

What Counts:

Defining and Improving High School Graduation Rates

Table of Contents

Introduction	1
Defining High School Graduation Rates	2
High School Graduation Rates: State Accountability Requirements	2
State Calculations of Graduation Rates Under NCLB as of June 2003	2
Estimating Graduation Rates: Statistical Perspectives	4
Graduation Rates Versus Dropout Rates: Dropout Rates Are Not the Opposite of Graduation Rates	6
The Ongoing Battle of Numbers: Estimates Versus Actual	9
NASSP Recommendations	10
Improving High School Graduation Rates Through Support Mechanisms	11
Historical Perspective	11
Facing the Problem	16
In Recognition of Students' Needs	17
Moving in the Right Direction	19
NASSP Recommendations for Improving Graduation Rates	20
Conclusion	21
References	22



1904 Association Drive
Reston, VA 20191
800-253-7746
nassp@principals.org
www.principals.org

David Vodila, *President*
Joseph Militello, *President-Elect*
Gerald N. Tirozzi, *Executive Director*
Lenor G. Hersey, *Deputy Executive Director*
Rosa Aronson, *Director of Advocacy and Strategic Alliances*
Robert N. Farrace, *Director of Publications*
Michael Carr, *Associate Director of Public Relations*
Stephen DeWitt, *Associate Director of Government Relations*
Meg LeFevour, *Government Relations Manager*
Michelle White, *Advocacy Manager*
Dianne Mero, *Principal Author*
Amy Ciliberto Barrett, *Editor*
Tanya S. Burke, *Associate Director of Graphic Services*
Christy M. Pasquarelo, *Graphic Designer*

Introduction

Over the past several years, high school graduation rates in the United States have come under intense public scrutiny fueled by a renewed interest in high school reform as well as higher public school accountability requirements. It is accepted almost universally in this country that all young people must be given every opportunity to graduate from high school. Unfortunately, this goal continues to be an ideal rather than a reality in many high schools across the nation.

As more substantial research brings attention to the lackluster data on high school graduation rates, what originally was thought to be a fairly simple concept—the percentage of the senior class who actually walked across the stage—has been revealed to be a more complex issue depending on the purpose, the point of view, or the method of calculation employed. Recent research has revealed a startling array of difficult issues and confusing calculations that can give even the most gifted educator pause. As this paper demonstrates, the changing rules and confusing methodologies combined with limited resources have created a climate in which principals are caught in the middle. Faced with the high-stakes world of improving academic success for all students and being responsible for results often influenced by factors beyond their control, principals understandably are under tremendous pressure.

At this time, two issues dominate the debate over high school graduation rates: First, there is a need for a common understanding of what *high school graduation rate* means. As this paper will show, there is no consensus on a formula that accurately reflects high school graduation rates nationwide. Second, there is a need to dramatically improve graduation rates, particularly for low-income and underrepresented minority students. What we do know through numerous studies is that many low-income and minority students still struggle to graduate and, when they do, disproportionately drop out during the first year of college. The purpose of this paper is to bring some clarity to the issue and to outline some key policy recommendations for improving graduation rate calculations and outcomes.

**All young people
must be given
every opportunity
to graduate from
high school.**

Defining High School Graduation Rates

High School Graduation Rates: State Accountability Requirements

The No Child Left Behind Act (NCLB) requires that all public schools and school districts be held accountable for ensuring high levels of achievement for all students. As part of this requirement, states must consider graduation rates as an academic accountability indicator at the high school level. The law defines graduation rates for public secondary schools as “the percentage of students who graduate from secondary school with a regular diploma in the standard number of years” (NCLB, 2002).

It is noteworthy that the “completer rate,” a figure based on all students who receive a diploma plus those who receive another designation of high school completion, such as a certificate, may not be used as the graduation rate under the NCLB definition. Many school districts continue to award certificates and other designations of high school completion or attendance to students who do not complete the standard high school graduation requirements. In addition, those students who successfully achieve a General Equivalency Diploma (GED) are often categorized as completers. The decision to exclude these categories marks a significant shift in the philosophy of who will be counted as graduates and who will not, having a major effect on the reported graduation rate.

In the fall of 2003, The Urban Institute released an NCLB Implementation Report, authored by Christopher B. Swanson, titled *State Approaches for Calculating High School Graduation Rates*. Swanson reviewed information from each state’s NCLB Accountability Workbook, which was approved in April and reported by the U.S. Department of Education (ED) in June 2003. Described herein from that work are the most common methods for calculating graduation rates and a listing of the individual states that reported the adoption of each method (Swanson, 2003b). In addition, overall advantages and disadvantages for each method are described. It is noteworthy that for some states (i.e., Louisiana and New Jersey) what is reflected in this report was the initial submission for approval. Since 2003, some accountability systems have been modified or replaced as more accurate information is submitted.

State Calculations of Graduation Rates Under NCLB as of June 2003

Longitudinal Rate: Rate based on data from individual students tracked over time.

Calculation: Percentage of students from an entering ninth-grade cohort who graduate with a regular diploma in four years. Adjustments to the original cohort may be made for students who join or leave the school system at grade level during that four-year period.

Method employed in 10 states: Arizona, Colorado, Florida, Hawaii, Michigan, New York, South Carolina, Tennessee, Texas, and Washington.

Advantage: Tracks individual students as they move in and out of school, resulting in greater accuracy.

Disadvantages: Requires a labor-intensive system that can track individual students as they move in and out of different schools, relying heavily on individual student data. The school must be capable of tracking individual students over time and be able to accurately distinguish among the student outcomes (i.e., diplomas, attendance credentials, dropout, transfer, and public school exit). Relies on how schools classify entering and exiting cohort members; lacks incentives to attempt to track students whose status is unknown.

National Center for Education Statistics (NCES): Rate based on the count of high school completers minus dropouts over a four-year period.

Calculation: Regular diploma/credential recipients as a percentage of students leaving high school over a four-year period (estimated as the sum of diploma/certificate recipients and dropouts during the past four years in grades 9 through 12, respectively).

Method employed in 29 states and the District of Columbia: Alabama, Alaska, California, Connecticut, Delaware, District of Columbia, Georgia, Idaho, Iowa, Kansas, Kentucky, Maine, Maryland, Minnesota, Missouri, Montana, Nebraska, Nevada, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Virginia, West Virginia, Wisconsin, and Wyoming.

Advantages: Does not necessitate individual tracking of students over time; requires only completion counts for a particular year and cumulative dropout counts for the previous four years, so it requires a less-sophisticated tracking system. Because data are available from NCES, this method was recommended by the ED in NCLB guidelines to the states.

Disadvantages: Relies on highly questionable dropout data; includes high school completion credentials (except GED), which is in conflict with NCLB requirements; does not adequately adjust for student mobility issues or large grade-level retentions.

Basic Completion Ratio: Rate is based on proportion of the number of graduates in a given year to the number of students enrolled at an earlier time.

Calculation: Number of graduates in a particular year divided by the number of entering students at some earlier point in time. The most basic form of this indicator divides graduates by the number of ninth graders four school years earlier. Adjustments to this basic indicator may be made to accommodate more detailed information gathered, such as mobility in and out of a school system. Method employed in four states: Illinois, Massachusetts, Mississippi, and New Mexico.

Advantage: Eliminates the need for a large tracking system.

