State and District-Level Support for Successful Transitions into High School
This policy brief is offered by the National High School Center, a central source of information and expertise on high school improvement issues that does not endorse any interventions or conduct field studies. Funded by the U.S. Department of Education, the National High School Center serves the Regional Comprehensive Centers in their work to build the capacity of states across the nation to effectively implement the goals of No Child Left Behind relating to high schools. The National High School Center is housed at the American Institutes for Research and partners with other leading education research organizations such as Learning Point Associates, WestEd, the National Center for Educational Accountability (NCEA), and MDRC, the organization responsible for the primary authorship of this brief. The contents of this policy brief were developed under a grant from the U.S. Department of Education. However, those contents do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government.
State and District-Level Support for Successful Transitions into High School

POLICY BRIEF AUTHOR
Corinne Herlihy
MDRC

POLICY BRIEF EDITOR
Louise Kennelly
National High School Center at the American Institutes for Research

May 2007
INTRODUCTION

The transition into high school is a critical point in the educational pipeline, and ninth-grade can be characterized as one of its leakiest junctures. MDRC's research in four urban districts suggests that as many as 40 percent of students fail to get promoted from ninth- to 10th-grade on time, and fewer than 20 percent of those students recover from failure and go on to graduate (Kemple, Herlihy, & Smith, 2005). Nationally, a recent study of public school enrollment patterns shows that (1) there is a sharp increase in the number of students enrolled in ninth-grade over the last 30 years, indicating that an increasing number of students are being retained, and (2) the rate at which students disappear between ninth- and 10th-grade has tripled over the same time period (Haney, 2004).

Clearly, the transition into high school is difficult for many students. However, it is usually the end result of unsuccessful transitions—high dropout rates, low on-time graduation rates, and low achievement—that receive the most attention. This policy brief focuses on five key challenges that states, districts and schools should address to support a successful transition into high school, particularly for students who are at high risk of failure:

- Establish a data and monitoring system that will both diagnose why students are struggling and be used to hold schools and districts accountable;
- Address the instructional needs of students who enter high school unprepared for rigorous, college preparatory work;
- Personalize the learning environment to lower the sense of anonymity and address individual needs;
- Build capacity within the faculty and school leadership in low-performing schools to address diverse student needs; and
- Create connections to the community, employers, and institutes of higher education to better engage students and help them see the relevance of their coursework.

Examples of the ways in which states and districts have addressed each of these challenges are highlighted throughout the brief. These examples do not represent a full survey of such initiatives, and it should also be noted that most have not been rigorously evaluated for effectiveness. In fact, research on the high school transition is limited; however, the policies and practices featured below are all consistent with programs that do have evidence of effectiveness at the school level.

THE CONTEXT

In the last five years, educators and policymakers—including federal agencies, governors, and foundation and business leaders—have recommitted themselves to addressing the challenge of reforming secondary education, particularly low-performing schools. The No Child Left Behind (NCLB) Act of 2001 placed a new focus on K-12 student achievement. Graduation rates and measures of high school student proficiency in reading and math are factored into state-defined standards for “adequate yearly progress” under NCLB. The upcoming reauthorization of NCLB promises to put even greater focus on high schools. While launching the new priorities for NCLB this month, U.S. Secretary of Education Margaret Spellings stated, “The national consensus for high school reform has never been stronger” (U.S. Department of Education, 2007).
KEY CHALLENGES AND POLICIES

A substantial review of the research literature documents the fact that the transition into high school is marked by increased disengagement and declining motivation among students, which in turn, predict subsequent school failure and dropout (Kemple et al., 2005). Unfortunately, few rigorous studies provide evidence to support students at this critical time. Still, many schools, districts and states have developed programs and policies to address the challenges faced by students transitioning into high school.

