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The Condition of K-12 Public Education in Maine 2011

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The Condition of K-12 Public Education in Maine 2011

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Maine Education Policy Research Institute
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UNIVERSITY OF
SOUTHERN MAINE
Center for Education
Policy, Applied Research,
and Evaluation

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UNIVERSITY OF
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Center for Education
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and Evaluation

Dear Maine Citizen,

We are pleased to present you with the twelfth edition of *The Condition of K-12 Public Education in Maine*. In 1995, the Maine State Legislature established the Maine Education Policy Research Institute, a joint institute funded by the Legislature and the University of Maine System. Under the direction of the Institute's Steering Committee, the Institute is charged with developing a system for monitoring the progress of Maine K-12 public education, and for conducting policy and research studies. You will find the names of the 2008-2010 Steering Committee members and the University of Southern Maine Institute staff listed on a subsequent page, and a copy of the legislation establishing the Institute in Appendix A.

This book is designed to provide Maine citizens, legislators, and educators a bi-annual report on the state of Maine public schools and education. This new edition updates educational information which appeared in earlier editions, and also provides information on several new topics.

Many individuals provide us assistance in compiling information for this report, and they are listed in the Acknowledgments. We thank them for their assistance.

We hope you find the information in this book helpful. If you have any questions about the information in this report, please feel free to contact us at the address on this letterhead or by electronic mail.

Sincerely,

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Introduction

Education Indicators are facts and statistics that help to describe a public education system. They are tools which are useful in examining and measuring the effectiveness of the system. Examples include information such as the amount of local funds raised to support local schools, per pupil expenditures, pupil-teacher ratios, and student achievement results. This publication contains a series of indicators which will help interested citizens, policymakers, and legislators understand the many components of the K-12 Maine public education system.

In addition to providing the most current information available for each indicator, historical information and comparable data from the Northeast region and the nation are presented whenever possible. Readers are reminded that the data presented in this report are from a variety of sources, and that the most recent year may vary by indicator. Although each indicator is independent, many are interrelated and therefore require a critical analysis by the reader.

The Condition of K-12 Public Education in Maine 2011 is comprised of six categories of indicators: 1) *Background Demographics*, 2) *Enrollment*, 3) *Staff*, 4) *Program*, 5) *Student Performance*, and 6) *Finance*. While the categories have been changed recently from previous editions, the report still contains the same indicators.

The *Background Demographics* section provides information on community and societal characteristics of the education environment which may have an impact on student learning. The *Enrollment* section highlights enrollment trends statewide and in some cases by county. The *Staff* section provides characteristics of Teachers and Administrators in schools statewide. The *Program* section provides information on the school district organizational structure and other specific programs within schools that enhance education in Maine. The *Student Performance* section provides a tool to assess the productivity and accomplishments of education in Maine. And finally, the *Finance* section provides financial information relevant to education in Maine.

General Information about K-12 Public Education in Maine

While Maine's total population has remained relatively steady (1.3 million), public school enrollment has been steadily declining since 1996-97, from 213,867 students to 184,936 students in 2009-10. An additional 4,927 students were home schooled and 5,276 students are enrolled in private schools with public funding. The Maine Department of Education no longer collects student enrollment data for other students who attend private schools.

Maine's 160 school administrative units have a total of 634 public schools in various grade span configurations. Total education expenditures in 2008-09 were approximately \$2.09 billion. On a per-pupil basis, (excluding major capital outlay, transportation, and debt service), Maine's average per pupil operating expenditure was \$9,625. Finally, nearly 43 percent of Maine students were eligible to receive free or reduced price lunch in 2009-10.

Maine's student performance did not significantly change in the 2009 biennial National Assessment of Educational Progress (NAEP) given in mathematics and reading. Maine's fourth graders ranked 10th and eighth graders ranked 23rd among other states, and exceeded the national average for both grades.

In October 2009, Maine teachers administered the New England Common Assessment Program (NECAP) statewide for the first time to measure performance in reading, writing, and mathematics in grades 3 through 8. The test is used in Vermont, New Hampshire and Rhode Island. Maine's results are provided in this report. Maine administers the MEA in science to 5th and 8th graders. In both grades there were increases in the number of students who met proficiency goals in 2009-10.

The SAT was given to all 11th grade students beginning in spring 2006. Results presented in this report show that in 2009-10 nearly half of Maine's eleventh graders are Proficient or above in mathematics, reading, and writing, with 41 percent meeting proficiency standards in science.

Maine College Bound Seniors scored below the national average in mathematics, writing, and critical reading, on the 2010 SAT (these results do *not* include the SAT taken by 11th graders for the educational assessment requirement). However, Maine did have a 92 percent participation rate compared to 47 percent nationally. More information about these and other facts are provided in the following pages.

Background Demographics

The Background Demographics section provides information on community and societal characteristics of the education environment which may have an impact on student learning. This section provides information on the following indicators:

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1. Children's Well-being and Financial Security

Financial security impacts children's psychological and emotional health, access to health care, and overall well-being. The likelihood of financial security increases for children who live with both parents, and decreases for children who live with only one parent. In Maine, the Annie E. Casey Foundation reported that 33 percent of children lived in single-parent households in the year 2009. This is slightly less than the national rate of 34 percent.

According to the Annie E. Casey Foundation's *Kids Count 2010 Data Book*, other key indicators of children's well-being and financial security include teens who are

high school dropouts; teens not attending school and not working; children living in families where no parent has full-time, year-round employment; children in poverty; and children in single-parent families. Each of these indicators may contribute to a child living in what might be considered a “high risk” family.

The following table shows how Maine compared nationally and in other New England states for each of these “high risk” indicators as well as the 50 state ranking provided by the Annie E. Casey Foundation based on data from 2009.

Table 1: Percent of Children Living in High Risk Family Categories - 2009

Indicator	ME		NH		VT		US
	%	Rank	%	Rank	%	Rank	%
Teens who are high school dropouts	4%	3	3%	1	5%	9	6%
Teens not attending school and not working	7%	8	5%	1	7%	8	9%
Children living in families where no parent has full-time, year-round employment	29%	33	21%	4	28%	26	27%
Children in poverty – below 100 % poverty	17%	18	11%	1	13%	5	20%
Families with children headed by a single parent	33%	26	25%	3	30%	12	34%

Source: *Kids Count Data Book*, 2010.

<http://datacenter.kidscount.org/data/bystate/stateprofile.aspx?state=ME&group=Grantee&loc=21&dt=1%2c3%2c2%2c4>

2. Children's Well-Being and Access to Health Care

Maine Children Without Health Insurance: Children who have health insurance are more likely than children without health insurance to receive necessary and preventative medical and dental care. A recent survey conducted by the U.S. Bureau of the Census revealed that the number of uninsured children (those 17 years and under) declined from 11.1 million (11.6 percent) in 2000 to 7.5 million (10 percent) in 2009.

For Maine, the U.S. Bureau of the Census reported a decrease in the number of uninsured children under 18 since 1995, when 47,000, or 16.1 percent, were uninsured. According to findings from the U.S. Census Current Population Survey, 11,000, or 4 percent, of Maine's children lacked health insurance in 2009.

Table 2: Percent of Children *Without* Health Insurance, Maine & United States

Year	Maine	U.S.
2000	8.0%	11.6%
2001	7.5%	11.3%
2002	7.9%	11.2%
2003	6.0%	11.0%
2004	5.8%	10.5%
2005	8.1%	10.9%
2006	6.4%	11.7%
2007	5.1%	11.0%
2008	5.7%	9.9%
2009	4.0%	10.0%

Source: US Bureau of the Census, Current Population Survey, 2010. <http://www.census.gov/hhes/www/hlthins/data/historical/files/hist5.xls>

Maine Children With MaineCare: The number of Maine children who meet eligibility levels for MaineCare (formerly Medicaid) also is an indication of children's health needs and access to health care. The *Maine Kids Count Data Book 2010* reported that in fiscal year 2009, 44.6 percent, or 134,366 Maine children, aged 0-18 years, participated in MaineCare. The participation rate among counties varied greatly from a high of 65.6 percent in Washington County to a low of 31.4 percent in Cumberland County, as seen in Figure 1.

