Implementing the NGA Graduation Rate Compact: State-level Issues

Recommendations Proposed by CCSSO Technical Panel To Inform State Data Managers

In 2005 the National Governors Association convened a Task Force on State High School Graduation Data[1] to make recommendations on how states could develop a graduation measure that was comparable across states and based on high quality data. The result was a recommendation, agreed to by all 50 governors, to calculate a high school graduation rate based on this formula:

$$\frac{\text{On-time graduates by year X}}{[(\text{first time } 9^{th} \text{ graders in year X-4}) + (\text{transfers in}) - (\text{transfers out})]}$$

While initially the formula appears very straightforward, there are so many differences among state data systems as well as in state-specific rules for accounting for and providing services to students with special needs that cross-state comparability is not an easy feat with this one definition. This graduation rate is applied to students who receive a standard diploma, not a certificate of completion or attendance or a General Educational Development (GED) certificate.

The Council of Chief State School Officers gathered representatives from several states and organizations[2], the National Governors Association Center for Best Practices, and the Data Quality Campaign in June 2006 to evaluate and discuss implementation issues related to the NGA Graduation Rate. The goal of the technical panel was to identify standard implementation practices that could be adopted by all states to make the subsequent rates as comparable as possible. These recommendations are incorporated within this document according to topic and as an appendix[3].

It should be noted that before this formula can be applied within a state it must have the ability to identify first time 9th graders, which generally implies that it has implemented a student-level longitudinal data system; that is, the state can track each student's enrollment and participation status from year to year. States that are unable to track enrollment for individual students typically calculate graduation rates based on aggregate or summary statistics (using total counts of students collected each year from local education agencies) and usually cannot identify the number of first time 9th graders from those aggregate values. As a consequence, some states will be unable to calculate this rate until 4-6 years after they have implemented a longitudinal tracking system and subsequently gathered at least 5 years of student-level data.

Ideally, this graduation rate formula would be applied to student-level data aggregated at the school, district, and state levels. However, the panel decided that the complexity of accounting for highly mobile students (students who change campuses and/or districts during and between school years) and schools with high mobility rates creates unique implementation issues at the school and district levels

and, consequently, decided to address only state-level implementation issues in this paper. School and district implementation issues will be addressed in another forum.

Graduates, Dropouts, and Other Reasons for Exiting the System

When considering graduation statistics, it should be noted that a state's graduation rate will not necessarily be 100 percent minus the dropout rate. Put another way, it is easy to assume that if a state has a graduation rate of 83% it will also have a dropout rate of 17%, but that is not the case. The two terms are often used interchangeably, but they are two distinct events and not the only two educational outcomes for students.

One of the strengths of the NGA graduation rate is that it accounts for students who transfer into a cohort and students who transfer out; it is not based specifically on dropouts. Thus, the NGA rate acknowledges that students transfer out of state, to private schools, to home schools, and other educational settings. It does not imply that all students are either graduates or dropouts.

In order to accurately track students who transfer in and out of a state or local education agency, a state must have student-level data (a unique ID assigned to each student and enrollment records collected to track membership and attendance at every campus and district in the state). Ideally, the state will also maintain an exit or "leaver" data system (that is, a set of codes that identify the reason each student left a particular district or campus). States that already maintain exit data systems provide their districts with a wide variety of codes (sometimes 30 or more) with which to identify students' exit reasons. These codes include events such as marriage, death, transfer out of state, transfer to a home school, transfer to another country, transfer to a private school, incarceration, obtaining a General Educational Development (GED) certificate, being hospital-bound, and so on. The degree of detail and accuracy with which these exit codes are reported and used can affect the degree of reliability of the graduation and dropout rates reported by the state, particularly at the campus and district level where just a few students can significantly affect the denominator and thereby dramatically change the graduation and dropout rates. It should be noted that while this level of detail is desirable, it is not necessary to calculate the NGA graduation rate.

