

Technical Manual

4-Year and 5-Year Cohort Graduation Rates New Mexico's Shared Accountability Model



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Preface

New Mexico implemented the first 4-year cohort graduation rate in 2009. Prior to that time the state utilized a *senior completion* method that tracked 12th grade students to completion of graduation requirements by spring. The use of the senior completion method was discontinued after the class of 2007, when New Mexico undertook the transition to the National Governors Association (NGA) cohort computation.

In order to capture the outcomes of students continuing to fulfill graduation requirements during the summer following the senior year, the reporting of graduation is lagged by one year. That is, the graduates of 2008 are reported in the spring of 2009. To shift to the one-year lagged schedule of reporting, the United States Department of Education allowed New Mexico to duplicate the graduation rates from 2007 in 2008. With the one-year lag now in place, New Mexico published in 2009 the first 4-year cohort representing students who were freshmen in 2004 and who graduated by August 1, 2008, and in 2010 the first 5-year cohort representing the same students with one additional year. Both 4-year and 5-year rates will continue to be calculated and reported for each cohort. The 4-year rates are utilized for annual AYP (Adequate Yearly Progress) accountability.

Because the calculation method produces significantly different rates from prior years, the interpretation of New Mexico's longitudinal data should be made with caution. Between years 2007 and 2008 a break in trend prohibits useful comparisons with prior graduation data.

This document serves as an overview of the process for computing the 4-year rate, with detail on the 5-year method appended. New Mexico's Shared Accountability model was reviewed by the U.S. Department of Education and approved in the spring of 2010.

Operationalizing Shared Accountability 4-Year Graduation

These business rules apply to students that began high school in the fall of a given school year, and who were expected to graduate 4 years later by August 1. The group is named by their expected graduation year, such as the *Cohort of (or Class of) 2009*. Students who qualify to be members of the 4-year cohort are then tracked for one additional year, and reported in the 5th year named for their original cohort (i.e. 5-year graduation rates for the Cohort of 2009).

I. Students Included the Cohort

- A. First time 9th graders in the first of the four years. Student must meet both conditions:
 - 1. Present in one of 4 enrollment windows as a 9th grader (40D, 80D, 120D, or EOY)
 - 2. NOT present in any enrollment snapshot as a 9th grader in any prior year (40D, 80D, 120D, or EOY)
- B. Transfers In: Students new to public schools in subsequent 10th, 11th, and 12th grade years. Entering students must meet both conditions (1, and 2 or 3 or 4):
 - 1. Student appears for the first time statewide in grades 10, 11, or 12
AND
 - 2. Must enter as 10th grader in year 2 of the cohort span (40D, 80D, 120D, or EOY) OR
 - 3. Must enter as 11th grader in year 3 of the cohort span (40D, 80D, 120D, or EOY) OR
 - 4. Must enter as 12th grader in year 4 of the cohort span (40D, 80D, 120D, or EOY)
- C. Students who meet conditions A or B must have a minimum of 2 snapshots (one semester) in New Mexico public schools.

II. Students NOT Included the Cohort

- A. Students are excused from the cohort who enter public education any time during or after the 9th grade and are misclassified at entry. Written documentation must be kept at the district, and reclassification must occur within one snapshot of the entry snapshot.
 - 1. Example: A student enters from out-of-state and parents declare the student to be in the 10th grade. Transcripts which arrive later show the student qualifies to be a 9th grader. This correction must occur within the first two snapshot windows for that student in order to excuse the student from the current cohort.
 - 2. Reclassified students must be reassigned to the appropriate cohort. In the previous example, the student would be an entering 9th grader in the subsequent cohort.
- B. Students are excused if they were pre-enrolled as a first-time 9th grader at the beginning of the cohort span but never attended.
- C. Students who were retained 9th graders in the first year of the cohort span, and who may or may not graduate 4 years later do not belong to the cohort.
 - 1. An entering (Transfer In) student qualifies as a retained 9th grader if written evidence exists at the district that the student was a retained 9th grader in the first year of the cohort span. As transfers, these students will not have evidence of being a repeat 9th grader from prior STARS submissions. Evidence must be kept on site.
- D. Students who meet exemption criteria do not belong to the cohort (note that all require written documentation):
 - 1. Deceased
 - 2. Foreign Exchange: Present in the United States on a "J" Visa

