Tightening the Dropout Tourniquet: Easing the Transition From Middle to High School

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ABSTRACT: The authors provide a summary of recent high school reform movements with a focus on preventing high school dropouts. They discuss middle to high school transitions, describing the effect of the transition on students’ academic progress and the developmental and contextual changes that occur in adolescents’ lives as they move from one institution to another. Last, the authors present promising practices designed to keep students successfully moving from middle to high school and thereafter.

KEYWORDS: high school graduation, high school reform, middle school transition, on-track indicators

IN THE UNITED STATES, a growing number of incoming ninth-grade students are entering high schools in which the rules have changed. The tacit agreement that Powell, Farrar, and Cohen (1985) described in The Shopping Mall High School: Winners and Losers in the Educational Marketplace (i.e., do not push me too hard, and I will comply with your rules) is becoming less of a reality in high schools in which all students are being pushed hard to learn challenging content and prepare for college. At the same time, secondary schools are hemorrhaging adolescents at an alarming rate, with the greatest loss during and immediately following the first year of high school. For adolescents and many academically successful students, the transition to high school is especially challenging. These struggling students exhibit high absentee rates, several course failures, and difficulty in accumulating enough credits to advance past ninth grade. These students are unlikely to benefit from a rigorous high school with greater course requirements or a college-preparatory mandate because they are likely to stumble during their first year, never get back on track, and then drop out.

In the present article, we argue that every high school reform initiative should include a focus on the middle to high school transition and successfully moving students through ninth grade. Therefore, we provide a summary of recent high school reform movements, with a focus on preventing students from dropping out. Then, we discuss the middle to high school transition, describing the effect of the transition on students’ academic progress, and the developmental and contextual changes that occur in their lives as they move from one institution to another. Last, we present promising practices designed to keep students successfully moving from middle to high school and thereafter.

High School Reform Movement

The early 21st century began with an unprecedented infusion of philanthropic resources acknowledging high schools in crisis and spreading the message that these schools can be fixed. The campaign for high school reform has been successful with politicians, business leaders, practitioners, policy makers, and even talk show hosts who lament the condition of American high schools and ask what should be done to fix them. At the same time, there has been a flurry of school improvement activities at the high school level. The Bill & Melinda Gates Foundation estimates that it is funding improvement efforts in approximately 2,000 high schools through $1 billion worth of investments (i.e., 11% of all public high schools in the nation). Although Bill and Melinda Gates are the largest philanthropic investors in high schools, their foundation is not the only one that supports high school improvement; the Spencer, Carnegie, Dell, Wallace, GE, and KnowledgeWorks foundations are a few others.

In this context, attention to high schools has reached an all-time high at the federal, state, and local levels. In states and localities, the largest concerted effort to improve high schools is the American Diploma Project, a network of governors, state superintendents of education, business executives,
and college and university leaders from 26 states, representing more than half of all public school students in the country (Peter D. Hart Research Associates, 2005). Through this network, states planned to accomplish the following: (a) increase the rigor of school standards, assessments, and curricula; (b) better align high schools with the demands of postsecondary education and work; and (c) hold high schools accountable for improving performance. Although graduation requirements have increased over the past 2 decades, intensifying course work in core content areas, aligning these courses with postsecondary institutions, and developing and implementing rigorous curricula and assessments have become the keystone of the most recent round of state plans for high school improvement (Education Commission of the States [ECS], 2007). The battle cry for high school reform has become rigor, rigor, and more rigor.

In their 2007 State of the State addresses, U.S. governors put forth a number of proposals that would affect high schools in their states (ECS, 2007). These include policies designed to (a) build a solid bridge from high school to higher education through increases in financial aid, scholarships, dual enrollment programs, and the creation or expansion of Early College High Schools; (b) improve students' college readiness through increases in course requirements, expansions in Advanced Placement and International Baccalaureate programs, tutoring and mentoring programs, supporting the development of innovative high schools (e.g., science, technology, engineering, and mathematics academies, career and technical programs and schools), and requiring students to pass high school exit exams; (c) keep students in school by increasing the compulsory education age and dropout prevention and reentry programs; (d) improve the quality of teachers in high schools (and at all levels) through induction and mentoring programs, revising teacher compensation packages, increasing funding for professional development, and creating incentives to attract good teachers to hard-to-staff schools.