Challenge 1: Establish Monitoring and Accountability Systems

There are few systematic measures of the challenges associated with transitioning into high school. State-reported dropout statistics are often unreliable, and most states do not regularly report grade-retention data (Haney, 2004). While many states have begun to adopt common methodologies for measuring graduation rates, few states, districts, or even schools have developed monitoring systems that will identify students who are “off track” early in their high school careers— or better yet, identify those whose performance in middle school indicates high risk for school dropout. Below are examples of several promising initiatives at the state and district levels.

State Initiatives

- **Statewide Longitudinal Data Systems**
  States that create longitudinal data systems can develop the information needed to diagnose transition problems and hold schools and districts accountable for student outcomes related to the transition into high school— for example, on-time promotion and course credit attainment. The Data Quality Campaign (www.dataqualitycampaign.org), a national collaborative, has developed guidelines for states that will help create system that can answer questions like “What achievement levels in middle school indicate that a student is on track to succeed in rigorous courses in high school?” While only five states currently report having data systems capable of answering this question, 42 states report the creation of unique student identifiers (an integral part of a longitudinal data system that tracks students over time), and 26 states indicate that they have or are working on building data warehouses. Florida’s data warehouse is considered the most extensive in the country. The Florida K–20 Education Data Warehouse provides stakeholders in public education with the capability to receive timely, efficient, consistent responses to inquiries into Florida’s kindergarten through university education.

- **Indiana**
  In Indiana, House Bill 1347, enacted by the 2006 legislature, requires that high schools report annually the number of freshmen not earning enough credits to become sophomores— a first step toward identifying those at highest risk of dropping out, which is critical for planning focused dropout prevention activities.

District Initiatives

School districts in Chicago and Philadelphia are using similar data to identify students who need extra support and are developing interventions to get them back on track for graduation:

- **Chicago Public Schools and the Consortium on Chicago School Research**
  Chicago Public Schools (CPS) have integrated a ninth-grade “on-track” indicator into their accountability system in an effort to help high schools focus on students in need of intervention. The indicator, developed by researchers at the Chicago Consortium on School Research, uses students’ class credits and failures as predictors of their probability of graduating on time. For example, a freshman student must pass five full-year courses and receive no more than one “F” in order to be deemed “on track.” It has been relatively easy for schools to use the
indicator, since information regarding students' course credits is readily available within schools. The Consortium reports that use of the "on-track" indicator in CPS has been successful: "from the 1994-1995 to 2003-2004 school years, on-track rates have increased 10 percentage points, from 48 to 58 percent of students on track" (Allensworth & Easton, 2005).

- **School District of Philadelphia and the Philadelphia Education Fund**
  A study produced by the Philadelphia Education Fund (PEF), which followed sixth-graders in the School District of Philadelphia for seven years (from the 1996-1997 to 2003-2004 school years), identified four factors that were strong predictors of student becoming off track in high school—low attendance, poor behavior marks, failing math, and failing English. When a sixth-grader exhibited even one of these factors, his or her chance of graduating from high school on time decreased severely. Based on the findings, PEF has awarded "Innovation Continuation Grants" to nine middle-grade schools in Philadelphia to reduce these risk factors in their students. Researchers will monitor student outcomes to gauge the success of these grants, which will then assist schools to develop effective means of targeting their at-risk students. (Herzog & Balfanz, 2006).

**Challenge 2: Address Diverse Instructional Needs of Incoming High School Students**

Rigor is one of the "new three R's" of recent high school reform efforts—rigor, relevance and relationships. Across states, the push for more rigorous coursework, higher graduation requirements, and graduation exams has generated concern for students who enter high school poorly prepared for college prep courses. And, there is good reason to be concerned. Nationally, fewer than 30 percent of eighth-graders scored proficient on the 2005 NAEP mathematics or reading tests (Education Week, 2007). Even when achievement is measured by local standards, most states have at least one-quarter of their students entering high schools with scores below proficient in math and/or reading on eighth-grade assessments (Education Week, 2006). In addition, there is great variation within states and even within districts. For example, in Philadelphia, only the city's magnet high schools had 80 percent or more of their incoming ninth-graders reading and doing math at a seventh-grade level. In contrast, the majority of its neighborhood high schools had entering freshmen classes in which less than one-third of the students did as well on both math and reading (Neild & Balfanz, 2001).

