Four-Year Cohort Graduation Rate

Documentation

May, 2022

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Background and Overview

The Connecticut Department of Education (CSDE) introduced the four-year cohort graduation rate with the graduating class of 2009. This approach was created when Connecticut and 49 other states signed an agreement with the National Governors’ Association to develop a uniform system for tracking students.

The CSDE is required to report Cohort Graduation Rates per the No Child Left Behind Act (NCLB) and in compliance reports such as EdFacts and the Consolidated State Performance Report. The cohort graduation rate is also a component of Connecticut’s new accountability system described in CSDE’s approved NCLB flexibility request (or waiver).

The four-year cohort graduation rate is calculated by tracking an individual cohort (or group of students) from their initial entrance into 9th grade through to graduation with a regular high school diploma in four years or less. The calculation uses individual student-level data from the state’s Public School Information System (PSIS) that was submitted by school districts and certified by Superintendents. For the complete list of PSIS exit codes and their impact on the cohort graduation rate, please see Appendix A on page 5.

Definitions and Concepts

*Four-Year Adjusted Cohort graduation rate* is the percentage of first-time ninth graders who graduate within four years or less with a regular high school diploma.

*Cohort* is defined as group of students who started ninth grade for the first time and are expected to graduate in four years.

*Cohort Length* is the number of years it takes a student to graduate from the time of becoming a first time ninth grader. The standard time is four years.

*Transfer In* refers to any student who enters the cohort on grade-level at any point during the four year period. It does not exclude students who arrive late in the twelfth grade (or any grade).

*Transfer Out* refers to any student who exits from the cohort for a reason such as transfer to another public school, transfer to a private school, and transfer to a school out of state or out of the country, or a student who is deceased.
**On-time graduate** refers to any student who graduates within four years. If a student graduates as a junior, he/she is classified as on-time graduate. Summer graduates are also included as on-time graduates.

**Adjusted Cohort** is the final cohort after adding those students who transfer into the cohort and removing those students who transfer out from the cohort.

**Certificate of Attendance** is not a regular diploma but a certificate issued to a special education student who does not fulfill state graduation requirements.

**Still In School** refers to any student who did not graduate, did not receive a certificate of attendance or drops out of the cohort and reported to school after expected year of graduation for at least six months (includes students who were expelled from school)

### Data Source

The adjusted cohort graduation rate calculation relies on student-level data obtained from the Public School Information System (PSIS). The student enrollment and program participation counts are obtained from the October, January and June PSIS data collections. And student exit information (which captures student movement) is obtained from the PSIS student registration database. The adjusted cohort graduation rate calculation uses six years of student-level data:

- the year prior to the first year of the cohort is used to determine when the student is expected to be a first-time ninth grader;
- the four years for grades 9-12; and
- the fall of the year after grade 12 when the graduation status is collected.

### Methodology

The formula to calculate the adjusted cohort graduation rate (2012 cohort is used as the example) is the following:

\[
\frac{\text{# of On-time Graduates}}{\text{# in Adjusted Cohort}}
\]

*(i.e., # of students in cohort who graduate with a regular high school diploma in four years or less)*

\[
\text{# in Adjusted Cohort}
\]

*(i.e., [# of 1st time entering 9th graders in 2008–09] – transfers out + transfers in)*

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This calculation is based on the following principles:

- Only students who graduate on-time are included in the numerator of the calculation. Late graduates are excluded.
- Each student is assigned to **only one cohort**.
- A student should be a first-time ninth grader to become a member of a school’s cohort from anywhere – Connecticut school system or outside Connecticut school system.
- A student transferring into another school is added to that school’s cohort.
- A student who transfers out of a school is removed from that school’s cohort.
- A student who drops out of a school remains in that school’s cohort.

**Special Cases**

1. For a student who skipped a grade, a student’s first year in which the student attended any high school will be assigned as his/her cohort year.

2. Students who begin the school year at one grade in a high school and then are moved down or demoted to an earlier grade will retain the cohort the students were originally assigned.

3. Students who were eighth graders at the time the cohort was formed can be assigned the same cohort if they promoted to ninth grade in the same year.

