concepts of college readiness argue that they are—we will need to develop formative and summative assessments that focus effort and support on them.
- **Accept and acknowledge the implications of course grades being more predictive of eventual success than test scores.** Course grades capture effort, engagement, and even attendance over time as well as knowledge and skill levels. Yet, inherently, we often recoil from the implications of this finding because we fear grade inflation and easy ways to game the system. The result is that the dominant focus of our academic improvement efforts becomes

raising student test scores rather than improving course performance. A more productive strategy is to fix the potential limitation of grades by creating common rubrics across subjects, grades, and classrooms within schools and by employing common final exams to check consistency of grades.

- **Create developmentally appropriate high school/college readiness indicators that are meaningful and engaging to middle grades students and understood by parents.** One way to conceptualize this is to consider creating the academic equivalent of merit badges. Students could be recognized for demonstrating mastery of meaningful chunks of knowledge or intellectual skills in ways such as successfully arguing a case in moot court, writing an effective op-ed, statistically illuminating a public policy challenge, or creating a logic model of the spread of disease.
- **Get extra help right.** Fundamental in effecting broad-based improvement in the quality of middle grades course work will be developing extra help and support systems that are integrated with class activities assignments and provided when the need arises, not long after it is needed. Currently, too much extra help is offered through after-school programs and is disconnected from students' day-to-day classroom needs. Students struggling in math may receive extra help, but it is often designed to build their general skill level or address a skill deficiency that is tested. If students get extra help in fractions, but their test on Friday covers integers, they are not getting the support they need to succeed in class.

Early Warning and Intervention Systems

Early warning and intervention systems provide the necessary means to unify, focus, and target efforts to improve attendance, behavior, and course performance. Their fundamental purpose is to get the right intervention to the right student at the right time. To achieve this, consider the following:

- **Focus on effective intervention, not just identification.** As our research and that of others has shown, it is possible to identify as early as

sixth grade large numbers of students who, absent successful intervention, likely will not graduate. Identifying students as they are just beginning to fall off the graduation path enables schools to target resources effectively and move from a reactive to a proactive intervention strategy. Simply identifying students, however, will have no significant impact unless it leads to the students receiving the additional supports they need to get back on track. As identification is relatively easy and effective intervention can be hard, the temptation may be to focus on the first and not the second. Or, districts and states may see their role as setting up the early warning system, then leaving it to the schools to figure out how to use the data and build an intervention system. What will likely be required, however, for early warning and intervention systems to fulfill their promise, is collaboration among states, districts, and schools to design, implement, and staff multitiered intervention systems. In the areas of attendance, behavior/effort, and course performance, these intervention systems will need to provide research-based and practice-validated, whole-school prevention strategies; targeted supports for students who need more; and intensive supports for students for whom whole-school and targeted approaches are not enough. It does not make sense for every school to have to invent, validate, implement, and resource this intervention system on their own.

- **Recognize and build on student strengths.** It is also vitally important that early warning and intervention systems are not built around deficit models. Student strengths, as well as areas of struggle, need to be recorded, recognized, analyzed, and used to help build and deliver effective interventions.
- **Provide time, training, and support to teachers for implementing early warning and intervention systems.** For early warning and intervention systems to work, interdisciplinary teams of teachers (pairs, triads, four- to six-person teams can all work) must share a common set of students and have common planning time to monitor student progress, evaluate the effectiveness of interventions, and adapt

strategies as needed to make sure that the right intervention is getting to the right student at the right time. Teachers will need technical assistance on how to run and operate early warning and intervention systems as well as ongoing support and facilitation to help them establish effective teaming and intervention practices.

- **Match resources to student needs but practice intervention discipline.** For early warning and intervention systems to work, schools will need access to the resources required to respond to their students' needs. Often, this will be a question of scale. A high-poverty middle school with 800 to 1,000 students could have 200 students needing daily targeted supports of moderate intensity. These students may need someone to call their homes when they do not show up at school, make sure they have completed their homework and school assignments, help them understand what they need to do or how to do it, remind them to behave in class, check on their progress in fulfilling a behavior contract, and invite them to an engaging after-school activity. Serving 200 students with these needs, however, far outstrips the typical capacity of a sole attendance monitor, social worker, guidance counselor, or dean. In this case, there is a need to recruit and support additional adults from the community or national service organizations or older students involved in service learning to act as shepherds for these students. Because intervention support is expensive, administrators must establish criteria for prioritizing who receives it. This intervention discipline must be exercised to make resource acquisition feasible. In some high-poverty middle schools, it could well be true that most students would benefit from a social worker or counselor and a tutor. Social workers, counselors, and tutoring programs, however, are usually scaled for tens of students, not hundreds. High-quality one-on-one or small-group support is also expensive. So these supports need to be preserved for the students for whom nothing else works, not employed as the first line of intervention for all students showing signs of falling off track.

