Who's Counted? Who's Counting?

Understanding High School Graduation Rates

**ALLIANCE FOR
EXCELLENT EDUCATION**

Who's Counted? Who's Counting?

Understanding High School Graduation Rates

ALLIANCE FOR EXCELLENT EDUCATION

About the Alliance for Excellent Education

The Alliance for Excellent Education is a national policy, advocacy, and research organization created to help all middle and high school students receive an excellent education.

The Alliance focuses on America's six million most at-risk secondary school students (those in the lowest achievement quartile), who are likely to leave school without a diploma or graduate unprepared for a productive future. Based in Washington, DC, the Alliance works to make it possible for these students to achieve at high academic levels and graduate prepared for college, the modern workplace, and citizenship.

The Alliance's audience includes parents, teachers, and students, as well as the federal, state, and local policy communities, education organizations, the media, and a concerned public.

To inform the national debate about education policies and options, the Alliance produces reports and other materials, presents at meetings and conferences, briefs policymakers and the press, and provides timely information to a wide audience through its biweekly newsletter *Straight A's* and its regularly updated website (www.all4ed.org).

Acknowledgments

Table of Contents

Overview

Each year, approximately 1.2 million students fail to graduate from high school.[i] That means that every school day, 7,000 American high school students become dropouts.

Americans have long been proponents of a good public education system for the nation's children. For decades, poll respondents have ranked education among the top three or four most important domestic priorities for the nation and its policymakers. But the need to improve the way children are educated has taken on new urgency in the past few years, particularly as the link between well-educated students and America's international competitiveness has become increasingly clear.

For years, the nation's attention has focused primarily on the need to prepare young children for school and to give elementary students a strong foundation that would—it was assumed—prepare them for the increasing challenges of middle and high school. National and international indicators demonstrate that younger children's achievement is improving. However, the nation and its leaders have recently come to realize that far too many of the nation's high schools are in a state of crisis and that the majority of older students are not being adequately prepared by America's secondary schools for college, work, or citizenship.

One factor, more than any other, has contributed to America's recognition that its high schools and their students face tremendous problems and challenges: a growing understanding that the nation's graduation rates are far lower than had previously been reported. An increased national commitment to holding schools accountable for the way they educate students—coupled with groundbreaking research on graduation rates by independent experts from several unrelated research institutions—has coalesced in the past 5 years to demonstrate that far more students are leaving high school without a diploma than almost anyone had realized.

Graduation rates are a fundamental indicator of whether or not the nation's public school system is doing what it is intended and funded to do: enroll, engage, and educate youth to be productive members of society. But graduation rates are not just a "bottom line" for schools—they are critical predictors of individual achievement and have undeniable consequences for communities and American society at large. The nation needs an educated workforce if it is to maintain productivity, technological innovation, and a strong economy. Communities need educated citizens to participate in civic life and add social and cultural value. And for individuals, graduation from high school is a critical gateway to successful participation in the workforce, economy, and society.

Graduation rates, as well as other relevant indicators, must be calculated and reported accurately to determine whether the nation is meeting its economic and moral imperative to provide all students with an education that will graduate them prepared for their future and prepared to contribute to the future of the country. Efforts to meet that objective have been, and will continue to be, significantly disadvantaged by the inability to accurately track and report on student academic achievement and attainment.

The confusion about how many students are actually graduating from high school is both hard to fathom and easy to understand.

The unacceptably low graduation rates, particularly among children who live in poverty and children of color, has been obscured for far too long by inaccurate data, misleading official graduation and dropout rates, and flawed accountability systems at the state and federal levels. Decades of education policy have relied on faulty information and assumptions, affecting everything from resource allocation to parent decisionmaking.

Until recently, national high school completion rates were reported by the U.S. Department of Education (Department) and other respected agencies as fairly steady at above 80%. That figure left far too many students without a diploma, but the national memory was still strong of the many people who had been able to support a family without having graduated from high school. Concern did not begin to grow until a few years ago, when the public realized that the good manufacturing jobs that had been the safety net for many high school dropouts had almost disappeared in the United States.

The Graduation Crisis

- While, on average, approximately 70% of students graduate from high school with a regular diploma, students from historically disadvantaged minority groups have little more than a 50% chance of finishing high school with a diploma.[1]

- If African-American and Latino students graduated from high school at the same rate as their white peers, approximately 310,000 additional minority students would graduate every year.

- About 2,000 of the more than 20,000 high schools in the United States produce nearly half of the nation's dropouts. In these schools, the number of seniors is routinely 60% or less than the number of freshmen 4 years earlier. While almost half of the nation's African-American students and nearly 40% of Latino students attend these "dropout factories," only 11% of white students do.[2]

- While seventy-four percent of students in suburban districts graduate, only 60% of students in urban districts graduate. Districts with a majority of minority students, high racial segregation, high poverty levels, or high economic segregation have graduation rates approximately 20% lower than districts with a majority of white students, low racial segregation, low poverty levels, or low economic segregation.[3]

Why students need to graduate from high school

- About 90% of the fastest-growing jobs of the future will require some postsecondary education. For the United States to remain a world leader, it must ensure that every student graduates prepared to compete in the increasingly complex global economy.[4]

- Over his or her lifetime, a high school dropout earns, on average, about $260,000 less than a high school graduate and about $1 million less than a college graduate. Almost 1.2 million students who should be graduating in 2006 will not leave school on time with a regular diploma, costing the nation more than $312 billion in lost wages, taxes, and productivity over their lifetimes. Since over a million students fail to graduate each year, this loss is repeated annually.[5]

- Approximately 75% of state prison inmates did not complete high school.[6] Projections show that a 5% increase in the male high school graduation rate would save approximately $4.9 billion in related crime costs each year.

The national graduation rate went essentially unchallenged for years, and few questioned the ways that schools, districts, and states gathered data and reported on it. Then, in 2001 and 2003, reports were published by Jay Greene of the Manhattan Institute for Policy Research and Christopher Swanson of the Urban Institute that shocked community leaders, parents, the media, and many educators. Greene and Swanson did not rely on the questionable data and methodologies that served as the basis for the official reports but rather developed their own methodologies, which seemed sound and that resonated with the majority of the education policy community. They found that ***one third of students do not graduate from high school on time with regular diplomas***.[ii] According to this research, the outcomes for minority students are even less acceptable. One such study reports that only about 54% of Native-American students, 52% of Hispanic students, and 51% of black students graduate on time with a regular diploma. Males from these racial groups fare substantially worse than females (less than half of Hispanic and black males graduate),[iii] and the situation is especially dismal for students who attend school in high-poverty, racially segregated, and urban school districts, where graduation rates lag 18–19.4% behind those in other areas.[iv]

These more realistic—and more disturbing—statistics have brought into focus the unacceptable result of the current system: one third of students drop out of high school without the basic skills necessary for success in life and another third graduate from high school with an education not sufficient for postsecondary success. In fact, less than 30% of entering ninth graders will graduate with the skills and knowledge they need and should have been able to count on gaining from their high school experience.[v]

There is some good news. Educators, parents, community members, policymakers, the business community, and a concerned public seem to agree that something needs to be done about high schools. A national poll conducted in August 2005 by the Alliance for Excellent Education showed that 87% of respondents were "extremely concerned" or "very concerned" to learn that the country-wide graduation rate is only about 70% and that graduation rates drop to 50% or lower in many urban areas.[vi] In an April 2006 survey conducted by *TIME* magazine, 89% of the respondents said that the high school dropout rate in the United States is a "serious problem."[vii]

The standards movement, federal and state accountability systems, and an increasing public demand for transparency and better information about how well the education system is performing are combining to require increased school and district accountability, as well as changes in policy and practice that will improve outcomes for students. This is especially true in relation to graduation rates—a critical public measure of schools' success.

But to provide true accountability, accurate data must be *collected, calculated,* and *utilized.* For many reasons (discussed throughout this report), most data and accountability systems at the state and federal levels do not have the necessary capacity. Stakeholders have recognized that a major obstacle to improving calculations is the lack of student-level data, which is a rare commodity at the district and state levels because of the lack of infrastructure, funding, training, and other capacities to invest in data systems that follow each student over time.

As a result, it is not surprising that initiatives aimed at calculating and reporting accurate graduation data are increasingly accompanied by recommendations for building and supporting longitudinal data systems—statewide data systems that provide more accurate student-level data by following each student from the time he or she enters the educational pipeline until he or she leaves it.

That message has begun to resonate. The combination of tragically low graduation rates and the growing awareness of inaccurate graduation data has motivated influential persons and organizations at the state, federal, and national levels to launch initiatives to encourage and implement reforms in the calculation of accurate and consistent graduation rates.

In November 2004, a Department-established task force charged with exploring issues associated with calculating graduation, completion, and dropout rates made several recommendations, including calling for investment in longitudinal data systems, the consistent use of a particular proposed graduation rate, and leadership and technical assistance to states and schools from the Department. In 2005, the Department began reporting its own graduation rate (the averaged freshman graduation rate or AFGR) for each state. It also distributed $52.8 million in 3-year grants to 14 states to fund the design and implementation of statewide longitudinal data systems. This program was one of just a few education programs for which President Bush has requested an increase in funding for FY 2007.

In the summer of 2005, all 50 of the nation's governors, as part of the year-long initiative Redesigning the American High School, signed the National Governors Association's Graduation Rate Compact (NGA Compact). The compact is a public declaration of the governors' commitment to implement a common, accurate graduation rate and to create better systems and methods of collecting, analyzing, and reporting graduation and dropout data.[viii] Many state officials—including governors, boards of education, auditors, and legislators—have demonstrated leadership by advancing legislative and administrative efforts to raise awareness, change policies, and improve practices related to the collection, calculation, and reporting of graduation rates. On May 2, 2006, Maryland Governor Robert Ehrlich signed into law legislation introduced by Delegate Ana Sol Gutierrez and State Senator Gwendolyn Britt that makes Maryland the first state to codify the NGA Compact to improve graduation rate collection and calculation.

These efforts, and others, are detailed chronologically in the time line that begins below.

Despite these positive developments, it is critical that concerned persons and organizations continue to explain the importance of this process and remind decisionmakers of their commitments. Because efforts are inconsistent across states and because elected and appointed officials have been known to leave their promises on the table, various federal, state, and local decisionmakers might move forward haphazardly to implement short-term solutions. The nation's policymakers and educators can take the steps necessary to reap long-term benefits by building the infrastructure and capacity to accurately measure and report on the process of improving America's public education system so that it provides every student with an excellent education. The nation will not have met the goal of leaving no child behind until every student graduates from high school prepared for success in college, work, and life.

TIMELINE	Moving Forward: Key Players Take Action
	The combination of abysmally low graduation rates and a growing awareness of the inaccuracy of graduation data has caused influential individuals and organizations to launch initiatives to encourage and implement reform. The following chronology summarizes some of the most important actions related to graduation rate calculations.

Defining Graduation Rates

Only by knowing how well—or poorly—schools, districts, and states are performing can the country ensure that appropriate steps are taken to make the improvements needed so that every student receives an excellent education.

Graduation rates must be clear, accurate, and comparable across schools, districts, and states, and they must meet the needs of many stakeholders. Graduation rates help parents, communities, businesses, and media gain perspective on how effectively their schools are preparing students for success. Graduation rates should be used as important decision-making tools for educators and policymakers to use in targeting interventions and resources appropriately; they should also serve as the cornerstone of an accountability system that ensures that all students—particularly at-risk students—are not falling between (or being pushed through) the cracks of the high school system and are graduating with the necessary skills for work and college.

For the purpose of evaluating the success of our education system, the graduation rate question is very specific: *What percentage of students graduate from public high schools on time with a regular high school diploma?* It seems reasonable to expect that schools, districts, and states should be able to provide this information for all students in the aggregate and by subgroups of students: economically disadvantaged students, students from major racial and ethnic groups, students with disabilities, and students with limited English proficiency (LEP).

> **GED Recipients Are Not High School Graduates**
>
> While it is commendable of high school dropouts to pursue a General Education Development (GED) certificate, GED and other alternative certificate recipients should not count for the purposes of educational accountability as graduates of the public school system. GED and other alternative certificate recipients did not complete public schooling, the requirements for a GED certificate are significantly lower than those to receive a high school diploma, and a person may retake each of the five component tests as many times as necessary to pass. Furthermore, GED recipients have life outcomes more like those of high school dropouts than those of graduates. By definition, GED recipients have dropped out of school; the system has in some way failed them, and schools should not receive "credit" as if they had succeeded in educating and graduating these students.[7]
>
> Counting GED recipients as graduates distorts the public understanding of graduation rates and makes it more difficult to discern the quality of the nation's high schools. Therefore, completion rates (like the 86.5% rate derived from the Current Population Survey) that include as completers those students who receive alternative credentials or equivalencies such as the GED should not be used for accountability purposes, nor should they be communicated as graduation rates.

The graduation rate should represent the number of students who graduated, as a percentage of those who should have graduated. Unfortunately, it is not that straightforward. Graduation rates calculated at the school, district, and state levels must account for students who leave that particular system (e.g., students who die, transfer, or enroll in General Educational Development, or GED, programs) and students who have been identified as needing extra time to graduate, according to an individualized plan (e.g., some LEP students or those with disabilities).