Disadvantages: Can be skewed by student mobility factors and by school or school district policies that hold some students back in certain grades; usually reflects only those students who finish in four years.

Others: Various methods employed by remaining states that do not fit into above categories.

Other methods employed in seven states: Arkansas, Indiana, Louisiana, New Jersey, New Hampshire, North Carolina, and Vermont.

Estimating Graduation Rates: Statistical Perspectives

2003 Urban Institute Study: Keeping Count and Losing Count

To measure the effect of allowing a choice in the method that states may use to calculate graduation rates, the Urban Institute researchers applied three different formulas to the class of 2000 data utilizing the Common Core of Data (CCD) (Swanson & Chaplin, 2003). Historically, the CCD has been the U.S. Department of Education's primary database on public elementary and secondary education in the United States. The comprehensive, annual, national statistical database from NCES houses information on approximately 94,000 public elementary and secondary schools and 14,500 regular school districts. The CCD has two main objectives: first, to provide an official listing of public elementary and secondary schools and school districts in the nation, which can be used to select samples for other NCES surveys; second, to provide basic information and descriptive statistics on public elementary and secondary schools and schooling in general (NCES, n.d.). Although it has some drawbacks, the CCD is widely held to be the most comprehensive source of comparable data on student enrollments, graduation figures, and dropout counts currently available.

National Center for Education Statistics (U.S. Department of Education)

Researchers arrived at a graduation rate by utilizing a modification of the NCES method that counted only regular diploma holders; this figure does not include students who received other state certifications or credentials. This calculation for a particular cohort requires five pieces of information: completion counts from the academic focus year and cumulative dropout counts from each of the past four years.

Advantages: Does not require the tracking of individual students over time nor a sophisticated data collection system; can be calculated using data from the CCD.

Disadvantages: Relies heavily on dropout counts that are unavailable, not consistently reported, or do not conform to dropout reporting procedures for a large number of states and districts (62% of the districts are not reflected here); NCES dropout counts may substantially underestimate the true number of dropouts by counting students whose status is unknown as transfers; high school graduates include only students who receive a regular diploma; utilizes CCD which does not allow school level analysis; provides an estimate only.

Adjusted Completion Ratio (ACR; Manhattan Institute/Greene)

Researchers arrived at a graduation rate by comparing the number of graduates in a given year with the size of the ninth-grade cohort four years earlier, adjusting for changes in district

Although it has some drawbacks, the CCD is widely held to be the most comprehensive source of comparable data on student enrollments, graduation figures, and dropout counts currently available.

enrollment. This method requires the number of diploma recipients for a certain year, the count of ninth graders four years earlier, and the total high school level enrollment for the graduation year and the ninth-grade year. Greene allows for possible enrollment changes by adjusting the ninth-grade enrollment (up or down) based on the percentage change in the district's total high school enrollment between the base and graduation years.

Advantages: Can be calculated using data from the CCD, counts only regular high school diplomas, avoids use of questionable dropout data, can estimate graduation rates for 48 states and the District of Columbia and 89% of the districts.

Disadvantages: The adjustment strategy may underestimate the variation in graduation rates; utilizes CCD, which does not allow school level analysis; provides an estimate only.

Cumulative Promotion Index (CPI; Urban Institute/Swanson)

Researchers arrived at a graduation rate by estimating the probability that a student entering 9th grade will complete high school in four years with a regular diploma by multiplying the proportion of 12th graders who earn diplomas in a given year by the percentage of students in grades 9, 10, and 11 who are promoted to the next grade that same year.

Advantages: Does not utilize dropout data; can estimate graduation rates for 49 states and the District of Columbia and 88% of the districts; can be calculated using data from the CCD.

Disadvantages: Utilizes CCD, which does not allow school level analysis; provides an estimate only.

Applying these formulas to the class of 2000 Common Core of Data information, graduation rates were estimated in the table below.

Class of 2000 Estimated Graduation Rates			
National Graduation Rates Class of 2000	NCES Graduation Rate	Adjusted Completion Ratio	Cumulative Promotion Index
Class of 2000 District Level Rates	85%	75%	73%
Class of 2000 State Level Rates	(insufficient data)	65.1%	66.6%

Source: Swanson, C.B. & Chaplin, D., (2003). *Counting high school graduates when graduates count: Measuring graduation rates under the high stakes of NCLB*. Washington, DC: The Urban Institute. Table 1, p. 39.

Center for Social Organization of Schools: Promoting Power (Johns Hopkins University/Balfanz & Legters, 2004)

One additional method developed by researchers at Johns Hopkins University is worthy of discussion. Also utilizing data compiled by NCES, researchers Robert Balfanz and Nettie Legters measured the promoting power of the 10,000 regular and vocational high schools that enroll more than 300 students in the United States. In this study, they compared the number of freshmen in each school to the number of seniors there four years later (2004).

Researchers arrived at a figure they call *promoting power* by dividing the number of students enrolled in 12th grade by the number of 9th graders enrolled in the high school four years earlier

(or the number of 10th graders to seniors three years later in schools with a 10–12 grade span).

Results: This study presents data showing the number and concentration of high schools with weak promoting power—as evidenced by promoting 59% or fewer freshmen to senior status in four years. The methodology disaggregates the data by state, locale, minority concentration, and the nation’s 100 largest cities. It was found that the high schools producing the largest number of dropouts are concentrated in 50 large and medium-sized cities and 10 southern and southwestern states. Using promoting power as the indicator for high dropout rates and low graduation rates, the researchers found that almost 50% of African American students and almost 40% of Latino students attend high schools in which “graduation is not the norm,” whereas only 11% of White students attend such schools (Balfanz & Legters, 2004).

Advantages: Provides estimates to identify individual schools with low promoting-power rates; pinpoints geographical locations of possible at-risk schools; can be calculated using only enrollment data from the CCD.

Disadvantages: Can only serve as an indicator not direct measure. By necessity, uses 12th grade enrollments, not the number of graduates because the CCD currently does not contain data on graduation counts at individual schools. Thus, estimates do not capture students who make it to 12th grade and do not graduate. It is also not sensitive to sudden enrollment shifts caused by school closures, district reorganizations, economic changes, or migration.

Graduation Rates Versus Dropout Rates: Dropout Rates Are Not the Opposite of Graduation Rates

Considerable confusion exists among educators, the public, and policymakers about the scale and scope of the dropout problem and its relationship to graduation rates. Several researchers, each with a different perspective, have determined that the U.S. Department of Education’s use of the NCES formulas based on dropout rates may significantly inflate the number of students who graduate from high school (Balfanz & Legters, 2004; Greene, 2002; Swanson & Chaplin, 2003).

In a related issue, other studies, including one by the Education Trust, have shown that state, district, and school level reporting of graduation rates under NCLB is subject to significant error (Archer, 2004; Casey et al., 2003). As noted earlier, one explanation for the inaccuracies may be that the most widely used method to calculate graduation rates for NCLB, the graduation rate formula developed by the NCES, is dependent on high schools accurately self-reporting their dropout numbers (Swanson, 2003a). In the past, at least 14 states have failed each year to report their state dropout rates, resulting in inflated federal statistics (Phelan & Thompson, 2003). These federal figures include those who earn a GED but fail to require tracking of every student who begins

There is no uniform measure of high school dropout or graduation rates available at the school level.

high school (Greene, 2002). As a result, there are conceivably wide discrepancies in both dropout numbers and the graduation rates on which they are based.

