Montana Statewide Dropout and Graduate Report

2002-03 School Year

May 2004

OPI

Office of Public Instruction
Linda McCulloch, Superintendent
PO Box 202501
Helena, MT 59620-2501

Table of Contents

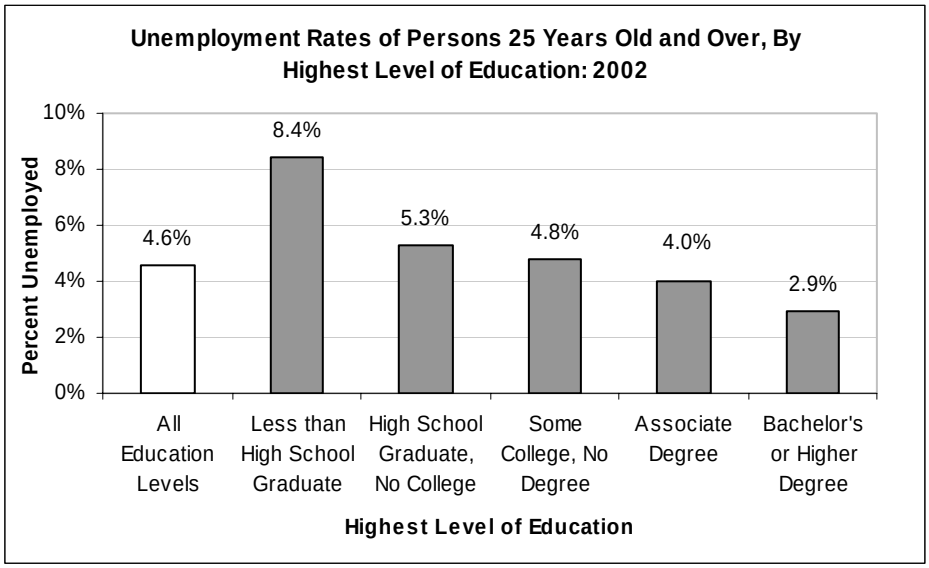
This report was prepared by the Office of Public Instruction, Measurement & Accountability Unit
Contact information can be obtained by calling Lindy Miller, (406) 444-6774 or e-mail, lindmiller@state.mt.us.

Introduction

The Montana School Accreditation Standards (10.55.603, ARM) require schools to do follow-up studies of graduates and students no longer in attendance. This report provides information on students who graduated or dropped out of Montana public, state-funded and nonpublic, accredited schools during the 2002-03 school year.

The Impact of Dropping Out of School

Students who drop out of school face a bleak economic world to a much greater degree than youths in general. According to the Digest of Education Statistics, as of October 2000, 28 percent of the 1999-00 dropouts were unemployed. By way of comparison, only 13 percent of 1999-00 recent graduates not enrolled in college were unemployed. (NCES, 2001) As shown in the chart below, employment opportunities for high school dropouts continue to lag far behind their counterparts who attain a high school diploma or a college degree.



(Labor, 2002)

As recently as the 1970s, holding a high school diploma was considered an adequate, but not an essential, asset for entering the labor market. The technological advances of the last 30 years have fueled the demand for a more highly skilled work force. Employers increasingly require at least a high school diploma and look for employees with good communication, math and reading skills; computer skills; problem-solving and critical thinking; and the ability to work on a team. Dropouts who do manage to find employment can expect to earn approximately 35 percent less than the average salary of a high school graduate. (NCES, 2001)

Dropouts are three times as likely as high school completers that do not go on to college to receive public assistance. (NCES, 1998) Approximately one-third of female dropouts are pregnant and facing child-rearing responsibilities without an education or job experience to support their children adequately. (NEGP, 2001) In addition to these grim economic statistics, dropouts also make up a disproportionate percentage of the prison population, comprising 26.5 percent of federal prison population, 39.7 percent of the state prison population, and 46.5 percent of the local jail inmate population. (Justice, 2003) This is far costlier to both the individual and to society than a high school and/or college education.

Graduate and Dropout Definitions and Data Collections

Montana public, state-funded, and nonpublic, accredited schools are provided with the Montana Graduate and Dropout Data Collection Handbook that provides detailed instructions for collecting and reporting graduate and dropout data. Reports were received from all accredited schools for graduate and dropout data for the 2002-03 school year.

Traditionally, each fall schools report graduate data for all high schools and dropout data for grades 7 through 12 by gender and race/ethnicity categories for the previous school year. However, on January 8, 2002, President George Bush signed into law the reauthorization of the Elementary and Secondary Education Act (ESEA), otherwise known as the No Child Left Behind Act of 2001 (NCLB), which increases accountability for student academic achievement for all public schools. The Adequate Yearly Progress (AYP) of NCLB requires that public high schools disaggregate both dropout and graduate data not only by gender and race/ethnicity, but also by the following subgroups: economically disadvantaged, students with disabilities, limited English proficient, and migrant. In addition, public high schools must also report graduate data by whether or not graduates graduated "in the standard number of years" (i.e., "on-time").

The Office of Public Instruction (OPI) began collecting graduate and dropout data by these additional disaggregations for the 2002-03 school year. The OPI did not collect corresponding enrollment data by these additional categories; therefore, dropout rates can not be calculated. Since the graduation rate formula requires four years of dropout data, graduation rates for these additional disaggregations will not be available until the 2005-06 data is collected.

Graduate Definitions and Data Collection

Montana accredited high schools report graduate numbers to the OPI each fall for the previous school year using the definition shown in top box to the right.

Graduates are the count of individuals who:

1) completed the high school graduation requirements of a school district, including early graduates, during the previous school year,

or

2) completed the high school graduation requirements of a school district at the end of summer prior to the current school year.

General Education Development Test (GED) recipients **are not** counted as graduates.

Standard Number of Years (i.e., "On-time") Graduate is an individual who:

1) completes a district's graduation requirements in four years or less from the time an individual enrolled in the 9th grade,

or

2) has an Individualized Education Program (IEP) allowing for more than four years to graduate.

Dropout Definitions and Data Collection

Dropout rates can be calculated and reported in three different ways: event rates (snapshot of those who drop out in a single year), status rates (proportion of population who have not completed school and are not enrolled), and cohort rates (a more comprehensive picture which follows a sample group of students over time and generalizes their rate to a larger group). The collection method used in this report is an event rate adapted from the National Center for Education Statistics (NCES) at the U.S. Department of Education and is consistent with the requirements of the NCES Common Core of Data (CCD) reporting. This method has been used by Montana schools to report dropout data to the OPI since 1994-95.

Dropouts are the count of individuals who:

1) were enrolled in school on the date of the previous year October enrollment count or at some time during the previous school year and were not enrolled on the date of the current school year October count,

or

2) were not enrolled at the beginning of the previous school year but were expected to enroll and did not re-enroll during the year ("no show") and were not enrolled on the date of the current school year October count,

and

3) have not graduated from high school or completed a state or district-approved high school educational program,

and

4) have not transferred to another school, been temporarily absent due to a school-recognized illness or suspension, or died.

Data Limitations

Because the number of students enrolled for small schools and racial minority groups is relatively low, small annual changes in data can cause wide variations in annual completion, graduation, and dropout rates. For example, in a class with 10 students, one dropout would translate to a 10 percent dropout rate. A more realistic indicator for small schools and racial minority groups is an average of several years.

Currently, Montana does not have an individual student information system and, therefore, cannot track individuals across schools and school years. The OPI collects aggregate enrollment, graduate, and dropout counts each fall from schools, which carries with it the risk of misclassification of student data (i.e., reporting a student's race/ethnicity inconsistently between enrollment and dropout data collections, reporting a transfer student as a dropout).

Analysis of Montana 2002-03 Dropout Rates

Calculating a Dropout Rate

Dropout rates are calculated by dividing the number of dropouts as defined above by the October enrollment total, as illustrated in the box to the right. Dropout rates vary for disaggregated student groups (i.e., race/ethnicity, gender). Calculating and analyzing disaggregated dropout rates is key in determining if certain groups of students are more likely to drop out and can be used in developing and targeting dropout prevention efforts.