Multiple Pathways through High School

HIGH SCHOOL STUDENT

DROPOUT → STAY-IN

STAY-OUT ← RETURNEE

DROP-IN ← CONTINUING STUDENT

NON-COMPLETER → COMPLETER

NO HIGH SCHOOL CREDENTIAL | EQUIVALENCY | ALTERNATIVE CREDENTIAL | REGULAR DIPLOMA

HIGH SCHOOL CREDENTIALS

Adopted from Swanson, 2004.
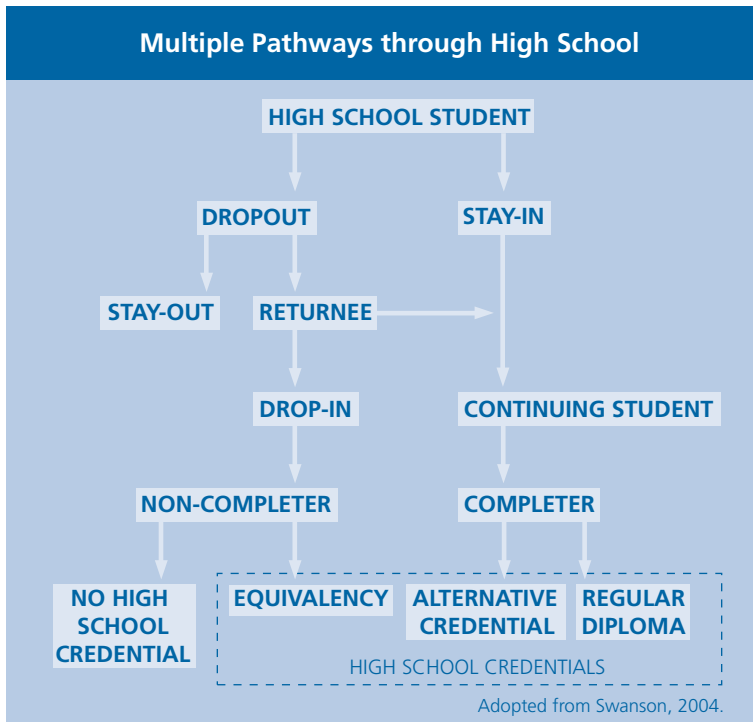
The best way to obtain this information would be to follow individual students through—and out of—the education system to determine actual graduation rates. However, most states do not currently have the capacity to follow individual students and make the distinctions necessary to calculate actual graduation rates.

First, high school graduation rates are complicated to measure and report accurately, because students do not all take the same road to a diploma—they take multiple and interconnected paths through high school (as illustrated in the figure above). The increasing number of options—including distance learning, dual enrollment, and early college—further complicate these routes, because they affect the number of years it takes to complete high school.

Second, states do not currently have data systems in place to account for the educational outcomes of individual students. These data systems would include an individual student identifier and the capacity to track every student over time, across schools and districts. Building such systems and training personnel to use them and analyze the data accurately will require significant leadership, time, and funding. (See page 12 for more details on statewide data systems.)

To calculate graduation rates, most schools, districts, states, and federal agencies have had to estimate the rates with the data available. Most often this data includes enrollment figures, diploma

TIMELINE	1980s (continued)
	These experts recognized that a problem existed with the source data and methodologies, but little to no action was taken for over a decade. Instead, national reporting of graduation rates continued to rely on the Census Bureau's Current Population Survey and state-reported dropout information. Over the years, variations of these flawed rates appeared, complicating the communication of accurate graduation rates. Using these sources, the national graduation rate was reported to hover above 80%. The U.S. Department of Education cited a "fairly stable" national dropout rate over the past decade of approximately 10%[2]—these statistics were based on an unreliable source: self-reports from dropouts.

counts, and numbers of students who have informed officials that they have dropped out. Dropout data is especially unreliable. In producing graduation rates, there are numerous ways to define a graduate, identify the group of students to be studied (the cohort), and take into account special populations. Each choice greatly affects the result of the graduation rate calculation.

In the plainest terms, a graduation rate calculation might look like this:

$$\text{Graduation rate} = \frac{\text{Graduates (X number of students who have graduated with a regular diploma in a certain year)}}{\text{Cohort (Y number of students who should have received a regular diploma in that year)}}$$

However, consider just a few of the nuances:

- Who is counted as a graduate (the numerator in the calculation)? Options include recipients of regular diplomas, alternative credentials, GEDs, and certificates of attendance.

- Who is counted in the cohort (the denominator)? Some commonly used options are 12th graders, 9th graders 4 years earlier, persons aged 16–24 years, and those aged 18–24 years.

- How are certain populations of students accounted for in the numerator and the denominator (e.g., students who transfer into or out of a school; special education or LEP students whose individual plans give them extra years to graduate; students who repeat a grade; other over-age students who have not graduated but are still in the system; students who enroll in alternative programs; home-schooled students; students who have died or are in prison; and students otherwise discharged from the system)?

Considering the many options and complicating factors, it is no wonder that multiple measures are used and different rates reported. One catalog of measures currently in use by federal governmental agencies and state education agencies to measure high school graduation, completion, and dropout rates describes 70 separate indicators.[ix] Given the complexities of calculating and reporting accurate graduation rates, it is not surprising that in communicating graduation, completion, and dropout information, data is commonly misunderstood, misused, and incorrectly described. Casual use of the various statistics (usually communicated in shorthand) is often misrepresentative of the methodology behind, the meaning of, and the interchangeability of these numbers.

Graduation Rates from the Civil Rights Perspective

Issues related to the consideration of special populations are especially important from a civil rights perspective. The achievement and attainment gaps between white and minority students are well documented. Even so, black and Latino students are disproportionately more likely to be excluded from graduation calculations because of their overrepresentation in special education programs, GED programs, the juvenile justice system, incarcerated populations, and other subgroups or "leaver" groups for which there is often little or incomplete data and no subgroup accountability.

2001–present

Independent studies reveal unacceptably low graduation rates. Researchers from a wide range of independent organizations have challenged the use of survey data and dropout-based methodologies to calculate graduation rates. These researchers use a variety of formulas and produce national average graduation rates near 70%, and near 50% for minorities. The publication of these indicators opened the nation's eyes to a "silent epidemic" of dropouts.

The Need for Common, Accurate Graduation Rates

For years, the U.S. Census Bureau and the U.S. Department of Education reported "fairly steady" high school completion rates as high as 86.5% and dropout rates as low as 5%.[x] But in recent years, a number of respected researchers from a wide range of independent organizations—the Manhattan Institute for Policy Research, the Civil Rights Project at Harvard University, the Urban Institute, and Johns Hopkins University—have challenged the appropriateness of the data and the methodologies used to calculate these rates. These researchers use a variety of formulas and produce far more disturbing numbers: a national average on-time graduation rate with a regular diploma near 70%, and near 50% for minorities.

There are many reasons for the discrepancies. Despite the often misleading use of statistics in the media and in reports, the census numbers (categorized as population-based indicators) and the independent rates (categorized as performance-based indicators) have very different purposes and definitions and are derived from different methodologies based on very different data sources.

The source of the **population-based indicators** is the Current Population Survey (CPS)—a survey of households conducted by the Census Bureau for the Bureau of Labor Statistics. A question on the CPS asks people whether they, or other adults in their household, have a high school diploma or its equivalent. This kind of secondhand and self-reporting is vulnerable to error, as many people may not discern the difference among a high school diploma, certificate of attendance, GED, or other completion certificate, and because people may not wish to identify themselves as dropouts. The CPS, like any survey, inevitably involves error. Additionally, the CPS does not collect data about active duty military personnel or institutionalized persons and has difficulty surveying people who are not attached to households, all of whom are more likely to be dropouts.

Another source of national graduation statistics is the National Educational Longitudinal Survey (NELS), a nationally representative sample of eighth graders who were first surveyed in the spring of 1988 and have been surveyed regularly over time. CPS and NELS, like all surveys, are vulnerable to attrition in the sample—dropouts, highly mobile students, and others who are difficult to follow—which contributes to inflated graduation rates.

Such surveys are useful for the purposes for which they were designed; the CPS survey is designed to ascertain the general educational attainment of the adult population, and NELS was designed to follow a particular cohort over time. Neither can be legitimately used to answer the very specific question necessary to evaluate the educational success of individual schools, districts, and states: *What percentage of students graduate from public high schools on time with a regular high school diploma?*

In contrast, **performance-based indicators** are designed to estimate whether students passing through the school system have received a regular high school diploma on time. These indicators are more easily associated with various institutions: the school, the district, and the state. The graduation rates are based on easy-to-tally enrollment figures available from the Department's Common Core of Data (CCD) database and diploma counts; they make various adjustments to account for population changes, transfers, and repeaters. Not only are schools good at taking attendance, but enrollment rates are the basis for many funding streams from the state and federal governments, creating an incentive for schools to keep accurate records and for the government to verify counts. Diploma counts are easy to verify because schools know how many diplomas they've ordered and distributed, and diplomas can be fairly easily attributed to a certain school, district, or state. While the adjusted estimates based on enrollment data and diploma counts are not perfect, they are more appropriate than household and other surveys for reporting high school graduation rates at the school, district, and state levels for educational accountability.

> **For More Information on Graduation Rate Calculations…**
>
> Appendix 1 provides a user's guide to common graduation rate indicators, including the strengths and weaknesses of each. Using these indicators, many different rates can be produced for just one school, one district, or one state. Not all of the indicators are equally accurate or useful in evaluating the education system's success in educating students. Appendix 2 provides a state-by-state comparison of graduation rates as calculated by states, federal agencies, and independent researchers.

Despite the range of ideological perspectives and purposes from which the independent researchers approached their analyses, they reached similar conclusions. The publication of these indicators (and subsequent work by others to highlight the discrepancy between the independent findings and rates reported by federal and state agencies) has opened the nation's eyes to the silent dropout epidemic.

The recent debate over graduation rate methodology has drawn attention to high school graduation rates. Education researchers, including those cited in this report, acknowledge the need for better data—particularly student-level data at the school, district, and state levels—to produce actual graduation rates. It is important that the public conversation about graduation rates not get lost in a technical discussion about methodologies. Instead, efforts should focus on building the data systems necessary to produce accurate graduation rates, which should end the debate.

September 2004

NGA launches high school initiative. As the 2005 chairman of the National Governors Association (NGA), Virginia Governor Mark Warner launched the nation's governors on a year-long initiative—Redesigning the American High School—dedicated to addressing the urgent need to improve high schools. Improving graduation rates (and their calculation) was a cornerstone of the initiative.

The Role of Data in Calculating Accurate Graduation Rates

Misrepresentation of graduation rates has been widespread, in part because most states have under-developed data systems that do not have the ability to capture student-level data. Problems vary from state to state but may include a lack of common data definitions; incompatibility with other systems, such as those used at the district and school level; and varying or inconsistent data collection procedures. Moreover, many current graduation rate indicators rely on assessing a group of students at a fixed point in time—a cross-sectional analysis, sometimes referred to as a "snapshot." This type of analysis does not follow individual students over time and does not determine the actual outcome for each student, so graduation rates can be artificially high when students who are highly mobile disappear from the picture. Students—especially low-performing students and those who present educators with challenges—can fall, or be pushed, through the cracks. By contrast, longitudinal data analyses follow individual students over time, allowing schools to be held responsible for each student. An individual student identifier system is the first step in developing statewide longitudinal data systems that offer the data necessary to calculate true graduation rates and otherwise improve policy and practice.

Educators, advocates, and policymakers have increasingly recognized that more (and better) data is necessary not just for improving graduation rate calculations but for improving practice and policy on many levels. As a result, legislators at the federal and state levels have introduced legislation to support and improve the development of longitudinal data systems with student-level information. A number of districts (including Fairfax County, Virginia; Guilford County, North Carolina; and Western Heights, Oklahoma) and states (including Florida, Tennessee, and Virginia) have made progress in implementing longitudinal data systems. Florida is considered a leader for its efforts in designing and using a statewide data system; its system allows students to be tracked from initial enrollment through the K–12 system, into postsecondary education and into employment.

In November 2005, 10 national education organizations launched the Data Quality Campaign (DQC), a national collaborative effort to encourage and support state policymakers in improving the quality, accessibility, and use of data in education. Specifically, the DQC supports state efforts to implement longitudinal data systems in every state by 2009. The founding organizations are Achieve, Inc., the Alliance for Excellent Education, the Council of Chief State School Officers, the Education Trust, the National Center for Educational Accountability, the National Center for Higher Education Management Systems, the National Governors Association Center for Best Practices, the Schools Interoperability Framework Association, Standard & Poor's School Evaluation Services, and the State Higher Education Executive Officers Association.

TIMELINE   **November 2004**

GCD task force releases report. The task force concluded that no single GCD indicator can serve all purposes; no calculation that allows exclusions will be entirely free of perverse incentives, but the use of multiple indicators can detect this behavior; uniformity across states in reporting GCD indicators is essential in the long run; and the major hurdles of data availability and quality can only be overcome with state-level student tracking systems.

The Power of Longitudinal Data

Longitudinal data systems that include student- and teacher-level data provide the most accurate and useful information to policymakers and practitioners interested in improving teaching, learning, and outcomes. These systems can keep track of every student—regardless of transfers among schools, districts, or even states; dropout and re-entrance; or admittance to a juvenile justice facility or alternative program—and calculate accurate graduation rates. They also can provide the data to answer an endless number of policy questions, including the following:[xii]

- What value is added by specific schools and programs to student achievement and outcomes?

- To what extent does free and reduced-price lunch enrollment drop off in high school, and how does that affect measures of a high school's poverty rate (and, thus, its eligibility for additional funding)?

- What percentage of students scored below proficient last year but met the state's proficiency standard this year?

- Which high schools are consistently high-performing?

- What percentage of students (and of disaggregated groups) is enrolling in and completing rigorous courses in high school?

- What achievement results (low literacy, poor math skills) are correlated with dropping out?

- What is the impact of individual teacher preparation programs on student achievement?

- What course-taking patterns or performance indicators predict a student's likelihood for success, need for remediation, or probability for failure in postsecondary endeavors?

What Is a Longitudinal Data System?

A longitudinal data system (LDS) is a data system that assigns each student an individual identifier and follows each student over time. An LDS is the only way to collect student-level data to calculate actual graduation rates that account for each student. Such student-level data is extremely powerful for educators and policymakers in evaluating student, school, teacher, and program performance, and for appropriately targeting interventions and support where they are most needed.

(continued) The task force recommended the use of an exclusion-adjusted cohort graduation indicator (EACGI—see Appendix 1 for details). It also recommended that NCES take the following actions:

- Move toward using this indicator in its own reports and studies.

- Urge states to do the same, especially in reporting high school graduation information for No Child Left Behind (NCLB).

- Work directly with states, and indirectly with districts and schools, to ensure that the required data is available and of high quality.