The NCES formula provides estimates at the state and district levels only; there is no uniform measure of high school dropout or graduation rates available at the school level (Kaufman, Alt, & Chapman, 2001). In addition, because states are allowed to use differing graduation measures under NCLB, it is not possible to find a common measure to identify and compare state or local high school dropout rates. However, the CCD is being used to develop indirect measures because it provides enrollment rates by grade for every public high school in the United States (NCES, n.d.).

As with the calculation of graduation rates, differing methods of calculating and reporting dropout rates generates controversy. For example, a state, school district, or high school may report one set of numbers suggesting a relatively low dropout rate; then, another group or researcher analyzes the statistics using a different measure—resulting in a far different conclusion—which leads to an accusation that the state or educational institution intentionally or unintentionally underestimated the problem. How can this occur in an age of sophisticated advances in technology and record keeping? Certainly one of the most prominent barriers to accurate calculating and reporting is the lack of universally accepted definitions for figuring both dropout rates and graduation rates.

Not only are there several distinct ways of estimating graduation rates, most notably those cited in the NCLB workbooks and the 2003 Urban Institute Study described earlier in this paper, but also there are numerous ways of calculating dropout rates that are somewhat different from the manner in which most graduation rates are figured. These measurements include event rate, status rate, cohort rate, and high school completion rate. Event rate and cohort rate are the most frequently reported. The event rate measures the percentage of young adults above the age of 15 who dropped out during the school year preceding the data collection. It is believed by some researchers that this annual measure provides certain information about how effective educators are in keeping students enrolled in school. The cohort rate measures what happens to a group of students over a period of time. This rate is based on cumulative measures of a group of students and reveals how many students starting in a specific grade drop out over time (Staresina, 2004).

Theoretically, given a proper tracking system and adequate staff, high schools should be able to keep a record of each incoming ninth-grade student through four years until graduation. If the student leaves the school community for a legitimate reason (transfers), the student also leaves the cohort for purposes of calculating graduation rate. All other students who leave school for nonlegitimate reasons (dropouts) remain in the cohort pool and are counted against the graduation rate. Students new to the school are added to the cohort. Hypothetically, if the school graduates 95% of the incoming freshmen four years later (adjusted for transfers and new enrollees), 5% of the class are dropouts.

Unfortunately, it is currently extremely difficult to account for all of the students who leave the school over a four-year period due, in large part, to lack of adequate resources (both technological and human). Inconsistencies can come from a variety of sources: lack of

accurate or sufficient data from the originating class (in many cases this information was not required to be kept at the time), incomplete or inaccurate gathering and recording of statistics during each of the four years in the target span, and varying methods of calculating the rates imposed by different states. Even with the best tracked figures inaccuracies arise. Students leave high school for many reasons: they work, move, return to their home country, migrate, have a child, are sent to jail, help at home, run away, obtain a GED, or attend another high school (in a different school/district/state/country). Many experience some combination of several of these factors. The outcome is that many do not enroll in another school, and even if they do, they fail to inform the originating school of their whereabouts. A large number of schools and school districts do not have the means to go beyond perfunctory actions in attempting to retrieve information about departing students. The issue is further complicated by dropouts who reenter school (the same school or a different one, the same year or a different one). Other factors not under the control of the school include stiff district policies on retention, large special education populations, alternative education centers or programs, the impact of opening and closing of government facilities or military bases, boundary changes, demographic changes, and housing shifts. School district policies on attendance zone modification, school choice, open enrollment, transfer policies, and retention may further confuse the issue.

For a student to be labeled as a dropout, the school is often required to assign a state designation or code to the student in question. As with all judgment calls, how those designations are assigned (or not) is open to question. The NCES procedures do not require uniformity, so the states have each developed their own methods and philosophy on the gathering of this data (Hartzman, Boone, & Mero, 2004). This inconsistency leads to serious problems when attempting to examine not only local information but also state data. As noted by Swanson (2003a), “Systematic dropout statistics are often unavailable for a substantial number of states and districts, which raises the possibility of bias in coverage and further complicates efforts to produce state- or even nationally-representative estimates for high school completion rates” (p. 12).

In reviewing the complex issues surrounding the “status unknown” students, it becomes clearer why, at this point in time, dropout rates are not considered particularly precise. Because of all of the variables noted above, dropout rates may not be cited as the opposite of gradua-

Because of all of the variables noted above, dropout rates may not be cited as the opposite of graduation rates: generally, they cannot be ascertained directly from a school's graduation rate, nor can they be used as the basis to determine a school's graduation rate.

tion rates: generally, they cannot be ascertained directly from a school's graduation rate, nor can they be used as the basis to determine a school's graduation rate.

The Ongoing Battle of Numbers: Estimates Versus Actual

Although national, state, and district graduation rate estimates can be useful for research purposes, it is important to utilize the most precise information available to look at the trends in individual schools. Although each of the proposed calculations may produce a different result and academics can argue their validity, it is the practitioner who must deal with the big picture—that at least one-third of our students are not graduating from high school. Further, when disaggregated by race/ethnicity, 50% of African American and Hispanic students are not receiving diplomas. A method of collecting student enrollment, dropout, migrant, transfer, and graduation information must be mandated across the country and uniformly in each state.

To make it more problematic, states can set their own standards for course taking, graduation, and exit exams. Swanson agrees, “Even if you can figure out a way to measure graduation rates that's scientifically based and methodologically rigorous from a technical standpoint, it may still be hard to compare graduation rates from state to state in an apples-to-apples kind of way. That's not something that the technical methodologies will fix” (Olson, 2003, p. 22).

What ultimately happens to the approximately four million ninth-grade students attending public schools each year is the operative question. Disaggregated data reveal that the United States does an even poorer job of serving non-White students than White students in this population (Swanson, 2004). National statistics for 2000 show the cumulative dropout rate was 27.8% for Hispanic students and 13.1% for African-American students, compared to 6.9% for non-Hispanic White students. Among immigrant Hispanic youth, the cumulative dropout rate was an overwhelming 44.2% (NCES, 2001). Again, when these statistics are recalculated using the Urban Institute's CPI formula, the outcome is even more dismal. Nationally, high school graduation rates are low for all students, with only an estimated 68% of those who enter 9th grade graduating with a regular diploma in 12th grade. But, according to Swanson, rates are substantially lower for most minority groups and particularly for young men. According to the Urban Institute's calculations in 2001, only 50% of all African American students, 51% of Native American students, and 53% of all Hispanic students graduated from high school. Black, Native American, and Hispanic young men fared even worse at 43%, 47%, and 48%, respectively (Orfield, Losen, Wald, & Swanson, 2004).

Utilizing the new federal system for calculating the data regarding another subgroup—special education students—schools are required to more clearly identify students who have moved but have not enrolled in another school in their exit rates. The new graduation rate for 2002–2003 for such students with special needs was 39.4%, including students who earned a certificate of completion, down from 51% the year before. This drop raises grave concerns (Arundel, 2004).

NASSP Recommendations

In light of the challenges described in this section, NASSP proposes two recommendations.

