2011
Progress

Implementation & Reporting
of
Cohort Graduation Rate

Report to the Maryland General Assembly
and Governor Martin O'Malley

Submitted by

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2011 Progress:
Implementation & Reporting of Cohort Graduation Rate

Maryland Annotated Code 7-203.2 calls for the Maryland State Department of Education (MSDE) to implement a statewide data management and reporting system for the purpose of reporting an accurate adjusted cohort graduation rate for the 2011 graduating class. The law outlines specific requirements for collecting, maintaining, analyzing, and reporting on graduation rate data. Until 2011, MSDE is required to annually post aggregated and disaggregated interim graduation rates and report each fall to the Governor and the General Assembly regarding progress toward full implementation of the requirements identified in the law.

For the graduating class of 2010, MSDE met the reporting requirements by posting online the adjusted four-year cohort rate as well as the Leaver Rate data, thus meeting both federal and State reporting requirements. MSDE continues the practice of posting both rates on its website for 2011.

Background
The national discussion regarding high school programs continues to center on the effectiveness of the America's high schools in graduating students fully prepared for their places in society. For many students, that translates into their capacity to continue their formal education through either university work or through additional professional training. Research continues to point toward the importance of continuity and quality of the high school education in assuring that students enter the economy and make a sustaining life wage.

With the availability of more extensive data systems, Maryland and other states are now able to follow more closely the progress of individual students through high school and to analyze the relationship of high school programs to post-secondary pathways. In large part, analysts are most interested in the key role that "on time" graduation plays in a student's success over time. For most students, this translates into the capacity of students to complete high school programs in four years. However, current data systems permit us to examine in a more refined way the high school graduation patterns for students with disrupted high school programs who graduate in five or more years. For example, for some students who are also English Language Learners and some students with disabilities, graduation in five years or more is a reasonable expectation.

Past Practices. In the past, most states, like Maryland, lacked a longitudinal data system that followed students from enrollment in pre-K through high school. Over time, several states worked on data systems that would link student records pre-K through graduation with higher education records. Such comprehensive data systems enable states to track students entering high school all the way to graduation with a great deal of accuracy. This task is complicated in that not all students enter high school and matriculate through high school to graduation in four years. Student transfers, dropouts, and student graduation programs taking more or less than four years take up a significant portion of the graduation class. Verified individual student records are necessary to track students through high school. Consequently, graduation statistics were calculated in the past from the number of entrants versus graduates.

Nationally, analysts have agreed that the various graduation statistics have their value to policymakers if states are up front on the method of computation to assure comparability across schools and states. The Leaver Rate, so-named because it compares the number of students leaving high school with their diploma versus the number of ninth grade entrants four years earlier, minus dropouts. The Leaver Rate has been used in Maryland and many other states for decades and complies with a graduation rate definition set by the National Council for Education Statistics more than two decades ago.

Evolving Technology Systems and Policy. In 2009, the United States Department of Education (USDE) established a requirement, under the Elementary and Secondary Education Act, that states begin reporting in 2012 graduation rates based on the individual student data collected with statewide longitudinal data systems. Maryland met federal reporting and accountability requirements one year early, with the class of 2011. Data for the class of 2011 from the sophomore through senior years of high school comes directly from the statewide longitudinal data system, with freshman year (2007-08).

Maryland's 2011 Reported Data. Maryland assigned unique student identification numbers to the students entering Grade 9 in the 2007-2008 school year. This means that the 2010 and 2011 graduation cohorts are the first ones for which students were followed all four years of high school using the statewide longitudinal student data system. As a result, with the 2010 and 2011 reporting cycles, Maryland reported cohort graduation rates and used the four-year cohort graduation rate in 2011 for accountability purposes. At that time, the State began using a lagged graduation rate for accountability, using the previous year's four-year cohort graduation rate (2010) and the current year (2011) five-year graduation rate, following the same group of students from entry into ninth grade in fall 2006.

