High School Graduation, Completion, and Dropout (GCD) Indicators: A Primer and Catalog

Christopher B. Swanson
Education Policy Center
The Urban Institute

The Urban Institute
Education Policy Center

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The research presented in this report was conducted in part under contract with the National Institute for Statistical Sciences, which convened the Task Force on Graduation, Completion, and Dropout Indicators for the National Center for Education Statistics. Valuable research assistance for this project was provided by Kendra Bischoff and Nicola Woodroffe. The nonpartisan Urban Institute publishes studies, reports, and books on timely topics worthy of public consideration. The views expressed in this paper are those of the author and are not necessarily those of the Urban Institute or its board of trustees. Please direct correspondence to Christopher B. Swanson, The Urban Institute, Education Policy Center, 2100 M Street NW, Washington DC 20037. For more information contact the Urban Institute Public Affairs Office at 202-261-5709 or visit www.urban.org.

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HIGH SCHOOL GRADUATION, COMPLETION, AND DROPOUT (GCD) INDICATORS

1. INTRODUCTION

High school completion is a fundamental educational process that holds important implications both for individuals and for educational systems. On the one hand, obtaining a high school diploma offers an individual a variety of advantages, including the expectation of more stable employment prospects, higher lifetime earnings, and the opportunity to continue one's education at the postsecondary level. On the other hand, an educational agency—a state public education system, school district, or individual school—might seek to gauge its effectiveness by determining the percentage of its high school students that earn a diploma or fail to do so. While there is considerable consensus around the value of high school completion, there is surprisingly little agreement regarding the methods in which high school outcomes could or should be empirically measured. In fact, limited attention has been devoted even to mapping out the variety of statistical indicators used to empirically measure these outcomes.

The purpose of this catalog is to provide a basic inventory of the various methods for estimating high school graduation, completion, and dropout (GCD) rates that are currently being used by federal governmental agencies and state education agencies (SEAs). It would not be possible in the context of this small-scale investigation to provide a complete accounting of all these methods. In the inventory, we identify and explicate over 70 distinctive GCD indicators. Given unlimited time and resources, it might very well have been possible to identify hundreds of statistical measures employed for purposes ranging from research to public information to accountability. Even at its present scale, however, we believe that this catalog serves to effectively document a considerable amount of the variability in contemporary approaches to measuring high school outcomes.

A mere inventory of statistical indicators will be of limited use without some means of systematically describing the salient aspects of these measures and classifying the various indicators into conceptually and practically meaningful categories. In fact, a lack of uniformity in the use of concepts and technical terminology has been something of a barrier to clearly communicating information and statistics related to high school completion and dropout. In some contexts, for instance, a meaningful distinction might be drawn between an individual who "completes" high school and one who "graduates." At other times these potentially distinct outcomes are treated interchangeably. A given technical expression can in turn be used in an inconsistent, unclear, imprecise, excessively broad, or overly narrow manner. The term "cohort," for example, may carry different connotations to researchers versus practitioners, to researchers in various disciplines, to different governmental agencies, or to a single agency depending on the context or application.

It will not be the goal of this report to devise a comprehensive or definitive taxonomy of statistical approaches to measuring GCD rates. Such an endeavor, if it were to be pursued conscientiously, would represent a major undertaking unto itself. However, a working classification system for these types of indicators is necessary for this report. Indeed, the act of constructing a catalog composed of uniformly

structured entries for GCD indicators would itself imply the presence of at least a provisional scheme for conceptually identifying and organizing relevant information about those indicators.

This conceptual portion of the present investigation proceeds in a series of steps and constitutes what might be thought of as a primer on GCD indicators.

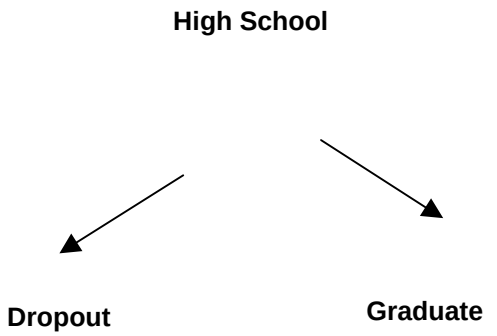
- Outlining a basic conceptual framework that will assist in thinking rigorously about high school completion processes and addressing the challenges associated with empirically measuring graduation, completion, and dropout rates.
- Utilizing this provisional framework in order to derive a set of categories for classifying various kinds of empirical GCD indicators. These categories will employ extent terminology where it is useful but will also seek to clarify ambiguities in current usage wherever possible.
- Explaining key methodological issues associated with the measurement of GCD rates at a level of specificity that will be meaningful to researchers but also accessible to policymakers, educators, and other general audiences concerned with this issue.
- Applying this provisional classification scheme in a consistent manner to develop catalog entries for actual GCD rate indicators. In other words, the conceptual stage of this investigation will directly guide the concepts and terminology used in the indicator catalog as well as the organization of the entries themselves.

The remainder of this report is organized as follows. Section 2 provides a brief discussion of the high school processes and outcomes of interest in this catalog. Section 3 describes various types of data systems from which an indicator can be developed. These data systems are represented visually using a contingency table approach that closely resembles the kinds of aggregated, group-level data from which many agencies calculate GCD rates. Section 4 discusses different kinds of “rates” and the way in which data considerations intersect with mathematical formulations to define a statistical indicator. Section 5 offers a brief overview of several of the major sources of data on high school outcomes. These are the sources from which the most prominent, publicly reported findings on high school graduation, completion, and dropout are derived. Section 6 describes the review process used to identify indicators included in the catalog as well as the format of the indicator entries themselves. Finally, Section 7 presents the individual GCD indicator entries.

2. HIGH SCHOOL OUTCOMES

This catalog is concerned with the measurement of certain high school outcomes. In particular, we are interested in the progression of students through high school and the way in which students terminate their participation with the secondary education system. This process of entering, advancing through, and eventually leaving high school can be represented in more or less elaborate ways. Exhibit 1 below offers one very simple, perhaps naïve, way to depict a student's path. Although simplistic, the key distinction drawn here between students who drop out of high school and those who graduate is one that resonates with common-sense ways of thinking about high school completion. Often this basic logic also carries over into efforts to measure and report on these outcomes.

Exhibit 1: Simple Paths through High School



In real life, of course, teenagers can follow many paths through high school. In some cases, two students may start and end in the same places but take strikingly divergent courses between those two points. One student, for example, has struggled with school her whole life and was held back several times in elementary and middle school. She encounters further academic difficulties immediately upon entering high school and drops out before finishing the ninth grade. She never returns to high school, but passes the GED a decade later and obtains a high school equivalency credential that offers the hope of advancement in the workplace. A second student progresses normally through high school until the middle of his junior year. At this point, the death of a parent sends his family into difficult financial straits and the student takes a job at night to help support his family. Although he tries to stay in school, the demands of a full-time job at night and attending school during the day become overwhelming and he drops out. Over the next year and a half, he makes several short-lived attempts to reenroll and finish high school but drops out each time. Finally, this student decides to take the GED and passes. A high school equivalency allows him to enroll at the local community college, where the flexible schedule allows him to work toward a college degree while keeping his job.

Both of these hypothetical students started high school, dropped out, and eventually obtained high school equivalencies. But beyond these few common points, their experiences diverged. The first student left high school and never returned, a relatively unambiguous case of a dropout. The second student, however, returned to school on several occasions before leaving for the last time. Snapshots taken at different points during this period might alternatively show this second teenager as an enrolled high school student or a dropout.

Exhibit 2: Less Simple Paths through High School

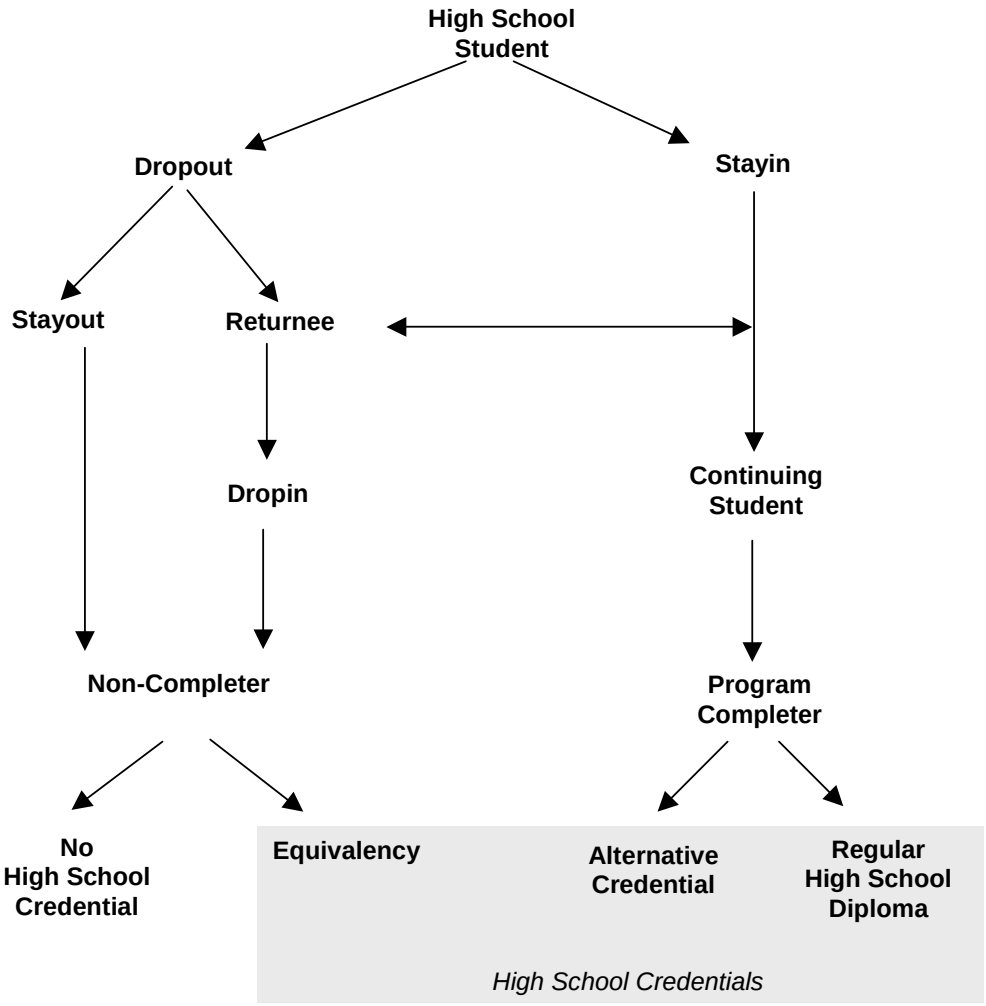


Exhibit 2 depicts a more elaborate set of paths through high school. While probably still a simplification, this diagram comes closer to representing the full range of experiences teenagers actually encounter.[1] This new depiction, for example, recognizes that dropping out and returning to school are events that can occur multiple times. In addition, our first diagram's short-hand identification of students who finish high school as "graduates" has been considerably expanded in Exhibit 2. Here we find a distinction between students who have completed a regular high school program and those who have not. Among the broader group of **Completers**, some earn regular diplomas (**Graduates**) while others obtain alternative, non-diploma credentials. These latter **Alternative Completers** might include students who fulfill course-taking requirements but fail to pass a high school exit exam (receiving a certificate of attendance) or special education students who met goals established in their Individualized Education Programs (perhaps receiving an IEP or special education certificate).

In addition to a distinction between program completers and non-completers, this more elaborate illustration of paths through secondary level education also calls attention to the different types of high school credentials an individual might obtain. Program completion and receipt of credentials are often discussed in ways that suggest the terms are interchangeable. As we see here, however, this distinction is not always so clear. Certain credentials, like regular diplomas, generally do imply the successful completion of a full secondary-level program of study. But other credentials, like certificates of attendance, might be awarded for meeting only some of the requirements of a standard high school program or for the completion of a non-standard program. Individuals may also earn high school credentials through a test-based equivalency like the GED that occurs independently of completing or even attending a secondary education program.[2]

The graduation, completion, and dropout rate indicators at the center of this study are intended to measure the prevalence of the various high school outcomes depicted in Exhibit 2. As the discussions above suggest, the paths students follow through high school are more numerous, complicated, and interconnected than is often acknowledged. In addition, the terms commonly used to describe these various outcomes are often applied in inconsistent or imprecise ways. It will be necessary, therefore, to explicitly define this terminology as it will be used in this report. We will define the key statuses or outcomes of the secondary education process as follows.

- ***Enrolled Student.*** An individual who is currently attending a formal education program at the elementary or secondary level. This would not include individuals enrolled in adult education programs, even if they are of high school age.

- ***Not Enrolled.*** An individual who is not currently receiving formal educational services at the elementary or secondary level. This group might include those who were *Never Enrolled* in a particular educational system of interest (e.g., adult immigrants) as well as those who had been enrolled at some point in the past. Members of either group can be further classified on the basis of their past educational experiences. In the present context, we will be interested in the way in which these individuals left the elementary/secondary educational system (e.g., as completers versus dropouts).

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[1] This diagram builds on a figure that has been presented in Department of Education publications in the past (see the *Condition of Education 1986* for an example).

[2] The abbreviation *GED* stands for *General Educational Development*, a series of tests administered by the American Council on Education. Individuals who pass this battery of assessments and meet other state-established qualifications may receive a high school credential. For more information on the GED, see *Who Passed the GED Tests? 2002 Statistical Report,* American Council on Education, Washington D.C., 2004.

- ***High School Program Completer.*** An individual who has received a high school credential as the result of fulfilling the requirements of a standard or modified secondary educational program. An individual can complete high school through two major routes.

    - ***Graduate.*** A student who receives a *standard high school diploma* as the result of fulfilling all of the requirements of a standard secondary educational program. The particular set of conditions that students must meet to earn a diploma (or other credential) may be defined independently by local authorities within a broader system. For example, individual state education agencies within the United States are responsible for determining the course-taking requirements, test score performance, and other criteria associated with a high school diploma within their respective jurisdictions.

    - ***Alternative Completer.*** A student who obtains a *non-diploma credential* for completing a formal secondary educational program that does not meet the requirements necessary to be awarded a standard diploma. The group of alternative completers could potentially be further subdivided based on the particular type of alternative program or credential of interest (e.g., certificate of attendance, IEP certificate). The availability and types of non-diploma credentials vary across local jurisdictions.

- ***High School Program Non-Completer.*** An individual who is not currently enrolled in school at the elementary or secondary level *and* has not completed a formal high school program. This group of non-completers includes both individuals who have earned some kind of high school credential and those who have not.

    - ***Dropout.*** An individual who is not currently receiving educational services at the elementary or secondary level and who has not completed a high school program or otherwise received a high school credential. This group might include individuals who never attended school at the secondary level (e.g., those who dropped out before ninth grade).

    - ***Equivalency Recipient.*** A non-enrolled individual who has not completed a secondary educational program but has obtained a high school credential through a test-based *equivalency* such as the GED.

Although there are other possible ways of classifying high school outcomes, the scheme described above provides a useful foundation for approaching the study of GCD rates. One particular feature of this classification, however, should be mentioned. Generally speaking, some conceptualizations of high school outcomes are primarily oriented around the issue of *credential attainment* while others are more concerned with an individual's participation in or completion of a formal *educational program*. The former distinction is often found in studies of educational attainment levels among members of an adult population. The latter features prominently in investigations where program completion constitutes an important indicator of the performance of particular (public) education systems.

Both of these perspectives on high school outcomes are valid, although they are not entirely compatible with one another. As noted earlier, program non-completers include individuals without high school credentials and those who have obtained credentials through an equivalency (rather than through a formal secondary education program). This raises the dilemma of whether or not equivalency recipients should be considered to have received a high school education in the broader sense. In practice, the high school equivalency is generally not treated as an independent empirical category in its own right. Instead,

recipients of these credentials tend to be subsumed under the definitions of either dropouts or alternative completers. Often the approach to classifying those who receive high school equivalencies is driven less by conceptual considerations than by practical necessities (e.g., it may not be possible to reliably distinguish among different types of high school credentials in a survey or database).

The current study will not attempt to resolve this question, which is at least in part a normative one revolving around the relative values of various high school credentials. Instead, we will attempt to chart a middle course. In keeping with conventional practice, GCD rates will be described primarily in terms of the associated credential. However, we will also indicate explicitly how recipients of equivalencies are defined in the context of a given indicator (particularly those that involve dropouts and alternative completers).

3. REPRESENTING DATA

3.1. Types of Databases

Measuring the rates at which individuals experience certain kinds of events, such as dropping out of or graduating from high school, first requires clear definitions of these outcomes and an appreciation of the ways in which they are related to one another. The next step in this process involves developing an understanding of the kinds of data that will allow us to move from a conceptual representation to an empirical measurement of these outcomes. The types of empirical indicators that can be devised to measure high school graduation, completion, and dropout are highly dependent on the kinds of data available.