3. Transfer-Out: Left to a non-PED school, including an out-of-state, BIE, home, or private school
 4. Émigré: Left the United States by moving or was deported. Does not include military families on temporary duty, or US students studying abroad as part of an exchange program. These students qualify for Transfer-Out.
- E. Students who meet criteria for a subsequent cohort. Note that documentation is required for all conditions:
1. IEP prescribes that student be allowed greater than 4 years to graduate. The student's year of graduation must be populated in STARS "Estimated Year of Graduation".
 2. Student was remanded to a setting where educational services were not provided, either in- or out-of-state. This includes out-of-school suspension for longer than 6 months, and correctional facilities.
 3. Student who left school for pregnancy during or after 9th grade. This includes both male and female students.
 4. Student who left school for a significant medical emergency during or after 9th grade.
 5. Student who left the educational system for an extended period of time, returned, and was excused. For example, the student who dropped out to provide hospice care for a family member and re-enrolled years later. The criteria for determining whether the situation allows the student to join a new cohort will be at the discretion of the district.
- F. Students who have already counted in a prior cohort as a non-graduate. The exception is the 5-year rate for the current cohort, where graduation in the 5th year will be acknowledged.

III. Definition of a Graduate

- A. Student must receive a Standard Diploma, which includes the Career and Ability pathways.
- B. All requirements for the diploma, including successful completion of the all parts of the exit examination, must be met by August 1 of the terminal year of the cohort.
- C. The student's graduation must be declared during the correct year, either by submission to STARS or by submitting to the online program GradCohort prior to the closing date. Late submissions will not be honored.
- D. Non-Graduates: Students who are *Completers* or *Exit Out* are NOT considered graduates, but are important to capture for legislative mandates and policy decisions:
 1. Completer: Students who completed course work but did not successfully pass all parts of the exit exam are awarded a Certificate of Completion. These students are eligible to receive a Standard Diploma for up to 5 years after their senior year once they pass all parts of the exit exam.
 2. Exit Out: Students who exit to a setting that grants a credential other than a Standard Diploma. Typically these include GED, military, or vocational programs such as auto mechanics. While the school may not know if the student successfully completed these programs, they should record the student's intent to enter and complete.

IV. Entities and Aggregates for which Rates are Calculated

- A. Schools with any combination of grades 9 through 12
 1. Feeder schools (i.e. 9th grade academy) will receive a rate, although they will not impact AYP
 2. Alternative high schools will receive a rate.
 3. Charter and state-supported schools will receive a rate.
 4. Off-site programs and treatment centers that are not considered schools will not receive a rate.

- B. Schools that were in operation during early years of the cohort but closed prior to the publication year will not receive a rate. However, schools that changed name or location during the cohort time span, but continue the prior school's heritage will inherit the schools cohort members and receive a rate (i.e. a local charter that transitioned to state-chartered status).
- C. Schools with fewer than 4 student records will not receive a rate.
- D. Districts will receive a rate compiled from all students who were ever enrolled in the district.
 - 1. District rates exclude students in locally-chartered and state-chartered charter schools.
 - 2. District rates include students in off-site programs that were not part of a rated school.
- E. The State will receive a rate compiled from all students ever enrolled in state public education.
- F. All rates will be reported by subgroup
 - 1. All Students
 - 2. Gender
 - 3. Ethnicity
 - 4. Students with Disabilities (SWD)
 - 5. English Language Learners (ELL)
 - 6. Economically Disadvantaged (FRL)
 - 7. Migrant

V. Shared Accountability Method

- A. A rate will be computed for each entity that has any combination of grades 9 through 12. While high schools without a 12th grade will receive a rate, these schools will continue to use *Attendance* as the Other Academic Indicator for AYP.
- B. A student's outcome will be proportionally distributed among all entities contributing to student success. Apportioning the student's time spent in each school equitably distributes responsibility for the student's outcome.
- C. Snapshots are used as the unit of time, and student outcomes are assigned proportionately to all schools represented in snapshots from 9th through 12th grades. Students are tracked with 4 snapshots per year, yielding a maximum of 16 snapshots for the 4-year time span.
- D. School Share: Students who are mobile during high school may attend multiple schools. The student's outcome is shared proportionately among all schools attended, using snapshots as the unit of time. Each snapshot at a given location contributes 1.0, and the sum of snapshots at that school is then divided by the total number of snapshots in public education to derive the proportion.