A statewide process is in place to ensure an accurate cohort rate based on tracking students using unique student IDs. This process assures consistency across the State for all schools and school systems reported in 2011. Because unique student identifiers have been assigned to students, enrollment and assessment data can already be linked to these identifiers. MSDE has applied for and received grant funds to support the linking of the data and the development of the longitudinal database and related data systems necessary to meet the reporting requirements.

Maryland is now able to report and use a cohort rate based on four full years of longitudinal data for the class of 2011 for Adequate Yearly Progress (AYP) requirements, and the State continues to report the current National Center for Education Statistics (NCES) Leaver Rate, but only for informational purposes. The State continues calculating and publishing graduation results on the website using the Leaver Rate as well as the three-, four-, and five-year cohort rates. This multifaceted view of high school graduation patterns helps readers access both the historical trend data that the Leaver Rate provides and the insights afforded by the cohort calculations. Further, MSDE will juxtaposition this information with dropout and promotion rate and other historical data for context.

Federal Graduation Rate Accountability Rules. Guidance from USDE requires states and local school systems to report a four-year adjusted cohort graduation rate, disaggregated by subgroups at the school, system, and State levels, beginning in 2011 and to use that rate in making AYP determinations in 2012, unless States apply for and are approved for revisions to

their accountability systems in spring 2012. The 2009 change in federal measures required Maryland to set new graduation rate standards and targets. New standards based on the 2010 cohort rate data were set in spring 2011 for the purpose of identifying annual targets and the Graduation Goal for schools, school systems, and the State.

In February 2012, Maryland submitted a proposal to the United States Department of Education to revise its accountability system under Federal non-regulatory guidance issued in late summer 2011. The flexibility afforded by the new rules permits states to reformulate their accountability systems, but without the traditional Adequate Yearly Progress determinations. However, the guidance continues the requirements for states to shift to a cohort graduation rate and to incorporate those rates into the revised accountability systems. Maryland is currently in negotiations with the USDE on the proposal, which will affect accountability procedures using 2012 data for accountability determinations applied during the 2012-2013 school year.

2011 Data

MSDE has collected, validated and reported cohort graduation rates for the class of 2010.

2011 Data Reporting Requirements
MSDE has posted the adjusted cohort graduation rates for the State and local school systems on its Report Card website (http://www.mdreportcard.org). At the State and local school system level, these data are presented in an aggregate form as well as disaggregated by American Indian/Alaskan Native, Asian, Black/African American, Hispanic/Latino, Hawaii/Pacific Islander, White, Two or more races, students who are limited English proficient, students who receive free and reduced priced meals, and students who receive special education services. The report includes the 2011 Leaver Rate as well as the three-, four-, and five-year adjusted cohort rates. The report also includes additional related information such as dropout and promotion rates, Grade 12 Documented Decisions, and High School Program Completion.

Comparisons. Each of the graduation statistics is collected from verifiable data sources, and they are each designed to answer different questions. The NCES Rate (Leaver Rate) used by Maryland gives a good historical view of overall graduation trends in the aggregate and disaggregated by race and special services. The calculation is structured to help data users understand the rate of student graduation, regardless of the length of time in high school. The cohort graduation rates indicate the number of students taking a maximum of three, four, or five years to graduate. None of the cohort calculations capture students taking more than five years to graduate. The cohort graduation rate does capture students who dropped out and re-entered school, as long as they graduated within five years of entering Grade 9. In contrast, the NCES rate does not credit schools with "recovered" dropouts who re-enter. Further, individual students who drop out multiple times count against the Leaver Rate calculation for multiple dropout incidents, regardless whether the student eventually graduates or not.