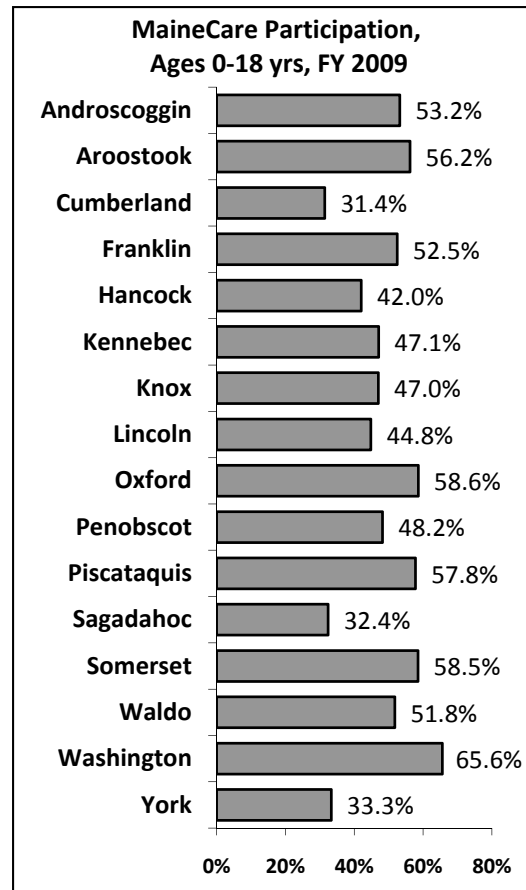


Figure 1: Source: *Kids Count Data Book*, 2010. <http://datacenter.kidscount.org/data/bystate/Rankings.aspx?state=ME&ind=1586>

Maine Children Immunizations: Another indicator of children's well-being is the level of immunizations. Maine requires that all children have a minimum of the following immunizations before entering school: 5 doses of DTP¹ or 3 doses of TD²; 2 doses of MMR³; 4 doses of OPV⁴; and effective in 2003, 1 dose of Varicella⁵. The National Immunization Program, a division of the Center for Disease Control, collects data on vaccinations yearly using the National Immunization Survey. Figure 2

indicates the percentage of children before 24 months of age in Maine and the United States who have been immunized with the 4:3:1:3 combination, which includes all those listed above except the Varicella vaccine. As illustrated by the chart, Maine had been consistently above the nation in immunization of 24-month-old children until 2003 when Maine dropped below the nation by 2.2 percent. Immunization rates have declined for this age group, both nationally and in Maine since 2005.

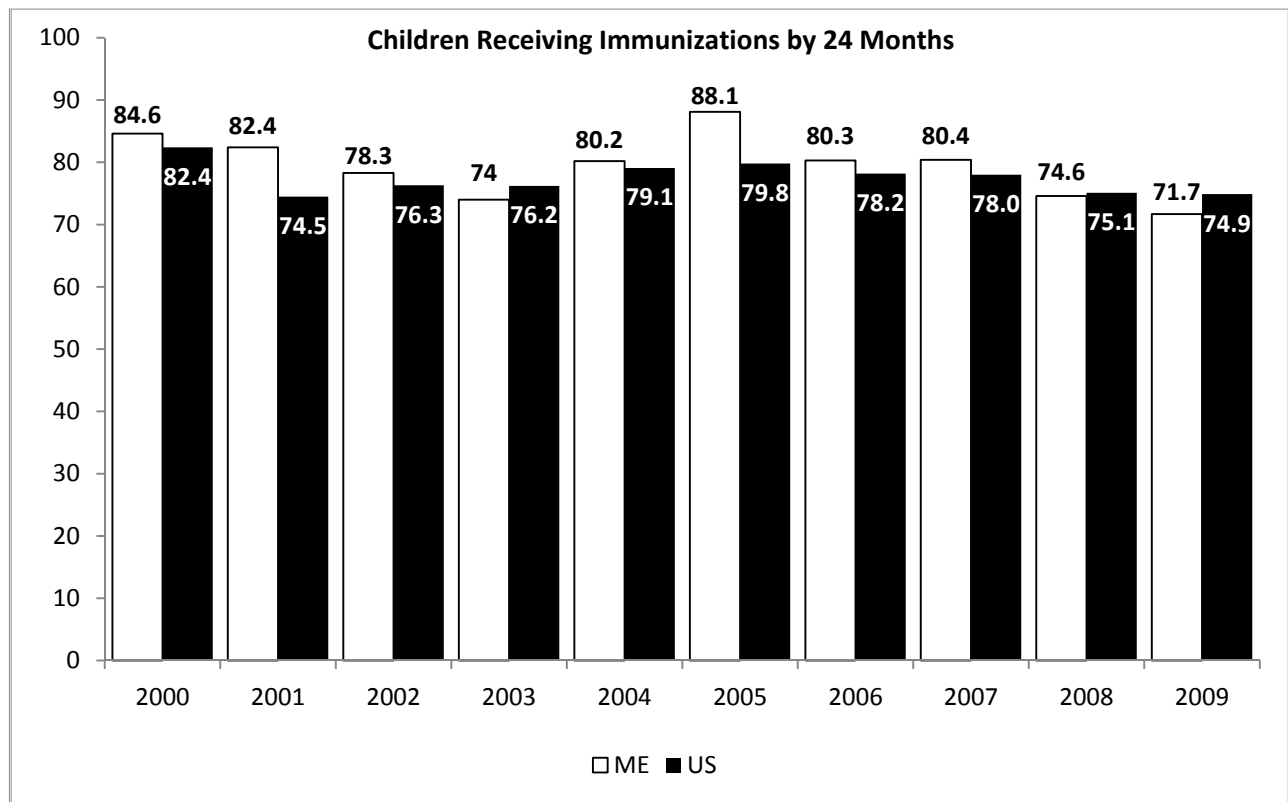


Figure 2: Source: Center for Disease Control, 2009.
<http://www.cdc.gov/vaccines/stats-surv/default.htm#cov>

¹ DTP = Diphtheria, Tetanus, and Pertussis Vaccine
² TD = Tetanus Diphtheria Vaccine
³ MMR = Measles, Mumps, and Rubella Vaccine
⁴ OPV = Poliovirus Vaccine
⁵ Varicella = Chicken Pox Vaccine

3. Poverty Rate

Poverty is associated with difficulties in health, education, emotional well-being, and delinquency. Children in poverty are more susceptible to health risks which may eventually lead to chronic diseases in adulthood, according to the U.S. Department of Health and Human Services. Also, the U.S. Bureau of the Census reports that children living in families who are poor are more likely than children living in other families to have difficulty in school, to become teen parents, and, as adults, to earn less and be unemployed more.

The federal government defines the poverty threshold for families as the level of income which is below a livable wage. The poverty level or threshold is determined by the number of members in a family. Table 3 provides 2009 figures from the U.S. Bureau of the Census regarding the weighted average thresholds of poverty.

Table 3: Poverty Thresholds - 2009

Number in Family	Annual Earnings
1 Person	\$10,956
2 Persons	\$13,991
3 Persons	\$17,098
4 Persons	\$21,954

Source: US Bureau of the Census, 2009.
<http://www.census.gov/hhes/www/poverty/data/threshld/thresh09.xls>

The most recent information from the U.S. Census Bureau indicates that the

poverty rate in Maine was 11.7 in 2008-2009. This is lower than the national level of 13.8 for the same period.

Nineteen states had poverty rates lower than Maine's. Figure 3 shows the 2-year average poverty rate for Maine and the United States for 2006-2007 and 2008-2009. These numbers indicate a two-year average *increase* of 1.2 percent in Maine, compared to a 1.4 percent *increase* nationally.

According to the *2010 Report on*

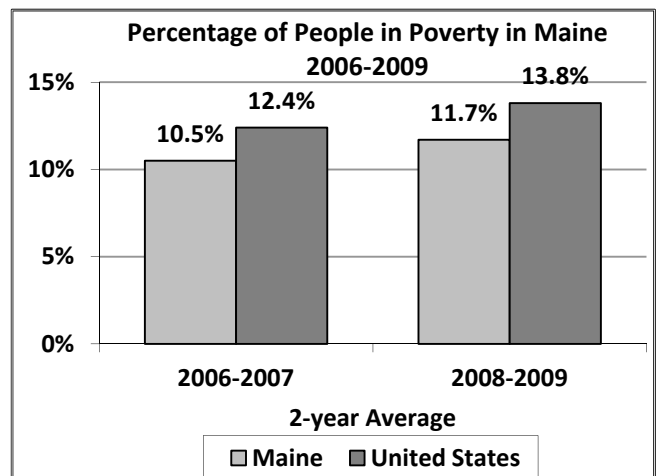


Figure 3: Source: US Bureau of the Census, 2009.
<http://www.census.gov/hhes/www/poverty/data/incpovhlth/2009/state.xls>

Poverty prepared by the Maine State Planning Office, an ongoing issue of considerable importance is the large number of Maine citizens who existed close to the poverty line but who were not within the federally defined poverty threshold. In fact, most persons with incomes 150 or 200

percent of the poverty level, have inadequate resources to meet basic needs. According to the 2010 Current Population Survey from the U.S. Census Bureau, nearly 388,000 (29.9%) of Maine's population had income below two times the federal poverty guideline, approximately 101,000 of whom are children under 18.