A particular approach to empirical measurement, for instance, may imply some minimal data requirements with respect to level of informational detail (e.g., grain size), unit of measurement (e.g., individual students versus educational organizations), or ability to track follow individual cases units over time (e.g., a student tracking system). Information systems could be described on the basis of these and potentially many other dimensions relevant to the task of calculating GCD indicators. For the purposes of the current investigation, however, three main classes of data systems will be of interest: cross-sectional, repeated cross-sectional, and individually tracked data.

3.1.1. Cross-Sectional Data

Information systems consisting of *cross-sectional* data provide a snapshot of conditions in a population of interest at a single point in time. Cross-sectional data are used primarily to characterize contemporary group-level conditions. A *population* is a set of elements or units that are of particular interest from a theoretical, empirical, or practical perspective. The constituent units from which a population is comprised may be either individual (e.g., students) or collective (e.g., schools) in nature. In a cross-sectional data system, a population of interest is defined and observed at a single point in time. It is often useful to distinguish between cross-sectional data systems that (1) consist of ***contemporary*** information only, where all measurements and variables are anchored to the time of observation, and (2) include ***retrospective*** information, where some measurements capture conditions at some point prior to the time of observation. Retrospective information might be embedded in a cross-sectional data system, for instance, by asking respondents in a cross-sectional survey to answer questions about their past experiences.

3.1.2. Repeated Cross-Sectional Data

A data system composed of *repeated cross-sectional* data collections allows analysts to examine group-level trends for a focal population. This type of data system might be thought of as a series of multiple, independent cross-sectional databases. Here the population of interest is defined and then observations of that population are taken multiple points in time. The conceptual definition of the population remains the same across the set of observations, but the specific individuals being observed may change over time. For example, we might identify 18 year-olds as our population of interest. Then suppose we create a repeated cross-sectional database by (1) counting the number of 18-year olds with a high school diploma at a given point in time (year *y*) and then (2) counting the number of 18-year olds with a high school diploma again three years later (*y+3*). The population of interest here remains the same (18-year olds).

But the actual individuals being observed are not the same (i.e., the 18-year olds from year *y* will be 21-year-olds three years later when the second measurement is taken). Some databases may define the general population of interest in relatively broad terms, such as adults 18 years of age and older. In these situations it may also be possible to identify more narrowly defined subpopulations, such as individuals who are a particular age (e.g., 18, 19, 20, 21 and so forth). Here, repeated cross-sectional observations may allow analysts to track characteristics of a *group* of individuals over time. For example, comparisons of 18-year-olds in year *y* and 21-year-olds at year *y+3*.

3.1.3. Individually Tracked Data

The third type of data system involves *tracking the individual members* of a population over time. Information systems of this kind are referred to using a variety of terms, such as longitudinal databases or single record systems. To construct this type of database, we would define the population of interest, identify individual members of that population, and record observations of those specific individuals at multiple points in time. That is, individual members of a population are tracked *prospectively* over a period of time. This enables the measurement of change at an *individual* level, rather than just the observation of trends for the population as a whole or for more narrow subgroups. A longitudinally tracked database is quite flexible, since it can also be used to calculate group-level trends or to produce a cross-sectional snapshot of the characteristics of a population.

3.1.4. Capturing Temporal-Linked Information

The ways in which temporally anchored information might be captured represents a key distinction among the different types of data systems described above. Suppose, for example, we were interested in the percentage of individuals who earned a high school diploma at an older-than-average age (between the ages of 19 and 21 for our present purposes). One way to estimate that figure would be using individually tracked data. In this case, we would survey a sample of 18-year-olds to determine how many had received a high school diploma and then resurvey that same group of individuals three years later to see how many additional diplomas had been earned in the interim. Alternatively, we could approximate the same figure using a single cross-sectional data collection that contains retrospective information. For example, we could survey a group of 21-year-olds and ask the following two questions: (1) Do you currently have a high school diploma? and (2) Did you earn a diploma by age 18? Respondents who answer “yes” to the first question and “no” to the second would be considered late or over-age graduates.

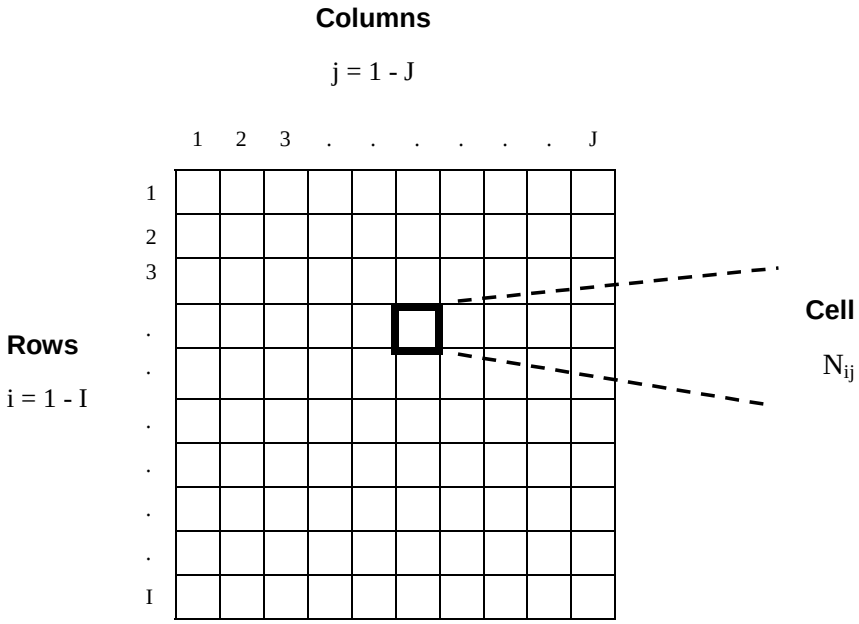
It is also worth noting that the identification of population units of interest can be, to some extent, a relative distinction. This introduces another type of temporal distinction, particularly in databases that might support multiple levels of analysis. Suppose, for example, that a repeated cross-sectional database consists of information about students at its most basic level (e.g., counts of dropouts or graduates) but that the identity of individual students cannot be linked from one observation point to another. However, suppose that this data system possesses a multilevel structure such that the basic elements (e.g., students) are nested within identifiable higher-level units (e.g., schools) that can be consistently identified and followed over time. Such a database would possess a temporal or longitudinal dimension, although only at the aggregate school level.

3.2. The Contingency Table Approach

The flow diagrams presented earlier to describe the paths a student might take through high school are useful for a variety of reasons. For example, these diagrams represent the progress of an individual through a series of stages. This helps to identify important categories and processes of interest and the ways they may be interrelated. These insights are valuable when developing an empirical indicator.

Another way to represent similar kinds of information would be in tabular form. In particular, contingency tables offer a means of visually presenting aggregate data in form that closely resembles the structure of actual databases often used to calculate graduation, completion, and dropout rates. An example of a very basic contingency table can be found in Exhibit 3.

Exhibit 3: Basic Contingency Table



A *contingency table* is an n^{th} dimensional table where cell values represent the frequency (i.e., count) of cases that fall into a particular cross-classification of the categories defined on the basis of rows, columns, and higher-order (n^{th}) dimensions. Our example is simple two-dimensional table where row categories are indexed by ***i*** and column categories are indexed by ***j***. So, the count of cases appearing in a particular table cell would be represented as $\boldsymbol{N_{ij}}$.

3.2.1. Contingency Table for High School Progression

The progression of students through high school can be represented using a contingency table approach. We start with a basic two-way table in which rows represent grades and columns represent school years (Exhibit 4). It should be noted that one of the dimensions of this table is defined in terms of time. As a result, an individual student can only be counted once in each column. That is, a student can only be enrolled in one grade at a given point in time.[3] Further, students will be counted once in *each* column, assuming they remain members of the population or system represented by the table for multiple years.

Exhibit 4: Table of High School Enrollment

Grades *g = 9 -12*	School Year *y = y to y+3*			
	y	y +1	y+2	y+3
12				$N_{12,y+3}$
11			$N_{11,y+2}$	
10		$N_{10,y+1}$		
9	$N_{9,y}$			

Cell values in this example (N_{gy}) would represent the number of student enrolled in a school system at a particular secondary grade level (***g***) at the beginning of a particular school year (***y***). Students progressing on time through high school would be expected to complete one grade per school year. For example, students who started the ninth grade in year *y* and are promoted on schedule would appear in the main diagonal cells of the table (i.e., $N_{9,y}$ $N_{10,y+1}$ $N_{11,y+2}$ $N_{12,y+3}$). Individuals not progressing normally would appear in the off-diagonal cells of the table. This might include students retained or held back because they failed a grade (e.g., $N_{9,y+1}$) or students who skip a grade ($N_{11,y+1}$).

[3] The properties of a contingency table, therefore, depend on the properties of its dimensions. Another table, for instance, might contain rows and columns that are respectively composed of a set of mutually exclusive categories. In that case, each individual person enumerated would appear in *one and only one* cell in the entire table (i.e., in one row-by-column cross-classification).

3.2.2. Extending the Contingency Table to Include High School Outcomes

The grade progression examples above introduce the basic logic of a contingency table that begins to capture student paths through high school. That basic representation, however, does not capture the outcomes of greatest interest for our current purposes—graduation, completion, and dropout. To incorporate these outcome statuses into a contingency table format, we must expand the number of table rows and define these categories in a somewhat different manner.

In the above example (Exhibit 4), row values corresponded to grade levels while columns represent years. Although in both of these cases values can be expressed in numerical terms, this need not be the case. In fact, the dimensions of a contingency table often capture strictly categorical (or nominal) distinctions that imply no numerical ordering. A table might, for instance, classify the number of automobiles found in a parking lot on the basis of their color (red, blue, green, other) and manufacturer (Honda, Chevy, Subaru, other).

In Exhibit 5, we incorporate high school outcomes into our contingency table logic by redefining row categories based on a combination of two pieces of information about an individual.

- ***Current School Enrollment Status*** (enrolled vs. not-enrolled/leaver)
- ***Most Recent Grade Attended*** (grade 9 through 12)

These distinctions could alternatively have been represented as independent second and third table dimensions. To minimize the complexity of the table, however, we have chosen to construct status categories that are themselves combinations of two sub-dimensions. It should also be noted that the population of interest here consists of individuals who have been enrolled in the system at some point during period of observation (i.e., never-enrolled individuals are outside the scope of observation).

With respect to one's current status, an individual may be either enrolled in school or no longer in school. It should be noted that being able to identify a no-longer-enrolled individual as a ***leaver*** implies having access to some information regarding that person's past status. That is, leaver status at a particular point time (e.g., *y+1*) is effectively defined on the basis of having experienced an event between two observation points (e.g., *y* and *y+1*). As before, the second dimension in this contingency table (i.e., columns) remains a temporally defined one—the school year during which the observation is made.

This example also introduces a shift in the notation convention. Here an abbreviation for an individual's status (e.g., ***E*** for enrolled or ***L*** for leaver) replaces ***N*** as a signifier for the cell count. The row subscript remains the grade level. So, now $\boldsymbol{E_{9,y}}$ would be used to represent the count of students enrolled (***E***) in grade ***9*** for year ***y*** (rather than $N_{9,y}$ used earlier). The notation $\boldsymbol{L_{y+1}}$ would represent the number of formerly enrolled students now counted as leavers (i.e., individual enrolled at time *y* but not enrolled at time *y+1*).

This table could be further expanded to represent specific kinds of school leavers of interest, which might include Graduates (diploma recipients), Alternative Completers (completers with non-diploma credentials), Dropouts (school leavers without credentials), and Outflow. The latter category would refer to students who leave the system without completing or dropping out (e.g., due to transfer or death). Given a sufficiently sophisticated data collection and information system, each of these leaver categories could also be distinguished based on the last grade attended, much in the way we distinguish currently enrolled students by their grade level. In such a data system, for example, $\boldsymbol{D_{9,y+1}}$ would represent students who dropped out (***D***) of the ninth (***9***) grade between *y* and ***y+1***. That is, these individuals were counted as ninth graders at time *y* and dropouts at time *y+1*. Capturing this level of detail would generate a very large table with 20 rows, one for each grade-by-status combination.

Exhibit 5: High School Enrollment and Leaving

School Year

y = y to y+3

Status	y	y +1	y+2	y+3	y+4
Grade 12				$E_{12,y+3}$	
Grade 11			$E_{11,y+2}$		
Grade 10		$E_{10,y+1}$			
Grade 9	$E_{9,y}$				
Leaver		L_{y+1}	L_{y+2}	L_{y+3}	L_{y+4}

Enrolled (9 –12)
Not Enrolled (Leavers)

Many real-world data collection systems, however, do not support this level of detailed reporting. For instance, a school district may record annual information about grade-by-grade enrollment and dropout counts; total counts of diploma recipients and alternative completers (i.e., not disaggregated by grade); and no information at all about other kinds of Outflow from the system. This particular example essentially describes the district-level data on high school enrollment, completion, and dropout currently collected through the U.S. Department of Education's Common Core of Data (CCD) data system.[4] Exhibit 6 represents this information in contingency table form.

The notation in this table is similar to the previous exhibit. For instance, G_{y+4} would represent the total number of diploma recipients (***G***) observed at time ***y+4***. More specifically, these are the diplomas awarded between the *y+3* to *y+4* observations (i.e., during the school year that ended in the spring of year *y+4*). As discussed above, this particular information system is able to capture enrollment and dropout counts for specific grade levels. The notation associated with these statuses contains subscripts reflecting both grade level and year (e.g., D_{gy}). However, since we only observe the total numbers of graduates and alternative completers, we omit the grade-specific subscript for these outcomes (e.g., G_{y+4}). In similar situations, alternative notational styles might use "." in a subscript to represent

[4] The Common Core of Data (CCD), conducted by the U.S. Department of Education, is an annual census survey of public sector local educational agencies (districts) and schools for the fifty states, the District of Columbia and several other non-state jurisdictions. Annual surveys of basic demographic and educational information at the state, district, and school levels are completed by staff of the respective state education agencies.

disaggregated categories that are not observed or marginal frequency that sum counts across a set of observed categories. Although we omit this subscript in the interests of simplifying our notation, it should be noted that the same information (e.g., the total number of high school dropouts for a particular year) could be expressed in a variety of equivalent ways (e.g., $D_y = [D_{9,y} + D_{10,y} + D_{11,y} + D_{12,y}] = D_{.,y}$).

Exhibit 6: Enrollment, Dropout, and Completion Table (modeled after the Common Core of Data)

School Year

y = y to y+3

Status

Enrolled (9 –12)
Dropout (9-12)
Graduate (diploma)
Alternative Completer (other credential)

	y	y +1	y+2	y+3	y+4
Grade 12				$E_{12,y+3}$	
Grade 11			$E_{11,y+2}$		
Grade 10		$E_{10,y+1}$			
Grade 9	$E_{9,y}$				
Dropout 12					$D_{12,y+4}$
Dropout 11				$D_{11,y+3}$	
Dropout 10			$D_{10,y+2}$		
Dropout 9		$D_{9,y+1}$			
Graduates					G_{y+4}
Alternative Completers					A_{y+4}

3.2.3. Adding a Final Dimension—Group Membership

So far, the contingency table examples discussed above have all been two-dimensional, capturing (1) an individual's status and (2) time of observation. Data from such an information system could be used to construct GCD indicators *in the aggregate*—that is, to calculate GCD rates for the population as a whole. However, it is often desirable from an analytic perspective (and sometimes mandated by law) that these rates be disaggregated for specific subgroups of individuals. Doing so would require that *every* constituent data element used in a GCD indicator be broken down separately for each subgroup of interest.

We can represent the type of data system necessary to construct disaggregated GCD indicators by expanding our contingency tables through the addition of a third dimension capturing group membership. Individuals may be identified as members of groups based on any number of characteristics, ranging from demographics (gender, race/ethnicity), to socioeconomic status (parental education level, family income), to educational classification (special education, English language learner), to academic performance (having received a passing or failing score on a state assessment). Additional higher-order dimensions could also be used to represent simultaneous membership in multiple groups, such as specific race-by-gender categories (e.g., Latino females, Asian males).

Even a third dimension, however, can be difficult to depict visually. In the interest of clarity we will consider only a single group membership distinction, adding a third dimension to our contingency table (but not a fourth). Further, a simple example will be chosen in which group membership can be expressed using only two categories. Specifically, we will consider membership in gender-defined categories (female, male). Perhaps the easiest way to conceptualize this three-dimensional table is as a pair of layers. As shown in Exhibit 7, each of these layers can be represented as a two-dimensional table—one for females, one for males.

Within each gender-specific table, rows represent grade-level enrollment status and columns represent school years. These individual layers could be "stacked" on top of one another to form a three-dimensional data matrix. Using the notation style introduced earlier, the count of individuals represented in each three-dimensional space defined on the basis of grade (g), year (y), and group membership (m) would be expressed as $\boldsymbol{E_{gym}}$.[5]

3.2.4. A Special Type of Group—The Student Cohort

Educational research often focuses considerable attention on demographically defined groups of students toward whom important policies or funding mechanisms are targeted. This might include students living in poverty or members of historically disadvantaged racial-ethnic groups. In the study of high school enrollment and completion, another specific type of group is often of particular interest—student "cohorts."