Across the country, thousands of high school and hundreds of district officials are changing the way they educate adolescents. Large high schools are being converted to small schools or learning communities. High schools are adopting or adapting comprehensive reform models such as Talent Development, High Schools That Work, First Things First, and America’s Choice. District and high school officials are developing and implementing programs for (a) bridging the transition from middle to high school and to postsecondary institutions, (b) dropout prevention, and (c) high school reentry. They are restructuring the way schools work (e.g., through block scheduling, team teaching, ninth-grade academies, looping, advisories). High schools are offering mentoring, coaching, and a host of professional development activities for new and experienced teachers. Also, high schools are organizing their work to respond to the accountability systems that they encounter at different levels of the system from district, state, and federal governments. In addition, many of these schools report to external funders, service developers, and technical assistance providers. The U.S. Department of Education created a National High School Center (NHSC) and the Bush Administration’s 2008 budget proposal included a prominent focus on high schools.

Throughout this interest and activity, high dropout rates have become the most obvious and costly indicator of the high school crisis. Using recent improvements in measurement and data quality, national figures have indicated that one in four high school students fails to graduate in 4 years (National Center for Education Statistics, 2006), and high school graduation is only a 50–50 proposition for many low-income and minority students (Herlihy & Quint, 2006; Swanson, 2004).

The social costs of this problem have never been higher. According to one recent report, the nearly 1.3 million students who failed to graduate from high school in 2004 will cost the nation more than $325 billion in lost wages, taxes, and productivity during their lifetimes (Alliance for Excellent Education, 2006). Similarly, high school dropouts are more likely to be unemployed, on public assistance, in prison, or enrolled in adult education and training, thereby putting significant strain on funds earmarked for domestic programs.

The dropout crisis is especially acute during the first year of high school, evidenced by a bulge in ninth-grade enrollments (i.e., more students fail ninth grade than any other grade and remain ninth-grade students for multiple years) and a dip in tenth-grade enrollments (i.e., disproportionate numbers of students fail to be promoted to or drop out before tenth grade; Gray, Sable, Dalton, & Sietsema, 2006). In high schools with large low-income student populations, up to 40% of students drop out after ninth grade (Editorial Projects in Education Research Center, 2006). Ninth-grade students exhibit higher rates of failure in courses, decline in test scores, and behavioral problems than students in all other grade levels do (J. S. Smith, 2006).

On the basis of their research, the Consortium on Chicago School Research suggested that a key predictor of high school dropout is falling off track in ninth grade (i.e., earning more than one F in a semester and earning fewer than five full course credits by the end of freshman year; Allensworth & Easton, 2005). It is clear that the U.S. educational system is hemorrhaging adolescents at an alarming rate during or immediately following their 1st year of high school. If stakeholders are unable to determine how to keep students on track and in school, these students will never be able to access and experience the increased standards and rigorous curricula that are being implemented in their schools and across the country.

**Developmental and Institutional Change**

What happens to adolescents during the 1st year of high school? Why do so many ninth-grade students, even those
who have done well in the past, struggle to stay on course and advance to the next grade? The literature suggests that there is likely a convergence of developmental and contextual factors during this period that can shed light on the timing and severity of these students’ academic challenges.

At the fundamental level, adolescence (i.e., the developmental stage during which students move from middle to high school) is a critical and unique stage of human development. Healthy adolescents have generally mastered the early developmental stages including basic physical, cognitive, and social attributes that enable them to interact appropriately with peers, master language, and develop empathy (for a comprehensive review of early childhood, see Shonkoff & Phillips, 2000). As they enter the pre-kindergarten and early elementary school years, they begin to understand social norms, develop a moral compass, manipulate letters and numbers, interact with more peers, and develop deeper friendships. Changes in the early adolescent years reflect the continuing biological changes that occur throughout childhood as the brain continues to form and strengthen existing neural connections, which includes corresponding development of academic competencies, problem solving, negotiation, and conflict resolution, among other cognitive and social competencies (for a comprehensive review of adolescence, see Eccles & Gootman, 2002).

However, adolescence marks a significant shift in human development with greater pubertal changes, development of larger social networks, social cliques, and sexual and other social stresses. Adolescence is a time when individuals begin and are expected to develop their own identity; academically and socially prepare themselves for adulthood; and explore and contribute to their families, communities, and society. As students undergo these developmental changes, they experience many changes in their social contexts. For example, they typically experience greater autonomy from their parents and depend more on their peer relationships.