Another indicator of poverty is the annual unemployment rate. According to the U.S. Bureau of Labor Statistics the unemployment rate in Maine was 8.0 percent in 2009, up from 5.3 percent the previous year. In 2009, the national unemployment rate was 9.3 percent, which reflects a 3.5 percent increase for the same period. Nationally, 26 states had higher unemployment rates in 2009 with Michigan

being the highest at 13.6 percent. Preliminary figures for September 2010 list the national average at 9.6 percent and Maine's unemployment rate at 7.7 percent. States with the highest rate of unemployment are Michigan at 13 percent and Nevada at 14.4 percent.

The educational attainment of parents has also been linked to the poverty rate of children. As an example, the National Center for Children in Poverty reported that in 2008, 82 percent of children whose parents did not have a high school degree lived in low-income families, compared with 60 percent whose parents had a high school degree, but no college education, and 22 percent whose parents had at least some college education.

4. School Lunch Program Eligibility

Subsidized school lunch programs help to meet the nutritional needs of children. In school year 2009-2010, as reported by the Maine Department of Education, students who qualify for *free* lunches must live in a household earning no more than \$27,560 annually for a family of four. To qualify for *reduced* lunches, students must live in a household earning no more than \$39,220 annually for a family of four.

In 2000-01, 30 percent of the total public school population qualified for lunch subsidies. Figure 4 and Table 4 show that since 2000-01, the percentage of eligible students has steadily increased, reaching a ten-year high of 43 percent in 2009-10.

The number of students qualifying for *reduced* lunches decreased from 7.9 percent in 2000-01 to 7.3 percent in 2009-10. During the same period, the percent of

students eligible for *free* lunches has increased, reaching a ten year high of 35.7 percent. Approximately 68,400 students were eligible for the *free* lunch program and 13,972 students who were eligible for the *reduced* lunch program, for a total of 82,372 students, or 43 percent of the total school population of participating schools in 2009-10.

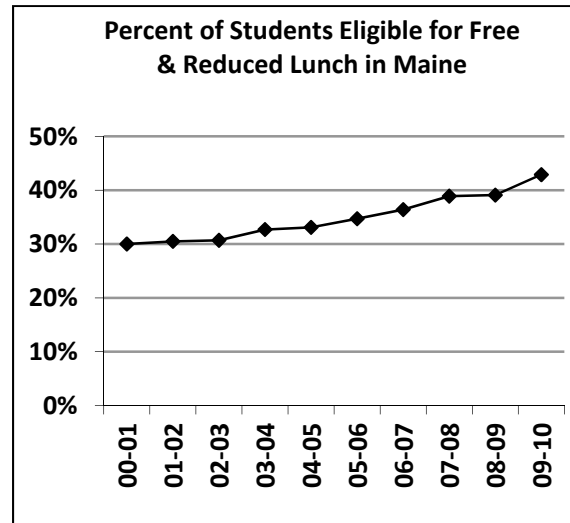


Figure 4: Source: Maine Department of Education, 2010.

https://portal.maine.gov/sfsr/sfsrdev.ed534.ed534_parameters

Table 4: Students Eligible for Participation in Subsidized School Lunch Programs in Maine

Students Eligible	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
Free Lunches	22.1%	22.9%	23.1%	25.1%	25.6%	27.2%	28.6%	31.3%	31.4%	35.7%
Reduced Lunches	7.9%	7.6%	7.6%	7.7%	7.5%	7.5%	7.8%	7.6%	7.6%	7.3%
Total Students	30.0%	30.5%	30.7%	32.7%	33.1%	34.7%	36.4%	38.9%	39.1%	43.0%

Source: Maine Department of Education, 2010. https://portal.maine.gov/sfsr/sfsrdev.ed534.ed534_parameters

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Table 5 lists the percentages of students by county in Maine who were eligible to receive subsidized school lunches in 2009-10. Cumberland County reported

the lowest percentage of school lunch eligibility (30.8 percent) while Washington County had the highest percentage (59.3 percent).

Table 5: Children Eligible to Receive Subsidized School Lunches, by County, 2009-2010

County	Students Eligible for Subsidized Lunches	Percent of Enrollees in School
Androscoggin	8,117	49.8%
Aroostook	5,559	52.4%
Cumberland	12,466	30.8%
Franklin	2,191	52.6%
Hancock	2,775	41.4%
Kennebec	7,848	42.9%
Knox	1,972	41.7%
Lincoln	2,019	43.8%
Oxford	5,653	56.8%
Penobscot	10,241	46.9%
Piscataquis	1,579	57.7%
Sagadahoc	1,895	35.5%
Somerset	4,686	57.5%
Waldo	2,859	56.4%
Washington	2,769	59.3%
York	9,743	34.8%
Maine	82,372	42.9%

Source: Maine Department of Education, 2010.

https://portal.maine.gov/sfsr/sfsrdev.ed534.ed534_parameters

5. Teen Birth Rates and Temporary Aid to Needy Families

Research indicates that children born to single teenage mothers are more likely to drop out of school, give birth out of wedlock, divorce or separate, and be dependent on welfare. Figure 5 provides a comparison of teen birth rates for Maine and the United States, according to the Centers for Disease Control and Prevention. In 2008, the birth rate was 42.5 births per 1,000 teenaged women in the United States, a decline from 49.8 in 1999. Maine also showed a decline during the same period, from 29.8 in 1999 to 26.1 in 2008.

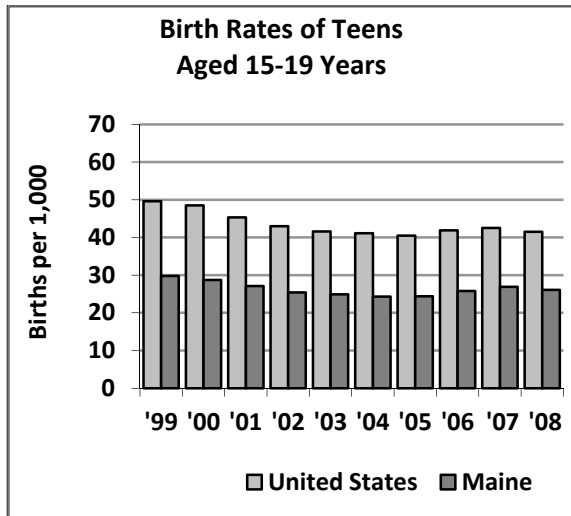


Figure 5: Source: Centers for Disease Control and Prevention. National Center for Health Statistics. VitalStats. <http://www.cdc.gov/nchs/data/databriefs/db46.htm>

The level of public assistance provided through the program of Temporary Aid to Needy Families (TANF) is also important in discussions of children's well-being. According to the Annie E. Casey

Foundation, 8.5 percent of Maine children aged 0-17 years were receiving TANF in 2009. Figure 6 shows percentages of children on TANF by county. Androscoggin had the highest with 16.2 percent of its children on TANF while Hancock County had the lowest at 4.9 percent.

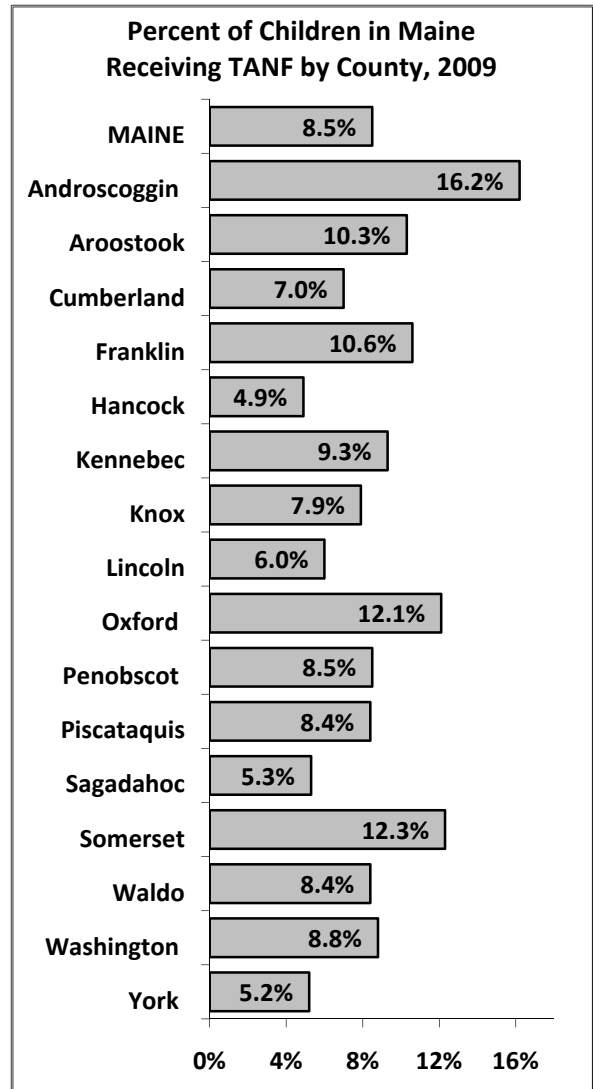


Figure 6: Source: Maine Children’s Alliance, 2009. <http://datacenter.kidscount.org/data/bystate/Default.aspx?state=ME>

6. Youth Risk Behaviors

In its recent report on youth risk behaviors, the Center for Disease Control revealed that in the United States in 2009 the most prevalent causes of death in 10-24 year-olds were motor-vehicle accidents (30 percent), other unintentional injuries (16 percent), homicide (16 percent) and suicide (12 percent). Health-risk behaviors, such as tobacco, alcohol, and other illicit drug use, also contribute to the leading causes of mortality and morbidity among youth and adults, and are often established during youth.