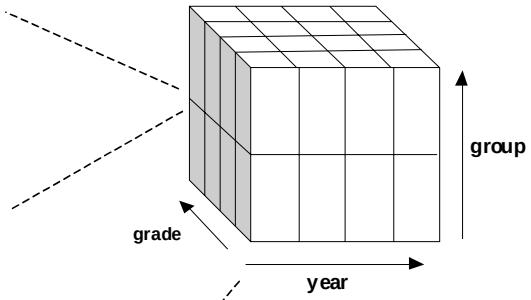
[5] To maintain consistency with the abbreviation conventions used in the GCD indicator entries presented later in this report, the letter "***m***" will be used in subscripts to index group membership. It is coincidental that one of the gender groups in the present example (males) is also abbreviated using the same letter.

Exhibit 7: A Three-Dimensional Table
Enrollment by Year by Gender

Group = Female

	y	y +1	y+2	y+3
Grade 12				$E_{12,y+3,f}$
Grade 11			$E_{11,y+2,f}$	
Grade 10		$E_{10,y+1,f}$		
Grade 9	$E_{9,y,f}$			

Female



Group = Male

	y	y +1	y+2	y+3
Grade 12				$E_{12,y+3,m}$
Grade 11			$E_{11,y+2,m}$	
Grade 10		$E_{10,y+1,m}$		
Grade 9	$E_{9,y,m}$			

Male

Taken in the most generic sense, a ***cohort*** is simply a set of individuals who share a common characteristic, trait, or feature. When used in the context of demography or educational research, however, the term generally takes on a more specific meaning. Typically a cohort will refer to a group of individuals whose shared characteristic involves having experienced a common event during the same period of time. For example, demographic research often examines birth (or age) cohorts, which consist of individuals born during the same year. Of course, the same cohort of individuals might be identified in somewhat different ways over a period of time as it collectively experiences a series of temporally linked events. Members of the 1990 birth cohort, for instance, would become teenagers (i.e., 13-year-olds) in the year 2003.

The field of educational research, on the other hand, tends to be more concerned with cohorts defined on the basis of shared educational events. A school cohort such as a "ninth grade class" might consist of students who started grade nine during a particular school year. Often the study of high school outcomes is conceptualized in terms of anticipated events such as the *expected* year of high school completion. The latter, of course, is associated with the year in which students first start high school. Assuming on-time grade progression, students who first enroll in the ninth grade during the fall of 2000 would be members of the graduating high school class of 2004.

The notion of a student cohort is a relative straightforward distinction in conceptual terms. Capturing true student cohorts empirically when calculating GCD rates, however, can be a much more challenging undertaking in practical terms. Many data systems, for instance, do not collect the precise information needed to ascertain an individual's cohort membership. One database might report the total number of ninth graders in a particular year while another disaggregates enrollment counts separately by first-time and repeat ninth graders. Only in the latter case could an entering high school cohort be identified.

The illustrations used in this section could generally be said to describe "closed" systems in which the total number of individuals being enumerated does not change over time. Real-world data systems, however, are "open" in the sense that individuals may move into or out of the scope of observation (e.g., students transferring to or from a school district). An open system introduces the methodological challenge of being able to identify new students who enter a cohort in progress (or leave the cohort). But assuming that this empirical difficulty could be overcome, there may also be related conceptual complications to consider. For instance, we might ask whether it is appropriate to treat new students who transfer into a system as "true" members of the cohort. The answer to that particular question may depend on the purposes for which information about those students is used.

4. WHAT'S IN A RATE?

4.1. A rate by any other name …

The previous sections have attempted to lay out the conceptual groundwork underpinning the development of the GCD catalog complied in this study. First, we considered the nature of student paths through secondary education and the ways in which high school *graduation*, *completion*, and *dropout* are defined. Then, we discussed key properties of the information systems that can be used to compile data about high school outcomes. In particular, the contingency table perspective presented above offered a potentially useful way to conceptualize aggregate-level data systems. But it also helped to introduce the notation conventions used in the mathematical formulas that will appear later in the catalog entries. This section turns to another central question in the study of GCD rates—exactly what we mean by a "rate."

In its most general or colloquial sense, a ***rate*** is one number divided by another and is typically expressed numerically as a small decimal value. Much as was the case with the term "cohort" discussed above, researchers often employ the term "rate" with a more particular, technically specific definition in mind. In the more technical sense used in educational research or social science, a rate generally expresses the percentage of an eligible population that experiences a particular event during a particular interval of time. A rate can be depicted using a very basic formula as follows.

$$\textbf{Rate} = \frac{\text{Population subset experiencing an event}}{\text{Total population at risk of experiencing an event}} = \frac{\boldsymbol{E}}{\boldsymbol{P}}$$

Several properties of a rate, defined in these terms, are worth noting. The general logic of a rate implies a temporal dimension—events occurring over some period of time. This temporal dimension, however, may be more or less well defined. The focal event may reference a specific interval of time—a particular year, month, or even day. But an event of interest could also refer to something that occurred at some unspecified time in the past or during a broadly defined period, rather than during a narrowly circumscribed time interval.

The following two descriptions are examples of different types of rates, dropout rates in particular:

- The percentage of students starting the ninth grade during a given school year who drop out before the end of that academic year
- The percentage of young adults age 16–24 who have not completed at least a high school education

The former type of indicator possesses a clearly defined time frame—a single academic year. A measure of this kind is often referred to as an ***event rate***. The latter example, often called a ***status rate***, possesses a less clearly defined temporal dimension. The status rate's lack of specificity can be see with respect to both the population of interest (e.g., the broad range of ages considered young adulthood) and the timing of the event of interest (e.g., no reference to the year or grade level during which an individual left school). These distinctions can be expressed in somewhat different terms. Event indicators essentially

capture *incidence*—the rate at which an event occurs over a particular period of time. Status indicators, on the other hand, essentially measure *prevalence*—the proportion of a population having a particular (event-defined) characteristic at a particular point in time.

The basic logic of a rate would also suggest that individuals counted in the numerator of the equation (i.e., those experiencing the event) must also be counted in the denominator (i.e., the risk set or population of individuals who could potentially experience the event). This characteristic of a rate is often assumed in technical discussions where rigor and precision are chief concerns. However, the term "rate" is often used in practice to refer to measures or indicators where it is not possible to empirically reconcile observed events with the individuals at risk. In fact, some of the official federal and state statistics described the GCD catalog share this property.

Such a situation may arise as a result of the mathematical properties of a statistic or the practical limitations of an information system. For example, a researcher could try to approximate a graduation rate for a particular school district that has a very rudimentary data system. A basic indicator might be constructed by dividing the number of diploma recipients in the spring of 2004 by the number of ninth graders in the fall of 2000 (Formula 1 below). Due to a variety of factors not captured by the available data—grade retention, transfer into the system, migration out—the students in the numerator may not be a subset of the specific individuals in the denominator. That is, some of those 2004 graduates may have started high school before 2000, while others may have been enrolled in a different school district at that point in time. Alternatively, a more sophisticated database might contain information on the numbers of first-time ninth graders in 2000 and on-time graduates in 2004. Assuming no transfer into or out of the district, this would allow a researcher to employ a mathematical formula in which individuals in the numerator also appear in the denominator (see Formula 2 below). Information in real-world data systems, of course, may at times be incomplete or recorded with error. In such a situation, the case-by-case correspondence between numerator and denominator that exists in principle may not strictly pertain in practice.

Formula 1

$$\frac{\text{All diplomas in spring 2004}}{\text{All ninth graders in fall 2000}}$$

Formula 2

$$\frac{\text{On-time diplomas in spring 2004}}{\text{First-time ninth graders in fall 2000}}$$

Empirically imperfect measures such as these are commonly referred to as *rates* by educational practitioners, policymakers, the public, and many researchers. From the more technically oriented perspective mentioned above, however, it could be argued that a definitive reconciliation of cases in the numerator and denominator of a measure constitutes an essential characteristic of a "rate." As such, it might be more prudent (or at least more precise) to describe such imperfect measures as rate *indicators* or rate *estimators* rather than "rates" per se. This report will generally refer to empirical GCD measures as ***rate indicators*** in order to acknowledge these considerations.

4.2. Types of Empirical Rate Indicators

As the discussion above suggests, real-world data constraints may place practical limitations on empirical measures of high school graduation, completion, and dropout. While a true rate may generally be preferable, calculating a more imprecise *rate indicator* may be the only feasible option in many situations in light of data limitations. In general, it is useful to think of an empirical measure or indicator of any kind as constituting a union of mathematical formula and observed data. This section describes and defines the rate indicator classifications used to categorize the statistics appearing the GCD catalog.

4.2.1. Indicator Categories used by NCES

The terminology commonly used by researchers to describe different types of graduation, completion, and dropout rates has been strongly influenced by a series of reports published by the U.S. Department of Education's National Center for Education Statistics (NCES). These reports (*Dropout Rates in the United States)* distinguish among status, event, and cohort rates. The definitions used by NCES to describe these three kinds of rates appear in Exhibit 8. Although these definitions refer specifically to dropout rates, similar ones could be applied to high school graduation and completion.

Exhibit 8: NCES Classification of Dropout Rates

Event rates describe the proportion of students in a given age range who leave school each year without completing a high school program.

Status rates provide cumulative data on dropouts among all young adults within a specified age range. Status rates are higher than event rates because they include all dropouts in a given age range, regardless of when they last attended school.

Cohort rates measure what happens to a group of students over a period of time. These rates are based on repeated measures of a cohort of students with shared experiences and reveal how many students starting in a specific grade drop out over time.

Source: *Dropout Rates in the United States: 2000* (NCES 2002)

The classification of rate indicators developed for the present report will employ these terms (status, event, cohort) and will also introduce new categories. However, as described below, these terms will be defined in a somewhat different manner than has become customary. Several considerations led to this decision to depart, at least in a minor way, from the common usage of these terms.

- The definitions employed by NCES imply a categorical distinction between event and cohort rates. It will be suggested here, however, that cohort rates can be more usefully viewed as a subcategory of event rates. As described below, we will distinguish among specific types of event rate indicators based on the types of data used to develop an empirical measure.

- The term "cohort" has also come to be used in rather narrow way in the NCES publications. Increasingly, cohort rates have become associated specifically with measures that are based on data obtained from individual students who are tracked over a period of time. This narrow connotation would exclude from consideration some statistics that are based on group-level data and could legitimately be viewed as "cohort" rate indicators. Earlier installments of the *Dropout Rates in the United States* series, in fact, cited examples of such group-level cohort rates.

- These three broad categories are not sufficient to capture the considerable diversity of GCD indicators in use today by federal and state agencies. In fact, most of such real-world statistical indicators may be most appropriately classified in other categories, which often fall somewhere in between the status, event, and cohort distinctions.

4.2.2. Indicator Classification Used in this Catalog

The classification scheme developed for this study's catalog consists of two main classes of indicators: Status Rates and Event Rates. These broad categories resemble the definitions used by NCES in a variety of respects. In the current report, however, we distinguish among several different subtypes of event rates. It should be noted that the indicator classifications described below are generic in the sense that they can be applied in the same manner to graduation, completion, and dropout rates.

Status Rates

Status Rates are used to capture the prevalence of a particular condition or characteristic within a population at a single point in time. A status indicator can be thought of as a snapshot rather than an on-going observation over a period of time. As such, a status rate does not possess a temporal dimension in the traditional sense and can be considered a *synchronic* indicator.

As suggested earlier, however, it is sometimes the case that the condition of interest itself can be defined on the basis of a *past event*. Demographers, for instance, might calculate the marriage rate for a population—the percentage of individuals who are married at a particular point in time. In this case, current marital *status* implies having experienced or not experienced a particular *event* (i.e., getting married) at some point in the past. The status-defining event, however, occurred at an unspecified time in the past. This means that for a particular member of a population the duration between that event and the time of observation is not known. In other words, the amount of time spent "at risk" of experiencing the event varies within the population.

There are many examples of status rates in educational research. Perhaps the most relevant to the present study would be educational attainment indicators. Such a measure typically reports the proportion of the adult population that had reached a particular level of education (e.g., attended school until a certain grade or earned a particular credential). Status dropout, completion, or graduation rates are examples of educational attainment measures.

We can also describe a rate indicator (in part) in terms of the kinds of data it requires (see Exhibit 9). As noted earlier, a status rate indicator is calculated using data observed at a single point in time (i.e., single cross-sectional data). Thinking back to our earlier illustrations, this means that a status rate can be computed using information that would appear within one temporally defined column of a contingency table. In effect, this would constitute a one-dimensional table, where the cells represent the frequency of different statuses at a single point in time.

Event Rates

Event Rates capture the incidence of an occurrence within a population of interest during a particular interval of time. An event rate is a *diachronic* indicator, possessing an explicit temporal dimension. The duration of the time period being observed, however, can vary. We noted above that statuses can sometimes be defined in terms of past events. In a similar vein, the events that are the subject of event rate indicators can often be conceptualized as a transition from one status or condition to another. An annual marriage rate, for instance, measures the percentage of people who moved from an unmarried state to a married state over the course of a year.

Returning again to the logic of contingency tables, event rates generally require data that can be expressed as a true two-dimensional data matrix. At a minimum, this would be a two-way contingency table where the rows represent statuses of interest and the columns represent multiple points in time. An event rate indicator captures differences in data across rows and columns. For a particular population, this would reflect the number of individuals who changed status (unmarried to married, enrolled to dropout) between observations.

Exhibit 9: Types of Data Required to Calculate Status and Event Rate Indicators

Type of Data System	Status Rate	Event Rate				
		Retrospective	Synthetic	Pseudocohort	Cohort	Panel
Single Cross-Section, Contemporary	✓		✓			
Single Cross-Section, Retrospective	✓	✓				
Repeated Cross-Section	✓		✓	✓	✓	
Individually Tracked Longitudinal System	✓		✓	✓	✓	✓

✓ = **Rate indicator can be calculated using specified type of data.**

Types of Event Rates

Within the broader category of event rates, it is possible to identify a number of notable variations on the general approach. These subtypes all possess the fundamental conceptual logic of an event. But this logic is operationalized in somewhat different ways. Often the main distinction among specific kinds of

event rates pertains to the properties of available data—in particular, the manner in which the temporal dimension is captured.

Of course, there are exceptions to every rule. And the rule implying that event rates should contain a temporal dimension is itself no exception. Specifically, there are certain situations where event rate *indicators* can be generated using cross-sectional data.

Retrospective Event Rates

Retrospective Event Rate indicators can be constructed from strictly cross-sectional observations where information is reported on the occurrence of past events. In other words, the *data* are collected at one point in time but the *information* that is captured refers to multiple time points. We might think of this information as representing a "virtual" column in the temporal dimension of a two-way contingency table. This would be virtual in the sense that the time point associated with the information is not the same as the time point at which the observation (i.e., data collection) is made. A survey, for example, might ask high school–age respondents whether they were enrolled in school *a year ago* and, if so, at what grade level. This information could be combined with responses to questions about the respondent's *current* situation (such as enrollment and high school completion status *at the time of the survey*). By doing so, an analyst could indirectly reconstruct past events that the individual had experienced (e.g., dropping out of school during the past year). A retrospective approach, therefore, allows for the calculation of an event rate based on a cross-sectional data collection. It should also be added that a retrospective event rate is a "true" rate as opposed to an indirect rate "indicator" in the technical sense discussed earlier. That is, the individuals appearing in the numerator of the mathematical formula would be a subset of individuals in the denominator.

Synthetic Event Rates

Synthetic Event Rate indicators employ observations on multiple *temporally defined* groups at a single point in time in order to approximate the experiences of a single hypothetical group over some period of time. In this case, the identification of these groups (at least indirectly) provides a temporal distinction, which is typically accomplished through the use of repeated observations in nonsynthetic rates. Calculating a standard (i.e., nonsynthetic) event graduation rate, on the one hand, might involve following a single class of ninth graders for four school years in order to determine how many had received a diploma by the end of that period. A *synthetic* version of this event rate, on the other hand, might compare the number of graduates to the number of ninth graders during a *single school year*. The validity of synthetic rates (compared to their nonsynthetic counterparts) typically relies on strong assumptions regarding the comparability of the groups of individuals from which data are obtained. Synthetic rate indicators do offer some advantages, which, given the right conditions, might at least partially compensate for their methodological weaknesses. In particular, a synthetic approach enables an analyst to approximate an event rate in situations where data have not been collected for a sufficient number of years to calculate a standard event rate.