Because of the differences in the calculations and the questions each graduation measure answers, the rates will be different. Certainly, the number of students graduating in four years will be smaller than will be the number over four or more years. Disruptions in a student's high school program through personal or family issues can challenge a student's ability to complete

high school, thus delaying high school completion, in some instances. High school programs in every school system are increasingly responding to the needs of the student experiencing a disrupted education and are working to improve the likelihood that students will persevere until graduation.

Context Information. While the advances in data systems across the nation are permitting states to report and use cohort data to analyze high school participation trends, it is still important to view graduation data information within context, including the annual promotion rates and dropout rates.

Dropout rate indicates how many dropout incidents occurred in grades 9 through 12 during the past academic year (2010-2011). In 2010-2011, 3.18% of students dropped out. This measure represents the total number of dropout *events* versus the total number of students enrolled in the Fall 2010. If a student drops out, re-enrolls, and drops out again, they are recorded twice as a dropout. In the future, MSDE will also publish a cohort dropout rate that shows a cumulative rate of dropouts from a cohort across the four-year high school period.

Promotion rates lend additional insights, but do not identify the rate at which students are leaving school. Rather, these calculations tell the reader what percent of students identified in each high school grade (9, 10, 11, and 12) during the most recent academic year met all the requirements to be promoted to the next grade or graduation. Many of the students not promoted to the next grade remain enrolled and work toward graduation. However, non-promotion is a critical risk factor for many students, raising the likelihood that they will drop out of high school before graduation.

Statewide Data Summary

<p align="center">Table 1
Most Current Maryland Statewide Graduation Rates</p>

Graduation Measure	Percent All Students Enrolled
Leaver Rate (NCES)	87.01
5-Year Adjusted Cohort Rate	84.57
4-Year Adjusted Cohort Rate	82.82
3-Year Adjusted Cohort Rate	6.44*

*   Represents a small number of students graduating in fewer than three years. Figures are incorporated into Four-Year and Five-Year Adjusted Cohort Rates.

Table 2
Ten-Year Trend
Maryland Statewide Graduation Rates (Leaver or NCES Calculation)

School Year	Percent Graduating	Number of Graduates	Total Number of Students
2011	87.01	58,745	67,517
2010	86.55	59,080	68,261
2009	85.24	58,304	68,403
2008	85.09	59,171	69,542
2007	85.24	57,564	67,528
2006	85.44	55,538	65,006
2005	84.83	54,170	63,860
2004	84.29	52,869	62,723
2003	84.68	51,864	61,250
2002	83.83	50,724	60,507
2001	83.13	49,221	59,208

Table 3
2011 School System Leaver Graduation Rates

School System	Number of 2011 Graduates	Total Students	2011 Leaver Grad. Rate	2010 Leaver Grad. Rate
Allegany	682	751	90.81	89.65
Anne Arundel	4.991	5,708	87.44	88.86
Baltimore County	7,166	8,628	83.06	86.08
Calvert	1,394	1,486	93.81	92.47
Caroline	368	443	83.07	82.71
Carroll	2,302	2411	95.48	95.31
Cecil	1,122	1,295	86.64	83.91
Charles	2,175	2,411	90.21	89.83
Dorchester	277	331	83.69	80.43
Frederick	2,958	3,151	93.87	94.56
Garrett	349	373	93.57	92.82
Harford	2,710	3,022	89.68	88.38
Howard	3,924	4,163	94.26	94.31
Kent	147	168	87.50	81.03
Montgomery	10,158	11,195	90.74	90.01
Prince George's	8,263	9,702	85.17	84.42
Queen Anne's	564	621	90.82	88.94
Saint Mary's	1,139	1,299	87.68	88.83
Somerset	174	210	82.86	83.33
Talbot	343	372	92.20	87.89
Washington	1,525	1,663	91.70	92.48
Wicomico	906	1,172	77.30	82.74
Worcester	510	543	93.92	93.43
Baltimore City	4,598	6,399	71.85	65.90
All Public Schools	58,745	67,517	87.01	86.55

