## Cohort 2016 Four-Year Graduation Rates – State Results

The Massachusetts Department of Elementary and Secondary Education (ESE) calculates and reports graduation rates as part of overall efforts to improve educational outcomes for all students.

The 2016 four-year cohort graduation rate is calculated as follows:

# of students in cohort (denominator) who graduate in 4 years or less  
[# of 1st time entering 9th graders in 2012-13] - transfers out/deaths + transfers in

The 2016 four-year cohort graduation rate for Massachusetts public high schools increased by 0.2 percentage points to 87.5 percent from 87.3 percent for the 2015 cohort. This represents the tenth consecutive year of increase in the four-year rate (see below). All student subgroups showed increased four-year rates as compared to the 2014 cohort. The largest increase among major racial and ethnic groups was shown by the African-American and Hispanic subgroups, which increased by 1.4 and 0.5 percentage points respectively. There are, however, significant gaps in the graduation rates among subgroups. Among the major race and ethnicity subgroup rates, there is a 20.0 percentage point difference between the highest and lowest, belonging to Asian and Hispanic students. This difference is 0.2 percentage points lower than in 2015.

Additional critical findings of the report include:

* The dropout rate for the 2016 cohort was 4.9 percent, the lowest since the ESE began calculating cohort dropout rates in 2006 and was 0.2 percentage points lower than the 2015 cohort dropout rate.
* 5.7 percent of the 2016 cohort is still enrolled in high school.
* Hispanic male students graduated at a rate that was 2.9 percentage points higher than the 2015 cohort
* The graduation rate for students with disabilities in the 2016 was 71.8%. This is the first time the students with disabilities subgroup has been above 70% since the ESE began calculating cohort graduation rates.

**Table 1. Cohort Graduation Rates 2006-2016**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2006**  **Cohort** | **2007**  **Cohort** | **2008**  **Cohort** | **2009 Cohort** | **2010 Cohort** | **2011 Cohort** | **2012 Cohort** | **2013**  **Cohort** | **2014**  **Cohort** | **2015**  **Cohort** | **2016**  **Cohort** |
| **4-Year Rate** | 79.9% | 80.9% | 81.2% | 81.5% | 82.1% | 83.4% | 84.7% | 85.0% | 86.1% | 87.3% | 87.5% |
| **5-Year Rate** | 82.7% | 84.0% | 84.2% | 84.0% | 84.7% | 86.3% | 87.5% | 87.7% | 88.5% | 89.4% | N/A |

The following tables and graphs further summarize the results for the 2016 cohort. The results are based on data submitted by school districts through the Department's Student Information Management System.

###### Table 2. Graduation Results for All Students and Student Subgroups[[1]](#footnote-1)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Graduates** | | Non-Graduates[[2]](#footnote-2) | | | | |
|  | 2016  Cohort #1 | 4-Year Rate | Difference from 2015 | Still in School | Non-Grad Completer[[3]](#footnote-3) | HS  Equiv. | Dropped Out | Expelled |
| All Students | 74,045 | 87.5% | +0.2 | 5.7% | 1.1% | 0.8% | 4.9% | 0.0% |
| Female | 36,350 | 90.2% | +0.2 | 4.2% | 1.1% | 0.7% | 3.8% | 0.0% |
| Male | 37,695 | 85.0% | +0.3 | 7.1% | 1.1% | 0.9% | 5.9% | 0.0% |
| ELL[[4]](#footnote-4) | 5,254 | 64.1% | +0.1 | 14.5% | 7.0% | 0.3% | 14.1% | 0.0% |
| Low Income/ED | 32,694 | 78.4% | +0.2 | 9.5% | 2.0% | 1.3% | 8.8% | 0.0% |
| Students w/ Disabilities | 14,361 | 71.8% | +1.9 | 16.1% | 2.5% | 1.0% | 8.6% | 0.0% |
| High Needs[[5]](#footnote-5) | 39,620 | 79.1% | +0.6 | 9.8% | 2.0% | 1.2% | 8.0% | 0.0% |
| African American | 6,826 | 78.9% | +1.4 | 11.1% | 2.5% | 0.7% | 6.7% | 0.0% |
| Asian | 4,236 | 92.7% | +0.3 | 4.2% | 1.0% | 0.4% | 1.7% | 0.0% |
| Hispanic | 11,675 | 72.7% | +0.5 | 10.4% | 3.3% | 1.1% | 12.3% | 0.0% |
| Multi-race, Non-Hisp. | 1,639 | 84.3% | -1.6 | 7.0% | 1.0% | 1.8% | 5.7% | 0.1% |
| Native American | 185 | 84.9% | +5.4 | 5.9% | 0.5% | 0.5% | 8.1% | 0.0% |
| Pacific Islander | 64 | 89.1% | +5.3 | 3.1% | 1.6% | 0.0% | 6.3% | 0.0% |
| White | 49,420 | 91.9% | +0.3 | 3.9% | 0.4% | 0.7% | 3.1% | 0.0% |
| Urban | 24,183 | 76.5% | +0.4 | 10.1% | 2.5% | 1.1% | 9.7% | 0.0% |