The National Forum on Education Statistics produced an excellent document[4] which outlines the need for an exit code data system and provides recommendations for how to establish a classification system of exit codes. This document and the suggested guidelines came from a task force of district, state and federal representatives with many years of experience in data collection, analysis and reporting who felt that the quality of education data in general, and the calculation of graduation and dropout statistics in particular, could best be improved by standardizing the way exit data are defined and collected.

Implementation Issues and Recommendations

Cohort Length

Four years

Under the NGA definition, states will identify the number of students who graduate *within* 4 years of becoming a first time 9th grader. For most students a 4-year high school curriculum is designed to be sufficient to earn a diploma, although there are some students who will be allowed at least five years (see below for more detail on these students) and will still be counted as on-time graduates. The NGA rate is defined in such a way as to focus on reaching graduation within 4 years of entering 9th grade or longer if prescribed by the school.

Allowing for longer than 4 years of high school education based on an IEP could be problematic in states where the state education agency (SEA) does not collect details of IEPs in the statewide data systems. If the state does not have a way to flag or otherwise identify students who have been allowed longer than 4 years to graduate, the state may want to consider adding such a feature; otherwise, their NGA graduation rate may be lower than is intended by the NGA compact.

Other than the exceptions detailed in the NGA report, students who take longer than four years to graduate will not be included in the numerator of the NGA rate. For example, a student who repeats the 9th grade but does graduate in the 5th year will not be counted as a graduate in the NGA graduation rate.

The National Governors Association recognizes that its graduation rate does not and cannot account for all necessary state performance indicators. The NGA and the technical panel support the use of additional indicators of success among students. One example of an additional indicator would be the reporting of a five-year graduation rate by the state to account for students who do graduate, albeit on a longer schedule.

> Panel Recommendation: Because there may only be a small portion of the student body who is allowed additional time to graduate in their IEPs, states may choose to not include them in the NGA graduation rate cohort, and include them in a five- or six-year graduation rate as discussed below.

Five or more years

As mentioned above, there are a variety of reasons why some high school students are unable to graduate within the standard four-year period but do persist in school until they earn their diploma. As stated previously, the students who require special services and have their IEPs adapted to allow for more years to earn a standard diploma may be included in the NGA rate cohort and counted as on-time graduates. Many students, however, take more than four years to earn a diploma for other reasons, such as being retained in at least one grade, dropping out and returning to school later, or moving out of state or country and later being reinstated in an out-of-cohort grade. While these students cannot be counted as on-time graduates in the NGA graduation cohort, states can report on these graduates with another graduation indicator. To account for these situations, states do have the option of calculating a five- or six-year graduation rate *in addition* to the NGA rate and reporting all of the rates. By reporting the series of graduation rates states will be

able to show the persistence levels of students who move through the education pipeline via more circuitous routes.

> Panel Recommendation**:** Calculate the NGA rate for cross-state comparability, but consider calculating at least a five-year rate for students who receive a regular or advanced diploma within five years, without receiving the fifth year as a result of a special dispensation from the school, in addition in order to provide a more complete graduation picture for the state.

How many years of student-level data are needed to calculate the NGA rate?

In order to calculate the NGA graduation rate based on student-level data, the SEA ideally needs data from six academic years:

- the year prior to first year of the cohort (*i.e.*, the year prior to when the student is expected to be a first-time 9th grader),
- the four years accounting for grades 9-12, and
- the fall of the year after grade 12 when the graduation status is collected.

States will want to check the grade level assignment in the year prior to the beginning of the cohort to ensure that students are indeed first-time 9th graders. Evaluating exit data from the year after the expected 12th grade year (or the 5th year from the beginning of the cohort) is typically how states identify students as graduates, dropouts, transfers, or non-graduates. This is done during the fall after the expected senior year in order to account for summertime activity. This delayed accounting increases accuracy and explains why reports on graduates and dropouts usually are published one year behind other performance indicators.

Cohort Definition

The technical panel identified areas of potential variation among the states regarding who is identified as a first time 9th grader.