- ◆ **Implement school-based, quality data systems that track student enrollment, progress, and graduation and allow schools to report accurate results to their districts and states. Provide resources for staff professional development for the use of these data tracking systems.**
- ◆ **Create a national commission that includes policymakers, researchers, and practitioners to study differing graduation formulas and to recommend a uniform way of keeping track of students as they move in and out of schools.**

Regardless of which method of calculation is closest to the truth, none of these results is very reassuring. Intolerably large numbers of students—minority, non-English speakers, special education, and White—drop out of high school every year to be jettisoned into the workforce with little education and no credentials. It is, therefore, crucial to examine ways to increase high school graduation rates. The next section gives a brief history of the changing role of the American high school institution and its implications for graduation rates. It outlines three key recommendations to improve graduation rates.

Improving High School Graduation Rates Through Support Mechanisms

Historical Perspective

A free public education for all has been a rallying cry throughout our nation's history. The high school experience has been revered as a cultural icon. It seems that everyone who grew up in America in the second half of the 20th century can recall with great clarity the many "rituals and emotions of this singular institution" (NASBE, 2004, p. 4). Today's familiar comprehensive high school with its goal of secondary education for all was designed in the 1950s to satisfy the needs of a growing industrial society. Over the next few decades, the high school did satisfy the initial needs while also evolving into an institution attempting to offer something for almost everyone. "While only 15 percent of the 14-to-17-year-olds attended high school in 1910, more than 92 percent of that age group enrolled in 1970" (NASBE, 2004, p. 4). As we are beginning to see, however, this optimistic enrollment figure from 1970 failed to lead to an equally impressive percentage of high school completers. "The basic premise of high school was designed a century ago to educate about 10% of the population. We've gotten the model to work for about a third of the kids, but everyone has come to realize that the charge now is to educate everybody," believes Joseph A. DiMartino, director of secondary school redesign for the Education Alliance at Brown University (Gehring, 2004, p. 2).

At the turn of the 19th century, high school education was reserved for a small proportion of young people—primarily the children of well-to-do parents. Participation in high school increased steadily into the 1920s and then jumped again when compulsory attendance laws emerged during the 1930s. Strengthened policies requiring young people to attend school after World War II were put in place to help ensure full employment for returning servicemen. This has systematically evolved until today. All states have policies that require students to attend school until they reach a certain age, graduate, or are expelled. The overall trend was to increase the age at which students may leave school until recently when compulsory school ages have remained fairly stable. Newly voiced concerns about unacceptably high dropout rates have sparked fresh policy debates across the country, even though half the states legally require attendance until at least age 17 (Martinez & Bray, 2002).

Following the 1983 report of the National Commission on Excellence in Education, *A Nation at Risk*, and later, President George H. W. Bush's call for raising high school graduation requirements through *America 2000*, many states had already raised the bar for graduation (Lang, 2000). More than one-third of the states were well on their way to complying with the 1994 reauthorization of the Elementary and Secondary Education Act (ESEA). By 1998, 48 states had established a comprehensive accountability system with required assessments. Of those, 36 provided individual school report cards (Radnor, Ball, & Vincent, 1998). "The expectation stated in Goals 2000 was to reach 90% high school completion rate by the year

2000” (Lehr, Johnson, Bremer, Cosio, & Thompson, 2004, p. 7). However, according to the 2002 federal report from NCES, only 17 states reached this goal using the required calculations (NCES, 2002).

Why has the graduation rate issue taken on such importance in recent years? Numerous factors, both positive and negative, are pushing a new agenda. For many high schools, districts, and states, the revised course of action regarding the importance of earning a diploma springs first and foremost from Public Law 107-110, also cited as the *No Child Left Behind Act of 2001* (NCLB). Based largely on the previous laws and initiatives, NCLB now mandates strict accountability measures. Enacted on January 8, 2002, this law aims “to close the achievement gap with accountability, flexibility, and choice,” so “no child is left behind” (NCLB, 2002, p. 1). Requirements include strict reporting procedures so all public schools and districts can be held accountable for ensuring high levels of achievement for every student. As part of the state accountability systems under NCLB, in addition to very specific guidelines regarding assessment and testing, graduation rates must be considered as an academic accountability indicator at the high school level. This requirement has focused new attention on how educators compile high school completion data and, subsequently, calculate graduation rates. Unfortunately, as current data are analyzed and reanalyzed, researchers now disagree about how many students actually graduate from high school, how many students dropout of school, and the best way to determine these numbers.

Until this requirement became the law, numbers and percentages of graduates were gathered unsystematically for mandated reporting purposes only. NASSP maintains that the goal of high school is to graduate all students with the skills and knowledge they need to be good citizens and lead productive and secure lives; therefore, in response to the new federal requirements and the subsequent unveiling of, at best, confusing and, in some cases, devastating information on actual graduation rates, NASSP believes that this issue demands immediate nationwide attention. It is well known that most young people will never be able to exit the cycle of poverty and reliance on welfare, or at the very least massive underemployment, unless they have a high school diploma. In our country, “The high school diploma continues to be viewed as a kind of national rite of passage, a gateway to adulthood and the future” (Schoenlein, 2004, p. 16). More to the point, a high school diploma has gone from being a valuable, but optional, asset in the labor market to the very minimum educational requirement for entry-level employment. Completing high school is now seen as essential for anyone seeking additional education or training, with the exception of the lowest paying and most menial jobs (Huerta, 2003).

Throughout most of the past century, nearly half of our high school students dropped out

NASSP maintains that the goal of high school is to graduate all students with the skills and knowledge they need to be good citizens and lead productive and secure lives.

without earning a diploma (Gregorian, 2004). Until a few decades ago, this was not considered a major issue—for either the individual dropout or society. There were many good jobs available for every level of worker, with a large number in manufacturing, allowing those who lacked a high school diploma to raise families in comfort and safety. The military also offered good training, security, and an inviting career for many others. In the 21st century, not finishing high school has become a major problem because these jobs have disappeared. We are no longer a manufacturing or agrarian society; the military is not as attractive as in the past and no longer takes recruits without high school diplomas. The GED option is more difficult to obtain yet less respected as an alternative to a diploma. At the same time, globalization demands a more educated workforce (Gregorian, 2004). Currently, it is estimated that 2.2 million high school dropouts help comprise the 5.5 million young men and women between the ages of 16 and 24 who are both out of school and jobless. This translates into 15% of the nation's population in this age group (Freeland & Tucci, 2004), up from 11% in 2001 (Staresina, 2004). Overall, as reported by the United States Department of Labor in 2003, high school dropouts are 72% more likely to be unemployed than high school graduates (Lehr et al., 2004).

The most often mentioned reason to stop this rash of high school dropouts is economic. According to the Bureau of Labor Statistics, high school graduates earn many thousands of dollars more per year than those who drop out, and approximately 30% of youths in the labor force in 1998 who had dropped out of school in the previous 12 months were unemployed (Bhanpuri & Reynolds, 2003). As reported in NCES's *The Condition of Education 2003* by Wirt et al. (as cited in Staresina, 2004), by 2000, adults who had dropped out of school earned 30% less than those who had completed high school. The current statistics are revealing, but not particularly surprising. Ten years ago, a different NCES study found that high school dropouts were more than twice as likely to receive public assistance as high school graduates who did not go on to college (Bhanpuri & Reynolds, 2003).