###### Table 3. Graduation Results for Race/Ethnicity Groups by Gender

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Graduates** | | Non-Graduates | | | | |
|  | 2016  Cohort # | 4-Year Rate | Difference from 2015 | Still in School | Non-Grad Completer | HS  Equiv. | Dropped Out | Expelled |
| African American Female | 3,411 | 82.1% | -0.2 | 8.8% | 2.7% | 0.7% | 5.7% | 0.0% |
| African American Male | 3,415 | 75.7% | +2.9 | 13.5% | 2.3% | 0.8% | 7.7% | 0.0% |
| Asian  Female | 2,109 | 93.4% | -0.5 | 3.5% | 1.3% | 0.2% | 1.5% | 0.0% |
| Asian  Male | 2,127 | 92.0% | +1.1 | 5.0% | 0.7% | 0.5% | 1.8% | 0.0% |
| Hispanic  Female | 5,556 | 77.9% | +1.1 | 8.3% | 3.4% | 1.2% | 9.2% | 0.0% |
| Hispanic  Male | 6,119 | 68.1% | +0.3 | 12.3% | 3.3% | 1.0% | 15.2% | 0.1% |
| Multi-race  Female | 846 | 87.6% | -0.8 | 5.0% | 0.8% | 2.0% | 4.6% | 0.0% |
| Multi-race  Male | 793 | 80.8% | -2.4 | 9.2% | 1.3% | 1.6% | 6.9% | 0.1% |
| Native American Female | 87 | 89.7% | +9.9 | 1.1% | 1.1% | 1.1% | 6.9% | 0.0% |
| Native American Male | 98 | 80.6% | +1.4 | 10.2% | 0.0% | 0.0% | 9.2% | 0.0% |
| Pacific Islander Female | 37 | 94.6% | +7.5 | 2.7% | 0.0% | 0.0% | 2.7% | 0.0% |
| Pacific Islander  Male | 27 | 81.5% | -0.1 | 3.7% | 3.7% | 0.0% | 11.1% | 0.0% |
| White  Female | 24,304 | 93.9% | +0.2 | 2.7% | 0.3% | 0.6% | 2.4% | 0.0% |
| White  Male | 25,116 | 90.0% | +0.4 | 5.0% | 0.5% | 0.9% | 3.7% | 0.0% |

**Table 4. Graduation Results for** **Students Receiving Special Education Services by Gender**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Graduates** | | Non-Graduates | | | | |
|  | 2016  Cohort # | 4-Year Rate | Difference from 2015 | Still in School | Non-Grad Completer | HS  Equiv. | Dropped Out | Expelled |
| Students w/ Disabilities Female | 5,360 | 74.6% | +1.9 | 14.4% | 2.7% | 1.0% | 7.4% | 0.0% |
| Students w/ Disabilities Male | 9,001 | 70.1% | +1.8 | 17.1% | 2.4% | 1.0% | 9.4% | 0.0% |

**Table 5. Graduation Results for** **Low-Income/Economically Disadvantaged Students by Gender**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Graduates** | | Non-Graduates | | | | |
|  | 2016  Cohort # | 4-Year Rate | Difference from 2015 | Still in School | Non-Grad Completer | HS  Equiv. | Dropped Out | Expelled |
| Low-Inc./ED Female | 15,893 | 82.3% | +0.0 | 7.4% | 2.0% | 1.2% | 7.0% | 0.0% |
| Low-Inc./ED Male | 16,801 | 74.7% | +0.4 | 11.5% | 2.0% | 1.4% | 10.5% | 0.0% |

**Table 6. Graduation Results for High Needs Students by Gender**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Graduates** | | Non-Graduates | | | | |
|  | 2016  Cohort # | 4-Year Rate | Difference from 2015 | Still in School | Non-Grad Completer | HS  Equiv. | Dropped Out | Expelled |
| High Needs Female | 18,464 | 82.5% | +0.3 | 7.8% | 2.0% | 1.1% | 6.5% | 0.0% |
| High Needs Male | 21,156 | 76.1% | +0.9 | 11.5% | 1.9% | 1.2% | 9.3% | 0.0% |