First Time 9th Graders

Some states implement a process that essentially pre-enrolls 8th graders from Year X-1 as 9th graders in Year X. If those students do not appear in enrollment records in Year X, they are counted as leavers and must be identified as a transfer out, graduate, or dropout. Other states do not maintain this policy. Some states identify 9th graders as any student who was counted on Average Daily Attendance (ADA) in grade 9.

> Panel Recommendation: For the purposes of the NGA graduation rate, the panel recommends defining first time 9th graders as any student who was enrolled at least one day in grade 9 in Year X.

Transfers In

Some states have policies that include all students who transfer into the state at any time in the four-year period on grade level within a cohort, whether that is the second day of 9th grade or the second to the last day of the 12th grade. Other states may implement policies that do not account for students who transfer into the cohort after October 1 of the senior year. The thinking is that if a student transfers into a

system at such a late date then the receiving entity (school, district, or state) is not accountable for that student's graduation status.

It should be noted that the goal of creating the NGA graduation rate is *not* primarily for use as an accountability graduation rate, although it can be adopted as such. That is, while states may choose to use this rate in their state accountability systems, the NGA and the 50 governors developed this rate to promote the use of high quality data and provide a standard definition to enable comparability across states. The NGA rate is intended to incorporate all transfers into one cohort, as applicable depending on grade-level upon entry into the state's system. Future transfers across schools or districts by the student will not affect the cohort in which that student is counted.

> Panel Recommendation: The panel recommends that the count of *transfers in* includes every student who enters the cohort on grade-level at *any* point during the four year period and does not exclude students who arrive late in the 12th grade (or any grade).

Transfers Out

Policies addressing transfers out of the education system are very complex and vary widely across states. The primary goal for states to address regarding *transfers out* is to be very transparent about what their state policies and procedures are so that users of the NGA rate can identify any comparability problems or issues.

The panel discussed various issues related to identifying and counting *transfers out*, including those of documenting and validating which students leave and why, and existing or recommended auditing practices associated with these data.

Documentation and Validation Issues. The most complex aspect of the NGA graduation rate is accurately identifying and calculating *transfers out* of the state's public education system. Panel members agreed that documentation and verification of the reasons why a student leaves the state's public education system is fraught with hurdles. Since these issues become more complex at the school and district level, for the purposes of this report the panel chose to focus only on students leaving the state.

At the crux of the issue is the state's role in the documentation and validation processes. SEAs can and should establish accepted policies and practices for districts and schools to follow when documenting where, when and why students leave their systems and how these data are reported to the state. The state's exit code data collection should be as well defined and documented as any other data collection system. The specifications provided to schools and districts should clearly outline what types of exit codes the state will expect, how each code is defined, when and how the data should be transferred to the state, and – as determined by the state – how those data should be documented and maintained at the local education agency.

One common issue that states struggle with is how to document and validate that a student is transferring from one school to another. Actual processes vary widely. They include parental notification to the school from which the student is moving, either in writing or by requesting records. However, parents might not notify that school at all. The school to which the student moves might request the student's records from the former school and that might be how the former school is alerted

that the student is no longer officially enrolled. The former school might never get documentation from the student, parents, or new school; they just become aware that the student is no longer in attendance. Similar experiences occur when a student transfers to a private school, home school, another state, or another country. There are many reasons why a student leaves one school or district, and school and district officials need guidance on acceptable documentation practices to account for students who are no longer in attendance.

Documentation guidelines include topics such as when parental notification is necessary, the age at which students can make notification for themselves, and when and how to receive notification from schools or districts. In some instances, states provide a recommended hierarchy of acceptable notification methods. In addition, state guidelines should include policies for how to code the data if no information can be collected on why a student left and how much time a school or district should spend trying to find that student. If the state can assist schools and districts in tracking students elsewhere in the state through their student identification number or a student location number, the state should outline these procedures in this documentation also.

> Panel Recommendation: Define, document, and implement a detailed student-level Exit Code data collection process to account for students who leave the public school during or between school years. In addition to the National Forum publication on exit codes, Delaware, Florida, Louisiana, and Texas have long-standing exit code data collection systems that can serve as valuable resources during development of such systems.