Dropout Rate Formula

Dropout Rate = Number of dropouts/October enrollment X 100

Example:
The 2002-03 Dropout Rate for Montana Accredited Schools = 1,910 Dropouts for grades 7 through 12 divided by 74,961 students enrolled in October 2002 multiplied by 100 = 2.5 %

2002-03 Montana Statewide Dropout Rate Summary

- ✓ Montana accredited schools reported that 1,910 students dropped out of grades 7 through 12 during the 2002-03 school year. The corresponding October enrollment was 74,961 yielding a dropout rate of 2.5 percent for the 2002-03 school year (see Table 1 on following page).
    - The 2002-03 dropout rate for Montana grades 7 and 8 was relatively low (0.4 percent), but represent 90 students leaving school at a very early age.
    - The 2002-03 dropout rate for Montana high schools was 3.6 percent.

- ✓ Peak dropout rates have traditionally been observed in 10th grade, when many students turn 16 and students can legally exit the school system. (Montana law states: "Except as provided in [Montana Code Annotated §20-5-102(2)], any parent, guardian, or other person who is responsible for the care of any child who is 7 years of age or older prior to the first day of school in any school fiscal year shall cause the child to be instructed in the program prescribed by the board of public education pursuant to 20-7-111 until the later of the following dates: (a) the child's 16th birthday; (b) the date of completion of the work of the 8th grade." Montana Code Annotated §20-5-102(1) (2001).) For the 2002-03 school year, however, peak dropout rates were observed in 11th and 12th grades.

- ✓ Males drop out of school at a higher rate than do females. Males represent 52 percent of the total school enrollment for grades 7 through 12 and 54 percent of the dropouts, whereas females represent 48 percent of the total school enrollment for grades 7 through 12 and 46 percent of the dropouts.

- ✓ For the 2002-03 school year, American Indian students represented 10.4 percent of the total school enrollment for grades 7 through 12, but account for 24.5 percent of the total dropouts.
    - The 2002-03 American Indian dropout rate for Montana grades 7 and 8 was 2.3 percent.
    - The 2002-03 American Indian dropout rate for Montana high schools was 8.1 percent.

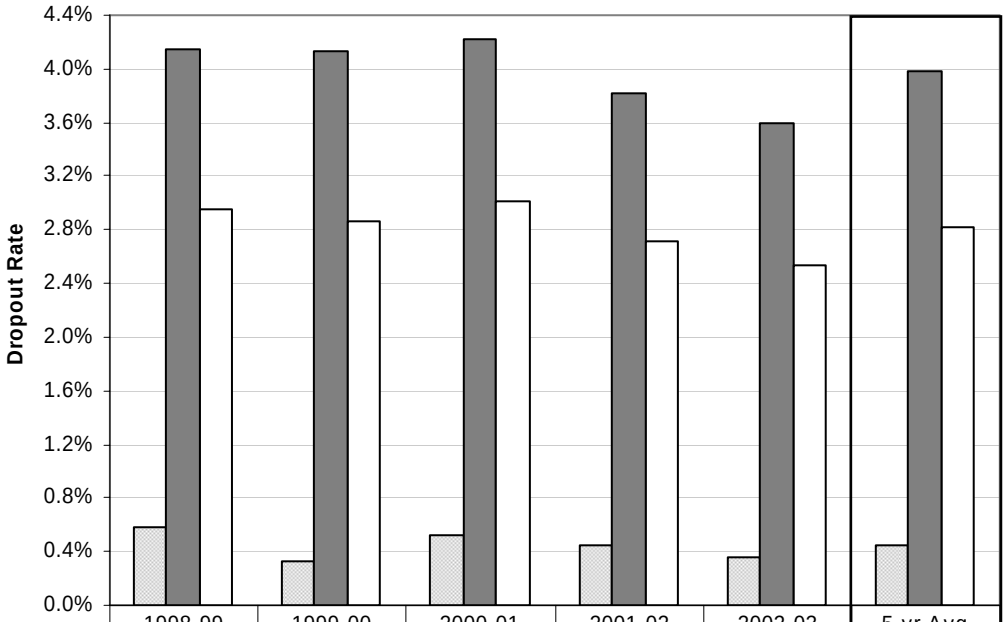
- ✓ Statewide dropout rates have been on the decline for the past two years. It is unclear, however, whether this decline is due to improved dropout rates or improved dropout data collection procedures and increased emphasis placed on dropout data with regards to new federal accountability requirements for public high schools (see Figure 1 on following page).

Table 1
2002-03 Montana Dropout Rate Summary

	Dropout Rates	Dropout Count	Enrollment
Overall Total	**2.5%**	**1,901**	**74,961**
HS Total	3.6%	1,811	50,302
Gr 12	4.2%	489	11,767
Gr 11	4.2%	511	12,212
Gr 10	3.4%	435	12,824
Gr 9	2.6%	343	13,313
Ungraded* HS	17.7%	33	186
7 & 8 Total	0.4%	90	24,659
Gr 8	0.4%	53	12,235
Gr 7	0.3%	37	12,388
Ungraded* 7-8	0.0%	0	36
Gender			
Male	2.7%	1,026	38,697
Female	2.4%	875	36,264
Race/Ethnicity			
American Indian	6.0%	465	7,775
Asian	0.8%	6	738
Hispanic	3.9%	52	1,326
Black	2.3%	9	392
Pacific Islander	2.0%	2	98
White	2.1%	1,367	64,632

* "A class that is not organized on the basis of grade grouping and has no standard grade designation." (NCES)

Figure 1: Montana Dropout Rates- 1998-99 to 2002-03

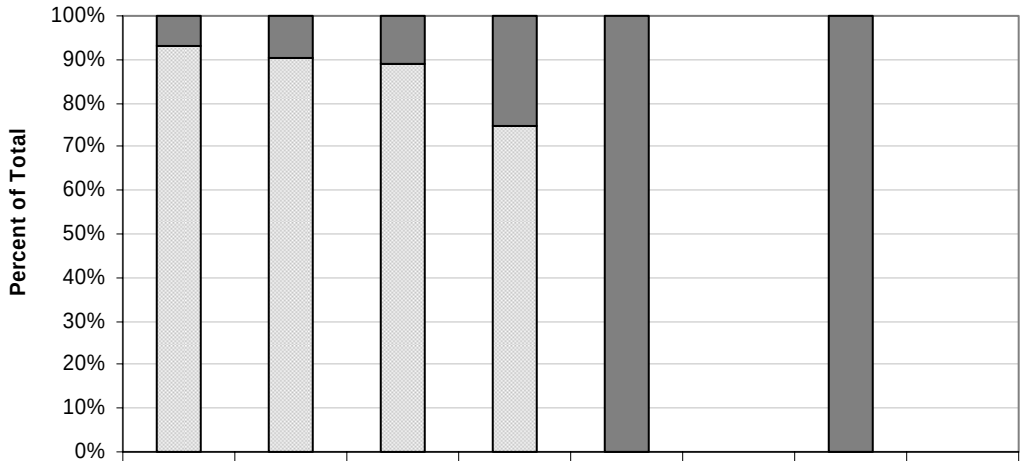


School Year	1998-99	1999-00	2000-01	2001-02	2002-03	5-yr Avg
Grades 7-8	0.6%	0.3%	0.5%	0.4%	0.4%	0.4%
High School	4.1%	4.1%	4.2%	3.8%	3.6%	4.0%
Overall	3.0%	2.9%	3.0%	2.7%	2.5%	2.8%

Distribution of Dropout Rates

Although statewide dropout rates are useful, they can disguise differences observed between various types of schools. Figures 2 and 3 show the distribution of 2002-03 dropout rates across Montana schools by percent of American Indian students enrolled. Although schools with 25 or more percent American Indian students enrolled represented 11 percent of the total schools serving grades 7 through 12, they accounted for 75 percent of the schools with dropout rates greater than 6 percent. Because small annual changes in the number of dropouts can cause wide variations in dropout rates for schools with low enrollments, schools with enrollments fewer than 40 students are excluded from this analysis.