In addition to the direct economic impact on individuals, there are huge societal losses. “Each year's class of dropouts will cost the country over \$200 billion dollars during their lifetimes in lost earnings and unrealized tax revenue,” according to Catterall's 1985 study (as cited in Bhanpuri & Reynolds, 2003, p. 1). This reflects a significant drain on the economy. Also to be factored in are the costs of increased job training, welfare, unemployment, and payments to the criminal justice system (Bhanpuri & Reynolds, 2003). In reference to the dismal results of a dropout study commissioned by the Business Roundtable in 2003, Joseph M. Tucci, president/CEO of EMC Corp. and chairman of the Roundtable's Education and the Workforce Task Force maintains, “If we are to better support the nation's long-term economic growth, we must acknowledge the true size of the dropout problem. Dropout rates must go down...” (Phelan & Thompson, 2003).

However, the value of a high school education cannot be measured in dollars alone. According to a 1995 Northwest Regional Educational Laboratory study by Woods, rates of high-risk behaviors such as teen pregnancy, delinquency, substance abuse, and crime are significantly higher among dropouts (as cited in Staresina, 2004). In fact, 80% of those incarcerated in our country are high school dropouts (Lehr et al., 2004). “Students who leave

high school without a diploma forfeit a lifetime of opportunities, making it far more likely that their children will grow up in poverty and become ‘at risk’ children” (Huerta, 2003, p. 2). Dropping out of school affects almost all parts of an individual’s everyday life including community participation and voting, two areas in which high school dropouts rarely become involved. “The erosion of an informed, active citizenry is dangerous to a democratic society, which depends on actively engaging citizens to make responsible choices” (Huerta, 2003, p. 2).

Since its inception, it has been the policy of NASSP to promote programs and services to enhance each student’s opportunity to successfully complete high school. NASSP remains emphatic in its position that all students can and should complete high school to have access to a more satisfying and rewarding future. *Breaking Ranks II: Strategies for Leading High School Reform*, a recent publication from NASSP (2004), has helped to drive this issue to the forefront of high school reform. In an attempt to determine how well individual high schools are serving each student, the question must be asked and answered at every high school in the United States and the ramifications of the answers discussed in detail to be fully understood. To be clear, however, NASSP believes that increasing high school graduation rates should not be the goal in and of itself. Vastly increasing the number of students completing high school and prepared to be successful in the world of work or postsecondary education should be a direct result of raising student achievement through improved instruction. As this goal is reached, it will be reflected in lowering the percentages of those not graduating each year.

The great shame associated with the dropout numbers is how easily these students can and should be identified earlier so appropriate and successful interventions can be put in place. It is not surprising that the six million secondary students who fall into the lowest 25% of achievement account for two-thirds of all dropouts. These students are 20 times more likely to drop out than the top-performing students (Carnevale, 2001 as cited in Joftus, 2002). A study by Alexander et al. (as cited in Staresina, 2004) of the Baltimore City Public Schools found that as early as first grade, low test scores and report card grades were reliable predictors of whether students would drop out later. A related issue—grade retention, even as early as kindergarten—has also been found to be highly correlated with dropping out as reported in a study by Kaufman and Bradby (as cited in Staresina, 2004). With facts like these in hand, it is clear that a significant proportion of federal funding is essential at the elementary level to provide a better start for children in the lower grades. However, it also reinforces the need for much more funding at the secondary level. Essential programs in literacy, numeracy, and basic skills must be provided to give high school students a stronger foundation and the motivation to stay in school knowing they can succeed. Both the approaches and funding streams must be two-pronged: elementary prevention and secondary intervention. Unfortunately, the intervention efforts in the higher grades have proved to be far more costly than the initial programs in the lower grades. As the Alliance for Excellent Education has noted (2004), additional funding for high schools would go a long way toward helping to relieve some of the causes of the alarmingly high dropout rate. Although high schools educate approximately 28% percent of students, high schools receive only 5% of Title I funding for K–12 education (National Center

for Education Statistics, 2001), a situation that needs to be addressed immediately.

Grade 9 is a pivotal year in determining which students will graduate and which will fail to finish high school (Black, 2004). In 1985, NASSP published *How Fares the Ninth Grade?* (Lounsbury & Johnston, 1985), which brought much needed attention to this group of students who seemed to be lost between middle and high school. Following the publication of disappointing results from the NASSP study, it took eight more years before Anne Wheelock's look at the ninth-grade year in 1993 uncovered little improvement in the educational conditions offered to this fragile and vulnerable group. Wheelock cited "tedious lessons, overcrowded classrooms and indifferent teachers," which created a "minefield" for these young teens (as cited in Black, 2004). More recently, in a 1998 study of high schools and their feeder middle schools, Hertzog and Morgan proposed that failing ninth grade "spells doom" for about 25% of ninth grade students nationwide with many schools far exceeding this average, failing up to 45% of their freshman class. It was noted in the Hertzog and Morgan study that "Ninth grade has become the holding tank for high school" (as cited in Black, 2004). According to Walt Haney of the Center for the Study of Testing at Boston College, this holding tank is responsible for the "ninth grade bulge"—the large number of students enrolled in grade 9 compared with the number enrolled in grade 8 the previous year. The bulge is made up primarily of the many students being retained in grade 9 with fewer going on to the upper grade levels on time (as cited in Black, 2004). "The proportion of ninth-grade students who repeat the grade...can be an important indicator of future dropout rates," the New York State Education Department wrote in its June 2002 *State of Learning* report (as cited in Black, 2004). Haney's research conducted in Texas and other states in 2000 and 2001 supports this contention. His studies confirm that up to 80% of students who fail to pass ninth grade will not graduate from high school (as cited in Black, 2004). "In fact," several researchers contend, "repeating 9th grade is perhaps the strongest risk factor towards dropping out" (Balfanz & Legters, 2004, p. 40).

For just these reasons, policymakers around the country are focusing new attention and energy on the ninth grade. Alternatives to the traditional automatic retention for classroom failure and the requirement that courses needed for graduation be completed in a certain order in exactly four years are being explored and adopted. These efforts are in response to the research noted previously and other recent studies confirming that when students make it past the ninth grade, they are far more likely to graduate than students who have been held back (Gehring, 2004).

It has long been acknowledged that reading is the key to academic success. With the large dropout population from our nation's high schools looming over our society, unskilled and jobless, it is not surprising to learn that nationally, 25% of our secondary students are reading at the "below basic" level, able to comprehend little, if any, of the material required at the secondary level, according to Susan Frost, former president of the Alliance for Excellent Education (Kamil, 2003, p. iii). However, "Research shows that students who receive intensive, focused lit-

"Repeating 9th grade is perhaps the strongest risk factor towards dropping out."

eracy instruction and tutoring will graduate from high school and attend college in significantly greater numbers than those not receiving such attention” (Joftus, 2002, p. 13). We owe it to the six million secondary students who currently read well below grade level (Kamil, 2003) to provide intervention and assistance in all of their core classes.