High schools must meet the diverse needs of students, many of whom need extra support to get caught up to at least grade level in reading and math. Traditional remedial classes do not work if they are not designed to “accelerate” learning, so students are ready to do college prep work early in their high school careers. Otherwise, students do not have enough time to get caught up and end up frustrated by their poor preparation and disengaged by remedial content.

**State Initiatives**

- **Virginias Algebra Readiness Initiative**
  The state of Virginia authorized funding in 2001 to provide matching funds to districts to conduct interventions for students in grades six to nine who are at risk of failing the state's algebra exam at the end of ninth-grade. Students within participating districts are identified through a computer-adaptive diagnostic test, which the state has made available to all school districts. The intervention includes 2½ additional hours of services per week and a 10-to-1 student-to-teacher ratio for each program. Apart from these requirements, each district may decide on its own intervention model and whether it meets afterschool, before school, or in the summer. The state funding also requires that a posttest be given which will allow the state to track the students' gains and research the effects of the incentive funding.
District Initiatives

- **Talent Development's specialized curricula in districts across the country**
  
  Districts and schools across the country are implementing the Talent Development High School (TDHS) model (Kemple, Herlihy, & Smith, 2005). The academic centerpiece of the TDHS is the combination of extended block scheduling, double-dosing of key subjects, and specialized curricula in ninth-grade. The Talent Development curriculum was designed to let students catch up from low performance levels commonly found when they entered high school in the ninth-grade—two or more years below grade expectancy. During the first semester, ninth-grade students take two "catch-up courses"—Transition to Advanced Mathematics and Strategic Reading. These courses are designed to enhance the skills of incoming freshmen and enable them to succeed in traditional ninth-grade algebra and English in the second semester. Additionally, ninth-grade students take a third Talent Development course, called Freshman Seminar, which combines study skills, personal goal-setting, and social group skills designed to prepare students more broadly for the demands of high school. A rigorous study of TDHS in five Philadelphia high schools found that it produced substantial gains in attendance, academic course credits earned (especially in algebra), and promotion rates during students' first year of high school (Kemple, Herlihy, & Smith, 2005). Districts implementing this approach include Kansas City, MO; Chicago, IL; and Chattanooga, TN.

Challenge 3: Personalize the Learning Environment

High schools are typically larger and more bureaucratic than elementary and middle schools, leading to depersonalization and a noncommunal climate (Lee & Smith, 2001). In a recent survey of young people who left high school without graduating, nearly half (47 percent) reported being bored or disengaged from high school. Thirty-eight percent believed that they had "too much freedom" and not enough rules (Bridgeland et al., 2006). It is easy for ninth-graders to get lost in the shuffle, skip school without consequence, or quietly fail without any concerted intervention by the school. There are many examples of interventions designed to personalize the high school environment. Some are structural, such as creating small learning communities or small schools; and some programs increase opportunities for adult/student interactions, making adults responsible for individual students who might otherwise fall through the cracks.

State Initiatives

- **Georgia's Graduation Coaches—An Approach to Personalization**
  
  As part of a $1 billion increase in Georgia’s investment in education, the state has implemented an initiative that puts a graduation coach in every public high school. These coaches work with students in grades eight to 12 whom they deem at risk of dropping out of high school and connect them with outside agencies and programs, if necessary. For example, graduation coaches link students with community mentors, create individualized graduation plans for students, and develop credit-recovery programs. Graduation coaches are trained by a partnership between a national organization, Communities in Schools, and the Georgia Department of Education, to identify at-risk students, to understand the landscape of community and school organizations, and to use different techniques to target their student population (e.g., case management, group activities, etc.).