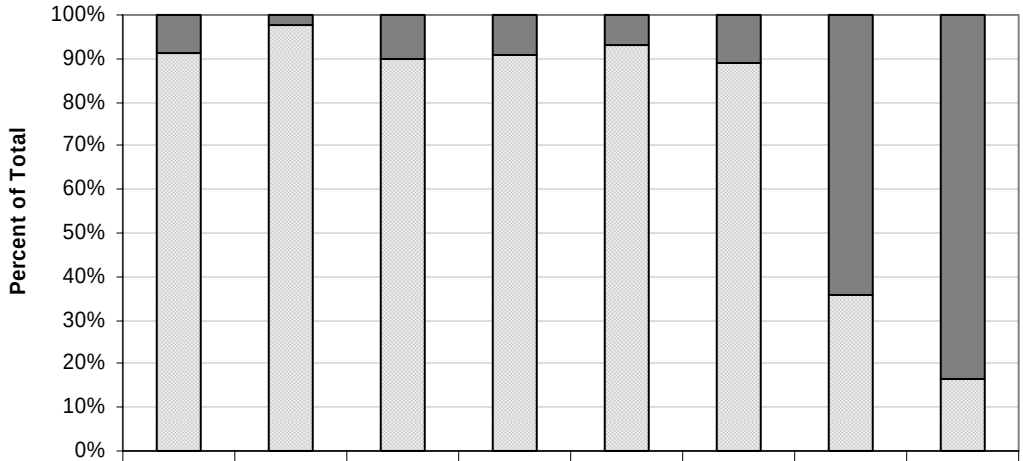
Figure 2: Distribution of 2002-03 Dropout Rates for Grades 7-8 for Montana Schools by Percent American Indian Enrollment



School Count by Percent American Indian Enrollment	Enrollment < 40 *	0%	0.1-1.5%	1.6-3.0%	3.1-4.5%	4.6-6.0%	6.1-10.0%	10.1% and above
	Dropout Rate Range							
>= 25% American Indian Enrollment	15	10	1	1	1	0	4	0
< 25% American Indian Enrollment	204	96	8	3	0	0	0	0

*Schools with enrollments fewer than 40 are excluded from analysis.

Figure 3: Distribution of 2002-03 Dropout Rates for Grades 9-12 for Montana Schools by Percent American Indian Enrollment



School Count by Percent American Indian Enrollment	Enrollment < 40 *	0%	0.1-1.5%	1.6-3.0%	3.1-4.5%	4.6-6.0%	6.1-10.0%	10.1% and above
	Dropout Rate Range							
>= 25% American Indian Enrollment	3	1	2	3	2	1	9	5
< 25% American Indian Enrollment	32	40	18	29	27	8	5	1

*Schools with enrollments fewer than 40 are excluded from analysis.

Dropout Rates for Disaggregated Student Populations

Since dropout rates can vary greatly between certain student populations, calculating and analyzing disaggregated dropout rates is key in developing and targeting dropout prevention strategies. The data collected by the OPI allows for the analysis of dropout rates by grade, gender, race/ethnicity, and various types of schools.

Dropout Rates by Gender

In Montana schools, more males than females are enrolled at every grade level. For the 2002-03 school year, about 52 percent of the total school enrollment for grades 7 through 12 was male and 48 percent was female. Males have also traditionally had higher dropout rates than females for most grade levels, although the gender difference appears to be narrowing somewhat.

Analysis of Dropout Rates by Gender

- ✓ Consistent with previous years, the 2002-03 dropout rate for grades 9 through 12 for males, 3.8 percent, was greater than for females, 3.4 percent (see Table 2 below).
- ✓ The 2002-03 dropout rate for grades 7 through 8 for females (0.5 percent) was greater than for males (0.3 percent), although it remains to be seen whether this is an anomaly due to small numbers.

Table 2
2002-03 Montana Dropout Rates by Grade and Gender

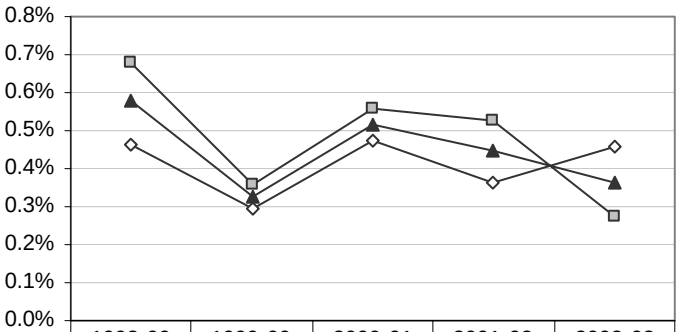
	Dropout Rates			Dropout Count			Enrollment		
Grade	Male	Female	Statewide	Male	Female	Statewide	Male	Female	Statewide
HS Total	3.8%	3.4%	3.6%	991	820	1,811	26,002	24,300	50,302
Grade 12	5.0%	3.3%	4.2%	300	189	489	6,030	5,737	11,767
Grade 11	4.2%	4.2%	4.2%	266	245	511	6,351	5,861	12,212
Grade 10	3.4%	3.4%	3.4%	222	213	435	6,553	6,271	12,824
Grade 9	2.7%	2.5%	2.6%	185	158	343	6,961	6,352	13,313
Ungraded* HS	16.8%	19.0%	17.7%	18	15	33	107	79	186
7 & 8 Total	0.3%	0.5%	0.4%	35	55	90	12,695	11,964	24,659
Grade 8	0.4%	0.5%	0.4%	23	30	53	6,295	5,940	12,235
Grade 7	0.2%	0.4%	0.3%	12	25	37	6,380	6,008	12,388
Ungraded* 7-8	0.0%	0.0%	0.0%	0	0	0	20	16	36
Overall Total	2.7%	2.4%	2.5%	1,026	875	1,901	38,697	36,264	74,961

- ✓ Both male and female high school dropout rates have been on the decline for the past two years, with the decline being more pronounced with male dropout rates. It is unclear at this time, however, whether this decline is due to improved dropout rates or improved dropout data collection procedures and increased emphasis placed on dropout data with regards to new federal accountability requirements for public high schools (see Table 3 and Figures 4 and 5 on following page).

Table 3
Montana Dropout Rates by Grade Level and Gender for Five Years

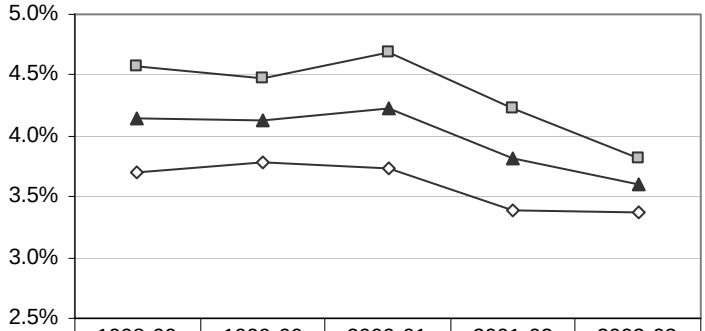
	Dropout Rates						Dropout Count					
	1998-99	1999-00	2000-01	2001-02	2002-03	5-yr Avg	1998-99	1999-00	2000-01	2001-02	2002-03	5-yr Total
7 & 8 Total	0.6%	0.3%	0.5%	0.4%	0.4%	0.4%	150	84	129	110	90	563
Male	0.7%	0.4%	0.6%	0.5%	0.3%	0.5%	92	48	72	67	35	314
Female	0.5%	0.3%	0.5%	0.4%	0.5%	0.4%	58	36	57	43	55	249
HS Total	4.1%	4.1%	4.2%	3.8%	3.6%	4.0%	2,144	2,127	2,166	1,937	1,811	10,185
Male	4.6%	4.5%	4.7%	4.2%	3.8%	4.4%	1,216	1,180	1,236	1,104	991	5,727
Female	3.7%	3.8%	3.7%	3.4%	3.4%	3.6%	928	947	930	833	820	4,458
Overall Total	3.0%	2.9%	3.0%	2.7%	2.5%	2.8%	2,294	2,211	2,295	2,047	1,901	10,748
Male	3.3%	3.1%	3.3%	3.0%	2.7%	3.1%	1,308	1,228	1,308	1,171	1,026	6,041
Female	2.6%	2.6%	2.7%	2.4%	2.4%	2.5%	986	983	987	876	875	4,707