Table 4
2010 School System Five-Year Adjusted Cohort Rates*

School System	Number of 2010 Graduates	Total Students	2010 Cohort Graduation Rate
Allegany	654	745	87.79
Anne Arundel	5,042	5,890	85.60
Baltimore County	7,239	8,609	84.09
Calvert	1,365	1,459	93.56
Caroline	375	475	78.95
Carroll	2,300	2,513	91.52
Cecil	1,111	1,339	82.97
Charles	2,075	2,357	88.15
Dorchester	302	378	79.89
Frederick	3,067	3,295	93.08
Garrett	324	349	92.84
Harford	2,665	3,038	87.72
Howard	3,834	4,218	90.90
Kent	157	185	84.86
Montgomery	10,146	11,414	88.89
Prince George's	8,258	10,421	79.24
Queen Anne's	565	627	90.11
Saint Mary's	1,132	1,312	86.28
Somerset	169	205	82.44
Talbot	357	411	86.86
Washington	1,497	1,642	91.17
Wicomico	925	1,134	81.57
Worcester	519	570	91.05
Baltimore City	4,298	6,444	66.65
All Public Schools	58,373	69,027	84.57

* 2010 Five-year cohort graduation rates are the most current available. 2011 five-year cohort graduation rate will be available in 2012.

Table 5
2011 School System Four-Year Adjusted Cohort Rates

School System	Number of Graduates	Total Students	2011 Cohort Grad. Rate	2010 Cohort Grad. Rate
Allegany	669	761	87.91	87.21
Anne Arundel	4,762	5,687	83.73	82.80
Baltimore County	6,880	8,410	81.81	81.38
Calvert	1,351	1,481	91.22	91.66
Caroline	349	437	79.86	76.21
Carroll	2,271	2,447	92.81	91.00
Cecil	1,077	1,295	83.17	80.46
Charles	2,092	2,377	88.01	85.96
Dorchester	267	340	78.53	77.84
Frederick	2,899	3,167	91.54	91.70
Garrett	348	384	90.63	91.98
Harford	2,625	3,003	87.41	85.67
Howard	3,852	4,250	90.64	89.53
Kent	143	173	82.66	83.15
Montgomery	9,752	11,241	86.75	86.15
Prince George's	7,564	10,135	74.63	76.18
Queen Anne's	541	603	89.72	87.70
Saint Mary's	1,060	1,267	83.66	82.76
Somerset	173	226	76.55	80.49
Talbot	346	398	87.59	86.86
Washington	1,498	1,657	90.4	89.79
Wicomico	893	1,143	78.13	80.51
Worcester	503	545	92.29	90.16
Baltimore City	4,032	6,128	65.80	61.46
All Public Schools	55,947	67,552	82.82	81.97

Table 6
2010 and 2011 Maryland Dropout Rates

Dropout Measure	2011 All Students	2010 All Students
Grade 9-12	3.18%	2.54%
4-Year Adjusted Cohort	11.22%	11.93%

Table 7
2010 and 2011 Maryland Promotion Rates

Promotion Measure	2011 All Students	Summary Definition*	2010 All Students
Grade 12	93.3%	seniors promoted to graduation ÷ seniors enrolled	93.5%
Grade 11	92.7%	juniors promoted to Grade 12 ÷ juniors enrolled	93.0%
Grade 10	89.6%	sophomores promoted to Grade 11 ÷ sophomores enrolled	89.9%
Grade 9	85.4%	freshmen promoted to Grade 10 ÷ freshmen enrolled	87.0%

*Does not represent all technical features used in calculation. Summarized for comparison purposes only.

Additional Web Resources

The weblink to this information is Maryland Report Card at www.mdreportcard.org. Statewide and local education agency (LEA) graduation rates for 2011 data tables can be found at the website along with disaggregated data.

In addition, graduation rate data calculated for determining Adequate Yearly Progress (AYP) under No Child Left Behind (NCLB) is also available at the same location under "AYP." Graduation rates and dropout rates are reported by subgroup under the demographics section of the same website.