Example 1: student had a total of **16 snapshots**:

School: 4 snapshots in school A ($4/16=.25$ or 25%)
8 snapshots at school B ($8/16=.5$ or 50%)
4 snapshots in school C ($4/16=.25$ or 25%)
District: All schools were in a single district (100%)

Example 2: student had a total of **10 snapshots**:

School: 4 snapshots in school A ($4/10=.4$ or 40%)
6 snapshots in school B ($6/10=.6$ or 60%)
District: 4 snapshots in district A ($4/10=.4$ or 40%)
6 snapshots in district B ($6/10=.6$ or 60%)

Students who stay at a single location throughout their high school career will contribute the entirety of their outcome (1.0 or 100%) to that school.

- E. Time Share: Students may spend only part of their high school years in public education. That is, they may shift in and out of private, Bureau of Indian Education, out-of-state, or home school settings which are not governed by NMPED. Shared Accountability holds schools and districts accountable for the portion of time students spend in public schools.

The proportion of a student's high school career spent in public education can be conceived as a percentage of potential snapshots. The four-year student who is full-time from 9th through 12th grade will have a total of 16 snapshots, 4 in each grade. For students entering the cohort after their 9th grade year, compensation for the reduction of their time in New Mexico schools is applied to their outcome. Time is not compensated for 9th grade cohort entrants.

Continuing example 2 (above) for the student who spent only 10 snapshots (2.5 years) in NMPED schools after their 9th grade year:

School and District: 10/16 snapshots in PED schools = .625 or 62.5%
(62.5% of their outcome is attributable to public education)

- F. Computation: Each cohort member contributes a proportion of 1.0 (100%) of their outcome to the final rate of all schools attended, all districts attended, and to the state. The student's outcome is shared among the schools and districts, and the time compensation is applied.

Continuing example 2 for the student who had a total of 10 snapshots, and who entered the cohort after the 9th grade:

School share: School A: 4 snapshots = .4
School B: 6 snapshots = .6

Time Share: School A: .625 X .4 = .250
School B: .625 X .6 = .375

The sum of .250 and .375 equals the student's total outcome (1.0) adjusted for the reduced time the student spent (.625 or 62.5%) in public education.

- G. **NUMERATOR**: The numerator of the graduation rate is the sum of all student fractions accumulated for that school that graduated anywhere in the state. The student does not have to graduate from that school or district.
- H. **DENOMINATOR**: The denominator of the graduation rate is the sum of all student fractions accumulated for cohort members that were ever enrolled at that school or district for any period of time, and in any high school grade.
- I. Both figures are adjusted for the time compensation.

EXAMPLE:

Hill High School had 7 members of the cohort who were enrolled for either some or all of their 4 years at their school. The sum of all students (4.07) divided by the sum of the graduates (2.44) yields a graduation rate of 60.0%.

Features of New Mexico's Shared Accountability Model are illustrated in this example of Hill High School:

- Diego, Sue, and Don were 9th grade entrants to the cohort, and therefore do not qualify for a Time Share. New Mexico recognizes the fragility of this grade in the success of graduation, and therefore does not adjust for 9th graders who leave the cohort by dropping out. Sue's outcome will impact the rate of all schools that she attended as if she were a full-time 4-year student (16 snapshots).
- Ninth grade cohort members that graduate early (less than 16 snapshots) also do not receive any time adjustment. This assures that early graduates do not penalize the school's rate. For example, Don graduated 2 snapshots earlier than anticipated (14 rather than 16 snapshots statewide) but all schools

that he attended will receive the full credit for his graduation. Adjustment for early graduation is not available for cohort members that enter after the 9th grade.