4. Students from another country or students from another state or students transferring from homeschooling the required documentation is as follows:

   1. Transcripts or other documentation of prior high school enrollment which corresponds to a student first high school entry
   2. In absence of such documentation a student cannot be added to a cohort
The denominator and numerator used in the adjusted cohort graduation rate formula are determined as follows (2012 cohort is used as the example):

1. **The denominator (# in Adjusted Cohort) is equal to students who:**

   - Entered 9th grade for the first time in September 2008 *minus* transfers out of the cohort between September 2008 and end of June 2012 without graduating or returning to the cohort

   \[ \textit{Plus} \]

   - Transferred into 9th grade during 2008-09 school year *minus* transfers out of the cohort between October 2008 and end of June 2012 without graduating or returning to the cohort

   \[ \textit{Plus} \]

   - Transferred into 10th grade during 2009-10 school year *minus* transfers out of the cohort between September 2009 and end of June 2012 without graduating or returning to the cohort

   \[ \textit{Plus} \]

   - Transferred into 11th grade during 2010-11 school year *minus* transfers out of the cohort between September 2010 and end of June 2012 without graduating or returning to the cohort

   \[ \textit{Plus} \]

   - Transferred into 12th grade during 2011-12 school year *minus* transfers out of the cohort between September 2011 and end of June 2012 without graduating or returning to the cohort

   \[ \textit{Plus} \]

   **Note:** Students who drop out are not removed from the cohort. In addition, students who transfer out into adult education programs are not removed.

2. **The numerator (# of On-time Graduates) is equal to:**
• Students in the final adjusted cohort (i.e. those who entered the 9th grade for the first time in September of 2008 or transferred into the cohort between October 2008 and June 2012, inclusive) who graduated by the 2011-12 school year, including early and summer graduates.

3. **Cohort graduation rate is the numerator (2) divided by the denominator (1).**
### Appendix A: PSIS Exit Codes and their Impact on Cohort Graduation Rate

<table>
<thead>
<tr>
<th>Exit/Entry Code Description</th>
<th>Exit Code values</th>
<th>Adjusted Cohort Classification</th>
<th>Impact on Graduation Formula</th>
<th>Mathematical Effect on Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer to a public school in the same district</td>
<td>1</td>
<td>Transfer Out</td>
<td>Removed from denominator if student is claimed by another public school</td>
<td>Increases rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Graduate</td>
<td>Included in denominator if student is not claimed</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Transfer to a public school in a different district Connecticut</td>
<td>2</td>
<td>Transfer Out</td>
<td>Removed from denominator if student is claimed by another public school</td>
<td>Increases rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Graduate</td>
<td>Included in denominator if student is not claimed</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Transfer to a public school in a different state</td>
<td>3</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Transfer to an private school in the same district</td>
<td>4</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Transfer to private school in different district in the same state</td>
<td>5</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Transfer to private school in different district in the different state</td>
<td>6</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Transfer to an private school in the same district (religious)</td>
<td>7</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
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<tr>
<td>-------------------------------------------------------------------------------------------</td>
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<td>--------------------------------------</td>
</tr>
<tr>
<td>Transfer to private school in different district in the same state (religious)</td>
<td>8</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Transfer to private school in different district in the different state (religious)</td>
<td>9</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Transfer to a school outside of the country</td>
<td>10</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Transfer to a juvenile correction facility/DCF/DMAS where educational services are provided</td>
<td>11</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Transfer to a charter school</td>
<td>12</td>
<td>Transfer Out</td>
<td>Removed from denominator if student is claimed by another public school</td>
<td>Increases rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Graduate</td>
<td>Included in denominator if student is not claimed</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Transfer to home schooling</td>
<td>13</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Graduated with regular diploma</td>
<td>15</td>
<td>Graduate</td>
<td>Included in numerator and denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Completed school with other credentials (e.g., District-Awarded Certificate of Attendance)</td>
<td>16</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Student death</td>
<td>17</td>
<td>Transfer Out</td>
<td>Removed from denominator</td>
<td>Increases rate</td>
</tr>
<tr>
<td>Reached maximum age for services</td>
<td>20</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
</tbody>
</table>

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<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Discontinued schooling</td>
<td>21</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Transfer to an adult education facility (i.e. for GED completion)</td>
<td>23</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Transfer to a post-secondary</td>
<td>24</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Moved within US, not known to be continuing/unknown</td>
<td>25</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Transfer to a state approved full-time magnet school</td>
<td>26</td>
<td>Transfer Out</td>
<td>Removed from denominator if student is claimed by another public school</td>
<td>Increases rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Graduate</td>
<td>Included in denominator if student is not claimed</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Transfer to an Adult High School Credit Diploma (AHSCD) program where education services are provided</td>
<td>27</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Administrative Exit/CSDE use only</td>
<td>99</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Transfers into a cohort</td>
<td>100</td>
<td>Graduate</td>
<td>Included in numerator and denominator if student graduates</td>
<td>Increases rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Graduate</td>
<td>Included in denominator only if student does not graduate</td>
<td>Decreases rate</td>
</tr>
<tr>
<td>Student expulsion (or long-term suspension)</td>
<td>101</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
<tr>
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<td>-----------------------------</td>
<td>------------------</td>
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<td>----------------------------------------</td>
</tr>
<tr>
<td>Still In school</td>
<td>102</td>
<td>Non-Graduate</td>
<td>Included in denominator</td>
<td>Decreases rate</td>
</tr>
</tbody>
</table>
Appendix B: Frequently Asked Questions

1. **How are students assigned to cohorts?**

   Students are assigned to cohorts based on when they first enter Grades 9-12 in PSIS. Once a student is assigned a particular cohort year (e.g., 2007), the student's cohort never changes.