Facing the Problem

According to Christine Wolfe, who was director of policy for Undersecretary of Education Eugene W. Hickok when NCLB was crafted, Congress did not believe that defining how to calculate graduation rates in the law was appropriate. Wolfe believes that most states lack “robust” data systems, which presents a “significant challenge” especially in reporting the data at the school level for subgroups (Olson, 2003). As noted by Swanson (2004) in a follow-up discussion of his findings,

Ultimately, somewhere is an overworked, understaffed school or district office where information about students is first compiled. Furthermore... data are hard to collect. Tracking down missing students can be exceedingly difficult, particularly in communities characterized by household instability and high rates of mobility. Finding these students requires time and effort and takes limited resources away from other, perhaps more central, priorities like improving student learning. (p. 4)

In order to overcome these problems, a centralized electronic system designed to track students’ records is essential. Schools will move a step closer to solving part of this problem in the next few years when a Virginia consulting group starts the planning and implementation of the Migrant Student Information Exchange (MSIE) project. This four-year, \$6 million project is being designed to provide immediate access to academic and health records of the 900,000 migrant students who often move from state to state (Shek, 2004b). For regular and special education students, individual states have taken on the expensive and arduous task of acquiring a comprehensive centralized system to meet the NCLB data collection requirements. Although no funding is provided in the law, so far Iowa, South Dakota, Missouri, Wyoming, Kansas and Nebraska have either implemented a statewide student level database or are planning to do so (Shek, 2004c). Even with these states’ efforts, the problem is not solved for students who move across state lines.

Whether as a result of frustration over data collection problems or for other reasons, in some cases it appears that school personnel have misrepresented dropout and graduation rates. Observes Kaufman of MPR Associates, “While some schools may indeed engage in the shell game that their detractors accuse them of, many schools just did not know what happened to all of their no-shows” (as cited in Johnston, 2001, p. 1). Lack of resources, confusion over rules and directives, and a lack of training for those responsible for keeping data all add to the dilemma. One typical case involved a high school principal who reported that his school had a 79% completion rate and a 2% dropout rate. On further exploration, according to Kaufman, it was found that 388 students who left the school between the 9th and 12th grades went to alternative and private schools or schools outside the district. Just

four of those students had dropped out (Johnson, 2001).

The graduation rates issue is definitely compounded by the role of the General Equivalency Diploma (GED). This highly accepted test has been used for the last 60 years as a credible substitute for a high school diploma. In spite of the fact that one out of every seven high school diplomas issued each year in the United States was issued on the basis of passing the GED tests (General Educational Development Testing Service, 2004), recently the test has come under fire as not equivalent to a diploma. This has been influenced by the work of Jay Greene (2002) of the Manhattan Institute who does not count these students in his calculations of graduation rates. The impact of this change was felt in Florida when his recalculation of the class of 2000 eliminating the GED students resulted in a decline in the graduation rate from 67.9% (state) to 55% (Greene). Greene contends: “Students who get a GED are not, properly speaking, high school graduates” (as cited in Hegarty, 2002, p. 1). NASSP, however, recognizes that the GED is a viable measure of high school completion for students who do not receive a high school diploma.

In addition, the verdict is still out on the influence of exit exams on high school graduation rates. Economists Dean R. Lillard (Cornell University) and Philip P. DeCicca (University of Michigan) reported in a study that by raising standards nationwide, an additional 26,000 to 65,000 students will drop out of high school each year (Lang, 2000). “The results strongly suggest that state-mandated minimum course requirements cause students to drop out of high school,” according to Lillard (as cited in Lang, 2000). In explanation, Lillard noted that “In all cases, we find that higher course graduation requirements are associated with higher attrition rates, higher dropout rates and higher individual probabilities of dropping out. This study provides the first empirical evidence to confirm the old adage that there’s no free lunch, for every incremental increase in standards, you’re going to see more dropouts” (as cited in Lang, 2000,). Conversely, Greene maintains, “High school exit exams do not significantly affect dropout rates; while some students may be unable to get diplomas because they failed to pass exit exams, other students are motivated by the exams and work harder and some schools better serve their students, thus increasing graduation rates. The groups offset each other, keeping graduation rates steady” (as cited in Davis, 2004, p. 10).

**Recently the [GED]
has come under fire
as not equivalent
to a diploma.**

In Recognition of Students’ Needs

The movement to define graduation as finishing requirements within the standard of exactly four years in high school flies in the face of what is best for students who often need more (or less) time to achieve this goal. An increasing number of districts, especially in urban areas, are rejecting traditional high school grade structures, changing their retention policies, and devising more flexible routes toward graduation to address high dropout rates and help their students graduate from high school.

In Boston, a new graduation policy is under consideration that would end the retention

of students who fail various combinations of classes. Also under the new policy, high schools would allow students to graduate in three, four or five years. In response to the unintended consequences of ending social promotion in Baltimore several years ago—the dropout rate for 9th grade students skyrocketed to nearly 40%—a new policy was adopted in the spring of 2004. Students must accumulate a total of four credits in core subjects, instead of seven, to be promoted to 10th grade. In a unanimous vote last April, the Houston School Board reversed a long-standing policy requiring students to pass all core subjects at each grade level before being promoted. The new policy promotes students and gives them until the end of their high school years to pass the required courses if they pass a certain number of other subjects each year (Gehring, 2004).

Two urban school districts, Rochester and Chicago, currently have programs that allow students to graduate from high school in three, four or five years. In both cases, the five-year program was introduced as a way to help students who might have trouble graduating in the traditional four years experience success rather than failure. The program allows students who are identified as early as middle school as having difficulty with certain courses such as math or science to complete them over a year and a half or two years instead of one (Delisio, 2001). Taking five years to graduate is quite common throughout the country. As a result, Florida and Arizona have included the five-year graduation rate as a component of their graduation reports using the adjusted cohort from the four-year rate. By applying the same processes as those applied to the four-year cohort, this method accounts for students transferring out of the population during the fifth year of tracking. The result is a revised adjusted cohort to be used in the formula to calculate graduation rates for the original ninth-grade group (Huerta, 2003). It is not yet clear whether expansion of the NCLB accountability report to include fifth year graduation rates will account for many additional students. However, it does not penalize school districts who continue working with nongraduating students for a fifth year, making that last year relevant by preparing them to be successful in the workplace or ensuring that they have the credentials necessary to continue their educations.

Because the dropout problem is not new, over the years intervention attempts by individual high schools have been many and varied. In the past, the most frequent intervention by school personnel was trying to counsel a student into staying in school. Among other more concrete proposals made to potential dropouts were help with making up missed work, tutoring, transfer to another regular school or placement in a special program, help with personal problems, and calls or visits to the students' homes (Schwartz, 1995). The National Dropout Prevention Center at Clemson University in collaboration with national dropout prevention consultant Frank Schargel has identified intervention strategies with a focus on early childhood programs, professional development for teachers at all grade levels,

Two urban school districts, Rochester and Chicago, currently have programs that allow students to graduate from high school in three, four or five years.

more targeted use of instructional technologies, and career education/workforce readiness programs to be used specifically as dropout prevention techniques. In a more general sense, systemic renewal for the school, collaboration within the community and increased emphasis on conflict resolution and violence prevention are also in use (Schargel & Smink, 2001).

Moving in the Right Direction

All of this effort, energy, and time devoted to keeping students in school until graduation should not be misinterpreted as an end point. The real emphasis must get back to student achievement—preparing students to experience a secure and happy adulthood in a position to go beyond high school with adequate preparation for the workplace, continuing education, or both. The National Governor’s Association (NGA), with Virginia Governor Mark Warner at its helm, made high school reform the initiative for 2004–2005, with the emphasis on identifying and publishing best practices throughout the country. It is intended that NGA will provide specific advice for governors and states on the collection of graduation and dropout data (Shek, 2004a).