Amid physical and emotional changes, adolescents take a large leap in the institutional context (from middle to high school). During this transition, students begin to exhibit lower self-esteem and fears about new social situations that involve older students, effectively budgeting their time, and coping with increased academic stress (Mizelle & Irvin, 2000). Often, these social and emotional challenges translate to frustration and anxiety over change and can cause negative or disruptive behaviors.

In addition, puberty plays a significant role in the transition, confounding physical and chemical changes with social and emotional changes. Often, students’ hormonal changes serve to exaggerate the uncertainty of high school transition, making the transition that much more challenging. Although many students eventually find that some of their fears about high school are unfounded, the initial social and emotional reactions can be problematic if they are not appropriately addressed. Although students highlight their social and emotional concerns regarding the middle to high school transition, their academic fears often prove to be more serious and lasting (Akos & Galassi, 2004).

Also, the transition from middle to high school disrupts relationships with teachers and peers as students choose or are assigned to different high schools or different courses of study. This occurs at a time when adolescents are becoming more independent from their families and experience less parental involvement in their schooling. For some students, this is liberating; for others, particularly those who have struggled academically, the competitive and impersonal nature of high school takes a negative toll on their performance and behaviors (Calabrese, 1987; Goodenow, 1993).

In addition to the physical and emotional changes students experience during the middle to high school transition, it is a time when students begin to make important academic and social decisions that eventually determine the likelihood of matriculating to college, going directly into the workforce, or dropping out of high school. These choices occur in a different academic environment than these students are used to: an often large and disjointed high school in contrast to the more supportive and structured middle school context. This transition is more difficult for students who struggled in middle school before the pressures of the high school transition; however, it is not exclusive to those students.

The institutional shift for adolescents is not merely perceptual; there are real structural and organizational differences between middle and high schools that likely contribute to their difficulties in transitioning from one institution to another. Similar to high school students, middle school students tend to have multiple teachers and are often divided into different academic tracks. However, middle school students generally follow a similar path of course work as their peers and typically move less freely (and chaotically) through the school building. Conversely, high schools tend to be much larger organizations and more impersonal and competitive; they provide many more choices (both good and bad) in their curricular and extracurricular offerings (Eccles, Midgley, & Adler, 1984). The data on course offerings in middle schools have suggested that most students are not offered challenging academic courses (MacIver & Epstein, 1992) and that an alarming number of students are entering high school unprepared for the academic work that awaits them.

Effect of Transition

Although many view and treat the middle to high school transition as a one-time event that occurs during matriculation to high school, researchers have suggested that the transition is a process that begins at some point during middle
school and extends throughout ninth grade and possibly beyond (Hertzog & Morgan, 1999). As a result, it is necessary to address students and their troubles during various stages of the transition, not just once they reach the ninth grade. This demands early intervention, rigorous courses in middle school, and a continuously supportive environment. The effect of this transition period is widespread and affects students’ social, emotional, and academic identities in varied and seemingly unpredictable ways.

Researchers have also suggested that students experience an achievement loss during the middle to high school transition in GPA and standardized achievement tests. This loss occurs for high- and low-achieving students because of the increased academic rigor in high school. Also, students exhibit decreased engagement and attendance by the end of ninth grade (Alspaugh, 1998; Isakson & Jarvis, 1999). The middle to high school transition has varying effects on students depending on their level of academic preparation for high school, emotional stability and ability to adapt, family situations and demographics, and the programs their middle and high schools provide to ease the transition. Regardless, the effect of transition on students is often socially, emotionally, and academically significant, with differential effects by gender, race and ethnicity, and socioeconomic status.

Although the majority of students react in some manner to the middle to high school transition, the degree of effect can depend on demographics such as gender, race and ethnicity, and socioeconomic status. Akos and Galassi (2004) found that girls feel less connected to their high schools than boys do and express more concerns regarding social and academic changes during the transition period. In addition, girls experience greater drops in self-esteem and less dependence on family for support. Akos and Galassi also found significant differences in achievement losses and perception of transition difficulty for Latino students compared with White and African American students. Latinos perceived the transition to be more difficult and experienced greater losses in academic achievement within the first year of transition. Akos and Galassi suggested that these differences could be related to language and literacy skills gaps as well as limited parental participation. Oates, Flores, and Weishew (1998) found that students from lower socioeconomic status groups are at higher risk for academic failure during the high school transition and exhibit declining levels of school satisfaction.

Alspaugh (1998) found variation in the effect of transition on the basis of the type of schools that the transitioning students came from. He found that students transitioning to high school from middle schools (Grades 6–8) experienced a greater achievement loss than did students transitioning from schools than span kindergarten through eighth grade. These students were also more likely to drop out, possibly because of the achievement losses and increased stress of multiple transitions (moving from elementary to middle to high schools).