District Initiatives

- **Small Learning Communities**
  
  Small learning communities (SLCs) are a way to organize high schools into smaller units. Generally, an SLC includes an interdisciplinary team of teachers who share a few hundred or fewer students in common for instruction. Teachers assume responsibility for the educational progress of students in their SLC across several years of
school, working together to meet the needs of each student. SLCs have emerged as one of the most common and potentially effective school reform strategies. They are a key component of several comprehensive school reform models—including Talent Development, which includes an independent SLC for freshmen that feeds into upper-grade career academies; and First Things First, which establishes four-year thematic SLCs. Research has shown that SLCs may enhance student engagement and success in school, serving as a platform for supporting other needed instructional and curricular reforms (Kemple, Connell, Klem, Legters, & Eccles, 2005).

The Northwest Regional Education Laboratory (NWREL) provides resources, services and tips for developing small learning communities and restructuring secondary schools (http://www.nwrel.org/scpd/sslc/). NWREL supports all grantees of the U.S. Department of Education’s SLC program via project director meetings, regional implementation workshops, technical assistance, online tutorials, and a resource warehouse. It can also provide more intensive assistance by helping schools connect to practitioner advisors or by designing district-specific workshops and/or follow-up coaching. These services are being provided to such districts as Miami-Dade, FL.; Atlanta, GA.; and Memphis, TN.

- Check and Connect

Check and Connect is a dropout prevention program for high school students with learning, emotional and behavioral disabilities, which was developed by a team of researchers at the Institute on Community Integration, University of Minnesota, in a partnership with parents and teachers within an urban school system. The program begins in the ninth-grade, when students are assigned a mentor who works with them year round to track their attendance, behavior and academic progress. The effects of Check and Connect have been evaluated in two different random-assignment studies, which both found students in the program had increases in the numbers of credits earned, as well as in attendance and enrollment rates (Sinclair et al., 1998; Sinclair et al., 2005). The Check and Connect model is currently being implemented in both urban and suburban school districts and is undergoing further rigorous research to evaluate its effects on truancy and on students with special needs.

Minneapolis Public Schools are using Check and Connect as a high school completion initiative; Dakota County, MN., has used Check and Connect to target chronically truant youth (ages 11 to 17) with and without disabilities across eight suburban/small city school districts; and the program has been used as a dropout prevention intervention for middle-school students with learning and emotional/behavioral disabilities.

Challenge 4: Build Capacity in Low-Performing Schools

Nationwide, low income and minority students are more likely to have teachers who are uncertified in their field or who lack a major or minor in the subject area that they teach (Education Trust, 2000). Within large urban districts, students in the highest-poverty schools are more likely to have teachers with less experience and who lack certification (Philadelphia Education Fund, 2002). Within schools, students in lower-ability classes are less likely to have teachers with appropriate certification (Education Trust, 2000). There is also evidence that ninth-graders, particularly in low-performing high schools, are more likely to have less experienced and less qualified teachers in their core academic courses than students in upper grades (N eild, 2003).

The inability to attract and retain experienced, qualified teachers is a clear barrier to improving student performance in low-performing schools, particularly for ninth-grade students. With the increased stresses and difficulties of the work environment in low-performing schools, extra incentives need to be given to attract teachers to these areas.
Some states and districts have taken steps to attract highly qualified teachers to the neediest schools and to teach the students who need them most, especially students making the transition into high school. Some of the practices are identified below.

State Initiatives

- **California: Loan repayment in high-need schools and subject areas**
  The state of California offers the Assumption Program of Loans for Education, which repays up to $11,000 in outstanding educational loan balances for teachers in return for four consecutive years of full-time eligible teaching service in California public schools, grades K to 12. Participants must agree to teach in a California public school in a designated subject matter area or in a school that meets criteria specified by the Superintendent of Public Instruction. An additional $8,000 of loan forgiveness (up to $19,000 total) is available to candidates providing teaching service in mathematics, science, or special education and in very-low-performing schools.