A synthetic rate can also be derived from a repeated cross-sectional database. This can happen when different pieces of information about a particular group of students are referenced to the same timeframe (e.g., a school year) but collected at different points in time. For example, an indicator for the dropout rate during year ***y*** might employ information about both enrollment counts and dropout counts. Enrollment counts for a given school year are usually taken in the fall of the school year. However, the collection of

dropout data is usually lagged—with counts of year ***y*** dropouts obtained in the fall of year ***y+1***.[6] In general, calculating an indicator that combines information on enrollment with end-of-year statuses (graduation, completion, dropout) requires that the number of individual observation (or data collection) points will be one greater than the number of school years being observed.

The final three types of event rates are calculated based on data containing multiple observations collected over time. These event rate indicators also all involve the logic of what might be called cohort analysis. As discussed earlier, a cohort is a group of individuals that experiences a common event during the same period of time. *Cohort analysis*, in its most basic sense, involves charting the characteristics of such a group over a period of time. This general logic of following a well-defined group of individuals across time is shared by all cohort-type event rates. However, this logic can be operationalized in different (more or less perfect) ways depending on the data available. In some respects, we might think of different types of cohort event rate indicators as being distinguished by their minimal data or informational requirements (see Exhibit 9).

Cohort Event Rates

Cohort Event Rate indicators calculate the proportion of cohort members who experience a particular event during a specified period of time. As noted above, a cohort itself is defined here as a group of individuals who share another earlier event in common. Like other event rates, we can conceptualize this indicator, in perhaps overly simple terms, as a fraction. The denominator (or risk set) for the indicator consists of the total number of group members (observed at time *t*) who could potentially experience the event of interest. The numerator (or incidence set) consists of the number of these group members who experienced the focal event between the initial observation of the group (*t*) and some later point in time (*t+n*). Repeated observations are, therefore, required in order to calculate a cohort rate. One example of a cohort event rate would be a four-year graduation rate for an entering high school class. This indicator could compare the number of first-time ninth graders (i.e., starting cohort members) to the number of those students who received a high school diploma within four years (the expected time of high school completion). A true cohort rate implies that both of these data elements (e.g., ninth grade enrollment and diploma counts) refer specifically to members of the focal cohort. This informational requirement can be met by a repeated cross-sectional database, provided the data system can disaggregate indicator elements by cohort membership. Individual cohort members need not be tracked prospectively over time in order to generate a cohort event rate.

Panel Event Rates

Panel Event Rate indicators are a specific kind of event rate measure that employ data generated from longitudinal data systems in which individual cohort members are tracked over time. In fact, we might think of this indicator in an even more narrow sense as a subtype of cohort event rates. For a standard cohort rate indicator, the focal group as *a whole* is followed over time. Panel event rates, however, track the *individual members* of this cohort. In some respects the differences between cohort and panel rate indicators can be quite minimal. At an aggregate level, for example, a panel rate may be indistinguishable from a cohort rate since both indicators would refer to the collective experience of the same group of individuals (i.e., a particular cohort). In the case of a panel rate, however, the temporal linkage in the data

[6] In many cases, when calculating an event indicator that combines information on enrollment with end-of-year statuses (graduation, completion, dropout) the number of required observation (data collection points) will be one greater than the number of school years being observed. This will be a result of the lag in collection of end-of-year status for the final school year observed.

exists at the individual (as opposed to group) level. Consequently, panel rate data can be disaggregated to directly examine the event of interest for specific persons. A database consisting of longitudinally tracked records allows for the observation of individual change and the possibility of conducting more sophisticated statistical analyses that link together data elements from multiple sources. As a result, tracked data and panel rates are often viewed as a "gold standard" for the investigation of graduation, completion, dropout, and other outcomes.

Pseudocohort Event Rates

Pseudocohort Event Rate indicators are cohort-like empirical measures that attempt to estimate the incidence of an event among a cohort of interest. Compared to true cohort rates, the major limitation of a pseudocohort indicator is that it utilizes repeated cross-sectional data in which cohort membership for individuals in a population *cannot* be directly or precisely observed. Analysts often employ these types of indicators in situations where data collection systems do not contain detailed information on the timing of past experiences. Suppose, for instance, that the cohort of interest is an expected graduating class. This might be the group of students who start ninth grade in the fall of 2000 (and who are in turn expected to graduate in the spring of 2004). To calculate a true cohort graduation rate, we would need data on ninth grade enrollment in 2000 and diploma status in 2004, broken down specifically for members of this group (i.e., first-time ninth graders in 2000). Suppose instead that the data *actually* available told us the total number of 2000 ninth graders and number of 2004 diplomas but **not** how many of these students started high school as ninth graders in 2000. In other words, we do not know who was and was not a member of the focal cohort. In this type of situation, a pseudocohort rate indicator would attempt to approximate the experience of the cohort as closely as possible using the available information (2004 diplomas divided by 2000 ninth graders). As this example suggests, a pseudocohort indicator possesses the general logic of a cohort rate. It reflects the temporal milestones of the actual cohort of interest, and data are observed at the time points when true cohort members are expected to experience these key events (i.e., starting and finishing high school). Due to practical data limitations, however, cohort identification cannot be fully operationalized.

5. MAJOR SOURCES OF PUBLIC INFORMATION ON GCD RATES

5.1. Federal Information

Since the late 1980s, the most influential source of information about graduation, completion and dropout rates has been the series of *Dropout Rates in the United States* reports published by the U.S. Department of Education. These reports were initially produced in response to a congressional mandate to annually document state of high school dropout in the nation. Specifically, in 1988 the new authorizing legislation for the National Center for Education Statistics contained three mandates for the center.[7]

- Conduct an annual survey of dropout and retention rates
- Report a dropout rate for a 12-month period to Congress every year
- Establish a Special Task Force on Dropout and Retention Rates to develop and test an effective methodology for measuring dropout and retention rates

The Department of Education has continued to publish these reports even after the authorizing legislation expired. Annual reports are available for the years 1988 through 2000, with further installments anticipated in the future.

These reports compile the most current information available from several major data sources in order to provide up-to-date statistics on high school dropout, completion, and graduation rates for the nation as a whole. Analyses present findings for particular demographic subgroups, the states, and other geographical areas where data permit. In some years, more extensive supplemental analyses also focus on particular populations (e.g., immigrants or individuals with disabilities) or special topics (e.g., grade retention patterns, reasons for dropout, or the economic returns to high school completion).

These reports are widely cited in governmental, policy, media, and research circles and have helped to promote the popular distinction among status, event, and cohort rates described earlier. The exact GCD statistics being reported have evolved slightly over time (e.g., the age range to which a particular rate refers). The specific slate of analyses presented also differs somewhat from year to year. Cohort rates derived from long-term longitudinal studies, for example, are only available on a periodic basis. A summary of GCD rates appearing in these reports by year can be found in Exhibit 10. This table uses the NCES rate categories by which the statistics are identified in the original publications (rather than the new classification developed for the current study).

Three major data sources appearing in the *Dropout Rates in the Unites States* reports are the Current Population Survey, Common Core of Data, and longitudinal studies conducted by the U.S. Department of Education. The latter category would include the High School and Beyond Study (HSB) initiated in the early 1980s and the National Education Longitudinal Study of 1988 (NELS) fielded a decade later. These databases have been the leading source of publicly accessible information on GCD rates for several decades. While an understanding of the methodological intricacies of these sources would lend an appreciation of past and future approaches to developing GCD indicators, a systematic treatment of this topic is well beyond the scope of the present investigation. Fortunately, these data sources and the details of their methodological designs are well documented and readily accessible.[8]

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[7] Additional information can be found in the first report in this series, *Dropout Rates in the United States: 1988* (National Center for Education Statistics, 1989).

[8] Overviews of these respective databases and citations for further reading can be found in the Department of

Exhibit 10: Sources for GCD Rates Reported in *Dropout Rates in the United States* Reports (U.S. Department of Education)

	Dropout Rates			Completion Rates			Graduation Rates			Retention/ Persistence Rates [1]
Year	Event	Status	Cohort	Event	Status	Cohort	Event	Status	Cohort	
1988	CPS	CPS	HSB		CPS	(HSB)[2]		Various Sources		CPS
1989	CPS	CPS			CPS			CPS		CPS
1990	CPS	CPS	NELS		CPS			CPS		CPS NELS
1991	CPS	CPS Census	CPS NELS		CPS	(HSB)	(SASS)	CPS	(HSB)	CPS NELS
1992	CPS	CPS	CPS NELS (HSB)		CPS	(HSB)		CPS	(HSB)	CPS
1993	CPS	CPS	CPS NELS (HSB)		CPS		(SASS)	CPS		CPS
1994	CPS CCD[3]	CPS	NELS (HSB)		CPS[4]			CPS	NELS	CPS
1995	CPS CCD	CPS	NELS (HSB)		CPS			CPS		CPS
1996	CPS CCD	CPS	NELS (HSB)		CPS			CPS		CPS
1997	CPS CCD	CPS			CPS			CPS		
1998	CPS CCD	CPS			CPS			CPS		
1999	CPS CCD	CPS			CPS			CPS		
2000	CPS CCD	CPS			CPS					

Source: *Dropout Rates in the United States* reports 1988-200 (National Center for Education Statistics)
Abbreviations: Census = U.S. Decennial Census; CPS = Current Population Survey; CCD = Common Core of Data; HSB = High School and Beyond; NELS=National Education Longitudinal Study; SASS = Schools and Staffing Study.
Notes
1. School Retention/Persistence refers to the percent of student who remain enrolled in school (as opposed to dropping out). This statistic is calculated by subtracting the event dropout rate from one.
2. Sources in parentheses indicate secondary data sources that are only briefly cited or used for purposes of comparison with more current data.
3. Starting in 1994, the Common Core of Data was used to estimate state-level event dropout rates. The number of states for which the necessary data are available varies from year to year (ranging from 17 in 1994 to 37 in 2000).
4. Starting in 1994, the Current Population Study was used to generate 3-year moving averages of the status completion rate at the state level.

Education's *Dropout Rates in the United States* publications. The catalog entries for GCD indicators presented later in the current report also include citations that provide more in-depth methodological discussions, particularly for the Current Population Survey and the Common Core of Data.

5.2. State Information

In addition to these federal data sources, student information systems maintained by state education agencies have become an increasingly prominent source of information about high school outcomes. This is particularly true since the passage of the No Child Left Behind Act, which required that all states calculate and publicly report high school graduation rates as part of their accountability systems. Data generated by the states themselves will be the basis for the most locally visible and consequential high school completion statistics, since these data will be used to determine whether or not a school makes adequate yearly progress (AYP) under the law. Schools and districts repeatedly failing to meet performance standards will be identified as in need of improvement and subject to a series of progressively aggressive corrective actions.

The evolutions of individual state student information systems have occurred largely independently over the past several decades and have been greatly influenced by a variety of local factors. As a result, features of these data systems vary considerable across the states with respect to their structure, comprehensiveness, and technical sophistication. At one extreme, some state information systems consist of relatively basic aggregate-level data collected as cross-sectional snapshots on an annual basis. At the opposite end of the spectrum, other states have developed statewide student tracking systems that follow individual students over time through the use of a unique student identification code. This student identifier also provides a potential mechanism for constructing an even more extensive database of student information compiled from a wide variety of administrative sources (provided that these individual databases employ the same student identification code).

Often these administrative record systems will generate information that is not directly comparable to data from other states. Among other reasons, this may result from differences in the way the data are collected. Some states collect only cross-sectional aggregate data while others maintain records of individually tracked students. The record keeping systems and administrative procedures of individual states can also differ considerably. Noncomparability of high school outcome statistics, however, may also be a result of differences in the organization of the state educational systems themselves. For instance, some states only offer a single high school completion credential while others offer multiple completion options. The requirements that students must meet to receive a given credential also vary across the states (e.g., students must pass a high school exit exam to receive a diploma in some states but not others).

The types of data at hand exert a strong practical influence on the ways in which states measure graduation, completion, and dropout rates. As noted earlier, certain kinds of empirical indicators require particular types of data. A comprehensive review of state information systems is beyond the scope of the current investigation. The reader should keep in mind, however, that the state indicators detailed in the catalog have been shaped in part by the limitations of their respective data systems. Many states appear to be moving in the direction of developing more comprehensive student information systems, particularly those capable of tracking individual students. This raises the possibility that states will revise and refine their GCD indicators in the future as these new data systems become operational.

6. OVERVIEW OF THE GCD CATALOG

6.1. The Review and Analytic Strategy

The particular set of GCD indicators described in the catalog entries in Section 7 of this report were identified through an extensive review of publicly accessible policy documents, statistical reports, methodological documentation, and databases. Although not exhaustive, this review does capture the considerable range of approaches to calculating GCD rates currently in use by federal and state agencies. Our initial analysis of these indicators served as the basis for developing and refining the classification scheme for GCD rate described earlier. This framework was, in turn, used to design the format for the catalog entries and categorize the individual indicators examined.

6.1.1. Federal GCD Indicators

As one would expect, the U.S. Department of Education is the federal agency most involved in producing information about high school completion and dropout. Within the Department, the National Center for Education Statistics takes a leading role in collecting data and publicly disseminating information about high school dropout, completion, and graduation. In some cases, these statistics are generated from studies supported jointly by the Department of Education and other federal agencies. The Current Population Survey, for instance, is a large monthly survey administered by the U.S. Census Bureau (Department of Commerce) on behalf of the Bureau of Labor Statistics (Department of Labor), with the Department of Education providing support for a school enrollment supplement included as part of the October CPS installment. Often, the information on high school outcomes that other federal agencies incorporate into their own publications is obtained directly or indirectly from Department of Education sources (e.g., the *Dropout Rates in the United States* reports). In some cases, however, other federal agencies do maintain independent data collection and reporting efforts that generate original public information about high school outcomes and educational attainment levels more generally. A number of these other federal indicators are described in the catalog.

6.1.2. State Graduation Rate Indicators

Conducting a comprehensive review of all GCD statistical indicators in current use by the 50 states and the District of Columbia would present a daunting task. In order to provide a systematic yet meaningful treatment in the context of the current study, it was necessary to focus our state-level review on the one high school outcome for which information about state statistical indicators is readily and systematically available—high school graduation rates. The Title I accountability provisions of the No Child Left Behind Act (NCLB) required every state to calculate and publicly report high school graduation rates as part of their respective statewide accountability systems.[9] Each state described their NCLB accountability plans in a document known as the Consolidated State Application Accountability Workbook, part of which presented the state's method for computing the high school graduation rate. Federal regulations for Title I afforded the states a significant degree of flexibility in selecting graduation rate indicators that could be calculated using the kinds of data available in their respective information systems.

[9] The No Child Behind Act of 2001 was signed into law as Public Law 107-110 on January 8, 2002. The accountability provisions that are of concern in this paper are contained in Title I Part A of the act. More specifically, the graduation rate definition is located at 20 U.S.C. 6311((b)(2)(C)(vi); 115 STAT.1447.

Our state-level review draws heavily on the publicly released, approved versions of these state accountability Workbooks. All state plans had received approval by the U.S. Department of Education as of June 10, 2003.[10] At times, the Workbook descriptions alone did not provide a sufficient amount of technical detail to definitively classify a state's indicator (i.e., according to the categories used in the catalog entries). In these situations the review was expanded to encompass additional sources, which might include correspondence between the Department of Education and the state education agencies (SEAs); state policy statements; research reports and other state-generated documents; or school report cards prepared by states as required by NCLB.

The catalog entries in this study reflect our best understanding of state approaches to calculating graduation rates, based on a careful review of publicly accessible documents. Several additional considerations should be kept in mind with respect to the state graduation rate indicators reported in the catalog.

In some cases, state plans described more than one indicator. Typically these would be (1) an interim indicator to be used for meeting immediate compliance with NCLB requirements and (2) a final indicator that would be adopted at some later point in time. For example, a number of states noted that they were in the process of developing a student tracking system that would be capable (at some point in the future) of producing a graduation rate for a true cohort of entering high school students. Where the plans described multiple indicators, the catalog focused on the indicator being used for immediate compliance under the law. This analytic strategy provides a clearer perspective on the variety of approaches adopted by the states at a particular point in time.

Accountability under No Child Left Behind also represents, in a broader sense, something of a moving target. States may seek to revise (with approval by federal authorities) various aspects of their accountability frameworks. This could include changes in the graduation rate indicator being used. It is possible, therefore, that states may adopt methods to calculate graduation rates that are not cited in their accountability Workbooks (as either an interim or final indicator).

In conducting this review, we also consulted with staff from the Department of Education to clarify our understanding of the process through which state accountability plans were reviewed, revised, and eventually approved. These discussions indicated that at least some final revisions made by the states to their graduation rate calculation methods (in order to receive federal approval of their plans) are not explicitly reflected in the publicly released Workbooks. Transparency has been one of the guiding principles of this current study. In that vein, all entries in the GCD catalog have been developed exclusively using publicly accessible documents. Each entry also contains explicit references to these sources, which include the federally approved and released state Workbooks, statistical reports, and other supplemental public documentation.

Consultations with the Department of Education provided further insights regarding on two additional issues that are worth noting briefly.