Figure 4: Dropout Rates by Gender for Grades 7-8
1998-99 to 2002-03



	1998-99	1999-00	2000-01	2001-02	2002-03
Male	0.7%	0.4%	0.6%	0.5%	0.3%
Female	0.5%	0.3%	0.5%	0.4%	0.5%
7 & 8 Total	0.6%	0.3%	0.5%	0.4%	0.4%

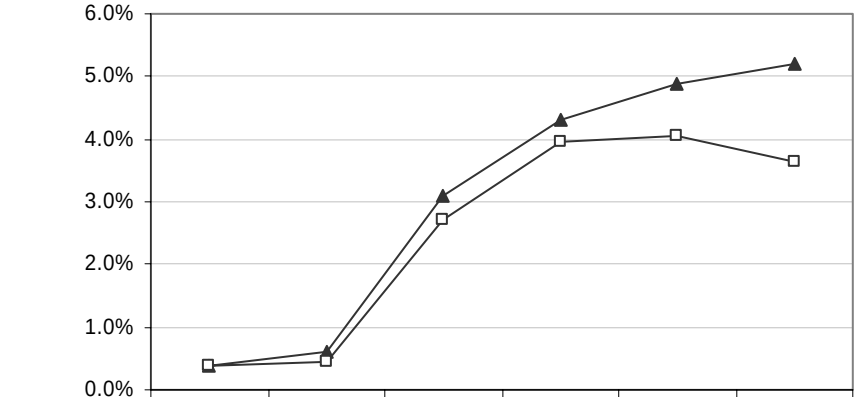
Figure 5: Dropout Rates by Gender for Grades 9-12
1998-99 to 2002-03



	1998-99	1999-00	2000-01	2001-02	2002-03
Male	4.6%	4.5%	4.7%	4.2%	3.8%
Female	3.7%	3.8%	3.7%	3.4%	3.4%
HS Total	4.1%	4.1%	4.2%	3.8%	3.6%

- ✓ As illustrated below in Figure 6, females drop out at a lower rate at every grade level than males.
- ✓ Peak dropout rates for females are observed around the 10th and 11th grades and then decrease for 12th grade. Dropout rates for males, however, increase steadily through grade 12.

Figure 6: Five-Year Dropout Rates by Gender and Grade
1998-99 to 2002-03



	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Male	0.4%	0.6%	3.1%	4.3%	4.9%	5.2%
Female	0.4%	0.4%	2.7%	4.0%	4.0%	3.6%

Dropout Rates by Race/Ethnicity Categories

Dropout rates vary by race/ethnicity categories and for some minority groups are higher than the dropout rates for white students. For the 2002-03 school year, Montana school enrollment for grades 7 through 12 included 86.2 percent white students, 10.4 percent American Indians, 1 percent Asians, 1.8 percent Hispanics, 0.5 percent blacks, and 0.1 percent Hawaiian/Pacific Islanders. Because the enrollment of some minority groups is low, annual dropout rates for these groups may vary widely from year to year. Averages of a period of years are more realistic indicators of the dropout rates.

Analysis of Dropout Rates by Race/Ethnicity Categories

- ✓ Consistent with previous years, the 2002-03 dropout rate for the "American Indian" race/ethnicity category was considerably greater than the statewide average and that of the "White" category (see Table 4 below).

Table 4
2002-03 Montana Dropout Rates by Race/Ethnicity Categories

	Dropout Rates			Dropout Count			Enrollment		
	Grades 7-8	Grades 9-12	Total	Grades 7-8	Grades 9-12	Total	Grades 7-8	Grades 9-12	Total
American Indian	2.3%	8.1%	6.0%	66	399	465	2,875	4,900	7,775
Asian	0.0%	1.2%	0.8%	0	6	6	228	510	738
Hispanic	0.4%	6.0%	3.9%	2	50	52	487	839	1,326
Black	0.0%	3.8%	2.3%	0	9	9	155	237	392
Pacific Islander	0.0%	3.0%	2.0%	0	2	2	31	67	98
White	0.1%	3.1%	2.1%	22	1,345	1,367	20,883	43,749	64,632
Overall	0.4%	3.6%	2.5%	90	1,811	1,901	24,659	50,302	74,961

- ✓ For the 2002-03 school year, the race/ethnicity categories of Asian, Hispanic, Black, and Pacific Islander combined only accounted 69 dropouts from grades 7 through 12. The corresponding October enrollment was 2,554, yielding a dropout rate of 2.7 percent. Because the number of students enrolled for these race/ethnicity categories is low, annual dropout rates often vary widely from year to year, even when totaled at the state level. An average dropout rate utilizing dropout and enrollment data from multiple years is a more accurate indicator for these small groups (see Table 5 below).
- ✓ On average American Indian students drop out of grades 7 and 8 at a rate more than 12 times that of white students and out of high school at a rate more than three times that of white students.

Table 5

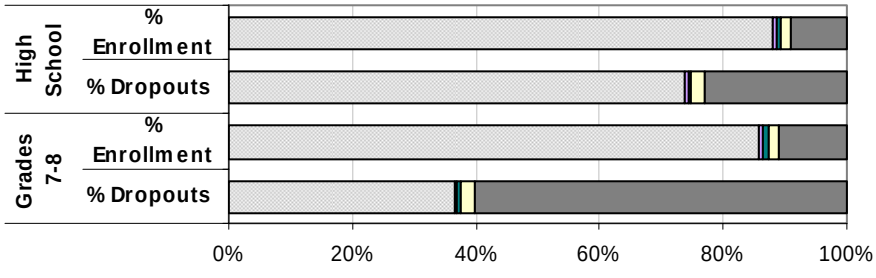
Montana Dropouts by Race/Ethnicity Categories for Five Years

	7th & 8th Grade Dropout Rates						High School Dropout Rates					
Category	1998-99	1999-00	2000-01	2001-02	2002-03	5-yr Avg	1998-99	1999-00	2000-01	2001-02	2002-03	5-yr Avg
American Indian	2.2%	1.7%	3.3%	2.7%	2.3%	2.4%	10.5%	11.0%	10.4%	10.0%	8.1%	10.0%
Asian	0.5%	0.4%	0.4%	0.0%	0.0%	0.3%	3.0%	3.0%	3.5%	2.1%	1.2%	2.5%
Hispanic	0.9%	0.9%	0.7%	0.5%	0.4%	0.6%	5.6%	4.8%	8.3%	5.1%	6.0%	5.9%
Black	0.9%	0.8%	0.8%	0.0%	0.0%	0.5%	8.2%	8.2%	4.9%	6.5%	3.8%	6.1%
Pacific Islander*	---	---	0.0%	0.0%	0.0%	---	---	---	2.4%	1.3%	3.0%	---
All Minority	1.9%	1.5%	2.7%	2.1%	1.8%	2.0%	9.3%	9.6%	9.5%	8.6%	7.1%	8.8%
White	0.4%	0.1%	0.1%	0.2%	0.1%	0.2%	3.5%	3.4%	3.5%	3.1%	3.1%	3.3%
Statewide	0.6%	0.3%	0.5%	0.4%	0.4%	0.4%	4.1%	4.1%	4.2%	3.8%	3.6%	4.0%

* "Native Hawaiian/Pacific Islander" race/ethnicity category added for the 1999-00 dropout data and the 2000-01 fall enrollment data. This category was previously grouped with the "Asian" race/ethnicity category.

- ✓ In the past five years, American Indians represented only 11 percent of the total school enrollment for grades 7 through 8, but accounted for 60 percent of the dropouts. For grades 9 through 12, American Indians represented 9.1 percent of the total school enrollment and 22.8 percent of the dropouts (see Figure 7 below).