Statewide Longitudinal Data Systems

Every state needs a high-quality longitudinal data system that includes the data elements necessary to calculate true graduation rates, identify successful schools and best practices, and ensure account-ability for the success of every child. The DQC has identified 10 essential elements of state longitu-dinal data systems:[xiii]

1. A unique statewide student identifier.

2. Student-level enrollment, demographic, and program participation information.

3. The ability to match individual students' test records from year to year to measure academic growth.

4. Information on untested students.

5. A teacher-identifier system with the ability to match teachers to students.

6. Student-level transcript information, including information on courses completed and grades earned.

7. Student-level college readiness test scores.

8. Student-level dropout and graduation data.

9. The ability to match student records between the pre-K–12 and higher education systems.

10. A state data audit system to assess data quality, accuracy, and reliability.

Understanding Data Lingo

Interoperability is the ability of different software systems from different vendors to easily share information.

Portability is the ability to exchange student transcript information electronically across districts, among pre-K–12 and postsecondary institutions in a state, and across states.

Data architecture defines how data is coded, stored, managed, and used.

An August 2005 baseline survey conducted by the National Center for Educational Accountability for the DQC found that no state had all 10 elements, and only 16 states report having the 4 elements (1, 2, 4, and 10 above) necessary to calculate each school's graduation rate in accordance with the NGA Compact.[xiv]

In addition to the 10 elements, a set of fundamentals—privacy protection, data architecture, data warehousing, interoperability, portability, researcher access, and professional development regard-ing data use—has been identified by the DQC as critical to the design and employment of data systems to improve achievement and outcomes for every student in every state[xv] (see box to the left). These fundamental components of longitudinal data systems are important for state and local operations and reporting. They are also important nationally, to allow, for example, comparisons across states; transfer of data when students move from state to state (as was necessary during the exodus of students from the hurricane-ravaged Gulf Coast in 2005); and independent analyses of student achievement and outcomes.

TIMELINE	February 2005

Census Bureau releases latest results. The Census Bureau released its annual report on the educational attainment of the population, based on the results of the Current Population Survey (CPS). According to CPS, in 2004, 85.2% of adults 25 years or older reported that they were high school graduates—meaning they had received a high school diploma or its equiva-lent. The breakdown was as follows: non-Hispanic whites, 90%; blacks, 80.6%; and Hispanics, 58.4%.[3]

Longitudinal Data Systems Alone Are Not Sufficient

Gathering longitudinal data does not guarantee the accurate calculation of graduation rates. Like any calculation, graduation rates are only as good as their source data. To ensure that state education agencies receive high-quality (i.e., valid and reliable) data, states need a thorough data audit system that clearly communicates and enforces adherence to data definitions and data submission standards. Also, the persons responsible for collecting, analyzing, and reporting this data must be supported with training, ongoing professional development, and an organizational culture that values data quality.

As states develop the capacity to track individual student information across schools, districts, and states, problems resulting from unreliable data will be reduced. One such problem is sample attrition—the inability to count dropouts, highly mobile students, and others who are difficult to follow, which contributes to inflated graduation rates.

Privacy Concerns Related to Student Data Systems

Discussions about data systems have raised concerns about student privacy and about the Family Educational Rights and Privacy Act (FERPA). In addition to giving parents the right to inspect and challenge the contents of their children's education records, FERPA generally prohibits educational agencies and institutions that receive funds from the U.S. Department of Education from disclosing personally identifiable information in student records without written parental consent.

Consistent with the law, information from student records may be collected and disclosed by data systems in two circumstances:

1. If the information is not personally identifiable; for example, through the use of a unique student identifier with appropriate procedural and technical protections.
2. If disclosure comes within one or more of a list of permitted disclosures in the law; for example, in connection with program evaluations and studies.

The issue of how much latitude these provisions provide to achieve the full range of intended uses for longitudinal data systems, consistent with privacy concerns, is currently being examined.

The Role of Graduation Rates in Accountability Systems

In this era of educational accountability, schools and their leaders are increasingly judged by the public and policymakers. Graduation rates are an important indicator of school success and—like any good education data—can be used to make decisions about targeting resources and interventions to the students, teachers, and schools that need support. Because this information is so important and represents such high stakes for educators and students, it is critical that accountability practices be transparent and that the public be able to rely on graduation rates to be accurate and consistent.

If they are not designed correctly, accountability systems can provide "perverse incentives" at the end of the K–12 pipeline. Valid and reliable student assessments can provide information about students' mastery of skills and content that can help guide educators, but tests also identify low-performing students who can become what Mary Hatwood Futrell, dean of the Graduate School of Education and Human Development at George Washington University, has called the "predictable casualties" of high-stakes accountability. She said, "The expected result is that students who do not perform up to expectations will have to repeat the grade. The practical effect is that dropout rates will increase and fewer students will graduate."[xvi] Thus, a poorly designed accountability system may yield unexpected and unwanted consequences. In some cases, low-performing students—already suffering from low expectations from their educators, their parents, and themselves—may be considered "drags" on school performance measures and may actually be encouraged to leave school before their low scores affect public measures of school or district performance.

The combination of higher standards and accountability coupled with district policies to incentivize administrative performance (e.g., bonuses for raising test scores) has led some schools to give up on struggling students and to counsel or force them out of school before they graduate. In essence, these schools are sacrificing adolescents to maximize test scores and the perception of success. While most educators are certainly not guilty of these "pushout practices," they have been reported in several districts across the country.[xvii]

Exit Codes and Pushouts

As a student progresses through and out of the system, the state, district, and school categorize the student and attach an exit code to his or her student records. The category in which a student is placed and the exit code applied to him or her affect how the student is counted in the graduation rate. Because coding practices are determined by state and local policies, there is significant latitude in determining exit codes and startling variety in how students are coded from state to state. According to a taxonomy of state coding practices, the number of exit codes ranges from 3 in

Missouri and 4 in Connecticut to 51 in Louisiana and 53 in Virginia.[xviii] This means that Virginia, for example, has the potential of categorizing students exiting the system in 53 different ways, likely obscuring or complicating the simple calculation of how many students who enrolled in high school graduated with a regular diploma.

Texas: Moving in the Right Direction

A few years ago, the Houston School District was lauded as having very high graduation rates. But the so-called "Houston Miracle" became famously mired in controversy after a state audit discovered that at some schools, more than half the students classified as "discharged" should have been classified as dropouts.

How graduation rates were calculated for the class of 2004[8]

Texas's practices in defining the graduation rate are partly to blame for what expert Dan Losen of the Civil Rights Project at Harvard University has called the "miracle of misrepresentation." The state continues to boast an 84.6% graduation rate for the class of 2004, while independent estimates put the rate between 65 and 70%.

- Texas records 20 different graduation types, all counted as receiving regular diplomas.

- From the ninth-grade cohort, Texas subtracts students in 29 "leaver" categories, including separate categories for students who are enrolled in GED programs, incarcerated, and participating in court-ordered alternative programs; students who transfer or intend to transfer (without confirmation); unknown and unlisted leavers; and students who leave under administrative withdrawal. None of these students are considered dropouts; they are just not counted. For the purpose of calculating high school graduation rates, these students have simply ceased to exist.

  Step 1. Identify the cohort for the class of 2004: 348,039 entering ninth-grade students.

  Step 2. Adjust the cohort: 348,039 students minus 60,527 leavers plus 16,601 students with data errors equals the **adjusted cohort for the class of 2004: 270,911 students (the denominator)**.

  Step 3. Identify the graduates for the class of 2004: 270,911 minus 10,507 dropouts plus 19,826 students staying in school plus 11,445 GED recipients equals t**otal graduates for the class of 2004: 229,133 students (the numerator)**.

  Step 4. Divide graduates by the adjusted cohort: **84.6% graduation rate.**

Efforts to improve graduation rate calculations

While Texas has been criticized for its graduation rate calculations and reporting practices, the state has taken steps necessary to improve data collection. In fact, according to the DQC, Texas's statewide data system includes nine of the ten essential elements of a longitudinal data system, including the four elements identified by the DQC as necessary for calculating graduation rates according to the NGA Compact.[9]

Also, according to local media, Texas has recently decided to stop counting GED recipients as graduates. In calculating graduation and dropout rates for the class of 2006, students previously counted as "completers"—students who enroll in a GED program, or students who fail to the pass the state's exit exam, also known as the TAKS—will now count as dropouts.[10]

July 2005

Department of Education announces it will provide an interim measure. As the governors prepared to sign the NGA Compact, the Department announced that it would begin reporting, alongside states' currently reported graduation rates under NCLB, an interim estimator known as the averaged freshman graduation rate (AFGR). (See Appendix 1 for details.) The Department announced that it would calculate the AFGR for all states to "complement the long-term recommendation [the governors] have put forth."[5]

Several states, notably New York and Texas, have been criticized for practices that use a variety of discharge codes to conceal the number of students dropping out of school. For the class of 2004, the Texas graduation rate calculation (among other flaws) removed 77,128 students (22%) from the cohort, yet identified only 10,507 students as dropouts.[xix] This example (summarized in the box to the right) illustrates how discretion in coding students and counting and calculating graduation rates can produce questionably high results that clearly do not account for every student.

Accountability systems should be designed so that schools and districts are responsible not just for raising test scores but for raising graduation rates for all students, in the aggregate and by subgroup, so that no student (and his or her future) is sacrificed for the short-term perception of school success. Accountability systems and graduation rates must simultaneously provide policymakers and the public with useful data and must support educators and schools in doing what is educationally sound for individual students.

TIMELINE **July 2005 (continued)**

Honor States Grant Program launched. The NGA Center for Best Practices launched its Honor States Grant Program—a $23.6 million, governor-led initiative funded by the Bill & Melinda Gates Foundation to improve high school and college-ready graduation rates. Ten states (Arkansas, Delaware, Indiana, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Rhode Island, and Virginia) received Phase 1 grants to implement a number of reforms, including implementing or enhancing a K–16 data collection system to track the performance of individual students throughout their educational careers.[6]

Current Law—Graduation Rates and the No Child Left Behind Act

The No Child Left Behind Act (NCLB) is the most recent authorization of the Elementary and Secondary Education Act, the principal federal law affecting general K–12 education. In exchange for federal funding, NCLB holds states and schools accountable for making progress toward the goal of 100% of students being proficient in reading and math by 2013–14, according to state standards and assessments.

Under NCLB, each state was required to develop a measure to annually assess each school's and school district's progress in meeting those state-set academic standards. This measure, known as adequate yearly progress (AYP), is part of each state's accountability plan, which was submitted to and approved by the U.S. Department of Education. Schools and districts face consequences over time for not meeting AYP. While these plans vary from state to state and continue to evolve, certain information must be included in each state's plan.

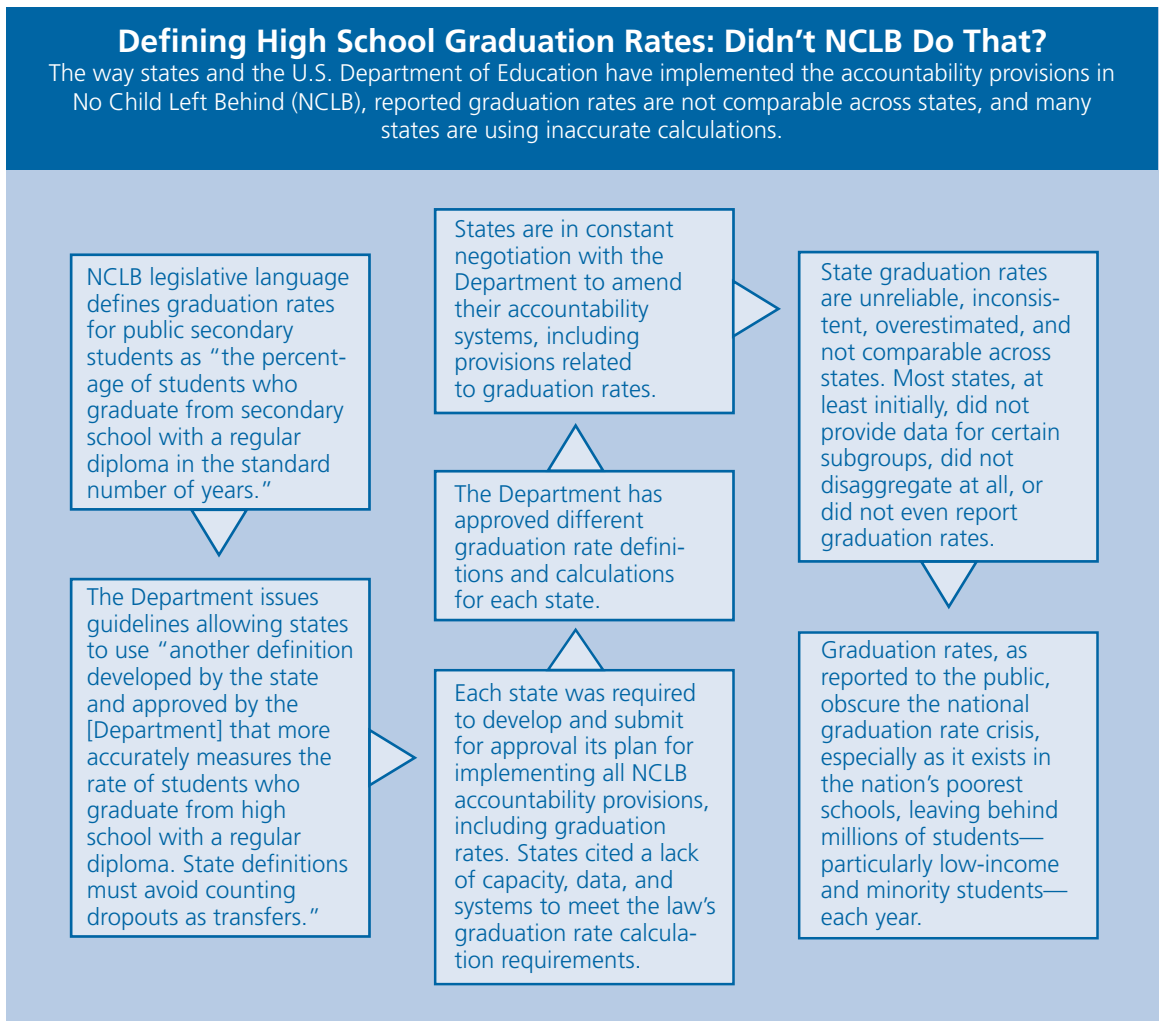### The No Child Left Behind Act—Defining Graduation Rates

For high schools, AYP is determined primarily by (1) performance on a state test that is administered sometime between grades 10 and 12, and (2) the graduation rate. On the surface, NCLB's definition and requirements related to graduation rates seem rigorous enough to produce meaningful and comparable rates that would be useful to parents, educators, the public, and policymakers. Unfortunately, implementation has been a failure owing to a lack of clarity, leadership, and enforcement from the Department of Education and a dearth of capacity and initiative from most states.[xx] The result: mixed messages and state-developed, federally approved graduation rate calculations that fail to account for large numbers of students who were enrolled but never graduated from high school with a regular diploma. The figure on the next page outlines the flawed implementation of the graduation rates under NCLB.