In terms of alcohol and other drug use, Table 6 shows how Maine's high school students compared to use behaviors of youth in New Hampshire, Vermont, Massachusetts, and the United States.

Maine's youth tended to use marijuana at the same rate as the national youth population, while use of alcohol is lower than the national average.

A review of tobacco use, as reported in Table 7, shows that Maine youth who smoked cigarettes during the past month were fewer (18 percent) than their counterparts in the United States (20 percent). However, Maine youth smoked cigarettes on 20 or more days during the past month (9 percent) was slightly greater than the national rate (7 percent). Fewer Maine youth (15 percent) smoked cigars in the month prior to the survey than those in New Hampshire (16 percent) but was higher than the national average of 14 percent.

Table 6: Alcohol and Other Drug Use Among High School Youth, 2009.

	US	ME	NH	VT	MA
Drank alcohol during the past month.	42%	32%	32%	39%	44%
Reported episodic heavy drinking during the past two weeks.	24%	n/a	n/a	23%	25%
Used marijuana during the past month.	21%	21%	21%	25%	27%
Ever used cocaine.	6%	n/a	n/a	n/a	6.1%
Ever used inhalants.	12%	15%	15%	n/a	n/a
Even used methamphetamines.	4.1%	n/a	4.7%	3.8%	2.8%

Source: U.S. Center for Disease Control and Prevention, 2009

n/a = data not available

<http://apps.nccd.cdc.gov/youthonline/App/Results.aspx?TT=&OUT=&SID=HS&QID=&LID=XX&YID=&LID2=&YID2=&COL=&ROW1=&ROW2=&HT=&LCT=&FS=&FR=&FG=&FSL=&FRL=&FGL=&PV=&TST=&C1=&C2=&QP=&DP=&VA=&CS=&SYID=&EYID=&SC=&SO=>

Table 7: Tobacco Use Among High School Youth, 2009.

	US	ME	NH	VT	MA
Smoked cigarettes during the past month.	20%	18%	21%	18 %	16%
Smoked cigarettes on 20 or more days during the past month.	7%	9%	10%	8%	7%
Used smokeless tobacco during the past month.	9%	9%	8%	9%	8%
Smoked cigars during the past month.	14%	15%	16 %	14%	15%

Source: U.S. Center for Disease Control and Prevention, 2009.

n/a = data not available

<http://apps.nccd.cdc.gov/youthonline/App/Results.aspx?TT=&OUT=&SID=HS&QID=&LID=XX&YID=&LID2=&YID2=&COL=&ROW1=&ROW2=&HT=&LCT=&FS=&FR=&FG=&FSL=&FRL=&FGL=&PV=&TST=&C1=&C2=&QP=&DP=&VA=&CS=&SYID=&EYID=&SC=&SO=>

The risk behaviors, as shown in Table 8, are shown to contribute to some of the leading causes of death among youth. Data were unavailable on key indicators from the 2009 Youth Risk Behavior Survey for Maine youth. In 2007 (not shown), compared to the national average, more Maine youth (14 percent) rarely or never

used safety belts, and fewer Maine youth rode with a drinking driver (25 percent) in the past month than teens nationally (28 percent).

Eight percent of Maine youth reported that they had attempted suicide during the past year, which is above the national average (6 percent).

Table 8: Unintentional and Intentional Injuries among High School Youth, 2009.

	US	ME	NH	VT	MA
Rarely or never used safety belts.	10%	n/a	13%	8%	14%
Rode with a drinking driver the past month.	28%	n/a	23%	23%	27%
Carried a weapon during the past month.	18%	n/a	n/a	n/a	13%
Were in a physical fight during the past year.	32%	23%	26%	26%	29%
Attempted suicide during the past year.	6%	8%	5%	4%	7%

Source: U.S. Center for Disease Control and Prevention, 2009.

n/a = data not available

<http://apps.nccd.cdc.gov/youthonline/App/Results.aspx?TT=&OUT=&SID=HS&QID=&LID=XX&YID=&LID2=&YID2=&COL=&ROW1=&ROW2=&HT=&LCT=&FS=&FR=&FG=&FSL=&FRL=&FGL=&PV=&TST=&C1=&C2=&QP=&DP=&VA=&CS=&SYID=&EYID=&SC=&SO=>

7. Educational Attainment of Maine's Adults

The completion of high school and education beyond high school is an indicator of economic and social, national, and state well-being. The U.S. Census Bureau 3 year estimates from the American Community Survey 2006-08, put the percentage of Mainers age 25 years and over with a high school diploma at 89.3 percent. Maine was 4.8 percentage points higher than the national average (84.5 percent); and Maine was higher than most other New England states except New Hampshire and Vermont, as shown in Figure 7.

The U.S. Census Bureau reports that workers 25 and over with a bachelor's degree had median earnings in 2008 of \$48,097, while those with a high school diploma earned \$27,963. When considering the population 25 years old or older with a bachelor's degree or higher in 2006-08, Maine was at 25.9 percent, 1.5 percent *lower* than the national average. All other New England states had a greater proportion of people in this age group who had attained bachelor's degrees or higher, as shown in Figure 8.

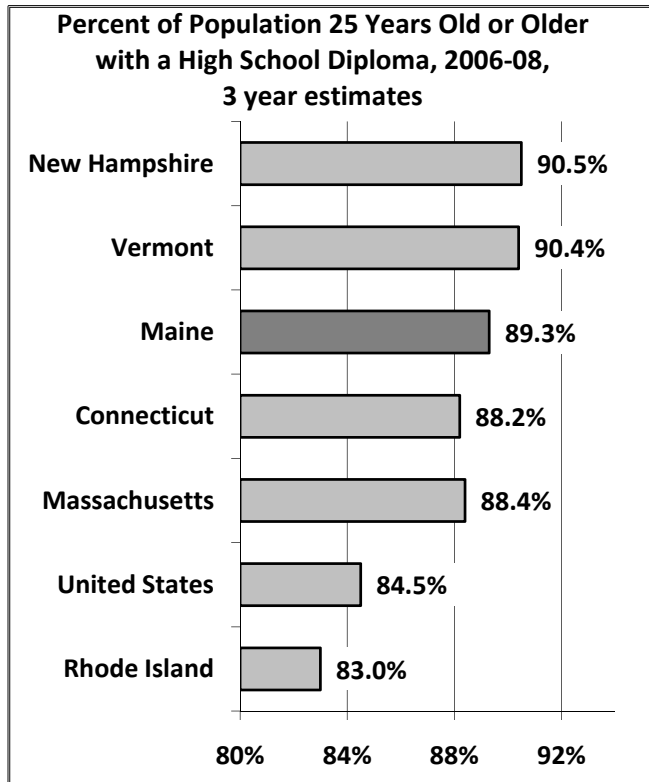


Figure 7: Source: U.S. Census Bureau, 2009. http://factfinder.census.gov/servlet/ThematicMapFramesetServlet?_bm=y&-geo_id=01000US&-tm_name=ACS_2008_3YR_G00_M00613&-ds_name=ACS_2008_3YR_G00_-MapEvent=displayBy&-dBy=040