Audit Systems. While the state can provide guidelines to schools and districts about how to document *transfers out*, detailed oversight of these practices can prove insurmountable in states with hundreds or thousands of districts. It is not realistic that states will go on site to review students' files to confirm the exit data provided to the state by the schools and districts. Such practices would be too expensive in terms of time and staff resources to conduct on a widespread scale.

There are less cumbersome methods of validating data received at the SEA than on-site reviews of student folders. Some states have implemented a desk audit system that relies on reviewing statistical trends across schools or districts within a given school year or across years for given schools or districts.

For example, SEA staff can calculate the percentage of students who left a school or district within a school year (leaver) and then the percentages of leavers attributed to each exit code. These percentages can be compared to statewide or district wide averages as a way to identify possible anomalies within the district. The trends in exit code usage across years can also be examined for possible anomalies. Once anomalies are identified, SEA staff can work with school or district staff to review and/or retrieve student data for validation purposes. These reviews may be done electronically, or depending on available resources, by conducting on-site visits to schools or districts with particularly questionable data and reviewing student folders for a targeted sample of students.

> Panel Recommendation: Establish a process by which the SEA reviews statistical trends of exit data within and across school years to identify potentially erroneous data. Establish a detailed review and validation process for samples of district, school, and/or student data. Establish clearly defined

consequences for schools and districts that do not maintain clear and accurate documentation and validation processes that meet the states guidelines and for submitting erroneous data to the state. Clearly communicate each of the processes and consequences to districts and schools. Consult with states that have existing audit systems such as Delaware, Florida, Louisiana, and Texas.

Students without an Exit Code

In each state, a portion of the students who leave a school or district will likely not have an exit code easily attributed. Some schools and districts might consider identifying these students as a *transfer out*. However, without sufficient documentation that the student has indeed transferred to another school, that would be an invalid attribution.

> Panel Recommendation: Students who 'vanish' (*i.e.*, cannot be found in another location, no documentation exists for where they went, etc.) should be counted as dropouts, not as *transfers out*.

Summer Graduates

While most students graduate in May or June of a given school year, some students graduate later in the summer but before the following school year. Rather than omit these students from being counted in their given cohort, they should be included in the cohort in which they were originally assigned.

> Panel Recommendation: 4th-year summer graduates should be counted as graduates in the NGA rate.

Special Populations

Students Receiving Special Education Services

Many students who receive special education services receive an IEP that provides them the opportunity to earn their diploma within five or six years rather than the traditional four-year period. Other students receive special education services but their IEP does not specify a longer time frame to earn a diploma. Finally, students can have an IEP that specifies the attainment of a special certificate rather than a standard diploma.

In most states the decisions regarding awarding diplomas and certificates are administered by local education agencies (LEAs), not the SEA. Thus, the SEA needs to collect data not only on which students graduate but whether or not the student received a regular or advanced diploma.

The NGA graduation rate is defined in such a way that students who receive special education services and do graduate within the timeframe outlined in their IEPs should be counted as on-time graduates. However, students who are not provided extra time in their IEPs should be held to the four-year standard for receiving a standard diploma. This has two key ramifications for SEAs:

1. LEAs need to flag or identify in the statewide data system the students receiving special education services who are provided extra time to graduate in the IEP, and

2. The calculation of the NGA rate could be produced one to two years later than normal graduation rates to account for the extra year of schooling for these students. For example, in some states data on graduates from spring/summer 2005 would be published in 2006 since data on graduates and dropouts are reported in fall 2005 along with the enrollment records for the 2005-06 school year. If states have to wait to calculate the NGA rate to allow for students whose IEPs give them five years to graduate, the NGA rate for 2005 will not be published until 2007.

   Panel Recommendations: Create a way to collect student-level data that identifies which students are allowed additional time to graduate by their IEPs. Calculate the NGA rate without these students the year after the end of the cohort and then again the following year with these students included. Be transparent in reporting the impact these students had on the rates and why the rate for a given year was recalculated and republished.