Appendix A:
Definitions and Required Documentation

<u>Definitions</u>

Four-year adjusted cohort graduation rate: As defined in34 C.F.R. §200.19(b)(1)(i)-(iv), the four-year adjusted cohort graduation rate (hereafter referred to as "the four-year graduation rate") is the number of students who graduate in four years with a regular high school diploma divided by the number of students who form the adjusted cohort for the graduating class. From the beginning of 9th grade, students who are entering that grade for the first form a cohort that is subsequently "adjusted" by adding any students who transfer into the cohort later during the 9th grade and the next three years and subtracting any students who transfer out , emigrate to another country, or die during that same period.

Graduate: Student receiving a standard high school diploma aligned with the regular high school curriculum.

Non graduates: Students who drop out, or receive a special education certificate. All of these students are included in the denominator of the graduation rate formula below.

Early graduates: Students receiving a standard high school diploma aligned with the regular high school curriculum before completing four full years in high school. These students count as graduates in the four year cohort rate.

Formula
A four-year adjusted cohort rate for students entering ninth grade for the first time in the fall of 2008 and expected to graduate in the spring of 2012 would be calculated as follows:

Numerator = Number of cohort members who earned a regular high school diploma by the end of the 2011-2112 school year

_____*divided by*_____

Denominator* = Number of first-time ninth graders in fall 2008 (starting cohort), plus students who transfer in, minus students who transfer out, emigrate, or die during school years 2008-09, 2009-10, 2010-11, and 2011-12.

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*The denominator includes the following students originally assigned to the cohort: students who receive a Special Education Certificate, students who were retained at any time during high school, students who have dropped out.

The next page outlines the documentation that must be on file at the local school system or school to provide acceptable evidence that a student should be removed from a cohort.

Documentation and Evidence Required by Federal Regulation in Order to Remove a Student From a Cohort

Documenting Students Removed From a Cohort

To remove a student from a cohort, a school or local educational agency (LEA) must confirm in writing that the student:
- Transferred out,
- Emigrated to another country, or
- Is deceased [§200.19(b)(1)(ii)(B)].

Documenting Transfers Out

To confirm that a student transferred out, the school or LEA must have official written documentation that the student enrolled in:
- Another school, or
- An educational program that culminates in the award of a regular high school diploma [§200.19(b)(1)(ii)(B)(1)].

Examples of Official Written Documentation

- Evidence of a transfer that is recorded in a state's data system.
- Request for records from the receiving high school.
- An approved application for home schooling.
- A letter from an official in the receiving high school acknowledging the student's enrollment.

Official documentation of a transfer must be in writing rather than a telephone conversation or other verbal communication with a parent, relative, or neighbor.

Written Confirmation for Students Who Emigrate or Pass Away

- A school or LEA must confirm in writing that a student has emigrated to another country or passed away, but need not obtain official documentation.
- Written confirmation that a student has emigrated to another country might include a school administrator's memo to the student's file based on a phone conversation with a parent, stating that the student is leaving the country.
- Written confirmation that a student has passed away might include an obituary or a letter from a parent.

Appendix B:
Process for Cohort Determination

LEA	School Year	Starting Cohort	Dropouts	Transfers In	Transfers Out	Deaths	Diplomas	Adjusted Cohort
All Public Schools	2008	65,609	959	4,766	3,866	10	0	69,773
	2009	66,499	1,618	3,952	3,643	19	17	69,575
	2010	66,789	2,077	3,056	2,899	25	1,011	69,403
	2011	66,921	2,923	1,880	1,231	18	54,919	69,156
		65,609	7,577*	13,654*	11,639*	72*	55,947*	67,552

*Totals over four years.

The above data represents the students graduating in the class of 2011, with their first time in ninth grade during the 2007-2008 school year.