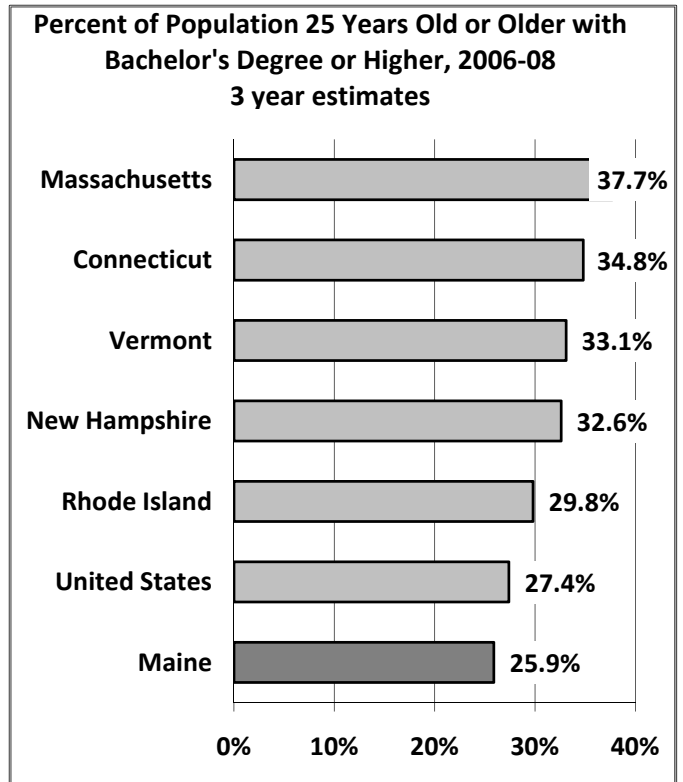


Figure 8: Source: U.S. Census Bureau, 2009. http://factfinder.census.gov/servlet/GCTTable?_bm=y&-geo_id=&-ds_name=ACS_2008_3YR_G00_-lang=en&-mt_name=ACS_2008_3YR_G00_GCT1502_US9T&-format=US-9T&-CONTEXT=gct

8. Projected Educational Attainment of Public School Ninth Graders

As reported in the previous indicator, Maine ranks high in the nation in terms of the percent of those people 25 years old and older who have earned a high school diploma. However, in 2007, only 29 percent of high school graduates had earned an associate’s or bachelor’s degree according to the National Center for Higher Education Management Systems.

Why this large gap between the percent of high school graduates and those who earn a college degree? There are a myriad of reasons for the gap, some of which become more apparent if one examines available national and Maine trends. Figure 9 provides a projection of the educational attainment of Maine's 9th graders compared to 9th graders nationally, given what we know about graduation and persistence rates.

As shown in the figure, of 100 ninth graders in 2004-05, 79 graduated from high school, compared the national average of 70. Of these high school graduates, 48 (61 percent) will enter some type of college or university and 23 students (48 percent) will graduate within 150 percent of time required by degree program (6 years for bachelor's and 3 years for associate).

Thus, currently only about 22.7 percent of Maine's public school 9th graders are expected to complete a college or university degree program early in their lifetime. More may earn degrees later in life, but this information provides some insight as to why Maine ranks 25th in the country in terms of the percent of the population that has earned a bachelor's degree or higher.

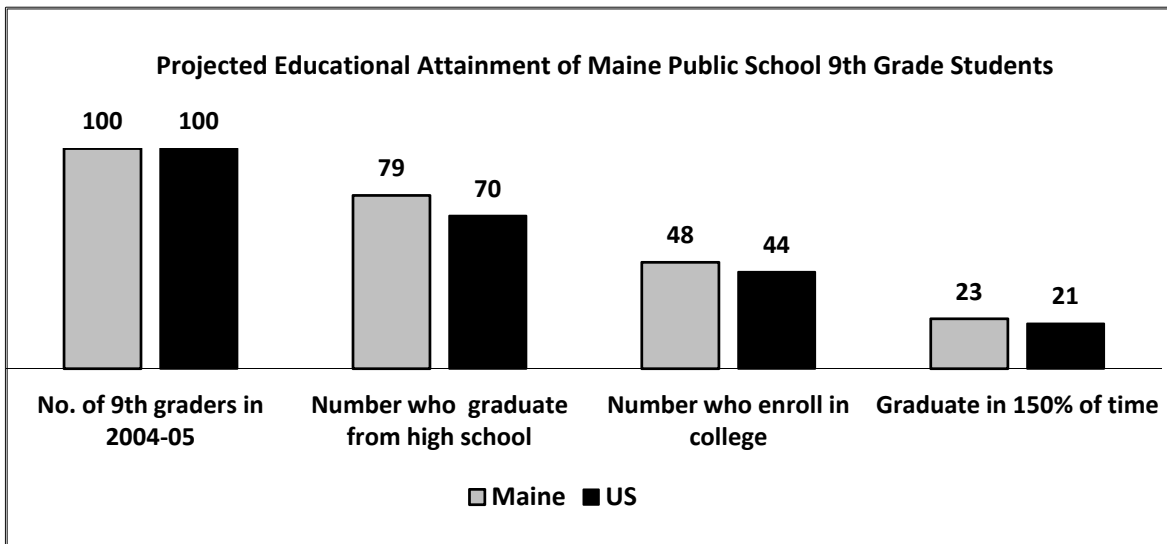


Figure 9: Source: National Center for Higher Education Management Systems; <http://higheredinfo.org/dbrowser/index.php?submeasure=119&year=2008&level=nation&mode=data&state=0>

9. Rewards of High School Completion and Higher Education Degree

Although the rewards of attaining higher levels of education are often intrinsic (e.g., personal satisfaction, etc.), the extrinsic rewards are measurable. According to the U.S. Bureau of the Census, in 2009 the national median income of males 25 years old and older with less than a high school diploma was \$22,222, or 68.8 percent of the median income (\$32,272) of male high school graduates. For similarly-grouped females, the median income was

\$15,675, or 69.8 percent of the earnings (\$22,468) of male high school graduates.

Further comparisons by educational attainment and income revealed that males with “some” college earned \$40,387, and females earned \$26,833. As shown in Table 9, Males who had attained bachelor's degrees earned \$56,566, while females with the same educational attainment had earned \$40,098.

Table 9: National Median Annual Income of Workers, Aged 25 and Older, by Level of Educational Attainment, 2009

Gender	Not a High School Graduate	High School Graduate	Some College	Associate's Degree	Bachelor's Degree	Master's Degree
Male	\$22,222	\$32,272	\$40,387	\$44,757	\$56,566	\$71,501
Female	\$15,675	\$22,468	\$26,833	\$30,598	\$40,098	\$51,793

Source: U.S. Bureau of the Census, Annual Demographic Survey, 2009.

http://www.census.gov/hhes/www/cpstables/032010/perinc/new03_127.htm

http://www.census.gov/hhes/www/cpstables/032010/perinc/new03_253.htm

Enrollment

The Enrollment section highlights enrollment trends statewide and in some cases by county.

This section provides information on the following indicators:

10. Public School Student Enrollment.....	17
11. Home School and Private School Student Enrollment.....	19
12. Language Minority Student Enrollment.....	20
13. Special Education Student Enrollment.....	21

10. Public School Student Enrollment

The Maine Department of Education reported that in 2009-10 there were 184,936 children enrolled in Maine K-12 public schools. This represents an overall ten-year decrease of 10.68 percent, or 22,101 students, since 2000-01.

According to the U.S. Department of Education 2009 projections, national public school enrollment PK-12 is expected to increase by 5.7 percent between 2010 and 2016. Maine's enrollment is only expected to increase by approximately .55% during the same period. Although Maine's student population has steadily declined since 1996-97, enrollments are projected to begin a small but steady increase after 2013.

(<http://nces.ed.gov/programs/projections/projections2018/tables.asp#Group1>).

Table 10 on the following page shows changes in Maine public school enrollment by county between the 2000-01 and 2009-10 school years. All counties experienced a decline in student enrollment. The decreases over the ten-year period range from 3.61 percent in Androscoggin County to 20.75 percent in Lincoln County.