In the first few years of NCLB implementation, states cited a lack of capacity, data, and systems to meet the law's graduation rate calculation requirements. Unfortunately, rather than approving alternative state definitions that "more accurately measure the rate of students who graduate from high school with a regular diploma," as required by the legislation, the Department approved a range of methods clearly offering less accuracy.

Approved rates included dropout rates (based on highly unreliable data that often depends solely on the student officially informing the school that he or she has dropped out); grade-to-grade promotion ratios (which don't take into account students who are promoted from grade to grade but do not receive regular diplomas); and even a rate that measures high school graduation on the basis of

November 2005

Department of Education releases the first AFGR results. Using the AFGR method, the Department calculated a national graduation rate for 2002–03 of 73.9%, ranging from a low of 59.6% in the District of Columbia to a high of 87.0% in New Jersey. These numbers, based on enrollment data, are much different than the rates the Department had been reporting for years and much closer to analyses conducted by independent researchers. (See Appendix 2 for comparisons.)

Defining High School Graduation Rates: Didn't NCLB Do That?

The way states and the U.S. Department of Education have implemented the accountability provisions in No Child Left Behind (NCLB), reported graduation rates are not comparable across states, and many states are using inaccurate calculations.

NCLB legislative language defines graduation rates for public secondary students as "the percentage of students who graduate from secondary school with a regular diploma in the standard number of years."

The Department issues guidelines allowing states to use "another definition developed by the state and approved by the [Department] that more accurately measures the rate of students who graduate from high school with a regular diploma. State definitions must avoid counting dropouts as transfers."

Each state was required to develop and submit for approval its plan for implementing all NCLB accountability provisions, including graduation rates. States cited a lack of capacity, data, and systems to meet the law's graduation rate calculation requirements.

The Department has approved different graduation rate definitions and calculations for each state.

States are in constant negotiation with the Department to amend their accountability systems, including provisions related to graduation rates.

State graduation rates are unreliable, inconsistent, overestimated, and not comparable across states. Most states, at least initially, did not provide data for certain subgroups, did not disaggregate at all, or did not even report graduation rates.

Graduation rates, as reported to the public, obscure the national graduation rate crisis, especially as it exists in the nation's poorest schools, leaving behind millions of students—particularly low-income and minority students—each year.

12th-grade enrollment only (which doesn't capture the thousands of students who drop out before entering 12th-grade). Even more than 4 years after the law was enacted, states are still using a variety of flawed methods and, in some cases, different methods for different subgroups of students, depending on the availability of data in that state.

Over time, states have submitted for approval various changes to their graduation rate calculation methods; in 2005 alone, Georgia, Iowa, Nebraska, New Jersey, New Mexico, New York, South Carolina, South Dakota, Virginia, and Washington received approval for changing the way they calculate graduation rates.[xxi] Some of these changes may have been made because they are more educationally sound for students, but some may simply be helping more schools and districts appear to be achieving their annual goals.

Regardless of intentions and no matter how positive the outcome in terms of more accurate results, in states that have changed the way they calculate graduation rates, figures cannot be compared from year to year.

Further inconsistency has been created as states have requested permission to count as graduates certain students who have been determined through individual plans to need more than 4 years to graduate: students with disabilities (consistent with their Individualized Education Plans); English-language learners (consistent with a local plan); and students in dual enrollment and "early college" programs who graduate in 5 years with both a high school diploma and an associate's degree. Because these policy decisions are made by the Department on a state-by-state basis as states request changes, there is considerable inconsistency across states in how they account for these students. [xxii]

According to recent reviews by *Education Week* and the U.S. Government Accountability Office (GAO),[xxiii] currently approved state graduation rate methods for NCLB purposes fall predominately into two categories: the departure classification method (or "leaver" method) and the cohort method.

Method	According to recent reviews of Department-approved state accountability plans:[11]
Departure classification method: The "departure classification definition" or "leaver rate" developed by the National Center for Education Statistics (NCES) measures the number of completers divided by the total number of completers plus dropouts. This method, therefore, relies heavily on a count of the number of students who are officially reported as having dropped out rather than a count of the number of enrolled students. By measuring in this way, states inflate their graduation rate figures, because collected dropout data excludes all the students who leave the educational system without officially notifying the school of their departure.	For 2005–06 graduation rate calculations, thirty-three states and the District of Columbia will use a version of the departure classification (or leaver) method: Alabama, Alaska, California, Connecticut, Delaware, Georgia, Idaho, Iowa, Kansas, Kentucky, Maine, Maryland, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.[12]
Cohort method: There are various cohort method calculations that either follow a group of students over time (from when they entered high school until they left) or approximate such a cohort using enrollment data. Experts at the Manhattan Institute for Policy Research, the Urban Institute, the Civil Rights Project at Harvard University, and Johns Hopkins University (some of whom were part of the Department-commissioned task force on graduation, completion, and dropout rates) all consider cohort methods more accurate than other methods. Appendix 1 provides a user's guide to common graduation rate indicators.	For 2005–06 graduation rate calculations, 10 states will use a cohort method: Arizona, Colorado, Florida, Hawaii, Illinois, Mississippi, New York, South Carolina, Texas, and Washington. Many more states have indicated their intentions to move toward a cohort rate over time.[13] In fact, all 50 governors have signed the NGA Compact, committing their states to take steps to implement a cohort-based rate.

The Department also missed an opportunity to leverage a long-term solution. Instead of merely approving weak graduation rates indefinitely, the Department could have approved interim rates and required states to develop and implement a plan to build the data systems necessary to calculate a more accurate graduation rate within a certain number of years.

The No Child Left Behind Act—Accountability For Improving Graduation Rates

AYP is composed of state-set annual measurable objectives for continuous and substantial improvement for all students. To ensure that all students are meeting high performance goals, schools must increase scores for each of the following subgroups of students: economically disadvantaged students, students from major racial and ethnic groups, students with disabilities, and LEP students.

Congress recognized that this system could create perverse incentives; that is, the easiest way to increase test scores to meet progress goals is to get rid of low-performing students or obscure the scores of subgroups of students with academic challenges. To ensure that AYP "shall not be met or exceeded based solely on increased dropouts,"[xxiv] as noted in the Congressional Committee Report accompanying the law, the legislation was intended to require high schools to also meet state-set graduation goals to make AYP.

However, accountability for graduation rates—as written in law and as implemented by the Department and the states—is considerably weaker and less meaningful than it is for test scores. Further, the vast majority of states have not set high goals when the federal government has not required them to do so.

Surviving Potential Fallout: Washington State Revises Graduation Rates

When Washington State officials realized that the state's calculation was producing graduation rates significantly higher than those calculated by independent researchers, they developed a new formula to use as an interim measure while they build the state's longitudinal data system. The result was sobering: the graduation rate appeared to drop from 79% in 2001–02 to 66% in 2002–03—very close to independent estimates for the state. State officials were willing to risk a public backlash (one headline read: "Revising rates for graduation stirs conflict")[14] by reporting the decline in order to report the more accurate information. "If we don't know that true picture, then we're deluding ourselves," one state official said.[15] In 2005, the state took another step to raise expectations for students, altering its annual No Child Left Behind graduation rate target to make it more rigorous.

In addition to the definition problems discussed earlier, there are three general flaws in graduation rate accountability:

1. NCLB does not set an ultimate graduation rate goal.

While NCLB sets a goal of 100% proficiency in math and reading for all students by 2013–14, there is no comparable NCLB requirement for graduation rates, and few states have elected to set meaningful graduation rate

goals. As of June 2005, 34 states had ultimate graduation rate goals lower than their 2002–03 reported rates. As of June 2006, two states had no final graduation rate goals for 2013–14. The rest of the states set goals ranging from 50% in Nevada to 100% in California, New Mexico, Ohio, and Tennessee.[xxv] Interestingly, 31 states set the same graduation goal for 2005–06 and for 2013–14, including Nevada, the state with the lowest goal in both categories.

2. States are not required to set—and schools are not required to meet—meaningful progress benchmarks (annual measurable objectives) toward graduation rate goals.

Ensuring a Meaningful Diploma: Why We Still Can't Compare from State to State

Even with consistent definitions and calculations across states, graduation rates will not be truly comparable, because standards and high school graduation requirements differ from state to state. A number of efforts are under way at the state and national levels to increase the rigor of the high school curriculum and ensure that all students receive a meaningful diploma that represents mastery of the core set of skills and knowledge required by employers and colleges.

Most notable in this regard is the American Diploma Project—a network of 22 states that have committed to an action plan designed to significantly increase the rigor of their high school standards, assessments, and curriculua to better align them with the demands of postsecondary education and work. Other efforts include the National Governors Association Honor States program, the work of the Partnership for 21st Century Skills, the establishment of state P–16 or P–20 councils, and reemerging discussions of national standards. These efforts are critical to moving the nation toward a more meaningful comparison of graduation rates across states.

In most states, schools do not have to increase their graduation rates to make AYP. According to the Education Commission of the States, states have set graduation rate goals for 2005–06 ranging from 50% in Nevada to 95% in Indiana.[xxvi] Only in a handful of states does failure to meet this goal lead to a failure to make AYP—most states actually allow schools and districts not meeting those targets to still make AYP if they meet a far less meaningful minimum requirement. In 33 states, this minimum requirement is any improvement over the previous year; for other states it is a 0.1% or 1% improvement over the previous year.[xxvii]

3. Graduation rates are not required to be disaggregated by subgroup, and accountability provisions apply only to the aggregate graduation rate.

While NCLB requires states to report disaggregated graduation rates, most states received waivers on this requirement because they did not have the capacity to collect the data. In what has been called a "controversial decision,"[xxviii] the Department decided that graduation rates did not have to be disaggregated by minority subgroups for accountability purposes except for the "safe harbor" provision, an alternative formula for meeting AYP for low-performing schools. Together, these two

February 2006

By the Numbers: A National Education Data Summit held. The summit convened 31 state teams to advance efforts to collect, analyze, and report graduation rate data in accordance with the NGA Graduation Rate Compact. The summit was cohosted by the NGA Center for Best Practices, the U.S. Department of Education, and the Florida Department of Education, in partnership with the Data Quality Campaign, the Bill & Melinda Gates Foundation, the Lumina Foundation for Education, the Alliance for Excellent Education, and Florida Channel WFSU.

Doing What NCLB Didn't: Efforts to Provide Common, Accurate Graduation Rates

As implemented, No Child Left Behind (NCLB) does not require states to use common, accurate graduation rates, and the Department of Education did not leverage the law to hold states accountable for developing their capacity to do so over time. However, recent efforts have moved the nation in this direction.

As the 2005 chairman of the National Governors Association (NGA), Virginia Governor Mark Warner led the nation's governors on a year-long initiative—Redesigning the American High School—dedicated to addressing the urgent need to improve high schools. NGA embarked on a series of activities, including convening town hall meetings; developing a state action agenda for systemic high school reform; and, in collaboration with Achieve, Inc., convening the governors for a National High School Summit. As a result of these efforts, by December 2005, all 50 governors had signed the NGA's Compact on State High School Graduation Data, agreeing to build their states' capacity to collect and report accurate graduation data and to use a common graduation rate definition. Essentially, the compact does what the Department of Education failed to do in its implementation of NCLB— commit states to building the capacity to calculate accurate, consistent graduation rates.

NGA Compact Measure: Adjusted Cohort Graduation Rate (ACGR)

Calculation

Adjusted cohort graduation rate (ACGR) = # of on-time regular diploma recipients in a given year divided by # of first-time entering ninth graders 4 years earlier

- The denominator can be adjusted for transfers in and out.
- Data systems will ideally track individual students with a longitudinal student-unit-record data system.
- Special education students and recent immigrants with limited English proficiency can be assigned to different cohorts to allow them more time to graduate.

Data

In addition to committing to use this calculation, the governors agreed to lead efforts to improve state data collection, reporting, and analysis; to link data systems across the entire education continuum (P–16); to implement additional indicators that provide richer information and understanding about outcomes for students and how well the system is serving them; and to report annual progress on the improvement of their state high school graduation, completion, and dropout rate data.

Efforts are under way to implement the compact. Working through the National Hispanic Caucus of State Legislators and the National Black Caucus of State Legislators, individual state legislators around the country have introduced legislation in their respective states to codify the NGA Compact to improve data collection and graduation rate calculations. In 2006, legislation introduced by Maryland Delegate Ana Sol Gutierrez and State Senator Gwendolyn Britt was signed into law.