Figure 7: Dropout & Enrollment Race/Ethnicity Origins as Percent of Total- 1998-99 to 2002-03 Combined

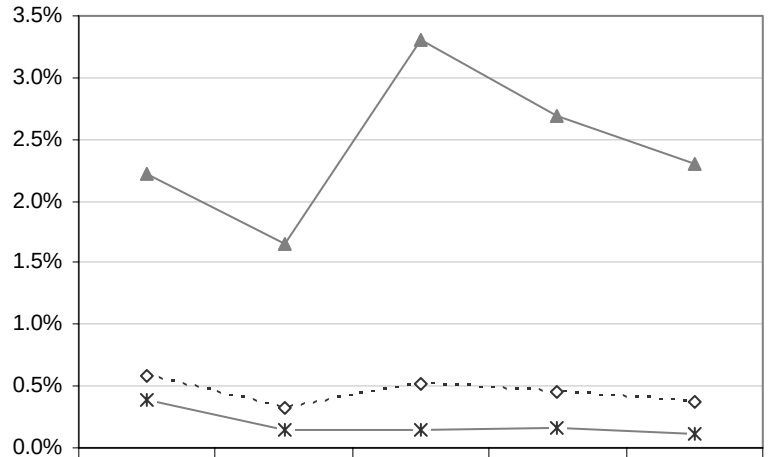


	Grades 7-8		High School	
	% Dropouts	% Enrollment	% Dropouts	% Enrollment
American Indian	60.0%	11.0%	22.8%	9.1%
Hispanic	2.5%	1.7%	2.3%	1.5%
Asian	0.5%	0.9%	0.5%	0.8%
Black	0.5%	0.5%	0.6%	0.4%
Pacific Islander	0.0%	0.1%	0.0%	0.1%
White	36.4%	85.8%	73.7%	88.1%

A Closer Look at American Indian Dropout Rates

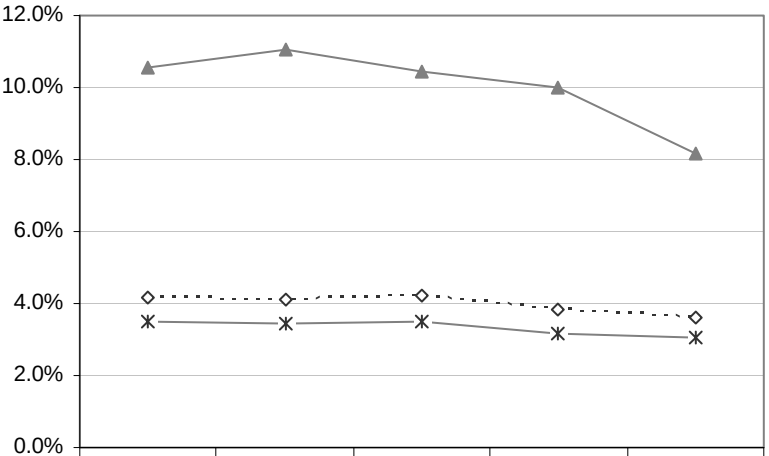
- ✓ Montana has seven Indian reservations and one landless tribe, therefore the "American Indian" race/ethnicity category represents the largest minority group in the state.
- ✓ For the past few years, Montana high school dropout rates, including those for American Indians, have been on the decline. It is unclear, however, whether this decline is due to improved dropout rates or improved dropout data collection procedures and the increased emphasis placed on dropout data with regards to new federal accountability requirements for public high schools.

Figure 8: Dropout Rates for Select Race/Ethnicity Categories for Grades 7-8 1998-99 to 2002-03



	1998-99	1999-00	2000-01	2001-02	2002-03
American Indian	2.2%	1.7%	3.3%	2.7%	2.3%
White	0.4%	0.1%	0.1%	0.2%	0.1%
Statewide	0.6%	0.3%	0.5%	0.4%	0.4%

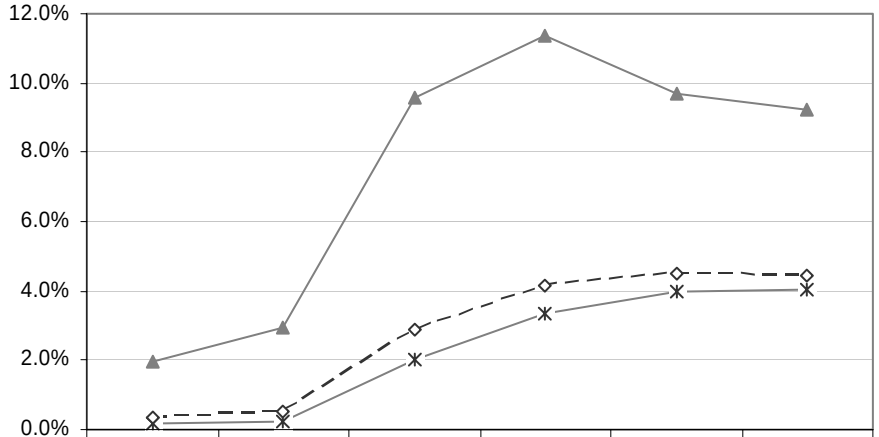
Figure 9: Dropout Rates for Select Race/Ethnicity Categories for Grades 9-12 1998-99 to 2002-03



	1998-99	1999-00	2000-01	2001-02	2002-03
American Indian	10.5%	11.0%	10.4%	10.0%	8.1%
White	3.5%	3.4%	3.5%	3.1%	3.1%
Statewide	4.1%	4.1%	4.2%	3.8%	3.6%

✓ As illustrated below in Figure 10, white students drop out at a much lower rate at every grade level than American Indian students. Peak dropout rates for whites are observed around the 11th and 12th grades, whereas, dropout rates for American Indians peak a year earlier in grade 10.

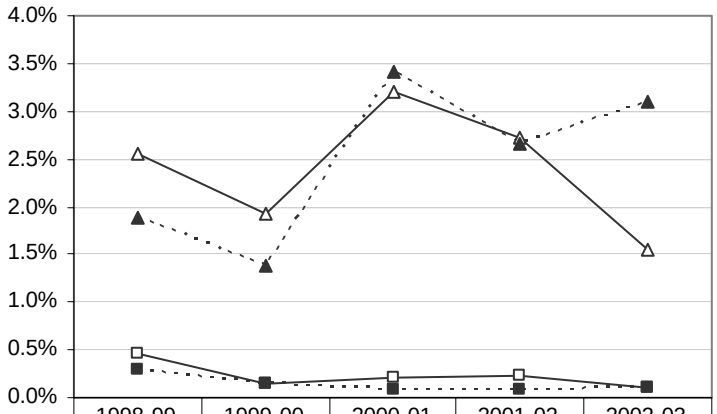
Figure 10: Five-Year Dropout Rates by Grade for Select Race/Ethnicity Categories 1998-99 to 2002-03



	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
American Indian	2.0%	2.9%	9.6%	11.3%	9.7%	9.3%
White	0.2%	0.2%	2.0%	3.3%	4.0%	4.0%
Overall	0.4%	0.5%	2.9%	4.1%	4.5%	4.4%

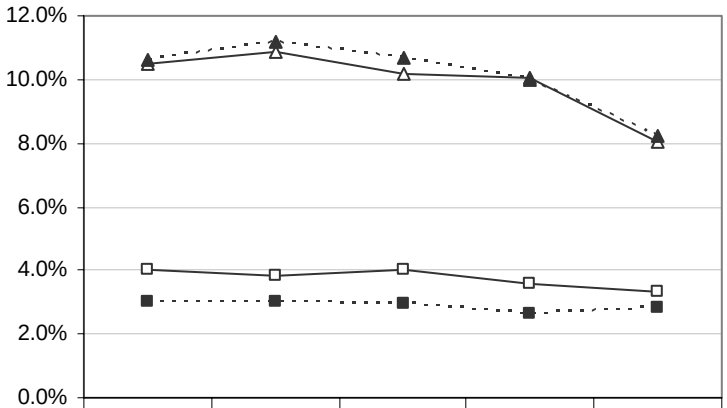
✓ Although, in general, males drop out of school at a higher rate than do females, this gender difference is not observed for the American Indian population. As illustrated in Figures 11 and 12, for the past five years, American Indian females have dropped out at the same, if not higher rate than males.