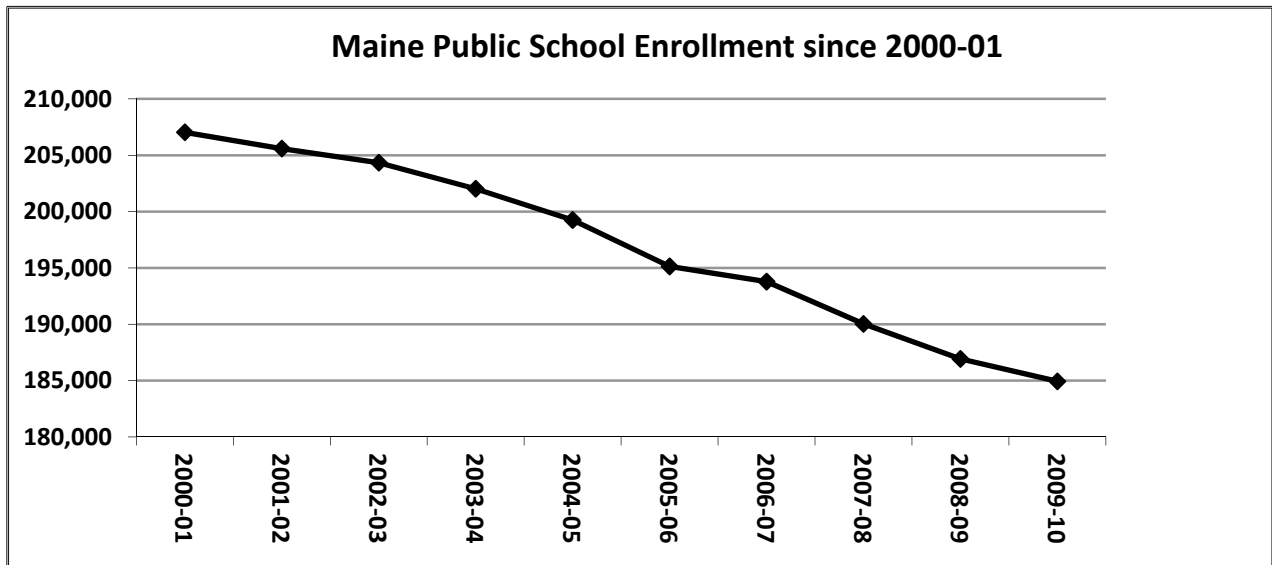


Figure 10. Source: Maine Department of Education, 2010; <http://www.maine.gov/education/enroll/attending/statefallpub.htm>

Table 10: Public School 2000-01 & 2009-10 Fall Enrollments by County

County	Enrollment 2000-10	Enrollment 2009-10**	Five Year Enrollment Changes	Ten Year Enrollment Changes
Androscoggin	16,575	15,976	-2.68%	-3.61%
Aroostook	12,269	10,654	-4.39%	-13.16%
Cumberland	41,593	39,654	+1.04%	-4.66%
Franklin	5,105	4,149	-9.76%	-18.73%
Hancock	7,853	6,593	-9.38%	-16.04%
Kennebec	20,062	17,151	-8.56%	-14.51%
Knox	5,651	4,761	-3.96%	-15.75%
Lincoln	5,064	4,013	-9.93%	-20.75%
Oxford	9,985	8,948	-2.29%	-10.39%
Penobscot	23,912	21,275	-5.04%	-11.03%
Piscataquis	2,799	2,316	-4.50%	-17.26%
Sagadahoc	6,528	5,354	-6.53%	-17.98%
Somerset	8,335	7,680	-0.26%	-7.86%
Waldo	5,713	4,962	-7.40%	-13.15%
Washington	6,157	4,166	-7.43%	-19.22%
York	30,436	27,284	-2.43%	-10.36%
Totals	207,037	184,936	-3.76%	-10.67%

**Total does not include students in 60% publicly funded high schools to be consistent with earlier attending enrollment figures.

Source: Maine Department of Education, 2010.

<http://www.maine.gov/education/enroll/attending/historical/pub/fenpbch.htm>

11. Home School and Private School Student Enrollment

Home School: In 1990 the number of students who were homeschooled in Maine was approximately 1,500. Figure 11 shows that in 2000, 4,375 students were homeschooled, nearly three times the number reported in 1990. In 2009-10 the number of home schooled students in the state was 4,927, an increase of 12.6 percent since 2000. The national homeschooled rate for a similar period increased 74 percent.

Between 1999 and 2007 the number of school-age students who were homeschooled increased from 850,000 to 1.5 million in the U.S.

Private School: There is no reliable, up-to-date information available from the State or other sources about enrollment in approved K-12 private schools in Maine.

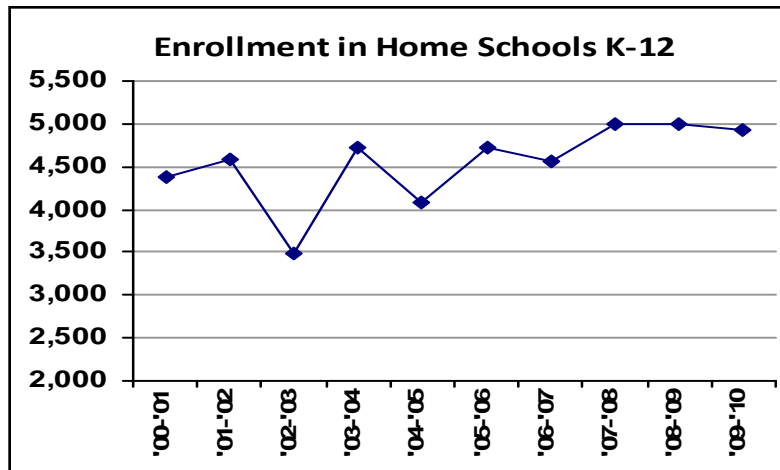


Figure 11: Source: Maine Department of Education, 2010.

<http://www.maine.gov/education/enroll/homesch/homeschool.htm>

Note: According to MDOE personnel, the large decline in numbers of students being home-schooled in 2002-03 was due to stricter enforcement of the rules on the application to home-school children which resulted in a decrease of applications submitted. The numbers then increased dramatically in 2003-04 when the requirement of an application was replaced with a much simpler letter of intent.

12. Language Minority Student Enrollment

In 2009-10, the public school population in Maine included 4,631 students who spoke a total of 102 different heritage languages. There were 118 school districts that reported enrollments of language minority students at various levels of concentration, according to 2009-10 data.

For instance, Portland had the highest number, 1,603 students (23.1 percent). The next highest numbers were in Lewiston which has 931 students (19 percent), and Auburn which had 156 students (4.4 percent).

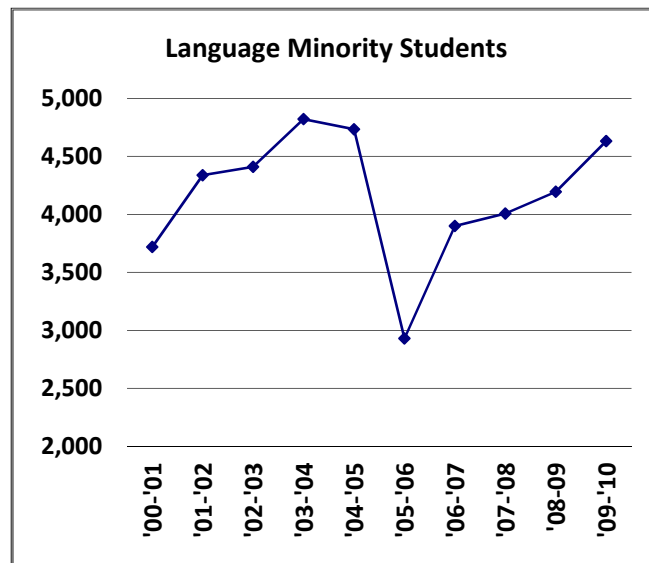


Figure 12: Source: Maine Department of Education, 2010.

Note: The data collection method for this indicator has recently changed and is reflected in the historical chart and in the amount of information available. In 2005-06 data on language minority students was collected by surveying each district, the low number of students reported may be a result of the response rate on the survey.

13. Special Education Student Enrollment

Passed in 1975, revised in 1997, and reauthorized in December 2004, PL105-17 [the Individuals with Disabilities Education Act (IDEA-97)] directed public schools to enroll and educate all students with special needs and to meet these needs in the least restrictive environments. In Maine, students enrolled in special education range in age from 3 to 21 years. The numbers of students qualifying for special education services has decreased from 35,633 in 2000-01 to 30,162 in the 2009-10 school year. This is a 15.4 percent decrease over ten years in special education student enrollment as shown in Table 11.

In 2009-10 the percent of all Maine students receiving special education services was approximately 15.69 percent, a decrease

since 2000-01.

According to the US Department of Education, at the national level, 13.4 percent of all public school students, ages 3 through 21 were served under the Individuals with Disabilities Education Act in 2007-2008 compared to 17.5 in Maine that year (note: the USDOE use a different calculation method, so the figure differs from the number presented below).

Of these students in 2007-08, approximately 50.24 percent were educated outside of the regular classroom less than 21 percent of the time in Maine, while 49.44 percent of students were educated outside the regular classroom less than 21 percent of the time nationally.

Table 11: Special Education Enrollment in Maine since 2000-01

Students	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
Total Public School*	212,951	210,067	209,746	207,468	204,699	201,603	197,867	197,983	194,536	192,202
Total Special Education**	35,633	36,580	37,139	37,784	37,573	36,494	35,564	34,425	30,729	30,162
% Special Education	16.73%	17.33%	17.72%	18.21%	18.35%	18.1%	17.97%	17.39%	15.79%	15.69%

Source: Maine Department of Education, 2010.