The Department of Education also recognized the growing concern regarding the quality and comparability of state-reported graduation rates. On July 25, 2005, the Department announced that it would begin report-ing, alongside states' currently reported graduation rates under NCLB, an interim estimator known as the averaged freshman graduation rate (AFGR). (See Appendix 1 for details.) Announcing the new policy, Deputy Secretary of Education Ray Simon praised the NGA's effort to move states toward common, accurate defini-tions through the NGA Compact but noted that many states don't have the data collection capacity to pro-vide the information outlined in the compact. While states work "toward the ultimate goal of gaining such capacity," Simon said, the Department will calculate the AFGR for all states to "complement the long-term recommendation [the governors] have put forth."[16]

Department of Education Interim Measure: Averaged Freshman Graduation Rate (AFGR)

Calculation

Averaged freshman graduation rate (AFGR) = # of on-time regular diploma recipients in a given year divided by average of # of 8th graders enrolled 5 years earlier, 9th graders enrolled 4 years earlier, and 10th graders enrolled 3 years earlier

Data

The AFGR is compiled from existing data submitted through the Common Core of Data (CCD), a program of the Department's National Center for Education Statistics. The CCD is a comprehensive, annually updated, national statistical database of information concerning all public elementary and secondary schools and local education agencies.

decisions provide little incentive for states to report disaggregated rates. As the Civil Rights Project at Harvard University has noted, "In essence, by approving these permissive plans while holding firm on test-driven accountability, the Department has effectively allowed the incentives to push out low-achieving minority students to continue unchecked."[xxix]

In too many schools across the country, adults set low expectations and fail to provide the interventions necessary for poor, minority, or otherwise disadvantaged students to succeed. Unfortunately, many of these students drop out or otherwise fall victim to such low expectations. Meanwhile, schools, districts, and states that risk negative exposure for low test scores are allowed or encouraged to circumvent the intent of the system by setting policies and creating systems that conceal these injustices from the public. Accountability systems should be carefully designed to change this incentive.

February 2006 (continued)

Additional funding requested for data systems. President Bush requested, as part of his FY 2007 budget proposal, a $30 million increase for the Data Systems Grants. This was one of just a few education programs for which the president requested a funding increase.

Where Do We Go from Here? Policy Recommendations

Without common and consistent definitions of what is to be measured, adherence to set reporting standards, and sophisticated data systems that keep track of each student as he or she enters, exits, and moves through the system, it has been difficult to have a meaningful conversation about improving graduation rates.

But given the growing national consensus on the need to improve outcomes for students, it is time to move from a public discourse centered on identifying the problems with calculating and reporting accurate graduation rates to one that focuses on a national solution to raise graduation rates.

The following policy recommendations are designed to leverage, incentivize, support, and accelerate action at the local, state, and federal levels.

1. Build and implement statewide longitudinal data systems

Efforts are underway in a number of states to build and implement effective, well-designed longitudinal data systems. The Data Quality Campaign (DQC) has identified specific actions state education agencies can take to support and accelerate these processes.[xxx] Schools, districts, states, and stakeholders increasingly claim that in the absence of (or during the development of) longitudinal data systems, it is impossible to answer a number of critical questions that drive key decisions.

Instead of using the lack of capacity as an excuse to avoid providing answers, there must be a concerted federal and state effort to accelerate the investment in building state capacity, infrastructure, and expertise to collect, report, and use accurate data in support of improved outcomes for every student.

• As states continue their efforts to build statewide longitudinal data systems, state policymakers should include the 10 essential elements and seven design fundamentals outlined by the DQC and consider the specific state education agency actions associated with each element.

• Congress should increase funding for the Institute of Education Sciences' (IES) statewide data system program, so that this crucial federal investment in building state capacity can expand beyond the 14 states currently funded. (See timeline on page 19). For fiscal year (FY) 2007, Congress should fund this program at the president's requested level—$54.6 million—which would mark a $30 million increase over the $24.6 million appropriated for FY 2006.

TIMELINE **March 2006**

Improving Educational Outcomes: Why Longitudinal Data Systems Are Necessary symposium held. A data symposium cosponsored by the Alliance for Excellent Education and the DQC convened educators, researchers, advocates, and policymakers. Participants agreed on the importance and need for longitudinal data systems to close the student achievement gap.

2. Collect and report necessary data for independent estimates

As states move toward implementing the statewide longitudinal data systems necessary to track individual students and report real graduation rates, educators, policymakers, and the public will be relying on interim estimated graduation rates. As the Manhattan Institute's Jay Greene recently noted, "To ensure the proper implementation of both the immediate and long-term reforms, we will need independent estimates to verify the official statistics. We would not have recognized the need for improvement of official graduation statistics had it not been for independent estimates; and we will not know that they have, in fact, improved unless we continue to produce those independent estimates.[xxxi]

In the absence of individual student data, graduation rates must be estimated. To do so at the school, district, state, and national levels requires that the following school-level component data be reported annually: ninth-grade enrollment; the number of students repeating ninth grade; the number of students receiving a regular diploma; and the verified number of students transferring into and out of the school, by grade. Except for enrollment, this data is not currently available to the public. Without this component information, researchers have been forced to estimate transfer rates and have been limited to calculating graduation rates at the state level and for selected districts rather than for every school.

The Department should take immediate steps to make necessary information available to the public; in fact, it already has the mechanism in place to do so. The National Center for Education Statistics' Common Core of Data (CCD) is an annual national data collection from all public elementary and secondary schools and school districts. The CCD contains information designed to be comparable across all states.

- The Department should immediately add the following to the list of required school-level data collected through the CCD: the number of diploma recipients; the number of 9th-grade repeaters; and the number of 9th, 10th, 11th, and 12th graders who have been verified as transferring in or transferring out. To make the data available to the general public (which is not likely to access CCD data on a regular basis), it could be included as part of the state's consolidated performance report, which is submitted annually to the Department, and on state and local report cards. These simple steps would allow anyone to estimate graduation rates for any high school in the nation. Making the data available could help shift the focus from estimating graduation rates to improving graduation rates.

March 2006

Debate over methodology raises awareness of graduation rates. In March, Lawrence Mishel, a labor market economist with the Economic Policy Institute, initiated a public debate over graduation rate methodologies and data sources with an op-ed in *Education Week* criticizing the methods of independent researchers. The op-ed was followed by the release of a paper by Mishel and his colleague Joydeep Roy. This analysis uses methods designed to estimate the educational attainment of the population or to follow one cohort of students, while other methodologies aim to assess the success of public schools in graduating students with a regular diploma in 4 years as a tool for educational accountability.

3. Immediately adopt more accurate graduation rate indicators

All 50 governors have committed their states to implementing the graduation rate described in the NGA Graduation Rate Compact. While this marks an important commitment to common, accurate measures, no state has fully implemented the provisions of the compact, and only one state (Maryland) has codified it. (See timeline on page 26.)

Much work remains to be done at the state level to put into practice the commitments articulated in the compact. Efforts to build data systems and improve graduation rate calculations are at different stages in different states: most states need much more comprehensive and sophisticated data collection systems; state officials must work out technical issues; and any changes related to NCLB implementation must be submitted to the Department for approval. Since the compact is nonbinding—36 of the governors who signed it are either up for reelection in November 2006 or not running for another term—it is critical that this commitment be institutionalized.

• States that currently have longitudinal data systems and the necessary data should immediately implement the graduation rate calculation agreed upon in the NGA Compact; this rate should be used for NCLB purposes.

States that lack a longitudinal data system with individual student identifiers should not use this as an excuse for employing highly-flawed graduation rate calculations—there are ways to calculate more accurate graduation rates with currently available data while states build their longitudinal data systems.

• States should require schools and districts to begin collecting the necessary data on next year's cohort of first-time ninth graders, and subsequent cohorts. In 4 years, this data could be used to calculate the graduation rate in the NGA Compact.

• In the interim, while the data necessary to calculate the graduation rate in the NGA Compact is collected, states should use a graduation indicator that more accurately estimates the percentage of ninth graders who receive a regular high school diploma on time. This would better approximate graduation rates and provide a means to measure improvement in the state over the next few years. One such indicator is a simple ratio of the number of diploma recipients to the number of ninth graders 4 years earlier.

• While implementing these efforts, states should also apply parallel policy changes that will make reporting more accurate. For example, states should put in place mechanisms to ensure that students who leave school before graduation are presumed to be dropouts until it has been verified that the student has died or has transferred to another diploma-granting institution.

For example, Washington State's system includes such mechanisms to count all "missing" students as dropouts. Using this reliable dropout data and diploma counts, the state's graduation indicator produces a graduation rate that is very close to independent estimates.[xxxii] States should move to implement such policies immediately.

There is also a need to investigate and close reporting loopholes that allow schools, districts, and states to code students exiting the system in ways that either disguise dropouts and missing students as something else or remove them from the cohort entirely. Both the states and the federal government need to display leadership in studying this issue and leveraging changes to federal, state, and local policies that enable such practices.

4. Implement valid high school accountability systems

To hold schools accountable for graduating all students and ensuring that they are prepared for success, accountability systems must include goals, track progress, and provide consequences related to graduation rates, not just test scores. Accountability measures must provide goals, incentives, and measures to ensure that schools are held accountable for graduating every student.

During reauthorization of NCLB, Congress should amend accountability provisions to better measure high school performance and infuse other positive incentives for graduating all students into the AYP determinations and the school improvement actions that follow determinations.

- Congress should include language specifically prohibiting the Department from approving states' use of alternative graduation rate calculations that do not accurately reflect the number of students graduating with a regular diploma. Specifically, states should not be permitted to use formulas that are based on dropout data.

- Congress should improve federal accountability provisions that determine goals for increasing graduation rates. Schools, districts, and states should be held to rigorous graduation goals *over time* that reflect the intention to leave no child behind and to graduate every child. These goals should be accompanied by provisions requiring *meaningful annual progress* in improving graduation rates at the aggregate and subgroup levels as part of AYP determinations. States could self-impose more meaningful graduation rate goals if changes were approved by the Department.

- Congress should redesign federal accountability for high schools to include additional indicators for determining high school success and improvement actions that drive attention, investment, technical assistance, and interventions to high schools in need of improvement. Such improvement actions must be designed to improve teaching, learning, and outcomes for all students.

5. Intervene to raise graduation rates

Graduation and other educational data can be used to publicly hold schools accountable for student outcomes. However, such data should also be used to actually *influence* student outcomes by informing decisionmaking and improving policy and practice.

Transforming high schools—with the result of having every child graduate ready for success in life— is undoubtedly a multi-faceted endeavor. Students as well as teachers, schools, and policymakers must

2006 ongoing

In April 2006, the Missouri state auditor initiated an audit of the state's practices and found that graduation rates reported at the school level and statewide by the state education agency were unreliable and inaccurate. Among the reasons listed for the inaccurate statistics: flawed data and faulty practices that included schools counting GED recipients as graduates and dropouts as transfers, and classifying students as transfers or home-schoolers without documentation. The auditor determined that the 2004 graduation rate was 77%—nine percentage points lower than the 86% rate reported by the state to the public and the U.S. Department of Education.[9]

be held to high expectations. Education policy at all levels should be informed by research and promising practice, and it must address the individual needs of each student. The federal government has an important role to play in laying the groundwork to address core barriers to educational success and closing persistent achievement gaps.

The Alliance for Excellent Education has identified seven elements of a comprehensive education policy framework that is designed to support effective school transformation and greatly improve student outcomes. When considering high school reform, it is important to recognize that the current crisis in the nation's high schools is a *national* problem requiring action at every educational and governmental level. School, district, community, state, and federal decisionmakers should work toward creating policies that address each of these seven areas:

Alignment: Standards, curriculum, assessments, and accountability systems must be aligned with the skills and knowledge required by colleges and employers, and which are necessary for an individual to be successful in life.

Accountability: Valid accountability systems that work for high schools must be defined and implemented at all levels in order to provide accurate measures of student and system performance, as well as to direct resources and reforms to improve teaching, learning, and outcomes for all students.

Investment: Resources need to be allocated equitably and used efficiently to ensure that every high school student graduates from high school prepared for college, work, and life.

Options and Interventions: Every secondary student must have access to an engaging, rigorous, options-based curriculum, and the interventions necessary to succeed in that curriculum.

High Quality Teachers and Principals: Well-qualified, innovative teachers and principals who are responsive to the needs of individual students are necessary in every classroom and every school building.

Community: All high school students need a safe and supportive community—within and outside of the classroom—to ensure they can focus on achievement and attainment.

College Access: Every high school student should have the academic and financial tools necessary to be prepared for, and have access to, postsecondary education.

Conclusion

Educators, advocates, and policymakers seem to agree on the need to calculate, report, and use more accurate graduation rate data. Stakeholders at the local, state, and national levels have demonstrated leadership by taking important steps to build capacity to meet those goals. Despite the momentum these various efforts have spurred, much work remains to be done.

A comprehensive approach is needed to help states build the capacity to collect accurate data, calculate and report accurate graduation rates, and improve the use of this data to hold schools accountable for helping more students succeed and to improve teaching, learning, and outcomes for every student. A lack of political will, capacity, and funding requires a concerted national effort at all levels of government and by concerned citizens across the country to prioritize this issue and make systemic changes to the way information is collected, calculated, reported, and used.

It is simple enough: states need longitudinal data systems to provide student-level data. Student-level data is necessary to produce accurate, disaggregated graduation rates, without which it is impossible to assess the progress being made by the nation's schools and students or target resources to improve outcomes. Careful analysis of accurate high school graduation patterns provides essential insight into the performance of the public education system. Valid and reliable data can both identify problems and drive resources to the areas most in need.

Longitudinal data systems

↓

Student-level data

↓

Accurate, disaggregated graduation rates

↓

Assess progress & identify patterns

↓

Target resources & reform

↓

Improve student outcomes

To meet the challenges of the new century, the United States needs to move from a national goal of leaving no child behind to one of making every child a graduate who is prepared for college, work, and success in life. If the country is serious about educating all students to high standards and, by so doing, retaining its competitive position in the world, action on this issue is not an option; it is an imperative.
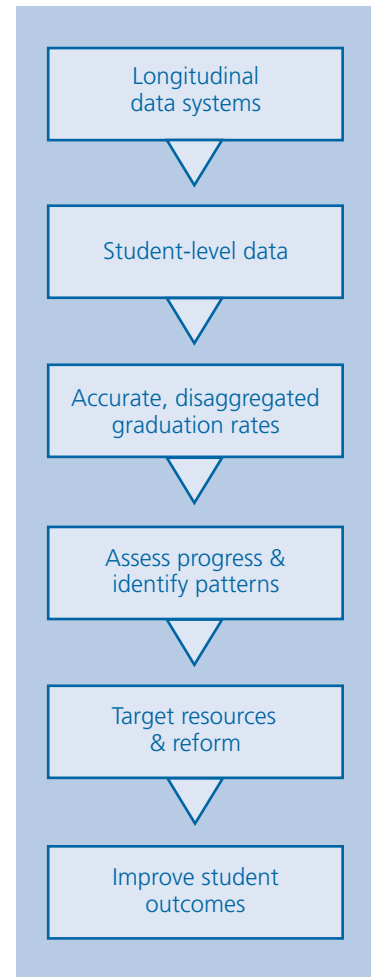
June 2006 (continued)

Simultaneously, the Department released a national graduation rate (using the AFGR method) for the class of 2004 of 75% (for the 48 reporting states and the District of Columbia); ranging from 57.4% in Nevada to 87.6% in Nebraska. Compared to the AFGR for the class of 2003, graduation rates increased in 32 states and the District of Columbia; did not change in one state; and declined in 15 states.[11]

Endnotes

[i] *Education Week*, 2006.