Figure 11: Dropout Rates for Select Race/Ethnicity Categories by Gender for Grades 7-8 1998-99 to 2002-03



	1998-99	1999-00	2000-01	2001-02	2002-03
American Indian Male	2.6%	1.9%	3.2%	2.7%	1.5%
American Indian Female	1.9%	1.4%	3.4%	2.6%	3.1%
White Male	0.5%	0.1%	0.2%	0.2%	0.1%
White Female	0.3%	0.1%	0.1%	0.1%	0.1%

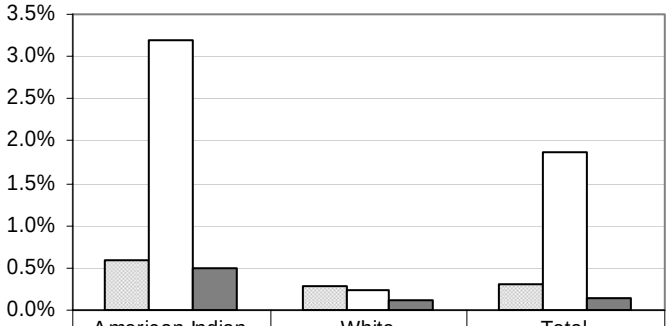
Figure 12: Dropout Rates for Select Race/Ethnicity Categories by Gender for Grades 9-12 1998-99 to 2002-03



	1998-99	1999-00	2000-01	2001-02	2002-03
American Indian Male	10.5%	10.9%	10.2%	10.1%	8.1%
American Indian Female	10.6%	11.2%	10.7%	10.0%	8.2%
White Male	4.0%	3.8%	4.0%	3.6%	3.3%
White Female	3.0%	3.0%	3.0%	2.7%	2.8%

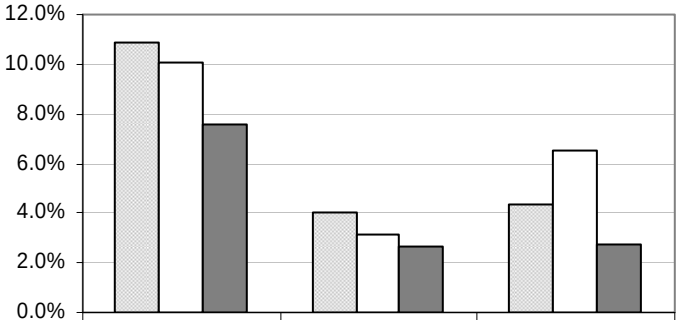
- ✓ During the 1998-99 through 2002-03 school years for grades 7 through 12, 72.6 percent of Montana's American Indian students were enrolled in a school located on or near an Indian reservation; 18.6 percent were enrolled in an "urban" school, defined as a school belonging to one of the state's seven largest school systems (Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula); and the remaining 8.8 percent were enrolled in non-urban/non-reservation schools.
- ✓ As illustrated below in Figure 13, the five-year dropout rate for grades 7 through 8 was considerably higher (3.2 percent) for schools located on or near a reservation than for urban (0.6 percent) and non-urban/non-reservation schools (0.5 percent).
- ✓ As illustrated on the following page in Figure 14, the five-year dropout rate for grades 9 through 12 was slightly higher for urban schools (10.9 percent) than for schools located on or near a reservation (10.1 percent) and non-urban/non-reservation schools (7.5 percent).

Figure 13: Five-Year Dropout Rates for Select Race/Ethnicity Categories by School Location for Grades 7-8 1998-99 to 2002-03



	American Indian	White	Total
Urban	0.6%	0.3%	0.3%
On/Near Reservation	3.2%	0.2%	1.9%
Non-Urban/Reservation	0.5%	0.1%	0.1%

Figure 14: Five-Year Dropout Rates for Select Race/Ethnicity Categories by School Location for Grades 9-12
1998-99 to 2002-03



	American Indian	White	Total
Urban	10.9%	4.0%	4.4%
On/Near Reservation	10.1%	3.1%	6.6%
Non-Urban/Reservation	7.5%	2.7%	2.8%

Dropout Rate by Size of District

For the purposes of comparing similarly sized school districts, Montana districts have been identified by size categories based on enrollment numbers.

Category- Elementary Enrollment
1E= more than 2,500 students
2E= 851 to 2,500 students
3E= 401 to 850 students
4E= 151 to 400 students
5E= 41 to 150 students
6E= 40 or fewer students

Category- High School Enrollment
1H= more than 1,250 students
2H= 401 to 1,250 students
3H= 201 to 400 students
4H= 76 to 200 students
5H= 75 or fewer students

Category- K-12 Districts
1K= 400 or more students
2K= 399 or fewer students

Analysis of Dropout Rates by School District Size

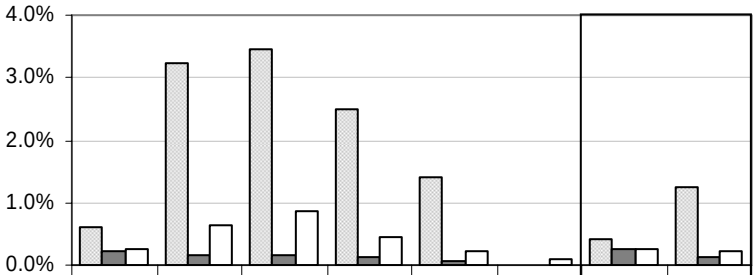
- ✓ The highest dropout rates for grades 7 through 8 are observed for 3E districts with enrollments between 401 to 850 students. Interestingly, 3E districts have the highest percent American Indian enrollment at 21.3 percent (see Table 6 and Figure 15 on following page).
- ✓ As illustrated in Table 6, on average at the high school level, smaller school districts have lower dropout rates than do larger districts, with the highest dropout rates being observed for 2H districts with enrollments between 401 to 1,250 students.
- ✓ The above trend is not observed when data are disaggregated by race/ethnicity. Unlike the "White" race/ethnicity category, American Indian dropout rates at the high school level remain consistently high amongst the various district size categories (see Figure 16 on following page).

Table 6

Montana Dropout Rate by School District Size

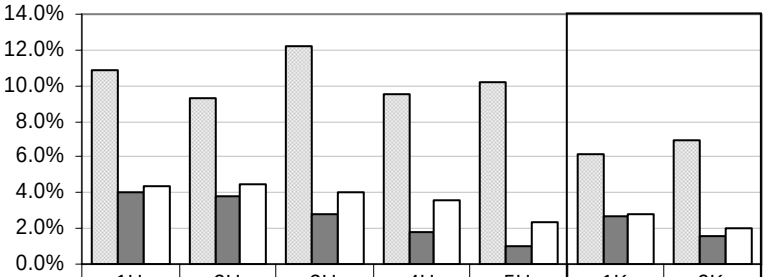
Level	1E,1H	2E,2H	3E,3H	4E,4H	5E,5H	6E	1K	2K	All Schools
7/8 dropouts									
2002-03 rate	0.1%	0.9%	0.7%	0.1%	0.1%	0.0%	0.3%	0.4%	0.4%
2001-02 rate	0.2%	0.9%	0.8%	0.4%	0.1%	0.0%	0.3%	0.2%	0.4%
2000-01 rate	0.2%	0.9%	1.2%	0.6%	0.2%	0.0%	0.2%	0.0%	0.5%
1999-00 rate	0.2%	0.2%	1.0%	0.3%	0.3%	0.0%	0.4%	0.3%	0.3%
1998-99 rate	0.6%	0.4%	0.7%	0.6%	0.4%	0.6%	0.2%	0.3%	0.5%
5-yr average rate	0.3%	0.6%	0.9%	0.4%	0.2%	0.1%	0.3%	0.2%	0.4%
HS dropouts									
2002-03 rate	3.9%	4.2%	4.2%	2.9%	0.6%	NA	2.7%	1.9%	3.6%
2001-02 rate	4.2%	4.5%	4.0%	3.9%	1.0%	NA	2.5%	1.5%	3.8%
2000-01 rate	4.5%	5.4%	4.2%	3.5%	1.4%	NA	3.3%	1.8%	4.2%
1999-00 rate	4.4%	4.9%	4.1%	4.0%	4.4%	NA	2.3%	2.5%	4.1%
1998-99 rate	4.9%	3.6%	4.0%	3.5%	4.0%	NA	3.5%	2.0%	4.1%
5-yr average rate	4.4%	4.5%	4.1%	3.6%	2.3%	NA	2.9%	1.9%	4.0%