As soon as they are in high school, students who endure the transition cite various academic and personal reasons for dropping out. Balfanz (2007) found that almost 50% of dropouts claimed that they left school mainly because classes were not interesting. In addition, almost 70% of dropouts said that they were not motivated to work hard, and two thirds would have worked harder if more were demanded of them. Approximately one third left school for personal reasons (e.g., to get a job, become a parent, care for a family member), and one third cited failing school as a major factor. Further, 70% were confident that they could have graduated, including a majority of those who had low GPAs. More than 80% said their chances of staying in school would have increased if classes were more interesting and provided opportunities for real-world learning. These findings suggest that the high school dropout phenomenon is the result of a lack of not only academic preparation but also high expectations going into high school.

This variation indicates that the middle to high school transition issue cannot be approached through a one-size-fits-all mentality. Rather, it demands a variety of adaptable approaches for the greatest positive effect. Although the direct causes of these variations may be unknown, high school students from different backgrounds and schools may require more nuanced transition programs and supports to ease the transition process and ensure success.

Potential Solutions

Many states, districts, and schools are addressing middle to high school transition issues through various programs and interventions that involve students, parents, teachers, and administrators from middle and high schools. Often, these programs seek to address the academic, social, and logistic details of the transition to ease future effects including high school dropout. Although these programs are developing slowly, initial research suggests that those that involve students, parents, and teachers in the transition process have the greatest effect.

Many high schools partner with local middle schools to implement transition programs for all incoming students. These programs range from one-time informational assemblies for incoming students to comprehensive monthly meetings among teachers, counselors, and administrators at both schools. Other programs involve informational parent meetings, student shadowing programs, panel discussions, and high school course advising sessions. Although most schools use some combination of these transition aides, few implement programs that wholly involve students, parents, and faculty from both schools, providing complete support. J. B. Smith (1997) suggested that full transition programs that involve complete support have the greatest positive effect on high
school retention and experiences. In contrast, programs that target only a single aspect of the transition (students, parents, staff) showed no independent effect on these outcomes.

Other studies suggest specific characteristics of successful transition programs that stress academic and social support systems (Reyes, Gillock, & Kobus, 1994; Watson, 1999). These characteristics include long-term commitment to support during the transition process through well-developed support programs; ongoing planning to adapt these programs to changing contexts; frequent communication with students, parents, and schools; and assessment of program success through surveys and other instruments. In addition, programs that allow students to test the high school waters (through shadowing or other visitations); interact with older students; and gather information on courses, facilities, and safety have proven to be particularly effective (Mizelle & Irvin, 2000; J. S. Smith, 2006).

Parental involvement is also key to a successful middle to high school transition. Schools and teachers who specifically reach out to parents and encourage participation maintain higher levels of involvement, even though parental involvement in school tends to decrease once students reach high school. Students with involved parents tend to exhibit higher achievement, have lower dropout rates, and are better adjusted to the changes involved in the transition to high school (Hartos & Power, 1997; Horn & West, 1992; Linver & Silverberg, 1997; Paulson, 1994). Similarly, the literature suggests that parents should be well informed about details of the transition process, privy to curricular and course decisions that their child makes, and part of the planning for future articulation activities (Epstein, 1995).

Equally integral to a successful high school transition are rigorous and challenging middle school course work and early intervention programs that promote academic achievement and support even before students enter high school. These programs, often part of the regular middle school curriculum, serve to better prepare middle school students for higher expectations in high school and increase their confidence about learning and working with others (Mizelle, 1995). In addition, schools that provide summer courses for students who need extra support or other enrichment activities are more successful in lowering course failures and dropout rates (Hertzog & Morgan, 1999). SummerBridge is one such program implemented in counties and cities across the United States and provides incoming ninth-grade students with enriching summer activities that give academic support, advancement, and motivation to excel in high school through career-related field trips and other relevant activities. These and other previously mentioned programs provide continuous and varied articulation throughout the transition process with success.

Although many of these programs appear to be successful individually or in combination with others, few allow for adaptation to specific students’ needs. One-size-fits-all solutions are unlikely to be successful in the long term because the middle to high school transition is a personal and deeply nuanced process, and students drop out of high school for different reasons. This fact calls for more flexible and targeted transition programs with a focus on early intervention.