- **California and New York: Incentives for National Board-certified teachers in high-need schools**
  The National Board for Professional Teaching Standards (NBPTS) established a rigorous certification process that requires teachers with at least three years of experience to pass a qualification process, including both a written test and a portfolio of evidence showing their teaching skill. A large-scale study showed that board-certified teachers have a greater impact on student achievement than teachers without board certifications and than teachers who seek board certifications but do not earn them. The largest impacts were seen for low-income students (Goldhaber & Anthony, 2004).

  While many states and school districts offer financial support to teachers who work toward board certification, and many provide salary bonuses for teachers who pass, few target these incentives in ways that support low-performing schools or particular grade levels. Two exceptions are California and New York. In California, NBPTS-certified teachers who work full time in low-performing schools receive a $20,000 bonus that is paid out over four years. In New York, board-certified teachers who teach in low-performing schools and mentor new teachers receive annual bonuses of $10,000 for three years. Both of these incentives are larger than those offered in most other states, and teachers are eligible only if they work in low-performing schools.

Both California's loan forgiveness program and the NBPTS certification initiatives in California and New York provide extra incentives for teachers who work in low-performing schools or in high-need subject areas. Neither specifically targets ninth-grade within these schools or ninth-grade instruction within critical content areas, but such a strategy might be effectively targeted in that fashion. In addition, districts and schools could intentionally allocate the most experienced and effective teachers to ninth-grade in low-performing schools—with or without a formal incentive program.

**Challenge 5: Create Connections to the Community, Employers and Higher Education**

Many high schools are isolated from other institutions in their communities and have limited contact with students' families. Little effort is made to use the community as a resource for providing students with meaningful learning opportunities and for highlighting the potential relevance of what students are studying. As a result, some students become disengaged from school, are not motivated to work hard, and ultimately fail to progress through high school. In a recent survey of high school dropouts, seventy-five percent of ninth- and 10th-grade dropouts surveyed said they were not motivated or inspired to work hard. Eighty-one percent of respondents said that if schools provided opportunities for real-world learning, it would have improved their chances of graduating from high school (Bridgeland et al., 2006). There is some empirical evidence to support this view as well.
State Initiatives

- **South Carolina’s Career Guidance Model**
  The South Carolina Education and Economic Development Act of 2005 requires that “the Department of Education develop a curriculum, aligned with state content standards, organized around a career cluster system that must provide students with both strong academics and real-world problem-solving skills. Students must be provided individualized educational, academic, and career-oriented choices and greater exposure to career information and opportunities” (South Carolina Education & Economic Development Act (EEDA), 2005). As a result, the South Carolina Career Guidance Model was developed to assist students and their parents, school districts and communities to engage students in career awareness in elementary school, career exploration in middle and high school, and career exploration in high school. This system involves parents, teachers and school counselors assisting students set educational and career goals and developing individual graduation plans to achieve these goals. High school students are provided guidance and curricula that will enable them to complete successfully their individual graduation plans, preparing them for a seamless transition to relevant employment, further training or postsecondary study.

District Initiatives

- **Career Academy Model**
  Career Academies have existed for more than 30 years, and they can now be found in an estimated 1,500 high schools nationwide. Career Academies consist of small learning communities and combine academic and career-related courses in an effort to enhance both the rigor and relevance of the high school curriculum. Career Academies form partnerships with local employers to expand students’ exposure to career options and skill requirements and to provide them with work-based learning experiences. A rigorous evaluation of Career Academies by MDRC reported that, for the sample of youth most at risk of dropping out of high school, Career Academies increased the likelihood of staying in school through the end of the 12th-grade year, improved attendance, and increased the number of credits earned toward graduation. For students at medium or low risk of dropping out, the Academies increased career and technical course-taking and participation in career development activities without reducing academic course-taking. For all groups, Academies had little or no impact on graduation rates, which were relatively high for both Academy and non-Academy groups in the study (Kemple & Snipes, 2000; Kemple & Scott-Clayton, 2004).