**Table 7. Graduation Results for English Language Learner Students by Gender**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Graduates** | | Non-Graduates | | | | |
|  | 2016  Cohort # | 4-Year Rate | Difference from 2015 | Still in School | Non-Grad Completer | HS  Equiv. | Dropped Out | Expelled |
| ELL  Female | 2,408 | 67.9% | -0.2 | 12.7% | 8.2% | 0.2% | 11.0% | 0.0% |
| ELL  Male | 2,846 | 60.8% | +0.3 | 16.1% | 6.1% | 0.3% | 16.7% | 0.1% |
| ELL in  Original Cohort | 3,112 | 69.5% | -0.9 | 12.4% | 4.5% | 0.4% | 13.1% | 0.1% |
| ELL Entered  Cohort after 10/1/12 | 2,142 | 57.2% | +1.1 | 16.6% | 10.7% | 0.0% | 15.5% | 0.0% |

**Table 8. Graduation Results for Race/Ethnicity by English Language Learner Status**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Graduates** | | Non-Graduates | | | | |
|  | 2016  Cohort # | 4-Year Rate | Difference from 2015 | Still in School | Non-Grad Completer | HS  Equiv. | Dropped Out | Expelled |
| African American ELL | 1,147 | 69.0% | +1.3 | 14.5% | 8.5% | 0.2% | 7.8% | 0.0% |
| African American Non-ELL | 5,679 | 80.9% | +1.5 | 10.5% | 1.3% | 0.8% | 6.5% | 0.0% |
| Asian  ELL | 704 | 79.5% | -1.9 | 12.5% | 4.0% | 0.1% | 3.8% | 0.0% |
| Asian  Non-ELL | 3,532 | 95.3% | +0.2 | 2.6% | 0.4% | 0.4% | 1.2% | 0.0% |
| Hispanic  ELL | 2,864 | 56.4% | +1.4 | 15.5% | 7.7% | 0.2% | 20.2% | 0.1% |
| Hispanic  Non-ELL | 8,811 | 78.1% | +0.7 | 8.8% | 1.9% | 1.4% | 9.8% | 0.0% |
| Multi-race  ELL | 42 | 83.3% | +33.3 | 7.1% | 4.8% | 0.0% | 4.8% | 0.0% |
| Multi-race  Non-ELL | 1,597 | 84.3% | -1.4 | 7.0% | 0.9% | 1.9% | 5.8% | 0.1% |
| Native American ELL | 5 |  |  |  |  |  |  |  |
| Native American Non-ELL | 180 | 85.0% | +6.1 | 5.6% | 0.6% | 0.6% | 8.3% | 0.0% |
| Pacific-Islander ELL | 3 |  |  |  |  |  |  |  |
| Pacific Islander Non-ELL | 61 | 90.2% | +6.6 | 3.3% | 1.6% | 0.0% | 4.9% | 0.0% |
| White  ELL | 489 | 73.4% | -2.7 | 12.5% | 4.7% | 0.8% | 8.6% | 0.0% |
| White  Non-ELL | 48,931 | 92.1% | +0.3 | 3.8% | 0.4% | 0.7% | 3.0% | 0.0% |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Graduates** | | Non-Graduates | | | | |
| High Schools Attended | 2016  Cohort # | 4-Year Rate | Difference from 2015 | Still in School | Non-Grad Completer | HS  Equiv. | Dropped Out | Expelled |
| One  School | 54,861 | 91.3% | +0.2 | 3.4% | 1.0% | 0.6% | 3.7% | 0.0% |
| Two  Schools | 15,849 | 81.1% | +0.2 | 9.5% | 1.2% | 1.2% | 7.0% | 0.0% |
| Three  Schools | 2,618 | 61.7% | +3.1 | 21.6% | 1.8% | 2.2% | 12.6% | 0.0% |
| Four or More Schools | 717 | 39.1% | +4.7 | 35.7% | 1.7% | 3.1% | 20.5% | 0.0% |