Note: Data reflect special education enrollment ages 3 through 21 years while regular education enrollment in Maine is for students ages 4 through 20 years old

*Age 4-21, resident enrollment: <http://www.maine.gov/education/enroll/resident/staterespub.htm>

**Age 3-21, special education enrollment: <http://www.maine.gov/education/speceddata/14yeardata.htm>

The Condition of K - 12 Public Education in Maine - 2011

Maine students receive special education services for one of fourteen classification categories. In 2009-10, three types of disabilities accounted for nearly 70 percent of the students served in Maine: Specific Learning Disability (31.6 percent), Speech and Language Impairment (19.7 percent), and Other Hearing Impairment (18.8 percent).

Since 2008-09, the category that showed the most growth was “Autism” which increased by 243 students. Most other categories showed a decline in 2009-10.

The category that showed the biggest decline in 2009-10 was “Speech and Language Impairment” which decreased by 449 students.

Table 12 reports numbers and percentages of students enrolled in special education relative to each county’s total student population for 2008-09 (the most recent date for which county resident enrollment data are available). Counties range from 9.3 percent in Oxford to 20.8 percent in Knox in percentage of students enrolled in special education.

Table 12: Numbers and Percents of Students with Disabilities by County, 2008-09

County	Number of Students in Special Education	Number of Students Enrolled in Public Schools*	Percent of County Student Population in Special Education
Androscoggin	2,732	16,016	17.1%
Aroostook	2,002	11,064	18.1%
Cumberland	5,963	41,153	14.5%
Franklin	594	4,256	14.0%
Hancock	1,130	6,955	16.2%
Kennebec	3,006	18,618	16.1%
Knox	1,103	5,295	20.8%
Lincoln	654	4,469	14.6%
Oxford	809	8,660	9.3%
Penobscot	3,700	21,759	17.0%
Piscataquis	412	2,430	17.0%
Sagadahoc	961	5,163	18.6%
Somerset	927	8,256	11.2%
Waldo	1,074	5,665	19.0%
Washington	689	4,669	14.8%
York	4,973	30,108	16.5%
Maine Total	30,729	194,536	15.8%

Source: Maine Department of Education, 2010.

*Resident enrollment

Staff

The Staff section provides characteristics of Teachers and Administrators in schools statewide.

This section provides information on the following indicators:

14. Student – Teacher Ratios.....	24
15. Staff – Administrator Ratios and Teacher – Staff Ratios.....	25
16. Salaries of Teachers and Administrators.....	26
17. Ages of Teachers and Administrators.....	27
18. Years of Experience of Full-time Teachers and Administrators.....	28
19. Gender of Full-time Teachers and Administrators.....	29
20. Educational Attainment of Teachers and Administrators.....	30

14. Student - Teacher Ratios

One indication of how school resources are used is in terms of student – teacher ratios. The student – teacher ratio is calculated by dividing the total number of students enrolled in public schools by the total number of full-time equivalent teachers. The teacher count consists of full-time teachers who are classroom teachers, special education teachers, specialist teachers of reading/literacy, itinerant teachers, and speech and hearing clinicians. Table 13 shows the student-teacher ratio in Maine and other New England states as well as the national average. In 2008-2009, the statewide student – teacher ratio in Maine was 12.1 students to one teacher. Maine is lower than the total national student-teacher average (15.3) and Massachusetts (13.6), on

par with New Hampshire (12.6), and above Vermont (10.5) as reported by the National Center for Education Statistics.

Table 13 also presents teacher-student ratios for different levels of schooling. The greatest variability in the ratio is at the elementary level (grades 1-8), where the national ratio is 19.2 students per teacher, but in Maine and New Hampshire it is much lower. Maine (17.1) and Vermont (16.4) had the lowest ratios for kindergarten, lower than the national average (20.3), Massachusetts (20.5), and New Hampshire (23.7). At the secondary level, there is greater parity in the ratio, with all but Vermont between 12 and 13 students per teacher.

Table 13: Student-Teacher Ratio, 2008-09

State or jurisdiction	Total student membership	Total staff	Total student/teacher ratio	Kindergarten	Elementary (grades 1-8)	Secondary (grades 9-12)
United States	49,265,044	6,328,318	15.3	20.3	19.2	12.1
Maine	192,935	36,459	12.1	17.1	11.3	12.6
Massachusetts	958,910	123,636	13.6	20.5	13.6	12.3
New Hampshire	197,934	32,849	12.6	23.7	11.9	13.0
Vermont	92,446	19,370	10.5	16.4	17.9	8.5

Source: National Center for Education Statistics, 2010; http://nces.ed.gov/pubs2010/snf200708/tables/table_04.asp

15. Staff – Administrator Ratios and Teacher – Staff Ratios

Staff to administrator ratios is also an indication of how school resources are used. Table 14 shows numbers of staff and the ratio for the 2008-09 school year for Maine, New Hampshire, Vermont and nationally. According to National Center for Education Statistics data, during 2008-09, each Maine administrator was responsible, on average, for approximately 18.5 staff members. This ratio was higher in New Hampshire (27.1), Vermont (28), and nationally (27.5).

Table 14: Staff to Administrator Ratios 2008-09

Category	US	ME	NH	VT
Total Full-time Staff	6,206,291	34,589	31,680	18,703
Administrators	222,027	1,870	1,169	667
Staff/Administrator Ratio	27.5	18.5	27.1	28.0

Source: National Center for Education Statistics, 2010;
<http://nces.ed.gov/pubs2010/2010347.pdf>

The proportion of total instructional school staff that is comprised of teachers is a measure of how school budgets break down in direct education services to students. For this purpose instructional staff includes teachers, principals, supervisors, and various other non-supervisory staff at the school level. The data in Figure 13 shows how Maine compared with other New England states and the United States in the proportion of total public school instructional staff who were classroom teachers in school year 2008-09. Maine and New Hampshire were almost equal, both exceeded Vermont, but all fell below the national averages of 87.2%.

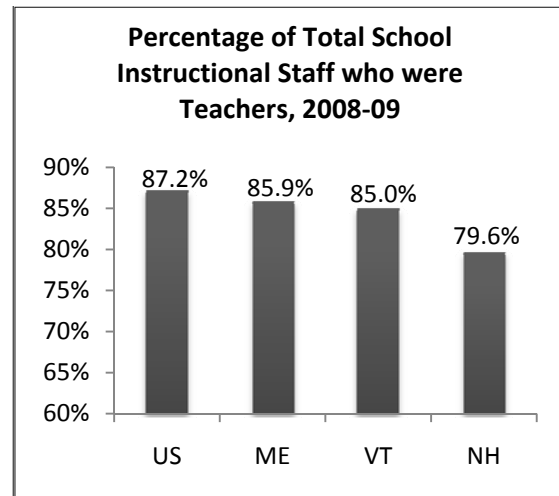


Figure 13: Source: National Education Association, 2010;
<http://www.nea.org/assets/docs/09rankings.pdf>

16. Salaries of Teachers and Administrators

As reported in Figure 14, classroom teacher salaries in Maine increased 26.7 percent (not adjusted for inflation) since 2000-01 to an average salary of \$46,071 in 2009-10. According to the National Education Association, in 2008-09, Maine ranked 43rd in the nation compared to the national average of \$54,319. Maine ranked last among the New England States: Massachusetts ranked 3rd nationally (\$66,712), Connecticut 4th (\$63,152); Rhode Island 9th (\$58,407); New Hampshire 23rd (49,872); and Vermont 30th (47,884).

In Maine, the average salary for full-

time principals has increased 31.1 percent (not adjusted for inflation) since 2000-01 to \$75,635 in 2009-10. The average salary for full-time superintendents in 2009-10 was \$103,128 which represents an increase of 36 percent since 2000-01 (not adjusted for inflation).

However, when adjusted for inflation, average salaries of Maine teachers remained relatively flat in the last decade. Teachers' average inflation adjusted salaries increased by only 2.5 percent. Principals' increased by 6.1 percent in ten years and Superintendents' inflation adjusted salaries have increased 10.1 percent.