- Five of Hill’s cohort members entered the cohort after their 9th grade. Note that the later they entered, the less impact their outcome had on the rate (Time Share). Because late coming students receive their preparation for graduation outside the jurisdiction of state education (i.e. out-of-state, BIE, private, or home schools) the time adjustment holds schools accountable for only the proportion of their education that was received in New Mexico public schools, whether the student succeeds or fails.
- The graduation rate is comprised of fractions of students that are recombined to make a whole student body. Hill High is being held accountable for every student that ever spent any amount of time in their school, but the longer the time, their more the impact. If another school shares in the student’s success or failure, both schools share proportional responsibility. This method allows high schools that do not have a senior class to receive feedback on their graduation success.

Cohort Members Ever Enrolled at Hill HS		Cohort	Snapshots							Graduation Rate (School Share) X (Time Share)	
		Year of Entry	Hill HS	Statewide	School Share ¹		Time Share		Numerator (Grads Only)	Denominator (All Students)	
Diego	Graduated	9 th	16	16	16/16	1.00	NA	1.00 ²	1.00	1.00	
Allen	Still enrolled	10 th	10	12	10/12	0.83	12/16	0.75		0.63	
Sue	Graduated	9 th	2	16	2/16	0.13	NA	1.00 ²	0.13	0.13	
Tom	Graduated	11 th	5	8	5/8	0.63	8/16	0.50	0.31	0.31	
Kerry	Failed exit exam	10 th	8	12	8/12	0.67	12/16	0.75		0.50	
Don	Graduated early	9 th	14	14	14/14	1.00	NA	1.00 ²	1.00	1.00	
Juan	Still enrolled	10 th	8	12	8/12	0.67	12/16	0.75		0.50	
Sum									2.44	4.07	

¹ For every student whose school share is less than 1.0, the remainder of their outcome is attributed to other schools attended during the high school years.

² There is no time share for students who were 9th grade cohort members

VI. Alternate Calculations

- Collective Cohort: Schools or districts with fewer than 30 students in their cohort will have a second option of creating a new cohort comprised of students accumulated across multiple years. Because historic data do not exist for cohorts prior to 2008, this rule will be applicable for the cohort of 2010 forward.
- The aggregation will begin with the current students, and add all students from successive prior three cohorts until the aggregate has 30 or more students.
- In the absence of sufficient numbers to reach 30 students, the prior 3 years will be used.
- The collective cohort is comprised of students who meet the same requirements for the current year’s cohort. The Shared Accountability method will be applied to the collective cohort.

VII. AYP Determinations

- Annual Measurable Objectives (AMOs)
 - The State has established expectations that 85% of New Mexico’s students will graduate in 4 years by the year 2020.

4-Year Cohort Graduating Class of											
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
63%	65%	67%	69%	71%	73%	75%	77%	79%	81%	83%	85%

- B. Graduation rates are disaggregated by subgroup and are made publicly available as in prior years. Disaggregated graduation rates will apply to AYP determinations in 2011.

VIII. 5-Year Rates

- A. Students who were included in the 4-year cohort comprise the 5-year cohort. Incoming students who are new to New Mexico public schools after the 4th year are not included in the 5 year cohort.
- B. Students who met exemption criteria in the 4th year of the 4-year cohort continue to be exempt and cannot re-enter the cohort in the 5th year. For example, a student that transferred to a private school and did not graduate with their cohort, but returned the 5th year to a public school and graduated cannot be counted in the 5-year rate.
- C. Students who newly met certain exemption criteria in their 5th year do not belong to the cohort:
 - 1. Transfers out who exited to a non-PED school (i.e. out of state, BIE, home, or private school); the educational setting must have the capacity to grant a standard diploma.
 - 2. Émigrés who moved out of the United States or are deported (does not include military families on temporary duty, or US students studying abroad as part of an exchange program. These students may qualify for Transfer Out).
 - 3. Deceased.
 - 4. Note that reclassifying a student to *Foreign Exchange* or *Not a First-Time 9th Grader* is not honored in the 5th year. These students must be acknowledged at the establishment of the 4-year cohort.
- D. All 5th year demographics will be preserved from the student's 4th year so that group membership does not change.
- E. The only alteration in the *Shared Accountability* method is that students are allowed 20 snapshots to graduate, rather than 16. The proportional distribution, School Share, and Time Share are calculated accordingly.