Figure 15: Five-Year Dropout Rates by District Size Category for Select Race/Ethnicity Categories for Grades 7-8 1998-99 to 2002-03



	1E	2E	3E	4E	5E	6E	1K	2K
American Indian	0.6%	3.2%	3.5%	2.5%	1.4%	0.0%	0.4%	1.3%
White	0.2%	0.2%	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%
Overall	0.3%	0.6%	0.9%	0.4%	0.2%	0.1%	0.3%	0.2%

Figure 16: Five-Year Dropout Rates by District Size Category for Select Race/Ethnicity Categories for Grades 9-12 1998-99 to 2002-03



	1H	2H	3H	4H	5H	1K	2K
American Indian	10.9%	9.3%	12.2%	9.5%	10.2%	6.2%	7.0%
White	4.0%	3.8%	2.8%	1.8%	1.0%	2.7%	1.5%
Overall	4.4%	4.5%	4.1%	3.6%	2.3%	2.9%	2.0%

Other Types of Dropout Indicators— The Completion and Graduation Rate

The dropout rates identified thus far in this report are annual snapshots of grade-by-grade dropouts. The dropout data used to calculate those annual rates can be used in conjunction with graduate data to build a "synthetic" high school completion rate or "on-time" graduation rate for a specific class of students, even though each student is not followed through high school.

The Completion Rate

The National Center for Education Statistics (NCES) developed a formula as a practical way to calculate a completion rate after studying a variety of calculation methods (see box to the right).

This estimated cohort method utilizes both dropout and graduate data and can be calculated for all accredited schools, but does require data from four consecutive years.

Completion Rate Formula

Completion Rate = $g_t / (g_t + d^{12}_t + d^{11}_{(t-1)} + d^{10}_{(t-2)} + d^{9}_{(t-3)})$

Where:

g= number of graduates receiving a standard high school diploma

t= year of graduation

d= dropouts

12, 11, 10, 9 = class level

Example:

The 2002-03 Completion Rate for Montana High Schools = 10,978 Graduates for Class of 2003 divided by (1,953 students dropped out over four years plus 10,978 Graduates for the Class of 2003) multiplied by 100 = 84.9 %

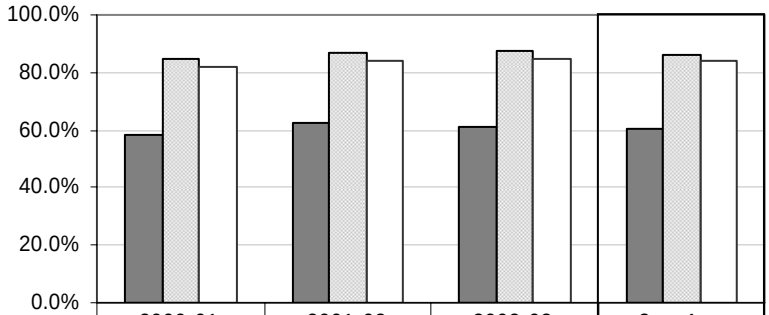
Analysis of Completion Rates

- ✓ The overall completion rate for the Class of 2003 was 84.9 percent (see Table 7 below).
- ✓ For the Class of 2003, females had a higher completion rate (86.5 percent) than males (83.4 percent).
- ✓ The race/ethnicity categories of Asian, Hispanic, Black, and Pacific Islander only accounted for 3.6 percent of the 2002-03 graduates and 3.2 percent of the dropouts over four years. Therefore, as with dropout rates, the completion rates for these race/ethnicity categories tend to vary widely from year to year.
- ✓ The Class of 2003 completion rate for the "American Indian" race/ethnicity category was considerably lower than the statewide completion rate and that of the "White" category.
- ✓ As illustrated on the following page in Figure 17, American Indian students had a three-year average completion rate of 60.6 percent, noticeably lower than the "White" average of 86.4 percent.
- ✓ Completion rates for whites have increased slightly for the past three years. Increased completion rates have not been observed for American Indian students.

Table 7
2002-03 Montana Completion Rate Summary

	Dropouts					Graduates 2002-03	Completion Rate
	Grade 9 1999-00	Grade 10 2000-01	Grade 11 2001-02	Grade 12 2002-03	4-yr Dropout Total		
Overall Total	398	560	506	489	1,953	10,978	84.9%
Gender							
Male	209	305	288	300	1,102	5,544	83.4%
Female	189	255	218	189	851	5,434	86.5%
Race/Ethnicity							
American Indian	155	144	100	64	463	734	61.3%
Asian	0	5	2	3	10	119	92.2%
Hispanic	8	13	12	11	44	166	79.0%
Black	1	1	3	3	8	44	84.6%
Pacific Islander	0	0	1	0	1	10	90.9%
White	234	397	388	408	1,427	9,905	87.4%

Figure 17: Montana Completion Rates- 2000-01 to 2002-03



	2000-01	2001-02	2002-03	3-yr Avg
American Indian	58.0%	62.6%	61.3%	60.6%
White, Non-Hispanic	85.0%	86.9%	87.4%	86.4%
Overall	82.2%	84.3%	84.9%	83.8%

The Adequate Yearly Progress (AYP) Graduation Rate

Graduation rate, defined as "the percentage of students who graduate from secondary school with a regular diploma in the standard number of years" (i.e., "on-time"), is the required additional indicator for public high schools in AYP determinations. Montana's U.S. Department of Education approved high school graduation rate is an estimated cohort group rate based on the method recommended by the NCES. Public high schools that have at least 20 students in a cohort must have a graduation rate for the "All Students Combined" subgroup of at least 80 percent or make improvement towards this goal to meet this indicator. Montana's graduation rate is calculated using the formula in the box to the right.

AYP Graduation Rate Formula

Graduation Rate = $g_t / (c_t + g_t + d^{12}{}_t + d^{11}{}_{(t-1)} + d^{10}{}_{(t-2)} + d^{9}{}_{(t-3)})$

Where:

g= number of graduates receiving a standard high school diploma in four years or less (from the time enrolled in the 9th grade) or had an IEP allowing for more than four years to graduate.
c= completers of high school by other means
t= year of graduation
d= dropouts
12, 11, 10, 9 = class level

Example:
The 2002-03 Graduation Rate for Montana Public High Schools = 10,552 "On-time" Graduates for Class of 2003 divided by (1,913 students dropped out over four years plus 105 Not "On-time" Graduates for the Class of 2003 plus 10,552 "On-time" Graduates for the Class of 2003) multiplied by 100 = 83.9 %

Analysis of AYP Graduation Rates

- ✓ The Class of 2003 AYP Graduation Rate for "All Students Combined" was 83.9 percent (see Table 8 and Figure 18 on following page).
- ✓ Disaggregated graduation rates are not used for determinations on this indicator. However, for the Class of 2003 the American Indian graduation rate was considerably lower than any of the subgroups. Therefore, schools with predominantly American Indian enrollment may find it more difficult to meet the 80 percent goal.
- ✓ Graduate and dropout data for the "Economically Disadvantaged," "Limited English Proficient," and "Students with Disabilities" subgroups was collected for the first time by the OPI for the 2002-03 school year. Since the AYP graduation rate formula requires four consecutive years of data, the OPI will not be able to calculate graduation rates for these subgroups until data for the 2005-06 school year is collected.
- ✓ Although graduate and dropout data for the 2002-03 school year has been collected by the OPI, individual school and district AYP determinations for the 2003-04 school year which use these data will not be made until the winter of 2004. However, for the 2002-03 school year AYP results, 92.5 percent of the public high schools made the graduation rate indicator for the Class of 2002 (see Figure 19 on the following page).