Students with Limited English Proficiency

Much the same as with students receiving special education services, if a state allows students with limited English proficiency (LEP) to receive additional time to earn a regular diploma, then the state needs to allow for that data element to be collected from schools and districts. This allowance also needs to be clearly delineated in the reporting of the state's NGA graduation rate.

> Panel Recommendation: Follow the same general guidelines used for students receiving special education services.

Incarcerated Students

Tracking data about services provided to incarcerated students is complicated within a state and allows for much incomparability across states. In some states, department of correction data for juveniles is incorporated in the SEA, while in others it is not. Some states require that adjudicated youth continue to receive public education instruction while incarcerated. Some states consider students who are in juvenile justice systems or prisons to be *transfers out* to another school, while others do not.

> Panel Recommendation: Follow existing state policies and practices regarding tracking and accounting for incarcerated students, but be very clear in how those students are included in the calculation of the NGA graduation rate.

Retained Students:

Many students are retained in 8th or 9th grade; consequently, staff at SEAs may be unsure as to which NGA cohort to assign these students. Since the basis of the NGA graduation rate is the cohort of first time 9th graders, students who are retained in 8th grade should not be affected; they should not be assigned to a cohort until they attend 9th grade.

In states that already have longitudinal data systems, there are differing practices as to whether students who are retained in 9th grade remain in the same cohort or move to the cohort in Year X + 1. As long as the policy is applied consistently across cohorts, there should be negligible statistical differences over time in the

published rates; that is, one cohort will not have a significantly different rate than another cohort as a result of which cohort retained students are ultimately attributed to. However, since the NGA graduation rate denominator is defined as first time 9th graders + transfers in – transfers out, it would be consistent with the definition to keep students who are retained in 9th grade (or higher) in the same cohort. If they remain in school and graduate, they should not appear as graduates in the NGA graduation rate, but might in the five-year rate.

> Panel Recommendation: Students retained in grades 9-12 remain in the cohort to which they were originally attributed.

Communication of Results

Transparency

As mentioned previously, transparency of state policies and procedures is essential in order for each state's NGA graduation rate to be interpreted and used appropriately, especially when comparing rates across states. Given the variations in state laws and local policies across the country, it is difficult to imagine that any one performance indicator can be sufficiently designed and applied to every state without modification. Certainly, the NGA graduation rate cannot, although it brings us closer to one cross-state standard than many other performance indicators.

The key to maximizing the usefulness of the NGA graduation rate lies in states being able to clearly document and define how the rate was calculated. The documentation must include a description of which students were included or excluded in a cohort, and why. For example, if one state includes incarcerated students and another does not, that should be clearly noted, and it would be helpful if the state could provide data on or an estimate of how many students that represents so that others can estimate the likely impact on the rate.

> Panel Recommendation: States should clearly describe how they are calculating the rate, by component. The Council of Chief State School Officers (CCSSO) and/or the Data Quality Campaign (DQC) should consider reviewing state documents that explain how the NGA graduation rate was calculated in each state (or surveying states for that information if documents are not available). In addition, CCSSO and/or the DQC should consider providing a resource document that outlines how states address special populations and circumstances in the calculation of the NGA graduation rate. The DQC and CCSSO will incorporate the NGA rate in the Coordinated Data Ask (a system that coordinates requests for data from a variety of organizations in order to reduce the number of separate data requests made of states).

Conclusion

The NGA graduation rate is not intended to be used as an accountability tool by states or the U.S. Department of Education. The purpose of the NGA graduation rate is to provide governors and other policymakers with a standard definition based on student-level longitudinal and high quality data that enables comparability across states. Having a standard definition across states helps policymakers across the country communicate with and learn from each other as future research and policies are designed and undertaken.