IX. Documentation

- A. Districts are required to maintain written evidence of students who are EXEMPT, TRANSFER OUT, or are RECLASSIFIED to a different cohort. In some cases, documentation will consist of a State waiver:
 - 1. The IEP will serve as documentation for students with disabilities
 - 2. Remanded to non-educational setting will be verified by the appropriate withdrawal code in STARS
 - 3. Pregnancy will be verified by the appropriate withdrawal code in STARS
 - 4. Significant Medical Emergency will require a waiver by the district
 - 5. Extended excused leave will require a waiver by the district
- B. Definitions and requirements for written documentation are appended
- C. Districts will be audited at random by the State to verify documentation
- D. Written evidence must be kept for 5 years after the student's expected graduation date.

II. Graduation Codes Requiring Documentation

Cells shaded in yellow indicate data retrieved primarily from STARS submissions

EXIT REASON	DEFINITION	REQUIRED WRITTEN DOCUMENTATION ¹
Foreign Exchange Student	Student from a country other than USA attending a high school in USA as part of an exchange program. Must have "J" Visa.	Telephone conversation ² Email ² Copy of Visa
Student Exited to Country Outside USA	Student moved or was extradited outside the country. Does not include students enrolled in Dept of Defense schools, and US foreign exchange students still enrolled in US schools (use <i>Exited to Degree-granting Non-PED School</i> for these students).	Telephone conversation ² Email ² Transcript request from receiving school
Pregnancy	Student left school because of pregnancy; may or may not have enrolled in a special school for pregnant teens.	Student self-report Telephone conversation ² Email ²
Deceased	Student died.	Telephone conversation ² Email ² Obituary
Exited to Degree-Granting Non-PED School	Student enrolls in a private, charter, home, or BIE school that grants a standard diploma recognized by the State. The school may be in-state or out-of-state.	Transcript request from receiving school
Exited to Non-Degree Granting Non-PED School	Student exited to a school that does not grant state recognized standard diplomas, such as a vocational certification program, or GED. The school may be in-state or out-of-state.	Student self-report Telephone conversation ² Email ²
Dropout or unknown	Student dropped out of school for work or military or other reasons. Any student with unknown graduation status defaults to "dropout" status.	(No documentation necessary)
Incarceration	Student involuntarily confined to a correctional facility (e.g. detention, jail, prison) that does not provide educational services.	Telephone conversation ² Email ² Transcript request from receiving school
Still Enrolled Non-IEP	Non graduate enrolled past 4 th year of high school, without an IEP.	Course enrollment
Still Enrolled With IEP	Non graduate enrolled past 4 th year of high school, with an IEP granting additional years to graduate.	IEP that verifies student is allotted additional time to graduate
Ever ELL	A student that was identified as ELL at any snapshot during high school.	Results from Home Language Survey Results from Placement ELP Exam Results from Annual ELP Exam Bilingual course enrollment
Completed	A student that completed all course requirements but did not pass all parts of the high school exit exam.	Results from NMHSCE Course completion
Graduated	A student that completed all graduation requirements, and received a standard diploma, but was not reported to the State as a graduate in any snapshot	Standard diploma ³ Other evidence of degree award

¹ Paper or electronic records must be maintained at district or school for auditing purposes. A minimum of one piece of evidence from the list provided must be kept.

² Qualifying communication must be from a responsible adult, not the student.

³ A New Mexico Standard diploma does not include GED, or Certificate of Completion. It does include students with disabilities completing requirements for a Standard Diploma as defined in NMAC 6.30.2.10, Section J (Career and Ability Pathways)