The U.S. Department of Education has gone on record as recognizing the faults and limitations in the current system of gathering and calculating high school graduation rates from the 50 states and the District of Columbia. In December 2003, the department awarded a contract to the National Institute of Statistical Sciences (NISS) to convene an expert panel to review how states calculate and report dropout and graduation rates. The group, including representatives from the Manhattan Institute and the Urban Institute, professors, a district superintendent, and other educational researchers, developed recommendations for what elements should be included in calculating standardized graduation and dropout rates. The ED will then decide how to use this information (Archer, 2004).

In his second term President Bush continues to emphasize the need for new education initiatives for secondary school reform. The administration plans to provide additional training for high school math and science teachers, support reading initiatives at the high school level, and provide more federal money to help low-income children enroll in Advanced Placement classes. This plan also calls for the inclusion of 12th-grade students in the National Assessment of Educational Progress and promotes a “rigorous” exam before graduation. All of these measures are said to aim at improving graduation rates and making a high school diploma more “meaningful” (Hubler, 2004, p. 1). NASSP appreciates the complexities involved in the administration of a nationwide high-stakes examination to seniors. In a recent report to the National Assessment Governing Board, the National Commission on NAEP 12th Grade Assessment and Reporting also recognized that there are real risks associated with making assumptions about the results of NAEP 12th grade testing. The low combined participation rates of both schools and students at the 12th grade level—one-third to one-half of the students selected for the sample do not participate; the participation rate for high schools in 2000 was 82%—and the lack of a uniform definition of a 12th grade student across schools and states are most problematic (National Commission on NAEP, 2004). In addition, a recent study by the National Research Council found that student “disengagement” with respect to academics increases as students

increase in grade, is pervasive in high schools, and is extremely challenging for school staff members and parents during the 12th grade (cited in Twelfth Grade Student Achievement, 2004). As stated in the National Commission's March 2004 report, "Although the Commission members do not believe that NAEP can or should take on the overall task of addressing student 'disengagement' in high schools generally, it is a factor that NAEP's leaders must take into account when addressing school and student participation" (Twelfth Grade Student Achievement, 2004, p. 9). Educators who are familiar with students in their senior year of high school have expressed legitimate concerns about these rigorous tests and how the results will be used. Caution must be taken and other alternatives explored before the recommendations of the National Commission are adopted and implemented.

NASSP Recommendations for Improving Graduation Rates

In light of the challenges described in this section, NASSP proposes the following recommendations.

- ◆ **Build high school capacity to address the academic needs of low-performing high school students by creating a new and separate funding stream. We estimate that an investment of \$3.5 billion would be comparable to the amount of Title I funds provided to elementary schools.**

- ◆ **Improve high school students' academic achievement and graduation rates by funding and expanding adolescent literacy initiatives.**

- ◆ **Place priority on student mastery of subject rather than just completion of seat time by allowing states the flexibility to address grade level structures and high school completion options (including state exit exams and certificates).**

Conclusion

For many states these ideas are just a continuation of a conversation started long before NCLB. The modern day educational reform movement can trace some of its roots from Russia's launch of Sputnik, the first successful man-made space-orbiting satellite in 1957. Another new and powerful wave certainly occurred in 1981 when the National Commission on Excellence in Education was convened to "examine the quality of education in the United States" due to the "widespread public perception that something is seriously remiss in our educational system" (Ahearns, 2000, p. 4). The release of the commission's report, *A Nation at Risk: The Imperative for Educational Reform*, in April 1983 marks the start of the current educational reform movement; after more than 20 years, the reform activated by this report persists (Ahearns, 2000).

By the mid 1980s, numerous reports issued by governmental and private agencies criticized the public schools' low performance on a host of assessment measures, which led to another chapter in the accountability movement. The first National Education Summit was convened in Charlottesville, VA, in 1989. At the end of this gathering, participants from all over the country were committed to assessing students on a regular basis, setting educational objectives, and demanding higher student performance levels in basic core subjects. Two educational summits followed the initial one and eventually brought accountability guidelines to all 50 states. By the time the Third National Education Summit was convened in 1999, the North Carolina Department of Public Instruction and the Texas Education Agency were but two of a number of states to report remarkable student achievement gains from 1993 to 1999 (Farrokh, n.d.).

The question remains: Will the No Child Left Behind Act of 2001 have similar results without further loss of students? NASSP hopes that subsequent discussions, meetings, conferences, and training programs will provide opportunities to highlight the urgency of comprehensive high school reform with the ultimate goal of increased student achievement (Tirozzi, 2004). With *Breaking Ranks* (1996), *Breaking Ranks II* (2004) our federal legislative recommendations for high school reform, and this paper, NASSP is steadfast in its determination to influence the conversation about dropout and graduation rates. NASSP is fully committed to improving high school graduation rates through the strategic use of data, personalized learning that focuses on the academic needs of students, and an emphasis on adolescent literacy strategies. But these changes will need to be supported by a solid investment and a long-term commitment on the part of state and federal decisionmakers.

References

- Ahearns, E. M. (2000). *Educational accountability: A synthesis of the literature and review of a balanced model of accountability*. Final Report for Office of Special Education, U.S. Department of Education. Alexandria, VA: National Association of State Directors of Special Education.
- Alliance for Excellent Education. (2004). Adolescent literacy policy update. *Issue Brief February 2004*. Washington, DC: AEE.
- Archer, J. (2004). Paige seeks to address thorny graduation data. *Edweek.org*, 23(16), 27, 29. Retrieved October 11, 2004, from www.edweek.org
- Arundel, K. (2004). Graduation, dropout rates fall under new calculation. *Education Daily*, 37(195), 3. Retrieved October 15, 2004, from www.eddaily.com
- Balfanz, R., & Legters, N. (2004). *Locating the dropout crisis: Which high schools produce the nation's dropouts? Where are they located? Who attends them?* Baltimore: Johns Hopkins University.
- Bhanpuri, H., & Reynolds, G. M. (2003). *Understanding and addressing the issue of the high school dropout age*. Learning Points Associates, North Central Regional Educational Laboratory. Retrieved October 17, 2004, from www.ncrel.org/policy/pubs/html/second/index.html
- Black, S. (2004). The pivotal year. *American School Board Journal*, 191 (02). Retrieved October 11, 2004, from www.asbj.com/2004/02/0204research.html
- Casey, K., Barth, P., Hall, D., Garcia, A., Licon, S., Wiener, R., & Yi, Yun. (2003). *Telling the whole truth (or not) about high school graduation*. Washington, DC: The Education Trust.
- Davis, M. R. (2004). Study: Exit exams have minimal effect on dropout rates. *Education Week*, 23(34), 10.
- Delisio, E. R. (2001). Chicago, Rochester offer flexible graduation options. *Education World*. Retrieved November 10, 2004, from www.educationworld.com/a_admin/admin221.shtml
- Farrokh, F. (n.d.). *Evolving approaches to the assessment of writing*. Laredo, TX: Texas A&M International University. Retrieved October 15, 2004, from www.tamu.edu/qep/Presentations/ASSESS-CONF_Farrokh.pdf
- Freeland, R. M., & Tucci, J. M. (2004). Out of school and unemployed. *Education Week*, 23(1), 42.
- Gehring, J. (2004). To stem dropouts, urban districts switch strategies. *Education Week on the Web*, 23, 44. Retrieved October 17, 2004, from www.edweek.org.
- General Educational Development Testing Service. (2004). *Welcome to the official site of the GED testing service!* Washington, DC: The GED Testing Service. Retrieved November 5, 2004, from www.acenet.edu/clll/ged/index.cfm
- Greene, J. P. (2002). Public school graduation rates in the United States. *Civic Report*, 31. Retrieved October 10, 2004, from www.manhattan-institute.org/html/cr_31.htm
- Gregorian, V. (2004). Leading by example. In I. Bond & J. Ayers (Eds.), *Profiles in leadership Innovative approaches to transforming the American high school* (pp. 29–35). Washington, DC: Alliance for Excellent Education.