**Table 9. Graduation Results for Non-Mobile and Mobile Students[[6]](#footnote-6)**

##### Table 10. Competency Determination (CD) Status for Select Non-Graduate Groups

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Still in School** | | | **Dropped Out[[7]](#footnote-7)** | | |
|  | Number | CD | No CD | Number | CD | No CD |
| All Students | 3,213 | 74.2% | 25.8% | 2,020 | 60.5% | 39.5% |
| Female | 1,184 | 71.1% | 28.9% | 829 | 60.4% | 39.6% |
| Male | 2,029 | 75.9% | 24.1% | 1,191 | 60.5% | 39.5% |
| English Language Learner | 638 | 51.7% | 48.3% | 275 | 26.5% | 73.5% |
| Low Income/Econ Dis. | 2,386 | 71.4% | 28.6% | 1,561 | 57.8% | 42.2% |
| Students w/ Disabilities | 1,453 | 68.1% | 31.9% | 687 | 51.7% | 48.3% |
| High Needs | 2,898 | 71.9% | 28.1% | 1,730 | 57.7% | 42.3% |
| African American | 600 | 68.3% | 31.7% | 232 | 44.4% | 55.6% |
| Asian | 140 | 80.0% | 20.0% | 41 | 63.4% | 36.6% |
| Hispanic | 973 | 63.6% | 36.4% | 599 | 43.4% | 56.6% |
| Multi-race, Non-Hisp. | 92 | 83.7% | 16.3% | 62 | 66.1% | 33.9% |
| Native American | 9 | 66.7% | 33.3% | 6 | 66.7% | 33.3% |
| Pacific Islander | 1 |  |  | 1 |  |  |
| White | 1,398 | 82.8% | 17.2% | 1,079 | 73.0% | 27.0% |

##### Table 11. Distribution of Graduation Rates in the Aggregate for Districts[[8]](#footnote-8)

|  |  |  |
| --- | --- | --- |
| **2016 Four-Year**  **Graduation Rate** | **Number of Districts** | **Percentage of Districts** |
| < 50% | 12 | 4.0% |
| 50 - <60% | 5 | 1.7% |
| 60 - <70% | 7 | 2.3% |
| 70 - <80% | 23 | 7.6% |
| 80 - <85% | 23 | 7.6% |
| 85 - <90% | 47 | 15.6% |
| 90 - <95% | 96 | 31.8% |
| 95 – 100% | 89 | 29.5% |
| Total | 302 | 100.0% |

##### Table 12. Distribution of Graduation Rates in the Aggregate for Schools[[9]](#footnote-9)

|  |  |  |
| --- | --- | --- |
| **2016 Four-Year**  **Graduation Rate** | **Number of Schools** | **Percentage of Schools** |
| < 50% | 42 | 10.8% |
| 50 - <60% | 13 | 3.3% |
| 60 - <70% | 12 | 3.1% |
| 70 - <80% | 26 | 6.7% |
| 80 - <85% | 23 | 5.9% |
| 85 - <90% | 54 | 13.9% |
| 90 - <95% | 97 | 24.9% |
| 95 – 100% | 122 | 31.4% |
| Total | 389 | 100.0% |

1. Due to rounding, row percentages may not equal 100 percent. [↑](#footnote-ref-1)
2. In the reporting of aggregate results, students are included in the first column (from left to right) for which they qualify. For example, students who dropped out or were expelled, but earned a GED, are included in the GED category. Students are only reported in one category. [↑](#footnote-ref-2)
3. Non-Grad Completer includes 1) students who earned a certificate of attainment, 2) students who met local graduation requirements but the district does not offer certificates of attainment, and 3) students with special needs who reached the maximum age (22) but did not graduate. [↑](#footnote-ref-3)
4. The English language learner, special education, and low income subgroups include all students that were reported in those categories at least once in high school. Students can be counted in more than one group. [↑](#footnote-ref-4)
5. High Needs subgroup includes students categorized as any of the following as of October 1, 2015:1) Low Income/Economically Disadvantaged, 2) English language learner, 3) Students with disabilities, as well as students categorized as an English language learner during the prior two school years (2013-14 and/or 2014-15). [↑](#footnote-ref-5)
6. Mobility refers to the number of different high schools that the student attended within the Commonwealth. Students who never moved or moved in from another state or a private school and attended one public high school in Massachusetts are represented in the “One School” row. [↑](#footnote-ref-6)
7. Only includes still enrolled students and cohort dropouts that attempted the 10th grade ELA and Mathematics test at least once. This represents a change from previous reports where all dropouts regardless of test status were included in the analysis. [↑](#footnote-ref-7)
8. Includes districts with at least six students in the cohort. District analyses include charter schools, regional school districts and vocational/technical high schools. [↑](#footnote-ref-8)
9. Includes schools with at least six students in the cohort [↑](#footnote-ref-9)