First, NCLB regulations clearly stipulate that only recipients of regular, standards-based high school diplomas are to count as "graduates" under the law.[11] Students receiving non-diploma credentials for

[10] The U.S. Department of Education has made the approved versions of the state accountability Workbooks available on-line (http://www.ed.gov/admins/lead/account/stateplans03/index.html). Additional correspondence with state education agencies related to the state accountability plans has also been posted.

[11] Final Title I regulations were published in the Federal Register on December 2, 2002 (Vol. 67, No. 231). These provisions are associated with part 200 of title 34 of the Code of Federal Regulations (34 CFR Part 200). Sec. 200.19 (a)(1)(i)(A) of the regulations addresses the high school graduation rate.

completing some public high school program as well as individuals obtaining equivalencies such as the GED are not considered graduates. Some states offer non-diploma credentials, while others do not. States awarding alternative credentials are expected to distinguish between diploma recipients and other completers in their graduation rate indicators. Some state plans were quite explicit in drawing this distinction, while other plans were less specific. Department of Education staff indicated that even if the language in the released accountability plans appears ambiguous on this point, all states will be defining graduates as diploma recipients in practice. This understanding of what constitutes a high school graduate is expected to be reflected in any future changes states make to their accountability plans (e.g., adopting a different graduation rate formula). Likewise, methods for calculating graduation rates should be revised accordingly to reflect relevant changes in state policy (e.g., introducing a new non-diploma completion credential).

Second, certain methods for estimating a high school graduate rate require an enumeration of all students leaving high school. These exiters would include graduates, dropouts, and those leaving school with non-diploma completion credentials. The National Center for Education Statistics (NCES) "leaver rate" is an important example of such a method.[12] In fact, the majority of states have adopted a similar approach in their NCLB accountability plans. Our analysis of the state Workbooks, however, revealed that some states do not explicitly account for non-diploma completers (where applicable) when describing their methods for calculating the graduation rate. Department of Education staff indicated that the issue of enumerating all non-diploma completers was raised with states during the peer review process through which the accountability plans were approved. In practice, therefore, states using leaver-type graduation rate indicators will be expected to specifically enumerate all applicable leaver categories. Our catalog entries, however, refer to the methods *as described by the states* in their publicly released accountability Workbooks. In some cases, the indicators described do not provide a complete accounting of alternative completers.

6.1.3. Generic Dropout Indicators

The NCLB accountability Workbooks provide a single, official, systematic source form which to obtain definitions of state graduation rate indicators. No such uniform source exists to facilitate the identification of state methods for calculating dropout rates. Although not a mandated component of accountability systems under Title I of NCLB, states must report dropout rates as condition of participation in a number of federal programs. For example, states employing the Consolidated Application for federal funding are required to report data on dropout rates, calculated according to the definitions established by NCES for the Common Core of Data. Since all states are now making use of the Consolidated Application process, it is reasonable to expect that these federal requirements have served to promote a relatively uniform approach to calculating dropout rates across the states.

A detailed state-by-state accounting of dropout rate indicators would be of limited interest or value in a context where state practices are reasonably uniform. A partial review of state dropout indicators conducted for this study, however, did suggest several minor variations in the ways states might report dropout rates (at least for their own local or internal purposes). These variations largely involve alternative ways in which a annual CCD-type dropout indicator can be used to project an estimated rate for a longer period of time (e.g., dropout rates over four years). In the catalog, we describe this set of approaches under the heading of "Generic Dropout Indicators."

[12] A detailed description of this indicator appears in the GCD catalog.

6.1.4. Persistence Rate Indicators

This study focuses primarily on statistical indicators used to estimate high school graduation, completion, and dropout rates. Several entries the GCD catalog, however, describe indicators identified as ***persistence rates***. This type of statistic measures the percent of students who continue to be enrolled in high school over some period of time. In practice, this indicator is usually operationalized by subtracting an event dropout rate from one.[13] Suppose, for example, that we estimate a 10 percent annual dropout rate for grades 9 through 12 in a particular school. This would translate into a persistence rate of 90 percent—in other words, nine out of ten students remain enrolled in school from one year to the next. In some situations, persistence rates are treated as indicators of high school completion. It should be noted, however, that persistence measures do not include data on high school completion events (i.e., receiving a diploma or other credential). As such, persistence is at best an indirect indicator of high school completion.

6.2. Guide to Catalog Entries

6.2.1. Catalog Format

Exhibit 11 illustrates the format of the GCD catalog entries. Each of these entries consists of six sections, which respectively *identify* and classify the indicator; *define* the indicator in both technical and non-technical terms; describe the properties of the *data system* or source from which the indicator is derived; outline considerations related to the *reporting* of empirical results; describe the *purposes* for which GCD results are used; and provide a *citation* referencing the documents consulted to obtain information about the indicator. The left-hand column of the exhibit shows the section headings and sub-headings employed in the catalog. The right column contains a description of the information that will appear in specific fields for actual indicator entries.

[13] Persistence rates can also approximated using data on changes in enrollment counts for adjacent grade-levels from one year to the next. In this case, declines in enrollment are attributed to attrition from school.

Exhibit 11: Description of GCD Catalog Entries

NAME OF INDICATOR

IDENTIFICATION	
Classification of Method	*Type of rate indicator (status, synthetic event, retrospective event, pseudocohort event, cohort event, panel event)*
Reporting Agency	*Name of federal or state agency employing the indicator*
Information Source	*Name and brief description of information source form which data are obtained for indicator (e.g., a survey or administrative data system)*
DEFINITION	
General Definition	*Brief plain-English description of the indicator*
Mathematical Definition	*Indicator presented as a mathematical formula, using a standardized style of notation (described in Section 6.3 of this report)*
Definition of Elements	*Description of the individual data elements (or variables) that appear in the indicator's mathematical formula.*
DATA SYSTEM	
Unit of Analysis	*The most basic unit from which the database is constructed (e.g., individual respondents for a survey or schools for an aggregate-level administrative data system)*
Data Structure	*Classification of data system structure (contemporary single cross-section, retrospective single cross-section, repeated cross-section, individually tracked cases)*
Time Span	*Period of time (e.g., number of school years) captured by indicator (n/a for single cross-sectional data structures)*
REPORTING	
Target population	*Population of interest for the indicator (may be individuals or organizations)*
Structural units/levels	*Jurisdictions or organizational levels at which the indicator can be calculated and reported, given current status of data system (e.g., nation, state, district, school)*
Population subgroups	*Demographic subgroups for which disaggregated rates are, given current status of data system*
PURPOSE	
Main use(s)	*Main application(s) for which results are used: reporting (public information), accountability (stakes attached to results), or analysis (research)*
CITATION	
	References for documents reviewed to prepare catalog entry, including URL for on-line sources where available.

6.2.2. Formula Notation

The mathematical formulas included in the catalog entries generally employ the conventions of discrete statistical notation, some aspects of which have been introduced earlier in this report. A set of one-letter abbreviations will be used to refer to a particular high school status or outcome of interest. The statuses that appear most frequently in GCD indicators are as follows.

P	**P**opulation (members of a general population, typically within a specified age range)
E	**E**nrolled Student (individual currently attending an elementary or secondary education program)
C	High School **C**ompleter (received credential for completing a secondary education program, may include equivalency)
G	High School **G**raduate (diploma recipient)
A	**A**lternative High School Completer (recipient of non-diploma credential, may include equivalency recipients)
Q	High School E**q**uivalency Recipient (recipient of high school credential through test-based equivalency, like the GED)
D	**D**ropout (individual not currently enrolled and not a program completer, may include equivalency recipients)
I	**I**nflow (individual who moved into a population or system)
O	**O**utflow (individuals who moved out of a population or system)
R	**R**eached Maximum Age (for receiving public educational services)
M	Death, **M**ortality (individual died)

A series of one or more subscripts will generally be associated with a particular abbreviation (i.e., status or outcome). As described in earlier illustrations, we can think of these subscripts as indexing the categories represented on the respective dimensions of a contingency table. The convention used to present formulas in the catalog will be to illustrate the mathematical definition for the indicator as it would be calculated for a given year (*y*). The first subscript (***y***), therefore, refers to the temporal dimension (i.e., year or time at which an observation is made). All GCD formulas will possess a time index. Depending on the type of indicator and data available, additional subscripts may also be present representing other dimensions of the data system matrix. A subscript indexing current (or most recent) grade-level enrollment status will be indexed by ***g***. Finally, the subscript ***m*** will index membership in a particular cohort (e.g., defined based on age or an entering high school class). An annotated illustration of this notational convention appears below.

$$E_{y\,g\,m}$$

y ← time (year)
g ← grade level
m ← cohort membership

The mathematical operations entailed in calculating an indicator value will, in most cases, involve summing counts of individuals across multiple years, grade-levels, or cohorts. Discrete statistical notation uses the Greek letter sigma (**Σ**) to represent this summation operation. Subscripts and superscripts will indicate the range of values across which counts are summed. Operations involving summation across ranges within multiple dimensions (e.g., grade and year) are represented with a series of sigma symbols. The following illustration performs a summation of dropout counts across certain grade-levels and ages (i.e., birth cohorts).

$$\sum_{m=15}^{24}\sum_{g=10}^{12} D_{ygm} \quad = \quad \text{Total count (sum) of dropouts (}\boldsymbol{D}\text{) during year }\boldsymbol{y}\text{ who were in grades (}\boldsymbol{g}\text{) 10 through 12 and between the ages (}\boldsymbol{m}\text{) of 15 and 24.}$$

Finally, in certain data systems, a particular dimension may be unobserved. For example, data may not be collected on the year in which a student first started high school (i.e., cohort membership). To reduce the complexity of the mathematical formulas presented in the catalog, subscripts for unobserved dimensions will be omitted. So the notation D_{yg} would represent a situation where the year and grade at which a student dropped out are observed (but not the year in which that student first enrolled in ninth grade).

7. THE GCD CATALOG

7.1. Federal GCD Rate Indicators

CPS Event Dropout Rate

IDENTIFICATION	
Classification of Method	Retrospective Event Dropout Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Current Population Survey (October), Census Bureau Survey of residential households (annual supplement)
DEFINITION	
General Definition	Proportion of high school students who dropped out over a 1-year interval of time
Mathematical Definition	$HSDR_y = \frac{\sum_{m=15}^{24}\sum_{g=10}^{12} D_{ygm}}{\sum_{m=15}^{24}\sum_{g=10}^{12}\left(D_{ygm} + E_{ygm} + C_{ygm}\right)}$
Definition of Elements	***D = High School Dropouts*** Includes: persons age 15–24 enrolled in grades 10–12 in October of year y-1 who were no longer enrolled in October of year y and did not complete a high school program. Excludes: recipients of diploma, program completion or equivalency (e.g., GED) credential. ***E = Enrolled High School Students*** Persons age 15–24 enrolled in grades 10–12 in October of years y-1 and y. ***C = High School Completers*** Persons age 15–24 who completed high school between October of year y-1 and October of year y. Includes: recipients of diploma, program completion or equivalency (e.g., GED) credential.
DATA DESCRIPTION	
Unit of Analysis	Individual household member (one survey respondent reports on behalf of all household members)
Data Structure	Single cross-section with retrospective information
Time Span	N/A
REPORTING	
Target population	Young adult (age 15–24) civilian non-institutionalized population
Structural units/levels	Nation, region, state (3-year moving average at state level)
Population subgroups	Race/ethnicity, sex, age, family income
PURPOSE	
Main use(s)	Reporting, Analysis
CITATION	
	Dropout Rates in the United States: 2000 (NCES): http://nces.ed.gov/pubs2002/droppub_2001/index.asp CPS Website: http://www.bls.census.gov/cps/cpsmain.htm Basic CPS survey: http://www.bls.census.gov/cps/bdata.htm CPS Supplements: http://www.bls.census.gov/cps/school/scenmain.htm

CPS Status Dropout Rate

IDENTIFICATION	
Classification of Method	Status Dropout Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Current Population Survey (October), Census Bureau Survey of residential households (annual supplement)
DEFINITION	
General Definition	Percent of persons 16 to 24 who have not completed high school.
Mathematical Definition	$HSDR_y = \frac{\sum_{m=16}^{24} D_{ym}}{\sum_{m=16}^{24} P_{ym}}$
Definition of Elements	***D = High School Dropout*** Includes: individuals age 16–24 who have not completed a high school program and are not currently enrolled in school. Excludes: recipients of high school diploma, program completion or equivalency (e.g., GED) credential. ***P = Population age 16-24***
DATA DESCRIPTION	
Unit of Analysis	Individual household member (one survey respondent reports on behalf of all household members)
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	Young adult (age 16–24) civilian non-institutionalized population
Structural units/levels	Nation, region
Population subgroups	Race/ethnicity, sex, race-by-sex, age, immigration status, family income, labor force status, years of school completed
PURPOSE	
Main use(s)	Reporting, Analysis
CITATION	
	Dropout Rates in the United States: 2000 (NCES): http://www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2002114 Digest of Education Statistics (NCES): http://nces.ed.gov/programs/digest/

CPS Status Completion Rate

IDENTIFICATION	
Classification of Method	Status Completion Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Current Population Survey (October), Census Bureau Survey of residential households (annual supplement)
DEFINITION	
General Definition	The proportion of 18- through 24-year-olds not currently enrolled in school at the elementary or secondary level who have earned a high school diploma or the equivalent, including a GED credential.
Mathematical Definition	$HSCR_y = \frac{\sum_{m=18}^{24} C_{ym}}{\sum_{m=18}^{24} P_{ym}}$
Definition of Elements	***C = High School Completers*** Individuals age 18–24 who have received a high school diploma, program completion or equivalency (e.g., GED) credential. ***P = Population age 18–24*** Excludes: individuals who are currently enrolled in school at the secondary level or below.
DATA DESCRIPTION	
Unit of Analysis	Individual household member (one survey respondent reports on behalf of all household members)
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	Young adult (age 18–24) civilian non-institutionalized population
Structural units/levels	Nation, geographic region, state (3-year moving average at state level)
Population subgroups	Race/ethnicity, sex, age
PURPOSE	
Main use(s)	Reporting, Analysis
CITATION	
	Dropout Rates in the United States: 2000 (NCES): http://nces.ed.gov/pubs2002/droppub_2001/index.asp CPS Website: http://www.bls.census.gov/cps/cpsmain.htm Basic CPS survey: http://www.bls.census.gov/cps/bdata.htm CPS Supplements: http://www.bls.census.gov/cps/school/scenmain.htm

CPS Status Graduation Rate

IDENTIFICATION	
Classification of Method	Status Graduation Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Current Population Survey (October), Census Bureau Survey of residential households (annual supplement)
DEFINITION	
General Definition	The proportion of 18- through 24-year-olds not currently enrolled in school at the elementary or secondary level who have earned a high school diploma.
Mathematical Definition	$HSGR_y = \frac{\sum_{m=18}^{24} G_{ym}}{\sum_{m=18}^{24} P_{ym}}$
Definition of Elements	***G = High School Graduates*** Individuals age 18–24 who have received a high school diploma. Excludes: individuals who completed high school by receiving an equivalency credential (e.g., GED). ***P = Population age 18–24*** Excludes: individuals who are currently enrolled in school at the secondary level or below.
DATA DESCRIPTION	
Unit of Analysis	Individual household member (one survey respondent reports on behalf of all household members)
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	Young adult (age 18–24) civilian non-institutionalized population
Structural units/levels	Nation, geographic region, state (3-year moving average at state level)
Population subgroups	Race/ethnicity, sex, age
PURPOSE	
Main use(s)	Reporting, Analysis
CITATION	
	Dropout Rates in the United States: 1999 (NCES): http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001022 CPS Website: http://www.bls.census.gov/cps/cpsmain.htm Basic CPS survey: http://www.bls.census.gov/cps/bdata.htm CPS Supplements: http://www.bls.census.gov/cps/school/scenmain.htm

CPS Status Alternative Completion Rate

IDENTIFICATION	
Classification of Method	Status Completion Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Current Population Survey (October), Census Bureau Survey of residential households (annual supplement)
DEFINITION	
General Definition	The proportion of 18- through 24-year-olds not currently enrolled in school at the elementary or secondary level who have received a high school equivalency.
Mathematical Definition	$HSCR_y = \frac{\sum_{m=18}^{24} A_{ym}}{\sum_{m=18}^{24} P_{ym}}$
Definition of Elements	***A = Alternative High School Completers*** Individuals age 18–24 who have received a high school equivalency credential (e.g., GED). Excludes: recipients of high school diplomas. ***P = Individuals age 18–24*** Excludes: individuals who are currently enrolled in school at the secondary level or below.
DATA DESCRIPTION	
Unit of Analysis	Individual household member (one survey respondent reports on behalf of all household members)
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	Young adult (age 18–24) civilian non-institutionalized population
Structural units/levels	Nation, geographic region, state (3-year moving average at state level)
Population subgroups	Race/ethnicity, sex, age
PURPOSE	
Main use(s)	Reporting, Analysis
CITATION	
	Dropout Rates in the United States: 1999 (NCES): http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001022 CPS Website: http://www.bls.census.gov/cps/cpsmain.htm Basic CPS survey: http://www.bls.census.gov/cps/bdata.htm CPS Supplements: http://www.bls.census.gov/cps/school/scenmain.htm