- Hartzman, M., Boone, E., & Mero, D. P. (2004). *Breakthrough high schools: You can do it, too!* Reston, VA: National Association of Secondary School Principals.
- Hegarty, S. (2002). Florida dead last in graduation rate study. *St. Petersburg Times Online*. Retrieved October 11, 2004, from www.sptimes.com/2002/11/21/news_pf/State/Florida
- Hubler, D. (2004). High schools to be focus of Bush's education agenda. *Education Daily*, 37(168), 1, 2. Retrieved September 8, 2004, from www.eddaily.org
- Huerta, T. M. (2003). *Assessing Arizona's dropout problem: Why current measurement methods are flawed, and how to fix them. A policy brief*. Tempe, AZ: Arizona State University.
- Joftus, S. (2002). *Every child a graduate*. Washington, DC: Alliance for Excellent Education.
- Johnston, R.C. (2001). Dropout Studies Target 'Pockets of Problems.' *Edweek.org*, 20(19), 3. Retrieved October 11, 2004, from www.edweek.org.
- Kamil, M.L. (2003). *Adolescents and literacy: Reading for the 21st century*. Washington, DC: Alliance for Excellent Education.
- Kaufman, P., Alt, M. N., & Chapman, C. D. (2001). *Dropout rates in the United States: 2000*. Washington, DC: U.S. Department of Education.
- Lang, S. (2000). Economists: Stricter h.s. graduation standards push up dropout rates. *Cornell Chronicle*, 31, 26. Retrieved November 6, 2004, from www.news.cornell.edu/Chronicle/00/3.16.00/dropout_rates.html
- Lehr, C. A., Johnson, D. R., Bremer, C. D., Cosio, A., & Thompson, M. (2004). *Essential tools increasing rates of school completion: Moving from policy and research to practice*. Minneapolis, MN: National Center on Secondary Education and Transition.
- Lounsbury, J. H., & Johnston, J. H. (1985). *How fares the ninth grade? A day in the life of a 9th grader*. Reston, VA: National Association of Secondary School Principals.
- Martinez, M., & Bray, J. (2002). *All over the map: State policies to improve the high school*. Washington, DC: The National Alliance for the American High School.
- National Association of Secondary School Principals. (1996). *Breaking ranks: Changing an American institution*. Reston, VA: Author.
- National Association of Secondary School Principals. (2004). *Breaking ranks II: Strategies for leading high school reform*. Reston, VA: Author.
- National Association of State Boards of Education. (2002). *Most likely to succeed: Policy making in support of a restructured high school*. Alexandria, VA: Author. National Center for Education Statistics. (n.d.). *Common core of data*. Web site. Retrieved October 25, 2004, from <http://nces.ed.gov/ccd/aboutCCD.asp>
- National Center for Education Statistics. (2001). *Dropout rates in the United States: 2000*. Washington, DC: United States Department of Education.
- National Center for Education Statistics. (2002). *Dropout rates in the United States: 2001*. Washington, DC: United States Department of Education.
- National Commission on NAEP 12th Grade Assessment and Reporting. (2004). *12th grade student achievement in America: A new vision for NAEP*. A report to the National Assessment Governing Board. Retrieved November 6, 2004 from www.nagb.org/release/12_gr_commission_rpt.pdf.
- No Child Left Behind Act of 2001 (H.R. 1). 107 Cong., 110 (2002) (enacted).
- Olson, L. (2003). Study: Formulas yield widely varied graduation rates. *Edweek.org*, 22(37), 17, 22. Retrieved October 17, 2004, from www.edweek.org

- Orfield, G., Losen, D., Wald, J., & Swanson, C. B. (2004). *Losing our future: How minority youth are being left behind by the graduation rate crisis*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Phelan, C., & Thompson, T. (2003). New study uncovers hidden dropout crisis. *News from Northeastern*. Boston: Northeastern University. Retrieved October 21, 2004, from www.nupr.neu.edu/5-03/dropout.html
- Radnor, H. A., Ball, S. J., & Vincent, C. (1998). Quality counts '99: Rewarding results, punishing failure. Special supplement. *Education Week*, 18(17).
- Schargel, F. P., & Smink, J. (2003). *Fifteen effective strategies for dropout prevention*. Albuquerque, NM: Schargel Consulting Group. Retrieved October 25, 2004, from www.schargel.com/scg/index.htm
- Schoenlein, J. (2004). Working on that old dropout rate. *Principal Leadership*, 4(7), 14–18.
- Schwartz, W. (1995). School dropouts: New information about an old problem. *ERIC/CUE Digest*, (109). New York: ERIC Clearinghouse on Urban Education.
- Shek, K. (2004a). Governors turn attention to secondary schools. *Education Daily*, 37 (169), 1–2. Retrieved September 9, 2004, from www.eddaily.org
- Shek, K. (2004b). System aims to give instant access to migrant records. *Education Daily*, 37 (196). Retrieved October 18, 2004, from www.eddaily.org
- Shek, K. (2004c). Statewide database latest in emerging trend. *Education Daily*, 37 (198), 1–2. Retrieved October 20, 2004, from www.eddaily.org
- Staresina, L. N. (2004) Dropouts. *Education Week*, 23, 44.
- Swanson, C. B. (2003a). *Keeping count and losing count: Calculating graduation rates for all students under NCLB accountability*. Washington, DC: The Urban Institute.
- Swanson, C. B. (2003b). *NCLB implementation report: State approaches for calculating high school graduation rates*. Washington, DC: The Urban Institute.
- Swanson, C. B. (2004). *The real truth about low graduation rates*. Washington, DC: The Urban Institute.
- Swanson, C. B., & Chaplin, D. (2003). *Counting high school graduates when graduates count: Measuring graduation rates under the high stakes of NCLB*. Washington, DC: The Urban Institute.
- Tirozzi, G. (2004). Repainting the canvas: The changing artistry of the principalship. In I. Bond & J. Ayers (Eds.), *Profiles in leadership: Innovative approaches to transforming the American high school* (pp. 42–48). Washington, DC: Alliance for Excellent Education.
- U.S. Department of Education. (2003). Paige announces expert panel to review high school dropout and graduation rates. Press Release: December 19, 2003. *ED.gov*. Retrieved October 11, 2004, from www.ed.gov/news/pressreleases/2003/12/12192003.html



1904 Association Drive, Reston, VA 20191
800-253-7746 • nassp@principals.org • www.principals.org