

Massachusetts



Department of
Education

Dropout Rates in Massachusetts Public Schools: 2002-03

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Introduction

This report provides information on students who dropped out of Massachusetts public schools during the 2001-02 and 2002-03 reporting years (July 1, 2001 to June 30, 2002 and July 1, 2002 to June 30, 2003). Dropouts are defined as those students in grades nine through twelve who leave school prior to graduation for reasons other than transfer to another school. During the 2002-03 reporting year, a total of 9,389 ninth- through twelfth-graders dropped out of Massachusetts public schools and did not return to school by October 1, 2003. These students represented 3.3 percent of the 281,939 students enrolled in grades nine through twelve in the state's public schools on October 1, 2002.

This report marks the first time that the dropout rate is reported based on student-level data submitted by districts through the Student Information Management System (SIMS). Prior to the 2001-02 school year, dropout figures were reported by districts in aggregate form in the *Year-End School Indicator Report*. While the utilization of a student-level data collection ultimately improves the accuracy, validity and reliability of data, it takes time for the state and districts to become familiar with the new data collection and reporting process. As a result of continued efforts to allow districts and the state time to adjust to the new reporting system, and in order to better account for changes in data that may result solely from the new collection method, this report presents for the first time the dropout data for both 2001-02 and 2002-03. Ordinarily this report is released on annual basis and in the following years will resume this schedule.

The majority of analyses in this report examine dropout data over the past five years, of which only the last two are based on SIMS. This five-year analysis is meant to provide a historical context for understanding the past two years of reported dropout data

Dropout Rate Calculations and Data Collection

Dropout Rate Calculations

Annual Dropout Rate

The Massachusetts Department of Education reports a dropout measure that was developed by the U.S. Department of Education. According to this measure, students who drop out during a particular reporting year, but return to school or graduate by October 1 of the following year, are not counted as dropouts. These students are referred to in this report as *returned dropouts*. The dropout rate is the number of students who drop out over a one-year period, from July 1 to June 30, minus the number of returned dropouts, divided by the October 1 enrollment.

*A **dropout** is defined as a student in grade nine through twelve who leaves school prior to graduation for reasons other than transfer to another school and does not re-enroll before the following October 1.*

*The **dropout rate** is the number of students who drop out over a one-year period, from July 1 to June 30, minus the number of returned dropouts, divided by the October 1 enrollment.*

Although Massachusetts collects data on dropouts in grades 6-12, this report focuses on grade 9-12 dropouts. Data for grades 6-8 are available from the Department.

$$\text{Annual Grade 9-12 Dropout Rate} = \frac{\text{number of dropouts} - \text{returned dropouts}}{\text{October enrollment}} * 100$$

Example:

$$\text{Statewide annual dropout rate (2002-03)} = \frac{10,670 - 1,281}{281,939} * 100 = 3.3\%$$

Prior to 1993, the Department reported a dropout rate that included all students who dropped out of school regardless of whether they returned to school. This calculation, known now as the *unadjusted* dropout rate, is included in Appendix A of this report, but is not included in the analyses of this report.

Four-Year Dropout Rate (Projected)

A four-year dropout rate has been projected for the Class of 2006. This projected rate is determined by using the following formula for calculating the cumulative effect of four years of dropping out:

$$\text{Projected Four-Year Dropout Rate} = [1 - (1 - W)(1 - X)(1 - Y)(1 - Z)] * 100$$

W	=	Annual Dropout Rate in Grade 9
X	=	Annual Dropout Rate in Grade 10
Y	=	Annual Dropout Rate in Grade 11
Z	=	Annual Dropout Rate in Grade 12

Example:

$$\text{Statewide Adjusted Projected Four-Year Dropout Rate (class of 2006)} = [1 - (1 - .032)(1 - .034)(1 - .033)(1 - .035)] * 100 = 13\%$$

The foregoing formula assumes that (1) the current annual dropout rates for grades ten, eleven and twelve will remain constant over the next three years, and (2) students who drop out will not return to school *after* October 1 of the following year.