CCD Event Dropout Rate

IDENTIFICATION	
Classification of Method	Pseudocohort Dropout Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Common Core of Data (CCD), National Center for Education Statistics Census of public schools and school districts within states (annual)
DEFINITION	
General Definition	Percent of public school students enrolled in grades 9–12 who drop out during a given school year.
Mathematical Definition	$HSDR_y = \frac{\sum_{g=9}^{12} D_{yg}}{\sum_{g=9}^{12} E_{yg}}$
Definition of Elements	***D = High School Dropouts*** Students who were enrolled in grades 9–12 at some time during school year ***y*** who were no longer in enrollment in school on October 1 of the following year. Includes: students expected to be in membership in year ***y+1*** but have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: transfer to another public school district, private school, or state- or district-approved education program which might include a GED preparation program; temporary school-recognized absence due to suspension or illness; and death. ***E = High School Enrollment*** Students enrolled in grades 9–12 in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	District (most basic level of reporting for high school dropout in CCD)
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	State
Population subgroups	Race/ethnicity, grade, district locale
PURPOSE	
Main use(s)	Reporting
CITATION	
	Public High School Dropouts and Completers from the CCD: School Year 2000-2001: http://nces.ed.gov/pubs2004/2004310.pdf Documentation to the NCES CCD LEA Universe Survey Dropout and Completion Data File: School Year 2000-2001: http://nces.ed.gov/ccd/pdf/drp00gen.pdf Dropout Rates in the United States: 2000 (NCES): http://nces.ed.gov/pubs2002/droppub_2001/index.asp

CCD Completion Leaver Rate

IDENTIFICATION	
Classification of Method	Pseudocohort Completion Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Common Core of Data (CCD), National Center for Education Statistics Census of public schools and school districts within states (annual)
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma or other credential for completing a public secondary education program
Mathematical Definition	$HSCR_y = \frac{\sum C_y}{\sum \left(C_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***C = High School Completers*** Students completing a public secondary education program in year ***y***. Includes: recipients of a standard high school diploma, or (if offered by state) a certificate of attendance or other program completion credential in lieu of a diploma. Excludes: recipients of GED or other high school equivalency credential. ***D = High School Dropouts*** Students who were enrolled in grades (***g***) 9–12 at some time during school year ***y*** who were no longer in enrollment in school on October 1 of the following year. (For additional details on dropout definition see catalog entry for CCD Event Dropout Rate.)
DATA DESCRIPTION	
Unit of Analysis	District (most basic level of reporting for high school completion in CCD)
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	State
Population subgroups	Race-ethnicity, district locale.
PURPOSE	
Main use(s)	Reporting
CITATION	
	Public High School Dropouts and Completers from the CCD: School Year 2000-2001: http://nces.ed.gov/pubs2004/2004310.pdf Documentation to the CCD LEA Universe Survey Dropout and Completion Data File: School Year 2000-2001: http://nces.ed.gov/ccd/pdf/drp00gen.pdf Dropout Rates in the United States: 2000 (NCES): http://nces.ed.gov/pubs2002/droppub_2001/index.asp

CCD Graduation Leaver Rate

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Common Core of Data (CCD), National Center for Education Statistics Census of public schools and school districts within states (annual)
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G* = *High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***A* = *Alternative High School Completers*** Students receiving a non-diploma credential for completion of a public secondary education program in year ***y***. Excludes: equivalency credentials (e.g., GED). ***D* = *High School Dropouts*** Students who were enrolled in grades (***g***) 9–12 at some time during school year ***y*** who were no longer in enrollment in school on October 1 of the following year. (For additional details on dropout definition see catalog entry for CCD Event Dropout Rate.)
DATA DESCRIPTION	
Unit of Analysis	District (most basic level of reporting for high school completion in CCD)
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	State
Population subgroups	Race-ethnicity, district locale.
PURPOSE	
Main use(s)	Reporting
CITATION	
	Public High School Dropouts and Completers from the CCD: School Year 2000-2001: http://nces.ed.gov/pubs2004/2004310.pdf Documentation to the CCD LEA Universe Survey Dropout and Completion Data File: School Year 2000-2001: http://nces.ed.gov/ccd/pdf/drp00gen.pdf Dropout Rates in the United States: 2000 (NCES): http://nces.ed.gov/pubs2002/droppub_2001/index.asp

CCD Alternative Completion Leaver Rate

IDENTIFICATION	
Classification of Method	Pseudocohort Completion Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education.
Information Source	Common Core of Data (CCD), National Center for Education Statistics Census of public schools and school districts within states (annual)
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a non-diploma credential for completing a public secondary education program
Mathematical Definition	$$HSCR_y = \frac{\sum A_y}{\sum \left(A_y + G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***A = Alternative High School Completers*** Students receiving a non-diploma credential for completion of a public secondary education program in year ***y***. Excludes: equivalency credentials (e.g., GED). ***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students who were enrolled in grades (***g***) 9–12 at some time during school year ***y*** who were no longer in enrollment in school on October 1 of the following year. (For additional details on dropout definition see catalog entry for CCD Event Dropout Rate.)
DATA DESCRIPTION	
Unit of Analysis	District (most basic level of reporting for high school completion in CCD)
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	State
Population subgroups	Race-ethnicity, district locale.
PURPOSE	
Main use(s)	Reporting
CITATION	
	Public High School Dropouts and Completers from the CCD: School Year 2000-2001: http://nces.ed.gov/pubs2004/2004310.pdf Documentation to the NCES CCD LEA Universe Survey Dropout and Completion Data File: School Year 2000-2001: http://nces.ed.gov/ccd/pdf/drp00gen.pdf Dropout Rates in the United States: 2000 (NCES): http://nces.ed.gov/pubs2002/droppub_2001/index.asp

Digest of Education Statistics—Graduate Ratio

IDENTIFICATION	
Classification of Method	Status Graduation Rate
Reporting Agency	National Center for Education Statistics, U.S. Department of Education. Reported in *Digest of Education Statistics*
Information Source	Multiple sources, including: Current Population Survey, Census Bureau; Common Core of Data, National Center for Education Statistics; Common Core of Data
DEFINITION	
General Definition	High school graduates as a percent of the 17-year-old population
Mathematical Definition	$HSGR_y = \frac{\sum_m G_{ym}}{\sum_{m=17} P_{ym}}$
Definition of Elements	***G = High School Graduates*** Includes: diplomas from public and private regular day school programs. Excludes: other high school program completion (if separately reported) and high school equivalency (e.g., GED) credential. ***P = Population age 17***
DATA DESCRIPTION	
Unit of Analysis	Varies by source and across long-term time series
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	17-year-olds in civilian non-institutionalized population
Structural units/levels	Nation
Population subgroups	Sex, public/private schools
PURPOSE	
Main use(s)	Reporting (long-term national trend)
CITATION	
	Digest of Education Statistics 2002 (NCES): http://nces.ed.gov/programs/digest/

American Community Survey Completion Rate

IDENTIFICATION	
Classification of Method	Status Completion Rate
Reporting Agency	U.S. Census Bureau, U.S. Department of Commerce
Information Source	American Community Survey Survey of residential households (proposed replacement for decennial census long form).
DEFINITION	
General Definition	Percent of population 25 years and older who are high school completers
Mathematical Definition	$HSCR_y = \frac{\sum_{m=25}^{\max} C_{ym}}{\sum_{m=25}^{\max} P_{ym}}$
Definition of Elements	***C = High School Completer*** Includes: individuals who report their highest degree as high school diploma or equivalent, Associates, Bachelors, Masters, Graduate or Professional degree; or who report attending college but not receiving a degree. Excludes: individuals who report completing grade 12 but have not received a diploma or equivalent. ***P = Population age 25 and older***
DATA DESCRIPTION	
Unit of Analysis	Individual household member (one survey respondent reports on behalf of all eligible household members)
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	Adult population (25 years and older)
Structural units/levels	Nation, state, county, city, metropolitan area, population groups of 65,000 people or more
Population subgroups	Multiple demographic categories
PURPOSE	
Main use(s)	Reporting, Analysis
CITATION	
	ACS website: http://www.census.gov/acs/www/index.html

OSEP Graduate:Leaver Ratio

IDENTIFICATION	
Classification of Method	Status Graduation Rate
Reporting Agency	Office of Special Education Programs (OSEP), U.S. Department of Education
Information Source	OSEP Data Collection System State-level administrative reporting of aggregated counts of students exiting public special education services (sampling permitted)
DEFINITION	
General Definition	Percent of students with disabilities (age 14 and older) who leave special education services with a standard diploma in a given year (i.e., graduates as a percent of all leavers).
Mathematical Definition	$HSGR_y = \frac{\sum_{m=14}^{21+} G_{ym}}{\sum_{m=14}^{21+} \left(G_{ym} + C_{ym} + R_{ym} + M_{ym} + D_{ym} \right)}$
Definition of Elements	***G = High School Graduates*** Students age 14 and older who received special education services in year ***y*** and exited the program through a receipt of a standard high school diploma. Includes: GED recipients only if students remained enrolled in a secondary education program. ***C = Program Completers*** Students who exited program with modified diploma, program completion or similar credential. ***R = Reach Maximum Age*** Students who exit program because reached maximum age for receipt of special education services. ***M = Death*** Student receiving special education services died during year ***y***. ***D = Dropout*** Students receiving special education services during year ***y*** who were not enrolled at the end of the year and did not exit services through other specified modes. Includes: dropouts, runaways, expulsions, status unknowns, and other exiters. Excludes: GED recipients who remained enrolled in a secondary education program.
DATA DESCRIPTION	
Unit of Analysis	State
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	Students (age 14 and older) leaving special education services in public schools
Structural units/levels	State, nation
Population subgroups	Type of disability, race/ethnicity
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Annual Reports to Congress on the Implementation of IDEA: http://www.ed.gov/about/offices/list/osers/osep/research.html IDEA Part B info: http://www.ideadata.org/PartBdata.asp Data forms: http://www.ideadata.org/docs/ExitingPtB.pdf

OSEP Dropout:Leaver Ratio

IDENTIFICATION	
Classification of Method	Status Dropout Rate
Reporting Agency	Office of Special Education Programs (OSEP), U.S. Department of Education
Information Source	OSEP Data Collection System State-level reporting of aggregated counts of students exiting public special education services (sampling permitted)
DEFINITION	
General Definition	Percent of students with disabilities (age 14 and older) who leave special education services as a dropout (i.e., dropouts as a percent of all leavers).
Mathematical Definition	$HSDR_y = \frac{\sum_{m=14}^{21+} D_{ym}}{\sum_{m=14}^{21+} \left(D_{ym} + G_{ym} + C_{ym} + R_{ym} + M_{ym} \right)}$
Definition of Elements	***D = Dropout*** Students receiving special education services during year ***y*** who were not enrolled at the end of the year and did not exit services through other specified modes. Includes: dropouts, runaways, expulsions, status unknowns, and other exiters. Excludes: GED recipients who remained enrolled in a secondary education program. ***G = High School Graduates*** Students age 14 and older who received special education services in year ***y*** and exited the program through a receipt of a standard high school diploma. Includes: GED recipients only if received students remained enrolled in a secondary education program. ***C = Program Completers*** Students who exited program with modified diploma, program completion or similar credential. ***R = Reach Maximum Age*** Students who exit program because reached maximum age for receipt of special education services. ***M = Death*** Student receiving special education services died during year ***y***.
DATA DESCRIPTION	
Unit of Analysis	State
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	Students (age 14 and older) leaving special education services in public schools
Structural units/levels	State, nation
Population subgroups	Type of disability, race/ethnicity
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Annual Reports to Congress on the Implementation of IDEA: http://www.ed.gov/about/offices/list/osers/osep/research.html IDEA Part B info: http://www.ideadata.org/PartBdata.asp Data forms: http://www.ideadata.org/docs/ExitingPtB.pdf

7.2. Generic Dropout Rate Indicators

Annual Dropout Rate, Grades 7-12

IDENTIFICATION	
Classification of Method	Pseudocohort Dropout Rate
Reporting Agency	N/A
Information Source	State or other administrative data system
DEFINITION	
General Definition	Percent of public school students enrolled in grades 7–12 who drop out during a given school year.
Mathematical Definition	$HSDR_y = \frac{\sum_{g=7}^{12} D_{yg}}{\sum_{g=7}^{12} E_{yg}}$
Definition of Elements	***D = High School Dropouts*** Students who were enrolled in grades 7–12 at some time during school year ***y*** who were no longer in enrollment at the beginning of the following year. Includes: students expected to be in membership in year ***y+1*** but have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: transfer to another public school district, private school, or state- or district-approved education program which might include a GED preparation program; temporary school-recognized absence due to suspension or illness; and death. ***E = High School Enrollment*** Students enrolled in grades 7–12 in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	District or school with 7–12 grade span
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	Students in public education system
Structural units/levels	N/A
Population subgroups	N/A
PURPOSE	
Main use(s)	N/A
CITATION	
	N/A

Annual Dropout Rate, Grades 9-12

IDENTIFICATION	
Classification of Method	Pseudocohort Dropout Rate
Reporting Agency	N/A
Information Source	State or other administrative data system
DEFINITION	
General Definition	Percent of public school students enrolled in grades 9–12 who drop out during a given school year.
Mathematical Definition	$HSDR_y = \frac{\sum_{g=9}^{12} D_{yg}}{\sum_{g=9}^{12} E_{yg}}$
Definition of Elements	***D = High School Dropouts*** Students who were enrolled in grades 9–12 at some time during school year ***y*** who were no longer in enrollment at the beginning of the following year. Includes: students expected to be in membership in year ***y+1*** but have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: transfer to another public school district, private school, or state- or district-approved education program which might include a GED preparation program; temporary school-recognized absence due to suspension or illness; and death. ***E = High School Enrollment*** Students enrolled in grades 9–12 in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	District or school with 9–12 grade span
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	High school students in public education system
Structural units/levels	N/A
Population subgroups	N/A
PURPOSE	
Main use(s)	N/A
CITATION	
	N/A

Annual Dropout Rate, Grade-Specific

IDENTIFICATION	
Classification of Method	Pseudocohort Dropout Rate
Reporting Agency	N/A
Information Source	State or other administrative data system
DEFINITION	
General Definition	Percent of public school students enrolled at a particular grade level who drop out during a given school year.
Mathematical Definition	$HSDR_{yg} = \frac{\sum D_{yg}}{\sum E_{yg}}$
Definition of Elements	***D = High School Dropouts*** Students who were enrolled in grade ***g*** at some time during school year ***y*** who were no longer in enrollment at the beginning of the following year. Includes: students expected to be in membership in year ***y+1*** but have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: transfer to another public school district, private school, or state- or district-approved education program which might include a GED preparation program; temporary school-recognized absence due to suspension or illness; and death. ***E = High School Enrollment*** Students enrolled in grade ***g*** in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	District or school with secondary level grade span
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	Students in public education system
Structural units/levels	N/A
Population subgroups	N/A
PURPOSE	
Main use(s)	N/A
CITATION	
	N/A

Derived Four-Year Dropout Rate

IDENTIFICATION	
Classification of Method	Pseudocohort Dropout Rate
Reporting Agency	N/A
Information Source	State or other administrative data system
DEFINITION	
General Definition	Percent of public school students estimated to drop out of a high school cohort over a period of four years. Estimate is based on grade-specific dropout rates over the course of four school years
Mathematical Definition	$HSDR_y = 1 - \left[\left(1 - \frac{\sum D_{y-3,g9}}{\sum E_{y-3,g9}} \right) * \left(1 - \frac{\sum D_{y-2,g10}}{\sum E_{y-2,g10}} \right) * \left(1 - \frac{\sum D_{y-1,g11}}{\sum E_{y-1,g11}} \right) * \left(1 - \frac{\sum D_{y,g12}}{\sum E_{y,g12}} \right) \right]$
Definition of Elements	***D = High School Dropouts*** Students who were enrolled in grade ***g*** at some time during school year ***y*** who were no longer in enrollment at the beginning of the following year. Includes: students expected to be in membership in year ***y+1*** but have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: transfer to another public school district, private school, or state- or district-approved education program which might include a GED preparation program; temporary school-recognized absence due to suspension or illness; and death. ***E = High School Enrollment*** Students enrolled in grade ***g*** in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	District or school with secondary level grade span
Data Structure	Repeated cross-section with 5 observation points
Time Span	4-year period of observation
REPORTING	
Target population	Student in public education system
Structural units/levels	N/A
Population subgroups	N/A
PURPOSE	
Main use(s)	N/A
CITATION	
	N/A