[ii] Chaplin, 2002; Greene & Winters, 2006; Orfield, Losen, Wald, & Swanson, 2004; *Education Week*, 2006.

[iii] Greene & Winters, 2006.

[iv] *Education Week*, 2006.

[v] Greene & Winters, 2005.

[vi] Alliance for Excellent Education, 2005.

[vii] *TIME*, 2006.

[viii] National Governors Association, 2005.

[ix] Swanson, 2004a.

[x] Kaufman, Alt, & Chapman, 2004.

[xi] Balfanz & Legters, 2004.

[xii] Data Quality Campaign & Achieve, Inc., 2005.

[xiii] Data Quality Campaign & Achieve, Inc., 2005.

[xiv] National Center for Educational Accountability, 2005.

[xv] Data Quality Campaign & Achieve, Inc., 2005.

[xvi] Futrell & Rotberg, 2002.

[xvii] Gotbaum, 2002; Hood, 2004; Lent & Pipkin, 2003; Luppescu, Bryk, Deabster, Easton, & Thum, 1998; *RV v. New York City Dept. of Ed.*, 2004; Schemo, 2003; Warren, Jenkins, & Kulick, 2004; Winerip, 2003.

[xviii] National Forum on Education Statistics, 2006.

[xix] Losen, 2006.

[xx] Orfield et al., 2004.

[xxi] Erpenbach & Forte, 2005.

[xxii] Erpenbach & Forte, 2005.

[xxiii] U.S. Government Accountability Office, 2005.

[xxiv] U.S. Congress, Conference Committee, 2001.

[xxv] Hall, 2005; *Education Week*, 2006.

[xxvi] Education Commission of the States, 2006.

[xxvii] *Education Week*, 2006.

[xxviii] Orfield et al., 2004.

[xxix] Orfield et al., 2004.

[xxx] Data Quality Campaign & Achieve, Inc., 2005.

[xxxi] Greene & Winters, 2006.

[xxxii] Hall, 2005.

Boxes

[1] Greene & Winters, 2006.

[2] Balfanz & Legters, 2004.

[3] *Education Week*, 2006.

[4] Chao, 2006.

[5] Earnings estimation based on calculations in Rouse, 2005; *Education Week*, 2006.

[6] Harlow, 2003.

[7] Greene, 2005.

[8] Losen, 2006.

[9] National Center for Educational Accountability, 2005.

[10] Webster & Ayala, 2006.

[11] U.S. Government Accountability Office, 2005; *Education Week*, 2006.

[12] *Education Week*, 2006.

[13] U.S. Government Accountability Office, 2005; *Education Week*, 2006.

[14] Solomon, 2003.

[15] Rodriguez, 2005.

[16] U.S. Department of Education, 2005a.

Timeline – Moving Forward: Key Players Take Action

[1] Clementes, Ligon, & Paredes, 2000.

[2] U.S. Department of Education, National Center for Education Statistics, 2005b.

[3] U.S. Census Bureau, 2005.

[4] National Governors Association, 2005.

[5] U.S. Department of Education, 2005a.

[6] National Governors Association Center for Best Practices, 2005a.

[7] National Governors Association Center for Best Practices, 2005b.

[8] U.S. Department of Education, 2005b.

[9] McCaskill, 2006.

[10] *Education Week*, 2006.

[11] Seastrom, Hoffman, Chapman, & Stillwell, 2006.

References

Alliance for Excellent Education. (2005). *Americans on high schools: "In need of improvement!"* [Online]. Retrieved from www.all4ed.org/press/pr_082405.html on June 6, 2006.

Balfanz, B., & Legters, N. (2004). *Locating the dropout crisis: Which high schools produce the nation's dropouts.* Baltimore, MD: Center for Research on the Education of Students Placed At Risk, Johns Hopkins University.

Chao, E. L. (2006, February 2). Remarks at the City Club of Cleveland [Online]. Retrieved from www.dol.gov/_sec/media/speeches/20060202_cleveland.htm on June 15, 2006.

Chaplin, D. (2002). Tassels on the cheap. *Education Next*, Fall 2002, 24–29 [Online]. Retrieved from www.educationnext.org/20023/24.html on June 6, 2006.

Clementes, B. S., Ligon, G. D., & Paredes, V. (2000). *Flaws and remedies: Improving local, state, and federal dropout reporting.* Evaluation Software Publishing, Incorporated. Paper prepared for the 2000 Annual Meeting of the American Educational Research Association [Online]. Retrieved from www.educationadvisor.com/documents/OCIO2001/FlawsandRemedies2.doc on June 6, 2006.

Data Quality Campaign & Achieve, Inc. (2005). *Creating a longitudinal data system: Using data to improve student achievement.* Washington, DC: Data Quality Campaign and Achieve, Inc. [Online]. Retrieved from www.dataqualitycampaign.org/files/Publications-Creating_Longitudinal_Data_System.pdf on June 6, 2006.

Education Commission of the States. (2006). *State graduation rate goals for high school accountability* [Online]. Retrieved from http://mb2.ecs.org/reports/Report.aspx?id=865 on June 6, 2006.

The Education Trust. (2006). *Graduation rates at a glance.* Washington, DC: The Education Trust [Online]. Retrieved from http://www2.edtrust.org/NR/rdonlyres/2AA4F718-034B-483A-A3FB-BFD9ABADBB56/0/GradRatesataGlance.pdf on June 6, 2006.

Education Week. (2006, June 20). *Diplomas count: an essential guide to graduation policy and rates.* [Online]. Retrieved from: www.edweek.org/dc06 on June 20, 2006.

Erpenbach, W. J., & Forte, E. (2005). *Statewide educational accountability under the No Child Left Behind Act—a report on 2005 amendments to state plans: A summary of state requests in 2004–05 for amendments to their educational accountability systems under NCLB.* Washington, DC: Council of Chief State School Officers [Online]. Retrieved from www.ccsso.org/content/pdfs/2005StatewideEducAcctUnderNCLB.pdf on June 6, 2006.

Futrell, M. H., & Rotberg, I. C. (2002, October 2). Predictable casualties: Do we risk leaving more children behind? *Education Week* [Online]. Retrieved from www.edweek.org/ew/articles/2002/10/02/05futrell.h22.html on June 6, 2006.

Gotbaum, B. (2002). *Pushing out at-risk students: An analysis of high school discharge figures.* New York: Public Advocates for the City of New York.

Greene, J. (2002, Winter). GEDs aren't worth the paper they're printed on. *City Journal.* New York: Manhattan Institute for Policy Research [Online]. Retrieved from www.city-journal.org/html/12_1_geds_arent.html on June 6, 2006.

Greene, J. P., & Winters, M. A. (2005). *Public high school graduation and college-readiness rates: 1991–2002.* New York: Manhattan Institute for Policy Research [Online]. Retrieved from www.manhattan-institute.org/html/ewp_08.htm on June 6, 2006.

Greene, J. P., & Winters, M. A. (2006). *Leaving boys behind: Public high school graduation rates.* New York: Manhattan Institute for Policy Research [Online]. Retrieved from www.manhattan-institute.org/pdf/cr_48.pdf on June 6, 2006.

Hall, D. (2005). *Getting honest about grad rates: How states play the numbers and students lose.* Washington, DC: The Education Trust [Online]. Retrieved from http://www2.edtrust.org/NR/rdonlyres/C5A6974D-6C04-4FB1-A9FC-05938CB0744D/0/GettingHonest.pdf on June 6, 2006.

Harlow, C. (2003). *Education and correctional populations.* Bureau of Justice Statistics Special Report. Washington, DC: U.S. Department of Justice.

Haycock, K. (2006, April 25). *Getting some traction on high school graduation rates.* Presentation at Gates Advocacy Meeting, Chicago, Illinois. [Online]. Retrieved from http://www2.edtrust.org/NR/rdonlyres/0936DA50-E9FF-4527-8581-A82153DCFBC5/0/chicagohaycockgatesadvocacy2006.ppt on June 6, 2006.

Hood, L. (2004). *High school students at risk: The challenge of dropouts and pushouts.* New York: Carnegie Corporation of New York.

Kaufman, P., Alt, M. N., & Chapman, C. (2004). *Dropout rates in the United States: 2001* (NCES 2005-046). U.S. Department of Education. National Center for Education Statistics. Washington, DC: U.S. Government Printing Office [Online]. Retrieved from http://nces.ed.gov/pubs2005/2005046.pdf on June 6, 2006.

Lent, R. C., & Pipkin, G. (2003). *Silent no more: Voices of courage in American schools.* Portsmouth, NH: Heinemann.

Losen, D. (2006, March 10). *Losing our future: The graduation rate crisis and longitudinal data pit-falls.* Presentation at Improving Educational Outcomes: Why Longitudinal Data Systems Are Necessary, a symposium hosted by the Alliance for Excellent Education [Online]. Retrieved from www.all4ed.org/events/DataSymposium.html on June 6, 2006.

McCaskill, C. (2006). *Elementary and secondary education: High school graduation rates.* (Report no. 2006-20.) Jefferson City, MO: Office of the Missouri State Auditor [Online]. Retrieved from www.auditor.mo.gov/press/2006-20.pdf on June 6, 2006.

Mishel, L., & Roy, J. (2006). *Rethinking high school graduation rates and trends.* Washington, DC: Economic Policy Institute.

National Center for Educational Accountability. (2005). Results of 2005 NCEA survey of state data collection issues related to longitudinal analysis [Online]. Retrieved from www.dataqualitycampaign.org/activities/survey_result_2005.cfm on May 12, 2006.

National Forum on Education Statistics. (2006). *Accounting for every student: A taxonomy for standard student exit codes.* (NFES 2006–804). U.S. Department of Education. Washington, DC: National Center for Education Statistics [Online]. Retrieved from http://nces.ed.gov/pubs2006/2006804.pdf on June 6, 2006.

National Governors Association. (2005). *Graduation counts: A compact on state high school graduation data.* Washington, DC: National Governors Association [Online]. Retrieved from www.nga.org/Files/pdf/0507GRAD.PDF on June 6, 2006.

National Governors Association Center for Best Practices. (2005a, July 14). *Ten states named 'Honor States.'* Press release. Washington, DC: National Governors Association [Online]. Retrieved from www.nga.org/portal/site/nga/menuitem.6c9a8a9ebc6ae07eee28aca9501010a0/?vgnextoid=6d30d 7bf6b515010VgnVCM1000001a01010aRCRD&vgnextchannel=759b8f2005361010VgnVCM1 000001a01010aRCRD on June 6, 2006.

National Governors Association Center for Best Practices. (2005b, November 15). *Phase two: Develop a statewide longitudinal K–16 data system.* Press release. Washington, DC: National Governors Association [Online]. Retrieved from www.nga.org/portal/site/nga/menuitem.9123e83a1f6786440ddcbeeb501010a0/?vgnextoid=f41ef 68ff8f87010VgnVCM1000001a01010aRCRD on June 6, 2006.

National Institute of Statistical Sciences/Education Statistics Services Institute (NISS/ESSI). (2005). NISS/ESSI Task Force on Graduation, Completion, and Dropout Indicators final report. (NCES 2005-105). Washington, DC: U.S. Department of Education, National Center for Education Statistics [Online]. Retrieved from http://nces.ed.gov/pubs2005/2005105.pdf on June 6, 2006.

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.* Joint release by the Civil Rights Project at Harvard University, the Urban Institute, Advocates for Children of New York, and the Civil Society Institute [Online]. Retrieved from www.urban.org/UploadedPDF/410936_LosingOurFuture.pdf on June 6, 2006.

Rodriguez, N. (2005, October 28). Kentucky graduation rate likely to decline. *Courier-Journal* [Online]. Retrieved from www.courier-journal.com/apps/pbcs.dll/article?AID=/ 20051028/NEWS01/510280391 on June 6, 2006.

Rouse, Cecilia E. (2005). "Labor Market Consequences of an Inadequate Education." Paper prepared for the symposium on The Social Costs of Inadequate Education, Teachers College Columbia University, Oct. 2005.

RV v. New York City Dept. of Ed., 321 F.Supp.2d 538 (E.D.N.Y. 2004).

Sable, J., Naum, J., & Thomas, J. M. (2004). *Documentation to the NCES Common Core of Data Local Education Agency Universe Survey Dropout and Completion Data File: School year 2001–02* (appendix table E4). (NCES 2005-349). Washington, DC: U.S. Department of Education, National Center for Education Statistics [Online]. Retrieved from http://nces.ed.gov/ccd/pdf/drp01genr0d.pdf on June 6, 2006.

Schemo, D. J. (2003, August 28). For Houston schools, college claims exceed reality. *New York Times.* p. A12.

School Matters, State pages. Standard & Poor's. Retrieved from www.schoolmatters.com on June 6, 2006.

Seastrom, M., Hoffman, L., Chapman, C., & Stillwell, R. (2005). *The averaged freshman graduation rate for public high schools from the Common Core of Data: School years 2001–02 and 2002–03.* (NCES 2006-601). Washington, DC: U.S. Department of Education, National Center for Education Statistics [Online]. Retrieved from http://nces.ed.gov/pubs2006/2006601.pdf on June 6, 2006.

Seastrom, M., Hoffman, L., Chapman, C., & Stillwell, R. (2006). *The averaged freshman graduation rate for public high schools from the Common Core of Data: School years 2002–03 and 2003–04.* (NCES 2006-606). Washington, DC: U.S. Department of Education, National Center for Education Statistics [Online]. Retrieved from http://nces.ed.gov/pubs2006/2006606.pdf on June 20, 2006.