Data Collection and Associated Limitations

As mentioned previously, this report marks the first time that the dropout rate is reported based on student-level data submitted by districts through the Student Information Management System (SIMS). As a result of this new collection method, data may not represent actual changes in the dropout rate, but rather may be representative of changes in data collection and in reporting requirements. This is particularly evident in the 2001-02 dropout data, which represents the first year of SIMS data to be used in dropout reporting. Not all districts submitted data during the pilot year for the SIMS collection system (2000-01), resulting in an incomplete June 2001 data collection. Without a complete enrollment count for June 2001, there was no way to accurately determine the number of students that dropped out during the summer

preceding the 2001-02 school year. Referred to as *summer dropouts*, these students would have been included in the 2001-02 dropout data. Considering the relatively stable *number* of dropouts in Massachusetts public schools over the past five years (see *Table 2*), it is estimated that the 2001-02 dropout data is missing approximately 900 students who dropped out of school between July 1 and October 1. With the full implementation of SIMS, *summer dropouts* are now tracked and are included again in the 2002-03 dropout data. As stated above, while the 2001-02 dropout data is presented for the first time in the report, the majority of analyses examine dropout data over the past five years.

The dropout counts from SIMS are based on two groups of students. The first group is comprised of students reported as dropouts in the end-of-year SIMS reporting period. These students were then checked against data submitted by all other districts. If a student reported as a dropout by one district was found to be enrolled by another district, the student was not counted as a dropout.

The second group of students is termed *missing students*. For 2001-02, these students were reported as enrolled in grades 9-12 in the October 2001 reporting period, but were missing from the June 2002 SIMS data. For 2002-03, these students were reported as enrolled in grades 9-12 in June 2002, but were missing from the October 2002 SIMS collection (in any district). Districts had an opportunity to report the status of any missing students through a separate data collection. Students that were reported as dropouts in this Missing Students data collection and those students for whom districts provided no information were counted as dropouts.

The Department asks each district superintendent to review her/his district's reported data. Due to limited resources, Department staff does not audit the reported data. With these caveats in mind, we offer the following trend analysis.

Analysis of Dropout Rates

Dropout Rates: 2002-03

During the 2002-03 reporting year, a total of 9,389 ninth- through twelfth-graders dropped out of Massachusetts public schools and did not return to school by October 1, 2003. These students represented 3.3 percent of the 281,939 students enrolled in grades nine through twelve in the state's public schools on October 1, 2002.

In addition to the 9,389 dropouts, another 1,281 students dropped out of school during the 2002-03 reporting year and were not in school at the end of the year but had either returned to school or graduated by October 1, 2003. These students, referred to in this report as *returned dropouts*, represented 12 percent of the total number of students who dropped out during the 2002-03 school year (see *Table 1*).

Table 1. Dropout Rates: 2002-03					
	Enrollment	Number of Dropouts	Annual Rate	Projected Four-year Rate*	Returns as % of Dropouts**
Total, Grade 9-12	281,939	9,389	3.3%		12.0%
Grade					
Grade 9	82,071	2,639	3.2%	13%	12.4%
Grade 10	72,404	2,485	3.4%		12.4%
Grade 11	66,548	2,163	3.3%		13.5%
Grade 12	60,916	2,102	3.5%		9.4%
Gender					
Male	142,592	5,513	3.9%	15%	11.8%
Female	139,347	3,876	2.8%	11%	12.4%
Race/Ethnic Group					
African-American	25,112	1,431	5.7%	21%	12.9%
Asian	13,095	325	2.5%	10%	12.6%
Hispanic	27,701	2,040	7.4%	26%	15.1%
Native American	869	42	4.8%	18%	12.5%
White	215,162	5,551	2.6%	10%	10.6%
Low Income	57,862	2,973	5.1%	19%	15.2%
Limited English Proficient	12,127	740	6.1%	22%	9.1%
Special Education	39,850	1,838	4.6%	17%	14.1%
Vocational-Technical Schools***					
City/Town	7,012	478	6.8%	25%	15.7%
Regional/County/Independent	25,123	505	2.0%	8%	11.7%
* Percentage of ninth graders (class of 2006) projected to drop out over a four-year period					
** Percentage of 2002-03 dropouts who returned to school by October 1, 2003					
*** Figures do not include vocational-technical students enrolled in comprehensive high schools					

Annual Dropout Rates: 1999-2003

Over the past five years, the annual dropout rate in Massachusetts has decreased from 3.6 percent in 1998-99 to 3.3 percent in 2002-03. During this time period, the number of dropouts has increased slightly (from 9,188 in 1998-99 to 9,389 in 2002-03), while the grades 9-12 enrollment has increased significantly. The enrollment for these grades has grown from 258,026 students in 1998-99 to 281,939 students in 2002-03, an increase of 9.3 percent (see Table 2). As mentioned previously, the dropout rate of 3.1 percent for 2001-02 is most likely attributed to changes in the data collection system (see *Data Collection* above).