Synthetic Four-Year Dropout Rate, Version 1

IDENTIFICATION	
Classification of Method	Synthetic Dropout Rate
Reporting Agency	N/A
Information Source	State or other administrative data system
DEFINITION	
General Definition	Percent of public school students estimated to drop out of a high school cohort over a period of four years. Estimate is based on grade-specific dropout rates during a single school year
Mathematical Definition	$HSDR_y = 1 - \left[\left(1 - \frac{\sum D_{y,g9}}{\sum E_{y,g9}} \right) * \left(1 - \frac{\sum D_{y,g10}}{\sum E_{y,g10}} \right) * \left(1 - \frac{\sum D_{y,g11}}{\sum E_{y,g11}} \right) * \left(1 - \frac{\sum D_{y,g12}}{\sum E_{y,g12}} \right) \right]$
Definition of Elements	***D = High School Dropouts*** Students who were enrolled in grade ***g*** at some time during school year ***y*** who were no longer in enrollment at the beginning of the following year. Includes: students expected to be in membership in year ***y+1*** but have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: transfer to another public school district, private school, or state- or district-approved education program which might include a GED preparation program; temporary school-recognized absence due to suspension or illness; and death. ***E = High School Enrollment*** Students enrolled in grade ***g*** in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	District or school with secondary level grade span
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	Students in public education system
Structural units/levels	N/A
Population subgroups	N/A
PURPOSE	
Main use(s)	N/A
CITATION	
	N/A

Synthetic Four-Year Dropout Rate, Version 2

IDENTIFICATION	
Classification of Method	Synthetic Dropout Rate
Reporting Agency	N/A
Information Source	State or other administrative data system
DEFINITION	
General Definition	Percent of public school students estimated to drop out of a high school cohort over a period of four years. Estimate is based on aggregate dropout rates (grades 9–12) during a single school year
Mathematical Definition	$HSDR_y = 1 - \left[1 - \frac{\sum_{g=9}^{12} D_{yg}}{\sum_{g=9}^{12} E_{yg}} \right]^4$
Definition of Elements	***D = High School Dropouts*** Students who were enrolled in grade ***g*** at some time during school year ***y*** who were no longer in enrollment at the beginning of the following year. Includes: students expected to be in membership in year ***y+1*** but have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: transfer to another public school district, private school, or state- or district-approved education program which might include a GED preparation program; temporary school-recognized absence due to suspension or illness; and death. ***E = High School Enrollment*** Students enrolled in grade ***g*** in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	District or school with secondary level grade span
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	Students in public education system
Structural units/levels	N/A
Population subgroups	N/A
PURPOSE	
Main use(s)	N/A
CITATION	
	N/A

Non-Persistence Rate

IDENTIFICATION	
Classification of Method	Pseudocohort Dropout Rate
Reporting Agency	N/A
Information Source	State or other administrative data system
DEFINITION	
General Definition	Percent of public school students who do not persist in school, based on a comparison of enrollment counts in adjacent grades over two consecutive years.
Mathematical Definition	$HSDR_{yg} = 1 - \left[\frac{\sum E_{y+1,g+1}}{\sum E_{y,g}} \right]$
Definition of Elements	***E = High School Enrollment*** Students enrolled in grade ***g*** in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	District or school with secondary level grade span
Data Structure	Repeated cross-section with 2 observation points
Time Span	2-year period of observation
REPORTING	
Target population	Students in public education system
Structural units/levels	N/A
Population subgroups	N/A
PURPOSE	
Main use(s)	N/A
CITATION	
	N/A

7.3. State Graduation Rate Indicators

Alabama Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Alabama Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of state-developed requirements for a public secondary education program in year ***y***. Includes: recipients of Alabama High School Diploma, Alabama Occupational Diploma, and Alternate Adult High School Diploma; and summer graduates. Excludes: recipients of non-standards-based completion certificates or GED. ***A = Alternative High School Completers*** Students receiving non-diploma high school completion or exit documentation (e.g., graduation certificates). Excludes: recipients of GED or other high school equivalency credential. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition with alternative reporting calendar.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates (2002–03).
PURPOSE	
Main use(s)	Accountability
CITATION	
	Alabama Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/alcsa.doc

Alaska Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Alaska Department of Education and Early Development
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: summer graduates. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***A = Alternative High School Completers*** Students completing a public secondary education program in year ***y*** without receiving a standard diploma. Includes: Non-standard diplomas, certificates (e.g., Certificates of Achievement), and GEDs. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition with alternative reporting calendar.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Alaska Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/akcsa.doc
	Pseudocohort Graduation Rate

Arizona Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	Arizona Department of Education
Information Source	State administrative data collection Longitudinal data maintained at local level (school, district), no statewide student tracking system
DEFINITION	
General Definition	Percent of students from an entering ninth grade cohort who graduate with a standard diploma within four years.
Mathematical Definition	$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} + \sum_{y=y-3}^{y} \left(I_{ym} - O_{ym} \right)}$
Definition of Elements	***G = High School Graduates*** Students from an entering freshman class who receive a standard diploma for completion of a public secondary education program within four years of starting ninth grade. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***E = Entering Cohort*** Number of students who started high school (i.e., ninth grade) in year ***y-3***. Cohort membership (***m***) is defined as individual who were enrolled for the first time in a particular grade (***9***) at a given point in time (***y-3***) within a public school system (e.g., school, district). ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system or death. Excludes: dropouts.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 2 observation points (individual students tracked locally)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Arizona Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/azcsa.doc

Arkansas Persistence Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Persistence Rate
Reporting Agency	Arkansas Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Percent of students who remain enrolled in school from grade 9 through 12.
Mathematical Definition	$HSPR_y = (1 - DR_{y-3,9}) * (1 - DR_{y-2,10}) * (1 - DR_{y-1,11}) * (1 - DR_{y,12})$ where: $DR_{yg} = \frac{\sum D_{yg}}{\sum E_{yg}}$
Definition of Elements	***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.) Includes: students who drop out and later receive a GED. Excludes: GED students. ***E = Enrollment*** Students enrolled in grade ***g*** during year ***y***. ***DR = Dropout Rate*** Calculated for year ***y*** by dividing number of students who drop out of grade ***g*** by number of students enrolled in that grade at the beginning of the school year.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 5 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Arkansas Department of Education Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/arcsa.doc Arkansas School Performance Reports Definitions/Calculations http://www.as-is.org/reportcard/attend

California Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	California Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: students who receive high school equivalency certificate or GED. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State adopted CCD dropout definition in 2003.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates (2002–03).
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of California Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/cacsa.doc

Colorado Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	Colorado Department of Education
Information Source	State administrative data collection Longitudinal data maintained at local level (school, district), no statewide student tracking system
DEFINITION	
General Definition	Percent of students from an entering high school cohort who receive a diploma within four years by fulfilling graduation requirements established by a local school board.
Mathematical Definition	$$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} + \sum_{y=y-3}^{y} \left(I_{ym} - O_{ym} \right)}$$
Definition of Elements	***G = High School Graduates*** Students from an entering freshman class who receive a diploma for fulfilling requirements of a locally-defined public secondary education program within four years of starting ninth grade. Includes: summer graduates (counted in year ***y*** or ***y+1*** depending on district reporting practices). Excludes: individuals who receive program completion or equivalency credentials (e.g., GED) without fulfilling locally defined requirements for graduation. ***E = Entering Cohort*** Number of students who started high school (i.e., ninth grade) in year ***y-3*** (based on end-of-year count of eighth graders for the previous school year). Cohort membership (***m***) is defined as individual who were enrolled for the first time in a particular grade (9) at a given point in time (***y-3***) within a public school system (e.g., school, district). ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system. Excludes: dropouts.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 2 observation points (individual students tracked locally)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Colorado Department of Education Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/cocsa.doc Colorado Department of Education website: http://www.cde.state.co.us/cdereval/rvdefine.htm

Connecticut Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Connecticut Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: special education students who have until age 21 to earn a regular diploma. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race-ethnicity, sex, disability status (2002–03)
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Connecticut Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/ctcsa.doc

Delaware Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Delaware Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: students who receive a GED certificate. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Delaware Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/decsa.doc

District of Columbia Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Synthetic Graduation Rate
Reporting Agency	District of Columbia Public Schools
Information Source	Administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y,g11} + D_{y,g10} + D_{y,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: students who receive other program completion credentials not fully aligned with standards and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (District of Columbia uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	District of Columbia Public Schools Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/dccsa.doc

Florida Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	Florida Department of Education
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Percent of students from an entering ninth grade cohort who graduate with a standard diploma within four years.
Mathematical Definition	$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} + \sum_{y=y-3}^{y} \left(I_{ym} - O_{ym} \right)}$
Definition of Elements	***G = High School Graduates*** Students from an entering freshman class who receive a standard diploma for completion of a public secondary education program within four years of starting ninth grade. Includes: recipients of a standard diploma or a State of Florida/High School Equivalency Diploma. Excludes: other program completion credentials offered in lieu of a standard diploma (i.e., Certificate of Completion, Special Diploma, Special Certificate of Completion) and equivalency credentials (e.g., GED). ***E = Entering Cohort*** Number of students who started high school (i.e., ninth grade) in year ***y-3***. Cohort membership (***m***) is defined as individual who were enrolled for the first time in a particular grade (***9***) at a given point in time (***y-3***) within a public school system (e.g., school, district). ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system or death.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 2 observation points (individual students tracked statewide)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Florida Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/flcsa.doc

Georgia Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Georgia Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***A = Alternative High School Completers*** Students completing a public secondary education program in year ***y*** without receiving a standard diploma. Includes: Certificate of Attendance, Special Education diploma. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. Includes: Non-completers and GED recipients. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Georgia Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/gacsa.doc Adequate Yearly Progress (AYP) FY 2003: Calculation Guide for School-level data Version 1.3: http://techservices.doe.k12.ga.us/ayp/aypcalculations.pdf

Hawaii Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	Hawai'i Department of Education
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Percent of first-time ninth grade students who graduate with a standard diploma within four years.
Mathematical Definition	$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} - \sum_{y=y-3}^{y} O_{ym}}$
Definition of Elements	***G = High School Graduates*** Students who receive a standard diploma for completion of a public secondary education program within four years of starting ninth grade. Includes: recipients of a standard (Board of Education or Department of Education) diploma. Excludes: other program completion credentials offered in lieu of a standard diploma (e.g., IEP certificate) and equivalency credentials (e.g., GED). ***E = Entering Cohort*** Number of first-time ninth grade students in year ***y-3***. Cohort membership (***m***) is defined as individual who were enrolled for the first time in a particular grade (***9***) at a given point in time (***y-3***) within a public school system (e.g., school, district). ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system. Excludes: dropouts (as defined by CCD).
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 2 observation points (individual students tracked statewide)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Hawaii Department of Education Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/hicsa.doc

Idaho Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Idaho Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates (2002-03).
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Idaho Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/idcsa.doc

Illinois Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Cohort Graduation Rate
Reporting Agency	State Department of Education
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Percent of first-time ninth grade students who graduate with a standard diploma.
Mathematical Definition	$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} + \sum_{y=y-3}^{y} \left(I_{ym} - O_{ym} \right)}$
Definition of Elements	***G = High School Graduates*** Students who receive a standard diploma for completion of a public secondary education program within four years of starting ninth grade. Includes: recipients of a standard diploma. Excludes: students with too few credits to graduate, other program completion credentials offered in lieu of a standard diploma (e.g., IEP certificate) and equivalency credentials (e.g., GED). ***E = Entering Cohort*** Number of first-time ninth grade students in year ***y-3***. Cohort membership (***m***) is defined as individual who were enrolled for the first time in a particular grade (***9***) at a given point in time (***y-3***) within a public school system (e.g., school, district). ***I = Inflow to Cohort*** Students who graduated in year ***y*** but were not members of the original entering cohort. Includes: students transferring into the local school system at cohort grade-level, and students who graduated in fewer or more than four years. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system or death. Excludes: students who drop out or are expelled.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 5 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Illinois State Board of Education Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/ilcsa.doc

Indiana Persistence Rate (NCLB)

IDENTIFICATION	
Classification of Method	Synthetic Persistence Rate
Reporting Agency	Indiana Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Percent of students who remain enrolled in school from grade 9 through 12.
Mathematical Definition	$HSPR_y = (1 - DR_{y,9}) * (1 - DR_{y,10}) * (1 - DR_{y,11}) * (1 - DR_{y,12})$ where: $DR_{yg} = \frac{\sum D_{yg}}{\sum E_{yg}}$
Definition of Elements	***D = High School Dropouts*** Student who were enrolled in school during school year ***y*** or the previous summer recess and leave the educational system during that period without graduating from high school. Excludes: death, temporary absence due to suspension or a school-excused absence, and transfer to a public or nonpublic school. (State does not use CCD dropout definition.) ***E = Enrollment*** Students enrolled in grade ***g*** during year ***y***. ***DR = Dropout Rate*** Calculated for year ***y*** by dividing number of students who drop out of grade ***g*** by number of students enrolled in that grade at the beginning of the school year.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Indiana Department of Education Consolidated State Application Accountability Workbook. http://www.ed.gov/admins/lead/account/stateplans03/incsa.doc Indiana Department of Education website: http://www.asap.state.in.us/definitions.html

Iowa Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Completion Rate
Reporting Agency	Iowa Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: students receiving regular diplomas from an alternative placement within the district, or who have had the requirements modified in accordance with a disability. Excludes: other program completion credentials offered in lieu of a standard diploma (e.g., certificate of attendance) ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. Includes: GED recipients. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates (2002–03).
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Iowa Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/iacsa.doc

Kansas Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Kansas State Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y-3,g9} + D_{y-2,g10} + D_{y-1,g11} + D_{y,g12} + T_{y-3,g9} + T_{y-2,g10} + T_{y-1,g11} + T_{y,g12}\right)}$$ where: $T_{yg} = \sum \left(I_{yg} - O_{yg}\right)$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. *Excludes:* equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.) ***T = Net Transfers*** Net number of students moving into school system at grade level for the focal cohort. ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Kansas State Department of Education Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/kscsa.doc

Kentucky Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Kentucky Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***A = Alternative High School Completers*** Students completing a public secondary education program in year ***y*** without receiving a standard diploma. Includes: Certificate of Attendance. Excludes: GED. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Kentucky's Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/kycsa.doc

Louisiana Dropout Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Dropout Rate
Reporting Agency	Louisiana Department of Education
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Percent of public school students enrolled in grades 9–12 who drop out during a given school year.
Mathematical Definition	$HSDR_y = \frac{\sum_{g=9}^{12} D_{yg}}{\sum_{g=9}^{12} E_{yg}}$
Definition of Elements	***D = High School Dropouts*** Students who were enrolled in grades 9–12 at some time during school year ***y*** who were no longer in enrollment in school on October 1 of the following year. Includes: students expected to be in membership in year ***y+1*** but have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: transfer to another public school district, private school, or state- or district-approved education program which might include a GED preparation program; temporary school-recognized absence due to suspension or illness; and death. (State uses CCD dropout definition with alternative reporting calendar.) ***E = High School Enrollment*** Cumulative student enrollment in grades 9–12 for school year ***y***. Includes: any dropouts not included in cumulative enrollment (e.g., summer dropouts).
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 2 observation points (individual students tracked statewide)
Time Span	1-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Louisiana's Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/lacsa.doc Louisiana Department of Education: http://www.doe.state.la.us/lde/accountability/home.html

Maine Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Maine State Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: students receiving a diploma after an approved fifth year of extended study. Excludes: other program completion credentials offered in lieu of a standard diploma (e.g., Adult Education Diploma) and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. Excludes: students enrolled in an approved fifth year of extended study. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Maine Department of Education Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/mecsa.doc

Maryland Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Maryland Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma (e.g., special education certificates, non-standard diplomas) and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition with alternative reporting calendar.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Maryland State Department of Education Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/mdcsa.doc

Massachusetts Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Massachusetts Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Percent of tenth grade students who graduate with a standard diploma two years later.
Mathematical Definition	$$HSGR_{ym} = \frac{\sum G_y}{\sum E_{y-2} + \sum_{y=y-2}^{y} (I_y - O_y)}$$
Definition of Elements	***G = High School Graduates*** Students who took the tenth grade state assessment in year ***y-2*** and graduated with a competency determination in year ***y***. Excludes: students who have transferred into or out of the school system since the time of the tenth grade assessment. ***E = Enrollment Base*** Number of students enrolled in grade 10 in year ***y-2*** (i.e., enrollment at the time of the tenth grade assessment). ***I = Inflow*** Students who joined the graduating class since the time of the tenth grade assessment by transferring into the local school system at grade-level. ***O = Outflow*** Students who leave the graduating class since the time of the tenth grade assessment by transferring out of the local school system at grade-level.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated Cross-Section, 3 observation points
Time Span	3-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Massachusetts Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/macsa.doc