Solomon, C. (2003, December 24). Revising rates for graduation stirs conflict. *Seattle Times* [Online]. Retrieved from http://seattletimes.nwsource.com/html/eastsidenews/2001822302_gradrates24e.html on June 6, 2006.

Swanson, C. B. (2003). *Keeping count and losing count: Calculating graduation rates for all students under NCLB accountability* (table 4). Washington, DC: The Urban Institute [Online]. Retrieved from www.urban.org/UploadedPDF/410843_keeping_count.pdf on June 6, 2006.

Swanson, C. B. (2004a). *High school graduation, completion, and dropout (GCD) indicators: A primer and catalog.* Washington, DC: The Urban Institute [Online]. Retrieved from www.urban.org/url.cfm?ID=411116 on June 6, 2006.

Swanson, C. B. (2004b). *Projections of 2003–04 high school graduates: Supplemental analyses based on findings from* Who graduates? Who doesn't? Washington, DC: The Urban Institute [Online]. Retrieved from www.urban.org/url.cfm?ID=411019 on June 6, 2006.

Swanson, C. B. (2004c). *Who graduates? Who doesn't? A statistical portrait of public high school graduation, Class of 2001.* Washington, D.C.: The Urban Institute [Online]. Retrieved from www.urban.org/url.cfm?ID=410934 on June 6, 2006.

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 [Online]. Retrieved from www.urban.org/url.cfm?ID=410641 on June 6, 2006.

TIME. (2006). TIME poll: *What course should we take?* (2006). Web exclusive [Online]. Retrieved from www.time.com/time/magazine/article/0,9171,1181673-1,00.html on April 28, 2006.

U.S. Census Bureau. (2005). *College degree nearly doubles annual earnings* (summary table A). Washington, DC: U.S. Census Bureau [Online]. Retrieved from www.census.gov/Press-Release/www/releases/archives/04eductableA.xls on June 6, 2006.

U.S. Congress. Conference Committee. (2001). *No Child Left Behind Act: Conference report to accompany H.R.1.* 107th Congress, 1st session. Committee Print 107-334. Washington, DC: U.S. Government Printing Office.

U.S. Department of Education, National Center for Education Statistics. (2005a). *The condition of education 2005* (Indicator 23). (NCES 2005-094). Washington, DC: U.S. Government Printing Office [Online]. Retrieved from http://nces.ed.gov/programs/coe/2005/section3/indicator23.asp on June 6, 2006.

U.S. Department of Education, National Center for Education Statistics. (2005b). *Digest of education statistics, 2004* (NCES 2006-005), Table 107. Retrieved from http://nces.ed.gov/programs/digest/d04/ on June 6, 2006.

U.S. Department of Education. (2005a, July 13). *Simon discusses need for better graduation rate data.* Press release [Online]. Retrieved from www.ed.gov/news/pressreleases/2005/07/07132005.html on June 6, 2006.

U.S. Department of Education. (2005b, November 18). *14 states win $52.8 million in grants for longitudinal data systems.* Press release [Online]. Retrieved from www.ed.gov/news/pressreleases/2005/11/11182005a.html on June 6, 2006.

U.S. Government Accountability Office. (2005). *No Child Left Behind: Education could do more to help states define graduation rates and improve knowledge about intervention strategies.* (GAO-05-879). Washington, DC: United States Government Accountability Office [Online]. Retrieved from www.gao.gov/new.items/d05879.pdf on June 6, 2006.

Warren, J. R., Jenkins, K., & Kulick, J. (2004). High school exit examinations and state-level completion and GED rates, 1973–2000. St. Paul, MN: University of Minnesota.

Webster, T. & Ayala, E. (2006, June 18). Those taking GED to count as dropouts. *Star-Telegram.com.* [Online]. Retrieved from: www.dfw.com/mld/dfw/news/14848027.htm on June 19, 2006.

Winerip, M. (2003). Houston's "zero dropout," *Rethinking Schools,* 18 (1). [Online]. Retrieved from www.rethinkingschools.org/archive/18_01/drop181.shtml on June 6, 2006.

Young, B. A. (2003). *Public high school dropouts and completers from the Common Core of Data: School year 2000–01* (table 6). (NCES 2004-310). Washington, DC: U.S. Department of Education, National Center for Education Statistics [Online]. Retrieved from http://nces.ed.gov/pubs2004/2004310.pdf on June 6, 2006.

Appendix 1. Defining Graduation Rate Calculations

The reality of unacceptably low high school graduation rates has only recently caught the public's attention, although researchers have been discussing for several years the best way to calculate graduation rates. What seems to be a straightforward task of identifying the percentage of students who receive a diploma is, unfortunately, not a simple one; competing purposes, multiple definitions, conflicting methodologies, and weak data systems have combined to make it extremely complex. Concern about the ways that graduation rates are calculated and reported has spawned a number of new methodologies designed to calculate the rates more accurately. Building and effectively using longitudinal data systems may alleviate much of the concern about graduation rate calculation. In the meantime, however, this appendix highlights the most widely used calculations and provides a brief description of their strengths and weaknesses. The reports footnoted with each calculation were the primary sources used to compile this appendix.

Types of Indicators

Two broad types of indicators exist to measure graduation rates. A **performance-based** indicator—the most commonly used and recommended by the National Center for Education Statistics, National Institute of Statistical Sciences/Education Statistics Services Institute Task Force on Graduation, Completion, and Dropout Indicators (GCD Task Force) is the ratio of students who have achieved a specific outcome (e.g., graduation) to students who attempted to achieve that outcome. Because it is based on enrollment reported by schools, this ratio is generally accepted as a sound reflection of school performance. A simple performance-based indicator would be the number of students who graduate in 4 years divided by the number of students who entered ninth grade 4 years earlier. Multiple variations of this indicator exist to account for transfers in and out, special education, limited English proficient (LEP) students, incarcerated students, and deceased students. Performance-based indicators are particularly useful tools for assessing a variety of educational entities, from schools, districts, and states to cohorts or subgroups of students.

Population-based indicators are less widely used and, while conceptually sound for some limited purposes, are inappropriate for use as an accountability instrument or for making judgments about school performance. Population-based indicators report the prevalence within a population of persons with particular levels of educational attainment. The GCD Task Force expresses concern about using population-based estimates to assess the performance of educational entities, because these indicators are statistical estimates from surveys and thus may contain errors in who is counted as a graduate and who is counted in the cohort. Specifically, population surveys used to estimate the prevalence of educational attainment may be inaccurate, because the most commonly used surveys (such as the Current Population Survey, or CPS) do not collect data about active duty military personnel or institutionalized persons, so those people are not included in the population cohort. Additionally, there is a high likelihood of error introduced through self-report bias by people who do not understand the differences among a high school diploma, a certificate of attendance, and the General Educational Development (GED) certificate, or those who do not care to report themselves as dropouts. The CPS was designed to provide a picture of U.S. economic and demographic status, not educational attainment.

Performance-based Indicators

Adjusted Cohort Graduation Rate (ACGR)[1]

Commonly known as the National Governors Association (NGA) Compact rate or the NGA rate

What it measures
- The number of on-time graduates in a given year divided by the number of first-time entering ninth graders 4 years earlier, adjusted by transfers in and out.

- Counts only regular, on-time diplomas; other credentials, such as a certificate of attendance or the GED, are not counted.

Advantages
- Full implementation of the ACGR requires states to keep track of individual students as they move into and out of school, resulting in greater accuracy.

- Can be easily and reliably used as a school-, district-, and state-level measure; induces states to keep better track of students.

Disadvantages
- Full implementation of the ACGR is not possible until states have longitudinal student-unit-record data systems in place with at least four specific elements: (1) a unique statewide student identifier; (2) student-level enrollment, demographic, and program participation information; (3) student-level graduation and dropout data; and (4) a state audit system for assessing data quality, validity, and reliability.

- Although much of the data required for calculating this indicator may exist in school records, it is not necessarily assembled in ways that make calculations easy.

Use
- All 50 governors signed Graduation Counts: A Compact on State High School Graduation Data, which commits them to implementing this standard, 4-year adjusted cohort graduation rate.

- NGA recognizes that it is occasionally appropriate for students to be excluded from a cohort. For example, special education students and recent immigrants with limited English proficiency may be assigned to different cohorts to allow them more time to graduate. However, states should adopt guidelines so that this practice is not abused.

- States will be required to develop standards for documentation (e.g., records transfer, transcript request) that preserve confidentiality.

- To provide a richer understanding of student outcomes and school performance, the NGA Compact encourages states to adopt additional indicators such as 5- and 6-year cohort graduation rates, a college-ready graduation rate, and GED or other alternative completion rates.

Exclusion-Adjusted Cohort Graduation Indicator (EACGI)[2]

Commonly known as the National Center for Education Statistics (NCES) graduation rates task force rate

What it measures
- Cumulative entry cohort (first-time 9th graders plus 10th, 11th, and 12th graders who transfer in) who graduate on time divided by the cumulative entry cohort minus appropriate and documented exclusions (e.g., transfers out, certain special education students).

- This is an on-time graduation rate and is flexible enough to allow the inclusion of additional diploma types, if so desired by policymakers.

Advantages
- Full implementation of the EACGI requires states to keep track of individual students as they move into and out of school, resulting in greater accuracy.

- Can be easily and reliably used as a school-, district-, state-, and national-level measure; induces states to keep better track of students.

- Yields a highly precise graduation rate.

Disadvantages
- Full implementation of the EACGI is not possible until states have longitudinal student-unit-record data systems in place.

- Although much of the data required for calculating this indicator may exist in school records, it is not necessarily assembled in ways that make calculations easy.

Use
- The GCD Task Force recommended the use of EACGI as an ideal graduation rate measure once longitudinal student-unit-record data systems are in place.

- The GCD Task Force makes it clear that the GED should not be calculated in the rate. However, the task force leaves it to policymakers to determine which other diploma types (e.g., certificates of attendance, certificates of completion) should be included in the calculation.

- The GCD Task Force recognizes that it is appropriate to exclude some students from a cohort in certain circumstances (e.g., special education, long-term illness) or to place such students into another cohort. However, standards for exclusions must be developed and adopted so that this practice is not abused.

- States will be required to develop standards for documentation (e.g., records transfer, transcript request) that preserve confidentiality.

- This indicator is robust enough that additional rates (e.g., 5- and 6-year graduation rates) can be easily calculated to provide a richer understanding of student outcomes and school performance.

- All departing students are mathematically treated as dropouts unless they are properly documented and excluded from the cohort.

Cumulative Promotion Index (CPI)[3]
Commonly known as the Swanson/Urban Institute rate

What it measures
- The probability that a student entering the ninth grade will complete high school on time.

- High school graduation is represented as a staged process composed of three grade-to-grade promotion transitions (9 to 10, 10 to 11, and 11 to 12), in addition to the ultimate high school graduation event (grade 12 to diploma).

- Counts only regular, on-time diplomas; other credentials, such as a certificate of attendance or the GED, are not counted.

Advantages
- Can be calculated using data currently available through the Common Core of Data (CCD).

- Avoids the use of dropout data, which is unreliable because it depends on students to report their dropout status to the school.

- Can be calculated for most school districts and states.

- Estimate can be calculated with 2 years of enrollment and 1 year of graduation data. The emphasis on current school conditions means that the CPI can quickly identify changes in graduation rates, unlike indicators that rely on longer-term data collection or are retrospective.

Disadvantages
- Estimate may be less precise than indicators that rely on a longitudinal student-unit-record data system.

- Estimate relies on data reported by states to the federal government through the CCD, which does not allow for school-level calculation of this indicator and may be inconsistent across states owing to the varying ability of states to keep track of students.

Use
- This indicator was first introduced by Christopher Swanson at the Urban Institute in February 2003 and has been subsequently updated.

- The CPI is widely recognized as a leading indicator of graduation rates.

Adjusted Completion Ratio (ACR)[4]
Commonly known as the Greene/Manhattan Institute rate

What it measures
- Estimate of the number of students who graduate on time with a regular diploma divided by a population-adjusted, averaged 9th-grade class (sum of 8th-, 9th-, and 10th-grade enrollment divided by 3).

- Counts only regular, on-time diplomas; other credentials, such as a certificate of attendance or the GED, are not counted.

Advantages
- Can be calculated using data currently available through the CCD.

- Avoids the use of dropout data, which is unreliable because it depends on students to report their dropout status to the school.

- Can be calculated for most school districts and states.

- Averaging 8th-, 9th-, and 10th-grade enrollment adjusts for 9th-grade repeaters.

Disadvantages
- Estimate may be less precise than indicators that rely on a longitudinal student-unit-record data system.

- Estimate relies on data reported by states to the federal government through the CCD, which does not allow for school-level calculation of this indicator and may be inconsistent across states owing to the varying ability of states to keep track of students.

- The use of the population adjustment may distort the graduation rate.

Use
- This performance indicator was first introduced by Jay Greene at the Manhattan Institute in November 2001 and has been subsequently updated.

- The ACR is widely recognized as a leading indicator of graduation rates.

Averaged Freshman Graduation Rate (AFGR)[5]

Commonly known as averaged freshman graduation rate

What it measures
- Estimate of the number of on-time graduates in a given year divided by the average number of 8th graders enrolled 5 years earlier, 9th graders enrolled 4 years earlier, and 10th graders enrolled 3 years earlier.

- Counts only regular, on-time diplomas; other credentials, such as a certificate of attendance or the GED, are not counted.

Advantages
- Can be calculated using data currently available through the CCD.

- Avoids the use of dropout data, which is unreliable because it depends on students to report their dropout status to the school.

- Can be calculated for most school districts and states.

- Averaging 8th-, 9th-, and 10th-grade enrollment adjusts for 9th-grade repeaters.

Disadvantages
- Estimate may be less precise than indicators that rely on a longitudinal student-unit-record data system.

- Estimate relies on data reported by states to the federal government through the CCD, which does not allow for school-level calculation of this indicator and may be inconsistent across states owing to the varying ability of states to keep track of students.

- Inability to adjust for individual student mobility (e.g., transfers into and out of the system) may distort the graduation rate.

Use
- In July 2005, the U.S. Department of Education announced that it would publish the AFGR for each state and post the results alongside those reported by the states.