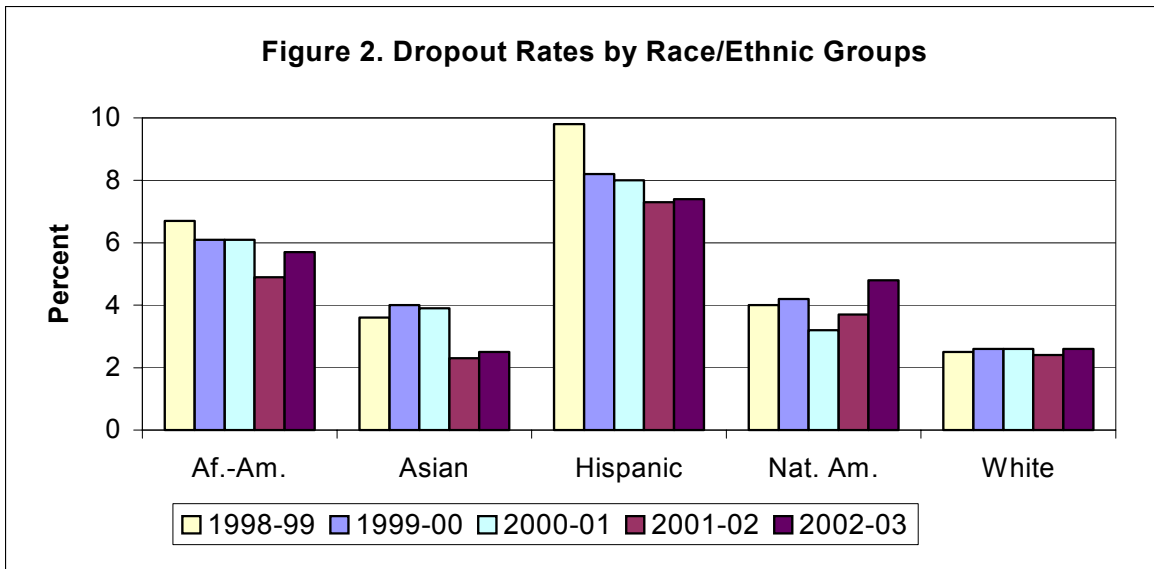
markedly from previous years (2.9 percent in 2002 and 3.1 percent in each of the three years prior), while the dropout rate for grades ten and eleven have declined slightly over the past five years.

Gender

- Consistent with previous years, the 2002-03 dropout rate for males, 3.9 percent, was higher than for females, 2.8 percent. The difference between the two rates (1.1 percentage points) was greater than in 2002 (0.9 percentage points) and equal to that of 2001.
- The dropout rates for both males and females have decreased slightly over the past five years. The dropout rate for males decreased from 4.0 percent in 1999, and the rate for females continued to decrease slightly from 3.1 percent in that same year.

Race/Ethnicity

- Consistent with previous years, the dropout rates in 2002-03 varied according to race/ethnicity. As in each of the four prior years, the rate of 7.4 percent for Hispanic students was the highest among the five reported race/ethnicity categories. The annual rate was 5.7 percent for African-American students and 4.8 percent for Native American students. The rate for white students was 2.6 percent and for Asian students was 2.5 percent.



- The Hispanic dropout rate showed the largest change of the five reported race/ethnicity categories. Over the past five years, the rate decreased for Hispanic students from 9.8 percent in 1998-99 to 7.4 percent in 2002-03. The dropout rates for Asian students and African-American students also showed sharp decreases over the past five years. The rate for Asian students decreased from 3.6 percent in 1998-99 to 2.5 percent in 2002-03, and the dropout rate for African-American students decreased from 6.7 percent to 5.7 percent during that same time period. The annual rate for white students has remained relatively steady (2.5 percent in 1998-99 and 2.6 percent in 2002-03), and the dropout rate for Native American students increased from 4.0 percent in 1998-99 to 4.8 percent in 2002-03. However, the rate