Using Data for Early Intervention

Although transition programs are helping to address the fragile middle to high school transition, research has suggested that data can also be used to locate students likely to be most affected by the transition and further understand the root of their struggles. Such data use—in the form of an at-risk or on-track indicator determined by academic progress—can be further used to inform and evaluate transition programs to the greatest benefit. These indicators, which are currently used to determine high school and college readiness in cities such as Chicago and Philadelphia, use data on credit accumulation, attendance, and course failures to identify students who are at risk of dropping out or falling behind in school (Allensworth & Easton, 2005; Neild & Balfanz, 2006).

In Chicago, where researchers use ninth-grade credit accumulation and freshman course semester failures to create on-track indicators, 58.8% of schools were deemed in need of improvement. Similarly, the district as a whole did not make adequate yearly progress in reading or mathematics in 2005. However, the on-track indicator provided promise for targeting and accelerating students who were currently falling behind before and during high school. Figure 1 demonstrates the ability of the on-track indicator to predict high school graduation using 4- and 5-year graduation rates for all Chicago students entering ninth grade in 1999 (from Allensworth & Easton, 2005).

![Figure 1. Graduation rates for 4- and 5-year on-track status at the end of freshman year in high school.](image-url)
The Chicago indicator has proven to be a better predictor of high school graduation than are student demographics and previous achievement. Similarly, researchers have suggested that the indicator is a better gauge of likelihood of graduation than eighth-grade and high school test scores are, providing hope for students who continue to produce subpar test results and enabling schools and teachers to target students particularly in need of support. Figure 2 shows the 4-year graduation rates in Chicago by freshman year on-track status for students in four quartiles of eighth-grade achievement. It illustrates that the freshman year on-track indicator is a better predictor of high school graduation than are incoming eighth-grade achievement scores (Allensworth & Easton, 2005).

In contrast, Philadelphia researchers used eighth grade attendance rates (80% attendance or lower) and course failures in eighth grade mathematics and English as early predictors of high school dropout. When combined, these two factors identified nearly 80% of future dropouts and gave students who qualified at least a 75% probability of dropping out. Similar to the Chicago indicator, student demographics and test scores did not predict high school dropout as strongly as the indicator using attendance and course failures did.

The NHSC is attempting to improve and increase the use of data during the middle to high school transition through a guide to developing early warning systems for high school failures (Heppen & Thierrault, 2008). This guide stems from the work in Chicago previously mentioned and includes details on calculating on-track indicators, growing data systems at the state and local levels, and facilitating the use and interpretation of data. It also includes details on adapting these indicators to elementary and middle school students through measures like attendance, GPA, and grade retention. Administrators in Philadelphia and Fall River, Massachusetts, use these methods with additional attention for struggling students during their pivotal freshman years. Other state and district officials, including Kentucky, Iowa, and New York City, have begun to consider the implications of on-track indicators for high school graduation and how they may be best integrated into their state accountability and education plans.

The creation of on-track or at-risk indicators for after ninth grade and earlier presents another opportunity to use newly available data in schools in a simple and invaluable way. These tools may prove useful for identifying middle school students at risk of failing or falling behind in high school for early intervention programs that occur not only during the transition period but also earlier to help accelerate the child to grade-level appropriate achievement.

**Conclusion**

Standardized test scores and ninth-grade dropout rates have suggested, and researchers have confirmed, that the middle to high school transition is a key point in the academic, social, and emotional trajectory of students across the country. Students enter high school with varying levels of preparedness, emotional stability, and social adaptability. Some of them are unable to cope with the new, more rigorous and stressful environment, while others may thrive. Identifying students at risk early and providing them with the support they need is crucial for ensuring their success in high school and beyond.

![Figure 2](image-url)

**Figure 2.** Four-year graduation rates by on-track status after freshman year and incoming achievement quartiles in reading and mathematics.
high school environment. This gap in preparedness invariably leaves students to fall behind once they reach high school or drop out entirely, frequently during the ninth grade.

States, districts, and schools have begun combating these patterns of the ninth-grade bulge and bust with middle to high school transition programs, double-dosed academic catch-up classes in high school and other efforts to support students during this fragile time. Although studies of their efficacy are limited, these programs show promise in addressing student transition problems. However, little is being done to identify these struggling students ahead of time to prevent difficult transitions before they become an insurmountable issue. Using the Chicago Consortium’s work as a guide, student-level data to create at-risk indicators for middle school students hold promise for targeting struggling students and providing better, more developed middle to high school transition programs.

AUTHOR NOTES

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REFERENCES