- Not an appropriate high school performance measure because eighth-grade students are counted.

Four-Year High School Completion Rate (HSCR)[6]

Commonly known as the leaver rate or departure classification rate

What it measures
- Estimate of the number of high school completers divided by the sum of dropouts for grades 9 through 12, respectively, in consecutive years, plus the number of completers.

- Includes all high school completion types except the GED (e.g., certificate of attendance, certificate of completion, special education).

Advantage
- Requires only completion counts for a particular year and cumulative dropout counts for the previous 4 years.

Disadvantages
- Estimate may be less precise than indicators that rely on a longitudinal student-unit-record data system.

- Estimate relies on data reported by states to the federal government through the CCD, which does not allow for school-level calculation of this indicator and may be inconsistent across states owing to the varying ability of states to keep track of students.

- Depends on dropout data, which is unreliable and likely inflates graduation rates because it depends on students to report their dropout status to the school.

- Counts all diploma types except the GED.

Use
- NCES makes this performance-based indicator available to the public and education researchers through its annual reports.

- Not an appropriate high school performance measure, because it relies on dropout data and includes all high school completion types except the GED (e.g., certificate of attendance, certificate of completion).

Population-based Indicators

NCES Educational Attainment Indicator[7]
Commonly known as census-based rate

What it measures
- Total number of 25–29-year-olds who report receiving a high school diploma or equivalency certificate divided by total number of 25–29-year-olds.

Advantage
- Reflects educational attainment of the nation's 25–29-year-olds based on a sample of adults who report in the census that they have received a high school diploma or its equivalent.

Disadvantages
- Estimate may be less precise than indicators that rely on a longitudinal student-unit-record data system.

- Estimate likely to inflate graduation rates because of self-report bias and undersampling of minority, highly mobile, and institutionalized populations, all of which may be less likely to graduate than other populations.

- Counts all diploma types, including the GED.

Use
- NCES publishes this estimate of the nation's graduation rate, which is calculated using data from the CPS, in its annual, congressionally mandated *Condition of Education* report.

- Not an appropriate high school performance measure, because it surveys a sample of the U.S. adult population, members of which cannot be linked to specific high schools.

NELS:88-based[8]
Commonly known as NELS:88-based

What it measures
- Estimate of percentage of students obtaining a regular diploma on time or within 8 years of on-time graduation.

- Counts regular graduates and GED recipients.

Advantage
- Estimates the percentage of those who attained any type of high school completion or equivalency either on time or within 8 years of on-time graduation.

Disadvantages
- Estimates are likely to be biased upward because of missing data.

Use
- The NELS:88 data is available to the public for education research.

- In April 2006, researchers at the Economic Policy Institute drew on an analysis of the NELS:88 survey to assert that NELS:88-based graduation rates are similar to other survey-based rates (e.g., CPS) and are more accurate than estimates calculated using data available through the CCD.

- Not an appropriate measure of current high school performance, because it is a national sample survey.

Appendix 1

[1] National Governors Association, 2005.

[2] National Institute of Statistical Sciences/Education Statistics Services Institute Task Force on Graduation, Completion, and Dropout Indicators, 2005.

[3] Swanson, 2004a; Swanson, 2004b; and Swanson, 2004c.

[4] Greene & Winters, 2005.

[5] Seastrom, Hoffman, Chapman, & Stillwell, 2005.

[6] Young, 2003.

[7] U.S. Department of Education, National Center for Education Statistics, 2005a.

[8] Mishel & Roy, 2006.

Appendix 2. A Comparison of State-Level Graduation Rate Statistics

Given the range of definitions, methodologies, data sources, and purposes of various graduation rates, it's no wonder that multiple graduation rates are reported at the state level. The chart on the following page shows state-by-state graduation rates calculated by the following methods (the first four methods are summarized in Appendix 1):

- Four-year high school completion rate (HSCR)—National Center for Education Statistics
- Cumulative promotion index (CPI)—Urban Institute
- Adjusted completion ratio (ACR)—Manhattan Institute for Policy Research
- Averaged freshman graduation rate (AFGR)—National Center for Education Statistics
- State-reported graduation rates for federal accountability

Comparisons across states and over time should be made with caution for the reasons discussed throughout this publication. State-reported rates are derived using a variety of methodologies, and many states have changed their methodology over time. Even the rates that use the same methodology across states are not perfectly comparable, because graduation requirements, administrative procedures for counting students, and other state practices that affect the graduation rate differ from state to state.

Appendix 2. A Comparison of State-Level Graduation Rate Statistics

State	2001–2002					2002–2003				2003–2004		
	National Center for Education Statistics (NCES) Four-Year High School Completion Rates[1]	State-Reported Rate for NCLB[2]	Averaged Freshman Graduation Rate (AFGR) National Center for Education Statistics[3]	Adjusted Completion Ratio (ACR) Manhattan Institute for Policy Research[4]	Cumulative Promotion Index (CPI) Urban Institute[5]^	State-Reported Rate for NCLB[6]	AFGR[7]	ACR[8]	CPI[9]	State-Reported Rate for NCLB[10]	AFGR[11]	CPI[12]
Alabama	81.7%	—	62.1%	58%	60.0%	—	64.7%	60%	60.7%	—	65%	61.4%
Alaska	73.4%	85%	65.9%	59%	67%	67%	68.0%	60%	63.6%	61.2%	67.2%	64.2%
Arizona	67.7%	71%	74.7%	70%	62.7%	74%	75.9%	71%	61.8%	76.8%	66.8%	67.3%
Arkansas	79.4%	85%	74.8%	72%	72.6%	82%	76.6%	74%	71.8%	81.3%	76.8%	70.5%
California	‡	87%	72.7%	67%	68.9%	87%	74.1%	65%	71%	85.3%	73.9%	68.9%
Colorado	‡	82%	74.7%	72%	69.8%	84%	76.4%	72%	72.5%	82.3%	78.7%	69.0%
Connecticut	87.2%	‡	79.7%	79%	76.9%	89%	80.9%	82%	79.3%	89.8%	80.7%	77.0%
Delaware	81.8%	87%	69.5%	63%	60.2%	83%	73.0%	65%	60.7%	81.6%	72.9%	64.3%
District of Columbia	—	83%	68.4%	NC	61.1%	NC	59.6%	NC	58.9%	71.9%	68.2%	65.2%
Florida	—	65%	63.4%	59%	57.3%	66%	66.7%	61%	57.5%	68.7%	66.4%	53.0%
Georgia	72.7%	62%	61.1%	56%	57.1%	63%	60.8%	56%	56.3%	65.4%	61.2%	55.5%
Hawaii	78.9%	79%	72.1%	63%	65.9%	80%	71.3%	—	63.7%	80.0%	72.6%	66.0%
Idaho	79.3%	77%	79.3%	75%	76.8%	81%	81.4%	74%	77.8%	83.9%*	81.5%	79.6%
Illinois	77.8%	85%	77.1%	74%	70.1%	86%	75.9%	73%	76.3%	86.6%	80.3%	75.0%
Indiana	—	91%	73.1%	72%	76.8%	91%	75.5%	74%	73%	90.0%	73.5%	72.4%
Iowa	89.4%	89%	84.1%	85%	79.3%	90%	85.3%	85%	82.5%	89.8%	85.8%	78.2%
Kansas	—	85%	77.1%	78%	74.7%	86%	76.9%	76%	75%	87.8%	77.9%	74.1%
Kentucky	80.7%	81%	69.8%	68%	72.1%	79%	69.7%	69%	69.7%	81.5%	73%	65.3%
Louisiana	67.1%	64%	64.4%	63%	64.3%	66%	64.1%	63%	60.6%	69.4%	64.5%	64.5%
Maine	86.0%	86%	75.6%	75%	73.5%	87%	76.3%	74%	74%	—**	77.6%	72.1%
Maryland	83.9%	85%	79.7%	77%	76.1%	85%	79.2%	75%	74.4%	84.3%	79.5%	75.3%
Massachusetts	—	—	77.6%	75%	70.9%	—	75.7%	72%	72.1%	96.2%***	79.3%	71.0%
Michigan	‡	86%	72.9%	78%	72.7%	85%	74.0%	77%	66.4%	88.7%	72.5%	74.0%
Minnesota	83.3%	88%	83.9%	84%	79.8%	88%	84.8%	84%	79%	88.9%	84.7%	78.9%
Mississippi	80.2%	72%	61.2%	60%	60.6%	81%	62.7%	59%	60.8%	84.0%	62.7%	58.0%
Missouri	82.1%	83%	76.8%	76%	76.9%	84%	78.3%	76%	74.7%	85.5%	80.4%	72.9%
Montana	84.0%	84%	79.8%	78%	76.5%	84%	81.0%	76%	75.8%	82.9%	80.4%	77.1%
Nebraska	84.1%	84%	83.9%	83%	77.7%	86%	85.2%	84%	77.8%	86.9%	87.6%	77.3%
Nevada	75.1%	64%	71.9%	68%	55.6%	72%	72.3%	67%	55.9%	67.0%	57.4%	54.7%
New Hampshire	—	85%	77.8%	78%	76.8%	86%	78.2%	79%	77.7%	84.8%	78.7%	73.9%
New Jersey	88.6%	89%	85.8%	89%	82.8%	89%	87.0%	88%	84.5%	90.6%	86.3%	86.3%
New Mexico	75.4%	77%	67.4%	65%	61.5%	76%	63.1%	59%	56.7%	78.8%	67%	61.2%
New York	80.9%	75%	60.5%	64%	59.8%	76%	60.9%	58%	62.5%	77.0%	67%	61.4%
North Carolina	—	92%	68.2%	67%	64.7%	97%	70.1%	69%	66.2%	95.7%	71.4%	63.5%
North Dakota	90.7%	91%	85.0%	85%	81.2%	91%	86.4%	85%	83.1%	91.5%	86.1%	79.5%
Ohio	—	83%	77.5%	78%	73.8%	84%	79.0%	79%	76.5%	85.9%	77%	70.7%
Oklahoma	79.7%	69%	76.0%	79%	71.5%	76%	76.0%	72%	71%	85.1%	77%	69.8%
Oregon	778.8%	80%	71.0%	71%	70.7%	81%	73.7%	70%	69%	80.6%	74.2%	73.6%
Pennsylvania	84.9%	86%	80.2%	80%	77.7%	87%	81.7%	81%	79.1%	87.7%	82.2%	75.5%
Rhode Island	781.6%	71%	75.7%	74%	72.8%	81%	77.7%	75%	72.3%	82.8%	75.9%	73.5%
South Carolina	—	—	57.9%	53%	52.2%	78%	59.7%	54%	52.5%	78.0%	60.6%	50.7%
South Dakota	84.0%	97%	79.0%	76%	76.9%	96%	83.0%	79%	74.5%	92.3%	83.7%	79.4%
Tennessee	81.6%	76%	59.6%	57%	59.0%	76%	63.4%	60%	62.2%	75.7%	66.1%	57.5%
Texas	—	83%	73.5%	68%	66.6%	84%	75.5%	69%	66.8%	84.6%	76.7%	65.0%
Utah	84.4%	86%	80.5%	78%	80.5%	85%	80.2%	77%	76.7%	84.0%	83%	78.3%
Vermont	83.1%	82%	82.0%	78%	78.4%	84%	83.6%	78%	81.2%	86.0%	85.4%	77.9%
Virginia	85.1%	85%	76.7%	74%	73.8%	82%	80.6%	75%	74.9%	79.9%	79.3%	73.8%
Washington	—	79%	72.2%	72%	67.6%	66%	74.2%	69%	68.2%	74.1%	74.6%	62.6%
West Virginia	82.7%	91%	74.2%	76%	72.5%	83%	75.7%	76%	72.8%	84.0%	76.9%	70.7%
Wisconsin	—	—	84.8%	85%	77.5%	92%	85.8%	85%	80.6%	70.1/74%****	84%	78.2%
Wyoming	77.4%	77%	74.4%	73%	72.2%	77%	73.9%	70%	74%	79.2%	76%	72.4%
National	NC	not relevant	72.6%	71%	68.7%	not relevant	73.9%	70%	69.6%	not relevant	75%	68.0%

A Comparison of State-Level Graduation Rate Statistics Key

I = Insufficient data to calculate rate (Manhattan Institute, 2006)

— = Not available (Education Trust 2006, Hall 2005, Sable 2004, Young 2003)

‡ = Reporting standards not met; NCES only included data from states reporting dropout data in agreement with the CCD definition (Sable 2004)

NC = Not calculated (all)

*Idaho reports a high school completion rate. (Education Trust, 2006)

**Maine's Consolidated State Performance Report not available from the U.S. Department of Education at the time of the analysis. (Education Trust, 2006)

***Massachusetts reports a competency determination rate, which measures the percentage of 12th-grade students who passed the Massachusetts Comprehensive Assessment System (MCAS) exam in any administration. (Education Trust, 2006)

****Washington reports both a 4-year graduation rate (70%) and an extended graduation rate, which includes students who graduate in more than 4 years (74%). As of September 2005, Washington has been approved to use the extended graduation rate for high school adequate yearly progress (AYP) determinations. (Education Trust, 2006)

^The 2002 CPI data was calculated by Standard & Poor's using the Urban Institute's methodology.

+The state-reported rates for NCLB accountability are those reported on state report cards, as identified by the Education Trust's review of those report cards.

Appendix 2

[1] Sable, Naum, & Thomas, 2004.

2 Hall, 2005.

3 Seastrom, Hoffman, Chapman, & Stillwell, 2005.

4 Greene & Winters, 2005.

5 School Matters, State pages. Standard & Poor's. www.schoolmatters.com. All 2002 CPI data were calculated by Standard & Poor's using the methodology in Swanson, 2004c.

6 Hall, 2005.

7 Seastrom, Hoffman, Chapman, & Stillwell, 2005.

8 Greene & Winters, 2005.

9 *Education Week*, 2006.

10 The Education Trust, 2006.

11 Seastrom, Hoffman, Chapman, & Stillwell, 2006.

12 Swanson, 2004b.

ALLIANCE FOR
EXCELLENT EDUCATION

www.all4ed.org