2. **How are transfers counted?**

   Students who transfer from one school to another within the same district will not be included in the original school cohort, but will be in the second school cohort provided that student is claimed by the second school.

   Students who transfer from one district to another district will not be counted in the original school and district cohort, but will be counted in the second school and district cohort provided that student is claimed by the second district.

3. **What happens to students retained in a grade?**

   The student's cohort does not change when he/she is retained in a grade. Therefore, the student does not count as a graduate in the four-year rate unless he/she catches up and graduates on time.

4. **How are summer graduates and early graduates included in the graduation rate calculations?**

   They are included in the four-year graduation rate.

5. **How is a student who graduates in more than four years counted in the four-year graduation rate?**

   A student who graduates in more than four years is counted as a nongraduate in the four-year graduation rate. Such a student must be included in the denominator of the four-year graduation rate and will not be included in the numerator because the student did not graduate in four years or less with a regular high school diploma. The student will not be removed from the cohort or assigned to a different cohort when calculating the four-year graduation rate.

6. **How is a student with a disability who has an individualized education program (IEP) that includes a plan to complete graduation requirements in more than four years included in the four-year graduation rate?**

   Only students who graduate with a regular high school diploma in four years or less may be included in the numerator of the four-year graduation rate. Thus, a student who takes more
than four years to graduate, regardless of the reason, must be included in the cohort for the four-year graduation rate (the denominator) but will not be counted as a graduate (the numerator) when calculating the four-year graduation rate.

7. Which students may be “removed from a cohort”?

The following are key ways in which students may be removed from a high school’s or district’s cohort:

- a student who transfers out and enrolls in another school or educational program that culminates in the award of a regular high school diploma;
- a student who leaves Connecticut’s public school system (e.g., emigrates to another state or country or enrolls in private school);
- a student who is home schooled; or
- a student who dies.

Before removing a student from a cohort, a school or LEA must obtain confirmation in writing that the student transferred out, emigrated, is home schooled, or is deceased. No other students may be removed from the cohort. Thus, schools and districts must remember that a student who drops out of high school is not deemed a transfer for purposes of calculating the cohort graduation rate; rather, the student must remain in the cohort i.e., the denominator of the graduation rate calculation.

8. How is a “regular high school diploma” defined?

A “regular high school diploma” means the standard high school diploma awarded to students in Connecticut that is fully aligned with the State’s academic content standards. It does not include a GED credential, certificate of attendance, or any alternative award including adult education diploma.

9. What is the definition of a “transfer”?

A transfer into a cohort occurs when a student enrolls after the beginning of the entering cohort’s first year in high school, up to and including in Grade 12. A transfer out of a cohort occurs when a student leaves a school and enrolls in another school or in an educational program that culminates in the award of a regular high school diploma. A student, who is retained in a grade, enrolls in an adult education program, or leaves school for any other reason, may not be counted in the four-year graduation rate as a transfer and must remain in the cohort.
10. How do we count students in outplaced facilities?

Publicly funded students placed in district-wide programs and private special education schools are included in their district graduation rates.

Supplementary information on the extended cohort graduation rate

Five-Year Adjusted Cohort graduation rate is percentage of first-time ninth graders who graduate in five years or less with a regular high school diploma. The ESSA extended graduation pays special emphasis on newly arrived English Learners, Title 1 students and students with significant cognitive disabilities’ graduation (new). See link at the bottom named essaygrad.

The formula for the five-year graduation rate calculation is as follows:

2012 Five-year adjusted cohort graduation rate

Four-year adjusted cohort graduation rate plus the number of students from the cohort who earned a regular high school diploma by the end of the 2012-2013 school year

Four-year adjusted cohort graduation rate plus students who transferred in during the 2012-2013 school year minus students who transferred out, emigrated, or died during the 2012-2013 school year

2012 Six-year adjusted cohort graduation rate

Five-year adjusted cohort graduation rate plus the number of students from the cohort who earned a regular high school diploma by the end of the 2013-2014 school year

Five-year adjusted cohort graduation rate plus students who transferred in during the 2013-2014 school year minus students who transferred out, emigrated, or died during the 2013-2014 school year

11. I need additional help. Whom should I contact?

Please contact Francis Apaloo at francis.apaloo@ct.gov.

Adapted from US department of Education Cohort Graduation guidelines

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