Table 8
Montana Public High School AYP Graduation Rate for the Class of 2003

Subgroups	Dropouts: Grade 9 1999-00	Dropouts: Grade 10 2000-01	Dropouts: Grade 11 2001-02	Dropouts: Grade 12 2002-03	Dropouts: 4-yr Dropout Total	Graduates 2002-03: Not On-time	Graduates 2002-03: On-time	AYP Graduation Rate
All Students Combined	**383**	**550**	**497**	**483**	**1,913**	**105**	**10,552**	**83.9%**
American Indian	142	135	92	58	427	27	633	58.2%
Asian	0	5	2	3	10	3	109	89.3%
Hispanic	8	13	12	11	44	1	158	77.8%
Black	1	1	3	3	8	2	42	80.8%
Pacific Islander	0	0	1	0	1	1	9	81.8%
White	232	396	387	408	1,423	71	9,601	86.5%
Economically Disadvantaged	NA	NA	NA	NA	NA	NA	NA	NA
Limited English Proficient	NA	NA	NA	NA	NA	NA	NA	NA
Students with Disabilities	NA	NA	NA	NA	NA	NA	NA	NA

Figure 18: Montana Public High School AYP Graduation Rates for All Students Combined and Race/Ethnicity (School Year 2002-03)

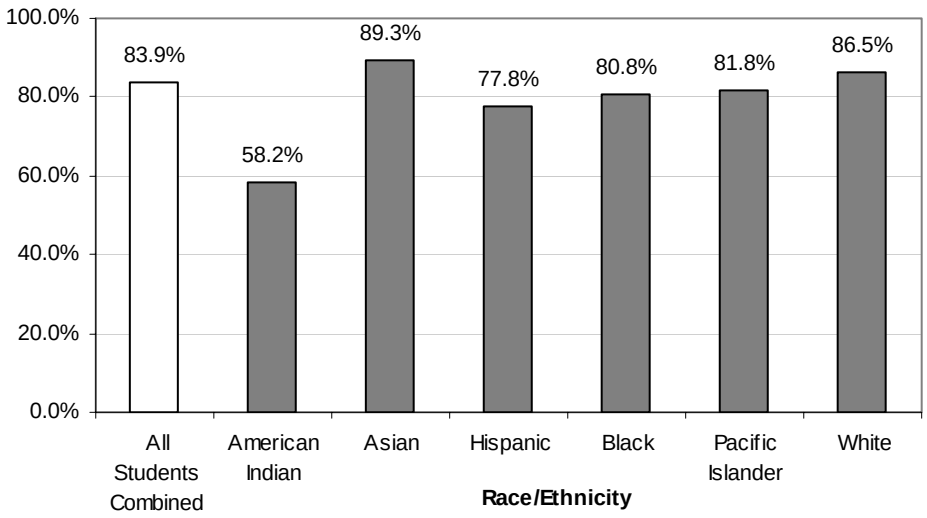
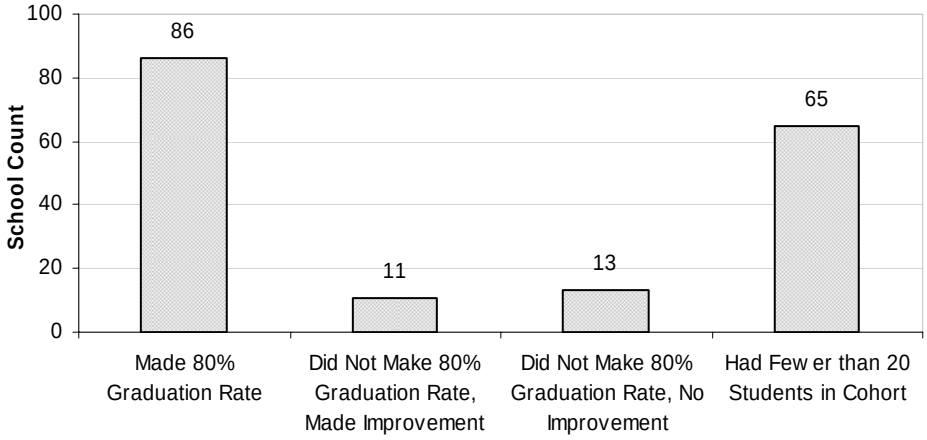


Figure 19: 2002-03 School Year AYP Results, Class of 2002 Graduation Rates*



*AYP Graduation Rates for the Class of 2002 did not take into account "on-time" status of graduates.

What Helps Prevent Students from Dropping Out?

Several studies have identified effective strategies to prevent students from leaving high school before receiving a diploma (NEGP, 2000). Some of those strategies include:

- providing intensive intervention through smaller alternative middle and high schools,
- focusing on changing the classroom experience through professional development to improve curriculum and instruction rather than focusing on dropout prevention services,
- mentoring and tutoring by supportive adults and peers,
- evaluating the impact of policies, practices, and structures on all students, and
- providing collective support to school and student needs through community and family collaboration.

Final Note

Policy implications that were identified by research studies as critical to the effectiveness of dropout intervention strategies included:

- The choice of teachers is more important than the choice of curriculum.
- The high school level may be too late to begin implementing intervention strategies.
- Data is needed to design appropriate strategies to prevent students from dropping out (NEGP, 2000).

The goal of gathering dropout information is to identify where and when students drop out of school and to use this knowledge to help keep students in school. Each community needs to learn the unique reasons why students drop out of their schools and, as a community, participate in supporting interventions to keep them in school and perhaps break the cycle of at-risk factors.

References

Lewis, Anne C. (2000). Dropouts from the K-12 public school system. *The NEGP Monthly, Vol. 2, No. 19 (p. 1-2).* August, 2000. Retrieved February 5, 2004, http://www.negp.gov/issues/issu/monthly/0800.pdf

Lewis, Anne C. (2001). Graduation rates up, down, and all around the issues. The NEGP Monthly, Vol. 2, No. 25 (pp. 1). February, 2001. Retrieved February 5, 2004, http://www.negp.gov/issues/issu/monthly/0201.pdf

Montana Office of Public Instruction. *Montana Graduate and Dropout Data Collection Handbook, (p.i),* September 2003, http://www.opi.state.mt.us/pdf/adc/dohandbook.pdf

U.S. Department of Education, National Center for Education Statistics. (1998). The Condition of Education 1998, (NCES Publication No. 98–013), by John Wirt, Tom Snyder, Jennifer Sable, Susan Choy, Yupin Bae, Janis Stennett, Allison Gruner, and Marianne Perie. Washington, DC: U.S. Government Printing Office.

U.S. Department of Education. National Center for Education Statistics. (2001). Digest of Education Statistics, 2000, (NCES Publication No. 2001-034), by Thomas D. Snyder and Charlene M. Hoffman. Washington, DC: U.S. Government Printing Office.

U.S. Department of Justice, Office of Justice Statistics. (2003, January). Education and Correctional Populations, (NCJ Publication No. 195670). Retrieved February 5, 2004, http://www.ojp.usdoj.gov/bjs/pub/pdf/ecp.pdf

U.S. Department of Labor, Bureau of Labor Statistics. (2002). Current Population Survey. Annual Average Data. Employment Status of the civilian noninstitutional population 25 years and over by educational attainment, sex, race, and Hispanic origin. Retrieved February 5, 2004, http://www.bls.gov/cps/cpsaat7.pdf

Additional Dropout Resources on the Web

National Center for Education Statistics- http://www.nces.ed.gov/

National Dropout Prevention Center/Network- http://www.dropoutprevention.org/

National Education Goals Panel- http://www.negp.gov/

United States Census Bureau- http://www.census.gov/index.html