- **Gender** Female dropouts were slightly more likely to return to school in 2002-03 than male dropouts were (12.4 percent compared to 11.8 percent, respectively). This reverses a trend from the past three years, during which time male dropouts were more likely to return.
- **Race/Ethnicity** Hispanic students and African-American students who dropped out were more likely to return to school than students of other racial/ethnic backgrounds. Of the Hispanic students who dropped out, 15.1 percent returned to school. 12.9 percent of African-American students who dropped out returned to school. Asian students (12.6 percent) were the third most likely to re-enroll, followed by Native American students (12.5 percent) and white students (10.6 percent).
- **Low Income** Low income students returned to school at a higher rate than the overall dropout population (15.2 percent compared to 12.0 percent, respectively).
- **Limited English Proficient** Students with limited English proficiency were not as likely to return to school as the overall dropout population. Of the Limited English Proficient students who dropped out, 9.1 percent returned to school or graduated by October 1, 2003.
- **Special Education** Students in special education returned to school at a rate of 14.1 percent. This was higher than the return rate for all dropouts.
- **Vocational-Technical Schools** Students at vocational-technical schools were also more likely to return to school than were students statewide. Of the vocational students who dropped out, 13.7 percent returned to school, compared to 12.0 percent for returned dropouts statewide. For the third consecutive year, students at city or town vocational schools were more likely to return to school than were students at regional, county or independent vocational schools (15.7 percent compared to 11.7 percent, respectively).
- **Charter Schools** Of the students who dropped out of charter schools, 7.7 percent returned to school or graduated by October 1, 2003.

Reporting by Individual Districts and Schools

Consistent with past reports, the appendices beginning on page 12 present dropout data at the district and school levels. Data for schools with fewer than six students enrolled in grades 9-12 have been suppressed to protect student confidentiality.

Appendix A

Annual Dropout Rates by District and School, 2002-03

District	School	Trend Data - Adjusted Rates (%)				2003			Grades 9-12 Enrollment
		1999	2000	2001	2002	Annual Dropout Rate%	Unadjusted Rate%	Adjusted Dropouts (#)	
Abington	Abington High	3.5	1.5	1.6	1.3	0.2	0.2	1	576
Agawam	Agawam High	1.9	0.8	0.0	4.5	5.2	6.1	62	1,185
Amesbury	Amesbury High	1.1	1.5	4.3	2.6	2.6	2.8	22	848
Andover	Andover High	0.7	0.7	0.1	0.9	1.3	1.5	21	1,647
Arlington	Arlington High	1.2	1.2	1.1	0.3	2.1	2.2	23	1,119
Ashland	Ashland High	0.4	0.5	0.3	0.3	0.2	0.2	1	616
Attleboro	Attleboro High	5.4	3.9	7.0	4.6	3.1	4.2	45	1,446
	Attleboro Voc Tech High	0.0	8.3	10.8	4.6	3.5	4.8	17	483
	District Totals	4.3	4.9	7.7	4.6	3.2	4.4	62	1,929
Auburn	Auburn Senior High	3.1	1.0	2.4	2.0	1.0	1.1	6	623
Avon	Avon Middle High School		2.6	2.2	2.9	2.4	2.4	5	206
Ayer	Ayer High	2.4	3.7	2.6	2.4	2.7	3.0	10	369
Barnstable	Barnstable High	2.7	3.7	2.1	3.0	3.5	4.0	70	2,018

Notes: This report includes dropout and enrollment data for grades 9-12. The adjusted dropout rate accounts for dropouts who returned to school by the following October 1; data prior to 1993 did not have this adjustment made and are not comparable to these figures. Some rates are greater than 100 percent because the October 1 enrollment was lower than the total number of students that dropped out during the course of the year. Data for schools with fewer than six students enrolled in grades 9-12 have been suppressed.