**BOTTOM LINE**

The state and district initiatives highlighted in this brief are a small subset of the programs underway to support the transition for students into high school. These promising programs focus on data to identify early those students who veer off the road to graduation, to address the needs of students who leave middle school unprepared for high school work, to personalize the high school experience, to find skilled teachers to work with ninth-graders, and to help students see how the transition into high school connects to the transition to college and work. However, these initiatives do not address all the challenges associated with the transition into ninth-grade, and, therefore, most do not work as stand-alone strategies. Many programs will need to work in conjunction with other initiatives or serve as platforms for more comprehensive secondary school reforms. The needs of ninth-grade students are multidimensional, and efforts to support their transition must be as well.

The strength of the evidence for effectiveness regarding programs and strategies varies. Career Academies and Check and Connect, for example, have been evaluated with the most rigorous methodology, using random assignment. Other approaches have strong evidence in one district—Talent Development in Philadelphia and the “On-Track”
indicator in Chicago. Some are examples of legislation whose effect has not yet been measured—Indiana's data reporting requirements and South Carolina's guidance system. In all cases, it is clear that rigorously studying these types of interventions will help to inform state and district policy decisions.

Schools and districts can learn from one another, and the state may play the role of convener to help facilitate collaboration and training. States can also provide incentives for schools and districts to undertake programs to support successful transitions, as well as contribute resources for implementation, and for monitoring and evaluation. Scaling up these strategies across schools and districts is difficult. States can provide support—financial and personnel—for researching which programs are the best fit and for developing a comprehensive plan to ease the transition into high school.
**ADDITIONAL RESOURCES**

**Determining Early Which Students Are Most Likely to Dropout**

There are readily accessible indicators that schools can use to identify as early as ninth-grade which students are on track to graduate and which will most likely drop out in time to intervene and prevent it. These same powerful indicators show the areas in which these students need supports. The on-track measures for ninth-graders by the end of Freshman year developed by the Chicago Consortium for School Research, include the following:

- The student has accumulated five full course credits, the number often needed to be promoted to 10th-grade.
- The student has no more than one semester F (that is, one-half of a full credit) in a core subject (English, math, science, or social studies)(Allensworth & Easton, 2005).

In terms of measurement, the criteria differ in two key ways: (1) course failures are counted only for core courses, while credit accumulation includes all credit-bearing classes; and (2) failures are counted by semester, while credit accumulation is measured in terms of full-year credits, with half credits given for each semester course. Thus, the on-track indicator combines two separate but related factors: number of credits earned and number of Fs in core subjects.

<table>
<thead>
<tr>
<th>First-time Freshman On or Off Track by Credits Earned and Number of Fs (5 full core course credits and no more than 1 F = On Track)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Semester F’s in core courses</td>
</tr>
<tr>
<td>1 semester course = .5 credits</td>
</tr>
<tr>
<td>Number of Credits Accumulated Freshman Year</td>
</tr>
<tr>
<td>1 full course = 1 credit</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

States can develop robust data systems that allow districts to upload this student-level information gathered from schools in a uniform and coherent manner, allowing them to see quickly and clearly where the greatest need for deployment of resources and targeted intervention rests.
END NOTE

1 A data warehouse is, at the least, a repository of data concerning students in the public education system; ideally, it also includes information about educational facilities and curriculum and staff involved in instructional activities, as well as district and school finances. Data warehouses link student records over time and across database in a timely manner and allow for efficient use and reporting of data.

REFERENCES


State Resources
Florida’s K-20 Education Data Warehouse. Web site: http://edwapp.doe.state.fl.us/doe/


Virginia’s Algebra Readiness Initiative. Web site: http://www.pen.k12.va.us/VDOE/Instruction/Math/ARI/ari-faq.shtml#1