Michigan Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	Michigan Department of Education
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Percent of students from an entering ninth grade cohort who graduate with a standard diploma within four years.
Mathematical Definition	$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} + \sum_{y=y-3}^{y} \left(I_{ym} - O_{ym} \right)}$
Definition of Elements	***G = High School Graduates*** Students from an entering freshman class who receive a standard diploma for completion of a public secondary education program within four years of starting ninth grade. Includes: recipients of a standard diploma. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials. ***E = Entering Cohort*** Number of students who started high school (i.e., ninth grade) in year ***y-3***. Cohort membership (***m***) is defined as individual who were enrolled for the first time in a particular grade (***9***) at a given point in time (***y-3***) within a public school system (e.g., school, district). ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system or death.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 2 observation points (individual students tracked statewide)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Michigan Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/micsa.doc

Minnesota Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Minnesota Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Minnesota Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/mncsa.doc

Mississippi Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Mississippi Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Percent of ninth grade students who graduate with a standard diploma.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(E_{y-3,g9}\right) + \sum_{y=y-3}^{y} \left(I_y - O_y - F_y\right)}$$
Definition of Elements	***G = High School Graduates*** Students who receive a standard diploma for completion of a public secondary education program in year ***y***. ***E = Enrollment Base*** Number of ninth grade students in year ***y-3***. ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system. ***F = Failing Students*** Number of students at cohort grade level failing over the four year period. (Note: based on review of state documents "failing" is understood to mean students retained in grade)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 5 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates (2002–03).
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Mississippi Statewide Accountability System: Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/mscsa.doc

Missouri Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Missouri Department of Elementary and Secondary Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. Includes: students who obtain a GED. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Missouri Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/mocsa.doc

Montana Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Montana Office of Public Instruction
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***A = Alternative High School Completers*** Students completing a public secondary education program in year ***y*** without receiving a standard diploma. Excludes: GED recipients. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates for all NCLB categories (2002–03).
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Montana Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/mtcsa.doc

Nebraska Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Nebraska Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for on-time completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	District (data only collected at LEA level 2002-03)
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	district, state
Population subgroups	Race/ethnicity, sex
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Nebraska Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/nbcsa.doc

Nevada Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Nevada Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: standard and advanced diploma recipients (students with IEP may have up to 7 years to earn a standard diploma). Excludes: other program completion credentials offered in lieu of a standard diploma (i.e., adjusted diploma and certificate of attendance) and equivalency credentials (e.g., GED). ***A = Alternative High School Completers*** Students completing a public secondary education program in year ***y*** without receiving a standard diploma. Includes: recipients of adjusted diploma, certificate of attendance, and GED. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Nevada Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/nvcsa.doc

New Hampshire Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	New Hampshire Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of public school students estimated to remain in school until grade 12 and receive a diploma on time (calculated as the product of persistence rate and diploma-to-completer ratio)
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum C_y} * PR_y$ where $PR_y = \left(1 - \frac{\sum_{g=9}^{12} D_{yg}}{\sum_{g=9}^{12} E_{yg}}\right)^4$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma on time for completion of a public secondary education program in year ***y***. Excludes: students taking longer than the standards number of years to earn a standard diploma, other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***C = High School Completers*** Students completing a public secondary education program in year ***y***. Includes: all recipients of standard diplomas and non-standard diplomas. ***PR = Persistence Rate*** Percent of students estimated to remain in school from grades 9 through 12, derived from annual dropout rate in grades 9–12. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.) ***E = High School Enrollment*** Students enrolled in grades 9–12 in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Consolidated State Application Accountability Workbook for the State of New Hampshire: http://www.ed.gov/admins/lead/account/stateplans03/nhcsa.doc

New Jersey Dropout Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Dropout Rate
Reporting Agency	New Jersey Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Percent of public school students enrolled in grades 9–12 who drop out during a given school year.
Mathematical Definition	$HSDR_y = \frac{\sum_{g=9}^{12} D_{yg}}{\sum_{g=9}^{12} E_{yg}}$
Definition of Elements	***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. Includes: students who leave school and receive a GED. (State uses CCD dropout definition with alternative July-June reporting calendar.) ***E = High School Enrollment*** Students enrolled in grades 9–12 in school year ***y*** (as of October).
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of New Jersey Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/njcsa.doc New Jersey Department of Education website: http://education.state.nj.us/rc/index.html

New Mexico Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	New Mexico Public Education Department
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Percent of public school students in grade 12 who graduate during a given school year.
Mathematical Definition	$HSGR_y = \frac{\sum_{g=12} G_{yg}}{\sum_{g=12} E_{yg}}$
Definition of Elements	***G = High School Graduates*** Students in grade 12 receiving a standard diploma for completion of a public secondary education program in year ***y***. ***E = Twelfth Grade Enrollment*** Students enrolled in grade 12 in school year ***y***.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 2 observation points
Time Span	1-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	New Mexico State Department of Education Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/nmcsa.doc

New York Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	New York State Education Department
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Percent of students from an entering ninth grade cohort who graduate with a standard diploma within four years.
Mathematical Definition	$$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} + \sum_{y=y-3}^{y} \left(I_{ym} - O_{ym} \right)}$$
Definition of Elements	***G = High School Graduates*** Students from an entering freshman class who receive a standard diploma for completion of a public secondary education program within four years of starting ninth grade. Includes: students in state-approved program leading to certification in a career or technology field in addition to a high school diploma who earned a regular high school diploma within five years. ***E = Entering Cohort*** Number of students who started high school (i.e., ninth grade) in year ***y-3***. Cohort membership (***m***) is defined as individuals who were enrolled for the first time in a particular grade (***9***) at a given point in time (***y-3***) within a public school system (e.g., school, district). ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer from the local school system.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 2 observation points (individual students tracked statewide)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	New York State Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/nycsa.doc

North Carolina Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Status Graduation Rate
Reporting Agency	North Carolina Department of Public Instruction
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of all public school graduates in a given year who have received a standard diploma on time
Mathematical Definition	$HSGR_y = \frac{\sum_{m=1} G_{ym}}{\sum_{m} G_{ym}}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***m = Graduating Class*** Indication of student's expected graduating class, determined on time elapsed since taking the state's eighth grade assessment. For the on-time graduation class in year ***y*** (i.e., m=1) students would have taken the eighth grade test in year ***y-4***.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Single cross-section with retrospective information
Time Span	N/A
REPORTING	
Target population	High school graduates in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State Board of Education State of North Carolina Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/nccsa.doc

North Dakota Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	North Dakota Department of Public Instruction
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates (2002–03).
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	North Dakota Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/ndcsa.doc North Dakota School District Profiles http://www.dpi.state.nd.us/dpi/reports/profile/index.shtm

Ohio Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Ohio Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: summer graduates. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Ohio Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/ohcsa.doc Ohio Report Cards http://www.ode.state.oh.us/reportcard/choice_page/default.asp

Oklahoma Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Synthetic Graduation Rate
Reporting Agency	Oklahoma State Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school during a single school year who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y,g11} + D_{y,g10} + D_{y,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: summer graduates. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***A = Alternative High School Completers (GED)*** Students receiving GED credentials. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition with alternative reporting calendar.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Oklahoma Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/okcsa.doc

Oregon Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Synthetic Graduation Rate
Reporting Agency	Oregon Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school during a single school year who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y,g11} + D_{y,g10} + D_{y,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: summer graduates. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Single cross-section
Time Span	N/A
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, disability status
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Oregon Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/orcsa.doc Oregon AYP Reports http://www.ode.state.or.us/nclb/ayp/index.asp

Pennsylvania Graduation Rate (NCLB

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Pennsylvania Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***A = Alternative High School Completers*** Students receiving nonstandard diplomas. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged **Note: a synthetic version of indicator using a single year of data will be used for calculating disaggregated graduation rates until four years of subgroup data are available.*
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Pennsylvania Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/pacsa.doc

Rhode Island Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Rhode Island Department of Elementary and Secondary Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Rhode Island Department of Education Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/ricsa.doc

South Carolina Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Cohort Graduation Rate
Reporting Agency	South Carolina Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Percent of first-time ninth grade students who graduate with a standard diploma in four years.
Mathematical Definition	$$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} + \sum_{y=y-3}^{y} \left(I_{ym} - O_{ym} \right)}$$
Definition of Elements	***G = High School Graduates*** Students who receive a standard diploma for completion of a public secondary education program within four years of starting ninth grade. Includes: recipients of a standard diploma. Excludes: other program completion credentials offered in lieu of a standard diploma (e.g., IEP certificate) and equivalency credentials (e.g., GED). ***E = Entering Cohort*** Number of first-time ninth grade students in year ***y-3***. Cohort membership (***m***) is defined as individual who were enrolled for the first time in a particular grade (***9***) at a given point in time (***y-3***) within a public school system (e.g., school, district). Excludes: students repeating the ninth grade in year ***y-3***. ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer out of the local school system.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated Cross-Section, 5 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	South Carolina Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/sccsa.doc

South Dakota Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	South Dakota Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	South Dakota Department of Education Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/sdcsa.doc

Tennessee Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	State Department of Education
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Proportion of public school students from an entering ninth grade class who leave school as high school graduates
Mathematical Definition	$$HSGR_{ym} = \frac{\sum G_{ym}}{\sum \left(G_{ym} + A_{ym} + D_{y,g12,m} + D_{y-1,g11,m} + D_{y-2,g10,m} + D_{y-3,g9,m} \right)}$$
Definition of Elements	***G = High School Graduates*** Students from an entering freshman cohort who receive a standard diploma in year ***y*** for completion of a public secondary education program within four years of starting ninth grade. Includes: summer graduates. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***m = Cohort Membership*** Students who were enrolled for the first time in grade ***9*** at a given point in time (***y-3***). The state's student tracking system should allow for adjustment of completion and dropout counts to reflect students who joined (or left) the original cohort by transferring into (or out of) the school system at cohort grade-level. ***A = Alternative High School Completers*** Students completing a public secondary education program in year ***y*** without receiving a standard diploma. Includes: Nonstandard diplomas, certificates (e.g., Cert. of Achievement). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition with alternative reporting calendar.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 4 observation points (individual students tracked statewide)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Tennessee Department of Education Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/tncsa.doc

Texas Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	State Department of Education
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Percent of students from an entering ninth grade cohort who graduate with a standard diploma within four years.
Mathematical Definition	$HSGR_{ym} = \frac{\sum G_{ym}}{\sum E_{y-3,m} + \sum_{y=y-3}^{y} \left(I_{ym} - O_{ym} \right)}$
Definition of Elements	***G = High School Graduates*** Students from an entering freshman class who receive a standard diploma for completion of a public secondary education program within four years of starting ninth grade. Includes: recipients of a standard diploma. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***E = Entering Cohort*** Number of students who started high school (i.e., ninth grade) in year ***y-3***. Cohort membership (***m***) is defined as individuals who were enrolled for the first time in a particular grade (***9***) at a given point in time (***y-3***) within a public school system (e.g., school, district). Excludes: students whose final status (at anticipated time of graduation) cannot be determined. ***I = Inflow to Cohort*** Students who joined the original cohort by transferring into the local school system at cohort grade-level. ***O = Outflow from Cohort*** Students who leave the original cohort due to transfer out of the local school system *or death*.
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 2 observation points (individual students tracked statewide)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Texas Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/txcsa.doc

Utah Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	State of Utah Office of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program. (Note: three-year rate with grade 10 treated as start of high school.)
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. Includes: students program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 3 observation points
Time Span	3-year period of observation
REPORTING	
Target population	High school students in state public education system. (Note: this method considers grade 10 to be the start of high school)
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Utah Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/utcsa.doc

Vermont Graduation Rate—Version 1 (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Completion Rate
Reporting Agency	State of Vermont Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Percent of public school students enrolled in grade 12 who complete high school during a given school year (i.e., grade 12 completion rate).
Mathematical Definition	$$HSCR_y = \frac{\sum_{g=12} C_{yg}}{\sum_{g=12} \left(C_{yg} + A_{yg} + R_{yg} + D_{yg} \right)}$$
Definition of Elements	***C = High School Completers*** Students in twelfth grade who are reported as "Promoted" in year ***y***. * ***A = Alternative Completers (GED)*** Students in twelfth grade who receive a GED in year ***y***. ***R = Retained Students*** Twelfth grade students in year ***y*** reported as "Not Promoted." ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. Includes: students who dropped out during the summer preceding school year ***y***. (State uses CCD dropout definition with alternative reporting calendar.) **Note: criteria for twelfth grade "promotion" are not clearly specified. Although it appears that GED recipients are not considered "promoted," the treatment of students receiving other non-diploma credentials (e.g., certificate of attendance) is not clear.*
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Single cross-section with retrospective reporting
Time Span	N/A
REPORTING	
Target population	Twelfth grade students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates (2002–03).
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Vermont Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/vtcsa.doc Vermont Public School Dropout and High School Completion Report 2002-2003: http://www.state.vt.us/educ/new/pdfdoc/data/dropout/dropout_completion_03.pdf

Vermont Graduation Rate—Version 2 (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Completion Rate
Reporting Agency	State of Vermont Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have been "promoted" from the twelfth grade.
Mathematical Definition	$$HSCR_y = \frac{\sum C_y}{\sum \left(C_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***C = High School Completers*** Students in twelfth grade who are reported as "Promoted" in year ***y***. * ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition with alternative reporting calendar.) **Note: criteria for twelfth grade "promotion" are not clearly specified. Although it appears that GED recipients are not considered "promoted," the treatment of students receiving other non-diploma credentials (e.g., certificate of attendance) is not clear.*
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Data unavailable for calculating disaggregated graduation rates (2002–03).
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of Vermont Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/vtcsa.doc Vermont Public School Dropout and High School Completion Report 2002-2003: http://www.state.vt.us/educ/new/pdfdoc/data/dropout/dropout_completion_03.pdf

Virginia Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Virginia Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: recipients of Standard Diplomas and Advanced Studies Diplomas. Excludes: recipients of other program completion credentials offered in lieu of a standard diploma (e.g., Modified Standard Diploma, Special Diploma, Certificate of Attendance) and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Virginia Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/vacsa.doc

Washington Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Panel Graduation Rate
Reporting Agency	Washington Office of the Superintendent of Public Instruction
Information Source	State administrative data collection Longitudinal data with statewide student tracking system
DEFINITION	
General Definition	Percent of first-time ninth grade students who graduate with a standard diploma within four years.
Mathematical Definition	$$HSGR_{ym} = \frac{\sum G_{ym}}{\sum G_{ym} + \sum_{g=9}^{12} R_{ym} + \sum \left(D_{y,g12,m} + D_{y-1,g11,m} + D_{y-2,g10,m} + D_{y-3,g9,m} \right)}$$
Definition of Elements	***G = High School Graduates*** Students from an entering freshman cohort who receive a standard diploma in year ***y*** for completion of a public secondary education program within four years of starting ninth grade. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***m = Cohort Membership*** Students who were enrolled in grade ***9*** at a given point in time (***y-3***). ***R = Retained Cohort Members*** Students from entering cohort who continue to be enrolled after school year ***y*** but have not graduated. ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State does not use CCD dropout definition, 2002-03.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Longitudinal panel, 4 observation points (individual students tracked statewide)
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Washington's Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/wacsa.doc

West Virginia Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	West Virginia Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for on-time completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status, migrant status, English proficiency, and status as economically disadvantaged.
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	State of West Virginia Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/wvcsa.doc

Wisconsin Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Wisconsin Department of Public Instruction
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of the students leaving high school who have received a high school diploma for completing a public secondary education program.
Mathematical Definition	$$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Includes: summer graduates. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Wisconsin Department of Public Instruction Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/wicsa.doc

Wyoming Graduation Rate (NCLB)

IDENTIFICATION	
Classification of Method	Pseudocohort Graduation Rate
Reporting Agency	Wyoming Department of Education
Information Source	State administrative data collection Aggregate-level data, no longitudinal tracking of individual students
DEFINITION	
General Definition	Proportion of public high school students who leave school as high school graduates.
Mathematical Definition	$HSGR_y = \frac{\sum G_y}{\sum \left(G_y + A_y + D_{y,g12} + D_{y-1,g11} + D_{y-2,g10} + D_{y-3,g9} \right)}$
Definition of Elements	***G = High School Graduates*** Students receiving a standard diploma for completion of a public secondary education program in year ***y***. Excludes: other program completion credentials offered in lieu of a standard diploma and equivalency credentials (e.g., GED). ***A = Alternative High School Completers*** Students completing a public secondary education program in year ***y*** without receiving a standard diploma (e.g., certificate of completion) ***D = High School Dropouts*** Students in grade ***g*** who leave school during year ***y*** and have not graduated from high school or completed a state- or district-approved secondary educational program. (State uses CCD dropout definition.)
DATA DESCRIPTION	
Unit of Analysis	School
Data Structure	Repeated cross-section with 4 observation points
Time Span	4-year period of observation
REPORTING	
Target population	High school students in state public education system
Structural units/levels	School, district, state
Population subgroups	Race/ethnicity, sex, disability status
PURPOSE	
Main use(s)	Accountability, Reporting
CITATION	
	Wyoming Consolidated State Application Accountability Workbook: http://www.ed.gov/admins/lead/account/stateplans03/wycsa.doc Every Student Counts http://www.k12.wy.us/stats/wde_public.esc.show_menu