- Evaluate the effectiveness of interventions.** Because so many different interventions can be going on at one time in a school, it is difficult to determine which intervention methods are effective for which problems. If an important outcome like achievement goes up, then every intervention in the school is deemed successful. Likewise, if achievement goes down, everything is viewed as ineffective. The truth, however, is likely to be much more mixed, with some interventions working in both circumstances. Simple tools enabling teachers to track which intervention is used with which student and how well the student responded to the intervention are needed along with the time to analyze the impact of the interventions. For example, if only two of the ten students assigned mentors improved their attendance, there is evidence that mentoring might not be the best frontline strategy, at least for certain types of students. Over time, this micro-evaluation of interventions is what will enable schools to successfully target the right intervention to the right student at the right time.
- Teachers and administrators can get started with just the data currently available in their schools.** Although, ultimately, state and district data systems will enable early warning and intervention systems to realize their full power, all of the key data needed to begin is already available in schools. Grades, daily attendance, and behavior referrals and consequences are recorded routinely and regularly in schools. Thus, it is not necessary to wait for the district or the state to build early warning data systems. Teams of teachers sharing common sets of students can share the key early warning data among themselves, and principals, deans, and counselors can organize, model, and support the use of these school-based data.
- Getting the ratio of skilled adults to students in need right.** One of the fundamental drivers of the nation's graduation rate crisis is the concentration of our neediest students in a subset of largely under-resourced schools. Customarily, middle schools are designed with the assumption that, perhaps, 15% of students might need various forms of extra help to succeed, with similar numbers ready for acceleration, and the vast majority of students able to make it through on their own. These assumptions, for example, are what determine ratios of one counselor or assistant principal to hundreds of students and class sizes of 25 or more. In the high-poverty middle schools feeding the high schools that produce most of the nation's dropouts, up to half, and sometimes more, of the students need extra supports to succeed. In these schools, there simply are not enough skilled adults to help the students in need. The result is triage, burnout, and high mobility among administrators, teachers, and staff members. This, in turn, makes the situation worse, as reforms are unable to take hold amidst constantly shifting sets of adults. These, then, are the schools that will require an infusion of skilled and committed adults from the community, local colleges and universities via work study programs, and, perhaps most promisingly, through national service programs. Recent federal legislation has greatly expanded the funding available to national service programs and has targeted them more closely to solve urgent national priorities. Schools and districts can expand the role of national service organizations with proven track records, such as Experience Corps and City Year. At the same time, the federal government, states, and districts need to work together to increase the skill, longevity, and, in many cases, the number of teachers, administrators, and support staff in middle schools with large numbers and percentages of students needing extra supports to stay on the graduation path.
- Getting teacher buy-in and support for the mission of keeping middle grades students on the graduation path.** Asking teachers not only

Challenges

There are three major challenges to acting effectively on the insights generated by our research and fieldwork.

to focus on getting students to succeed in their coursework but also to pay attention to their long-term educational trajectory is a new mission. It is a mission that teachers will willingly embrace if they have been given sufficient information about the impact of attendance, behavior/effort, and course performance on students' odds of long-term success, and when they believe a support system exists to enable adults to effectively collaborate to help students. This allows them to see it as more than just one more demand on their already full schedule.

- **Strengthening the family-student-teacher support triangle.** Ideally, middle grades students are strongly supported by their parents/families and their teachers, with the teachers and parents supporting each other. In practice, often as the result of miscommunication or lack of communication, one or more of these relationships breaks down or is not sufficiently strong. Moreover, as the nation raises its goal to college and career readiness for all, the need for parents, teachers, and students to be on the same page increases. Take, for example, student effort. Teachers need to be able to expect that students will complete assignments in acceptable fashion. But parents need good information on what those assignments are and how they can help. Students may or may not convey this well on their own. Students also need to know that when they face a real impediment to completing an assignment—whether they do not understand the material or a family situation distracts them—that teachers will take them at their word and find ways to help them finish it. In these situations, teachers need to be able to double check the details with parents. Although this seems straightforward, more often than not, it does not occur without effort. Thus, active and evidence-based strategies need to be in place to increase family-student-teacher partnerships.

Conclusion

Two thousand high schools produce half the nation's dropouts and more than two-thirds of its minority dropouts. The nation's dropout crisis is driven by these high schools and their feeder middle grades schools. Until we transform these high schools and the middle grades schools in which large numbers of students are falling off the path to graduation, the nation will not achieve its goal of graduating all its students from high school prepared for college, career, and civic life.

As our research, experience, and the work of many others have shown, particularly in high-poverty environments, a student's middle grades experience is critical to his or her life's chances. It is during the middle grades that students either launch toward achievement and attainment, or slide off track and placed on a path of frustration, failure, and, ultimately, early exit from the only secure path to adult success. This essential path is leaving high school prepared for post-secondary education and career training.

Our research, experience, and the work of many others, however, also shows that there is hope and considerable knowledge and know-how regarding how the middle grades can be transformed to enable all students to stay on the graduation path. Our challenge is to use this knowledge and know-how where it is needed most and in ways tailored to local circumstances.

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