District	School	Trend Data - Adjusted Rates (%)				2003			
		1999	2000	2001	2002	Annual Dropout Rate%	Unadjusted Rate%	Adjusted Dropouts (#)	Grades 9-12 Enrollment
Bedford	Bedford High	0.3	1.1	0.6	0.3	1.4	1.7	10	720
Belchertown	Belchertown High	3.4	2.4	3.6	3.0	2.5	2.6	16	650
Bellingham	Bellingham High School	2.0	1.3	1.8	1.4	1.5	2.5	11	753
	Primavera Jr/Sr H S	23.8	5.4	25.6	10.0	7.3	7.3	3	41
	District Totals	3.4	1.5	3.0	1.8	1.8	2.8	14	794
Belmont	Belmont High	0.5	0.8	1.1	0.1	1.0	1.1	11	1,057
Beverly	Beverly High	3.5	5.7	3.1	3.5	2.4	2.9	32	1,311
Billerica	Billerica Mem High Sch	1.3	2.0	2.6	2.9	2.5	2.7	37	1,500
Boston	Carter Develop Day Care				0.0	0.0	0.0	0	24
	William McKinley	17.7	13.8	22.8	19.3	16.8	17.7	40	238
	Brighton High	10.7	12.5	10.4	9.9	9.6	11.5	115	1,196
	Charlestown High	13.5	11.4	7.6	5.8	10.5	12.5	134	1,271
	Community Academy					133.3	155.6	12	9
	Dorchester High	25.0	21.8	17.9	12.7	19.9	22.7	184	924
	Jeremiah E Burke High	17.8	14.4	11.1	8.8	10.8	11.7	88	812
	East Boston High	4.8	7.0	3.8	5.4	6.1	6.8	83	1,362
	The English High	11.1	10.0	12.1	5.6	4.8	5.4	58	1,214
	Madison Park High	11.4	13.1	11.9	9.6	8.4	10.0	140	1,668
	Tech Boston Academy					0.0	0.0	0	76
	Fenway High School	5.9	9.8	3.1	3.0	1.9	1.9	5	269
	Another Course To College	11.1	8.2	11.4	3.3	11.9	12.7	15	126
	New Mission High School	7.8	6.3	0.0	7.8	2.1	3.6	4	193
	Egleston Comm High School	47.8	51.0	50.0	69.8	126.2	138.1	53	42
Boston Latin Academy	0.3	0.2	0.1	0.1	0.2	0.2	2	1,046	

Notes: This report includes dropout and enrollment data for grades 9-12. The adjusted dropout rate accounts for dropouts who returned to school by the following October 1; data prior to 1993 did not have this adjustment made and are not comparable to these figures. Some rates are greater than 100 percent because the October 1 enrollment was lower than the total number of students that dropped out during the course of the year. Data for schools with fewer than six students enrolled in grades 9-12 have been suppressed.

District	School	Trend Data - Adjusted Rates (%)				2003			
		1999	2000	2001	2002	Annual Dropout Rate%	Unadjusted Rate%	Adjusted Dropouts (#)	Grades 9-12 Enrollment
Boston	Boston Arts Academy	2.1	4.3	1.9	4.2	1.5	1.5	6	392
	Boston Adult Academy			48.8		19.8	20.9	56	283
	Hyde Park High School	23.6	20.7	13.2	11.7	16.0	18.9	186	1,166
	Boston Community Leadersh					2.7	3.4	15	557
	Boston Latin	0.6	0.4	0.3	0.1	0.3	0.3	5	1,590
	Quincy Upper School					0.0	0.0	0	52
	South Boston High	16.1	12.1	11.9	12.2	10.0	10.9	109	1,086
	West Roxbury Sch	5.4	4.5	4.5	2.3	5.0	5.5	65	1,292
	O'Bryant Sch Math/Science	1.4	2.0	1.6	1.1	0.5	0.7	5	994
	Expulsion Alt School	0.0	0.0		0.0	0.0	0.0	0	13
	Young Adult Center								3
	Snowden Int'l High	8.1	6.5	4.4	4.0	5.5	6.0	24	436
	Horace Mann	0.0	4.5		8.7	4.8	4.8	1	21
District Totals		9.9	9.4	8.5	7.0	7.7	8.7	1,405	8,355
Bourne	Bourne High	1.7	2.2	3.9	2.2	2.4	2.4	15	622
Braintree	Braintree High	1.3	0.7	1.0	0.7	1.4	1.4	19	1,360
Brockton	B B Russell			23.0	28.9	26.9	26.9	25	93
	Ithaka/Lincoln	23.5	12.2	12.1	36.7	29.2	33.3	7	24
	Brockton High	4.0	5.7	5.4	5.2	5.3	6.0	223	4,193
	District Totals	4.2	5.8	5.7	6.0	5.9	6.6	255	4,310
Brookline	Brookline High	0.4	0.3	0.3	0.5	0.7	0.7	12	1,850
Burlington	Burlington High	1.0	0.3	0.5	0.8	0.3	0.3	3	904
Cambridge	Camb Rindge & Latin	2.4	2.7	3.1	1.2	0.5	0.6	10	1,879

Notes: This report includes dropout and enrollment data for grades 9-12. The adjusted dropout rate accounts for dropouts who returned to school by the following October 1; data prior to 1993 did not have this adjustment made and are not comparable to these figures. Some rates are greater than 100 percent because the October 1 enrollment was lower than the total number of students that dropped out during the course of the year. Data for schools with fewer than six students enrolled in grades 9-12 have been suppressed.