First and foremost, the NGA intends for the NGA graduation rate to be one of many performance indicators that a state uses to evaluate its programs and policies. The NGA is clear that a single indicator, even if standardized across states, cannot convey all of the information necessary to effectively evaluate a large and complex education system; however, this rate can provide very useful information to state and national policymakers.

To Find Out More

Visit www.nga.org for information about the NGA Graduation Compact, and www.ccsso.org and www.DataQualityCampaign.org for more information on statewide data systems.

Appendix

Panel Recommendations

1. Because there may only be a small portion of the student body who is allowed additional time to graduate in their IEPs, states may choose to not include them in the NGA graduation rate cohort, and include them in a five- or six-year graduation rate as discussed below.

2. Calculate the NGA rate for cross-state comparability, but consider calculating at least a five-year rate in addition in order to provide a more complete graduation picture for the state.

3. For the purposes of the NGA graduation rate, the panel recommends defining first time 9th graders as any student who was enrolled at least one day in grade 9 in Year X.

4. The panel recommends that the count of *transfers in* includes every student who enters the cohort on grade-level at *any* point during the four year period and does not exclude students who arrive late in the 12th grade (or any grade).

5. Define, document, and implement a detailed student-level Exit Code data collection process to account for students who leave the public school during or between school years. In addition to the National Forum publication on exit codes, Delaware, Florida, Louisiana, and Texas have long-standing exit code data collection systems that can serve as valuable resources during development of such systems.

6. Establish a process by which the SEA reviews statistical trends of exit data within and across school years to identify potentially erroneous data. Establish a detailed review and validation process for samples of district, school, and/or student data. Establish clearly defined consequences for schools and districts that do not maintain clear and accurate documentation and validation processes that meet the states guidelines and for submitting erroneous data to the state. Clearly communicate each of the processes and consequences to districts and schools. Consult with states that have existing audit systems such as Delaware, Florida, Louisiana, and Texas.

7. Students who 'vanish' (*i.e.*, cannot be found in another location, no documentation exists for where they went, etc.) should be counted as dropouts, not as *transfers out*.

8. 4th-year summer graduates should be counted as graduates in the NGA rate.

9. Create a way to collect student-level data that identifies which students are allowed additional time to graduate by their IEPs. Calculate the NGA rate without these students the year after the end of the cohort and then again the following year with these students included. Be transparent in reporting the impact these students had on the rates and why the rate for a given year was recalculated and republished.

10. Follow the same general guidelines used for students receiving special education services.

11. Follow existing state policies and practices regarding tracking and accounting for incarcerated students, but be very clear in how those students are included in the calculation of the NGA graduation rate.

12. Students retained in grades 9-12 remain in the cohort to which they were originally attributed.

13. States should clearly describe how they are calculating the rate, by component. The Council of Chief State School Officers (CCSSO) and/or the Data Quality Campaign (DQC) should consider reviewing state documents that explain how the NGA graduation rate was calculated in each state (or surveying states for that information if documents are not available). In addition, CCSSO and/or the DQC should consider providing a resource document that outlines how states address special populations and circumstances in the calculation of the NGA graduation rate. The DQC and CCSSO will incorporate the NGA rate in the Coordinated Data Ask (a system that coordinates requests for data from a variety of organizations in order to reduce the number of separate data requests made of states).

References

[1]National Governors Association. *Graduation Counts: a report of the National Governors Association task force on state high school graduation data*, 2005.

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[3]Report prepared by Nancy J. Smith, Ph.D., Data Quality Campaign

[4]National Forum on Education Statistics. (2006). *Accounting for Every Student: A Taxonomy for Standard Student Exit Codes* (NFES 2006-804). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

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The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five U.S. extra-state jurisdictions. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. The Council seeks member consensus on major educational issues and expresses their views to civic and professional organizations, federal agencies, Congress, and the public.

This publication was produced by Nancy J. Smith, Ph.D., Data Quality Campaign, for submission under contract with the Council of Chief State School Officers. The work was produced as part of the Council's National Education Data Partnership, generously funded by the Bill & Melinda Gates Foundation and The Broad Foundation.