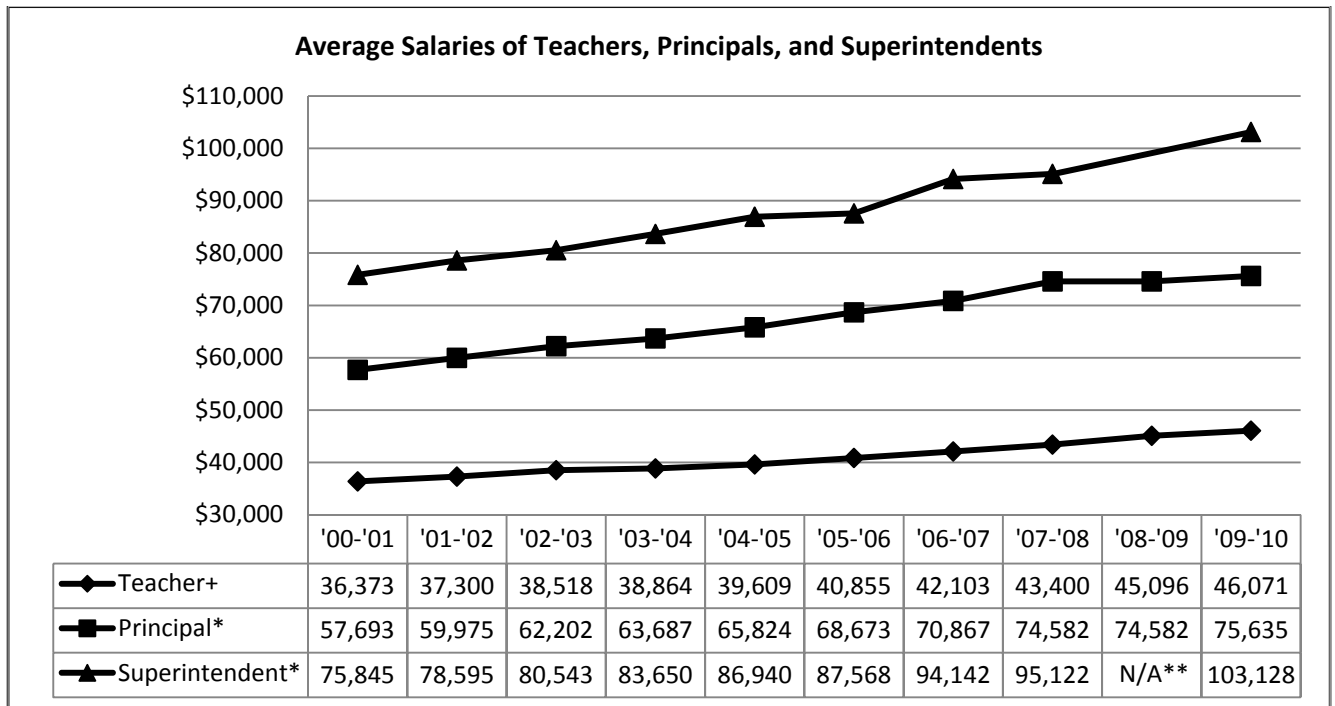


Figure 14: + Source:2000-2004, National Education Association; 2005-2009, Maine Department of Education, 2010; https://www.medms.maine.gov/medms_public/ReportPortal/ShowReport.aspx?CurrentLocation=%2fPublic+Report+s%2fProfessional+Staff%2fAverage+Salary+of+Instructional+Staff

* Source: Maine Department of Education, 2010

** Superintendent salary data for 2008-09 was not available.

17. Ages of Teachers and Administrators

According to the Maine Department of Education, in 2009-10, 67 percent of Maine's teachers were over 40 years of age, 24.8 percent were between the ages of 40 and 49, and 33.5 percent were between the ages of 50 and 59. Figure 15 shows the percent of teachers by age group in 2009-10.

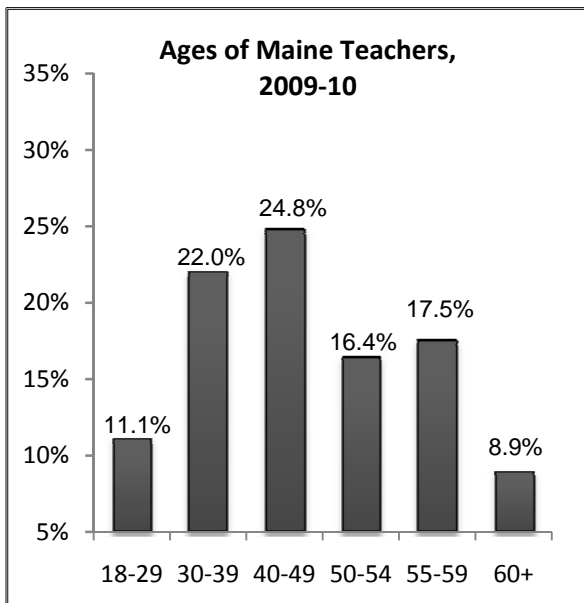


Figure 15: Source: Maine Department of Education, 2010

In 2009-10, ninety one percent (91.1) of Maine superintendents and principals were over 40 years of age as shown in Figure 16. A breakdown of the data shows that 25.9 percent of these administrators were between the ages of 40-49, while 46.4 percent were between the ages of 50 and 59.

This data indicates that a high percentage of teachers and administrators are approaching retirement age, a demographic factor which has possible implications for school funding, retirement costs, and availability of administrative professionals.

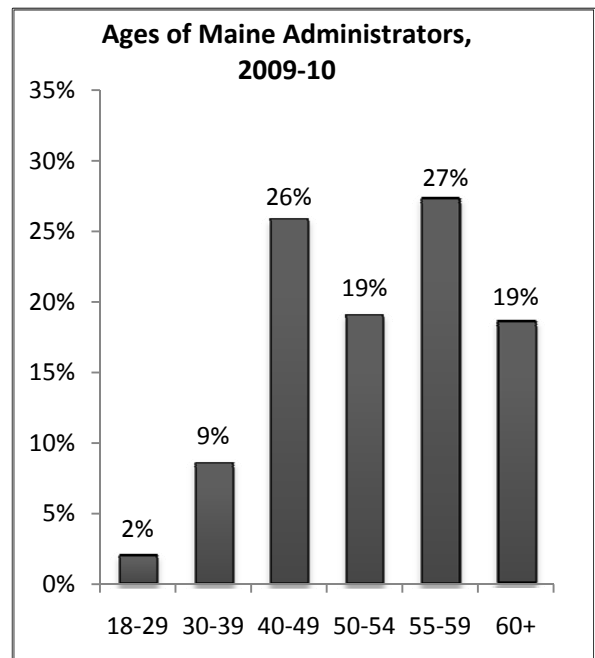


Figure 16: Source: Maine Department of Education, 2010.

18. Years of Experience of Teachers and Administrators

In 2009-10, the largest portion of Maine's full-time teacher work force (44.1 percent) had 19 or more years of experience. There has been little change in this statistic since 1999-00, but a significant change since the early nineties when only 28.5 percent of teachers in 1990-91 had 19 or more years of experience. This contrasts with the number of teachers who were relatively new to teaching in 2009-10; 15.1 percent of the

work force, had 0-5 years of experience, as shown in Figures 17 and 19.

The Maine Department of Education reported, in 2009-10, that Maine principals and superintendents also had considerable experience in education, with 76.7 percent having 19 or more years of experience in the education profession and 18.8 percent having between 11 and 18 years of experience, as shown in Figure 18.

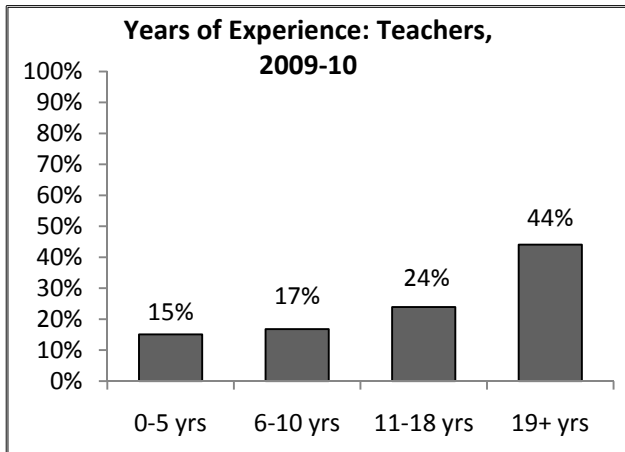


Figure 17: Source: Maine Department of Education, 2010.

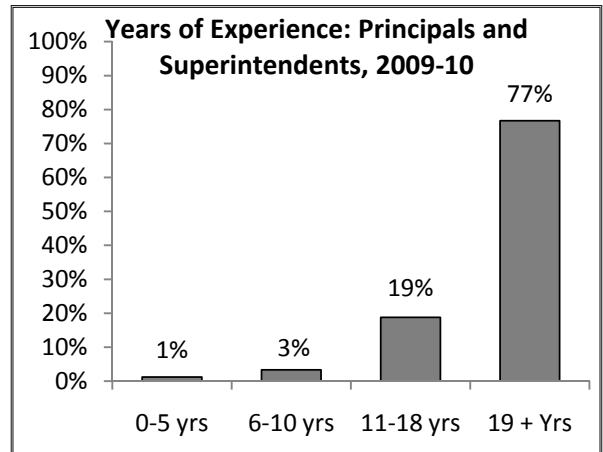


Figure 18: Source: Maine Department of Education

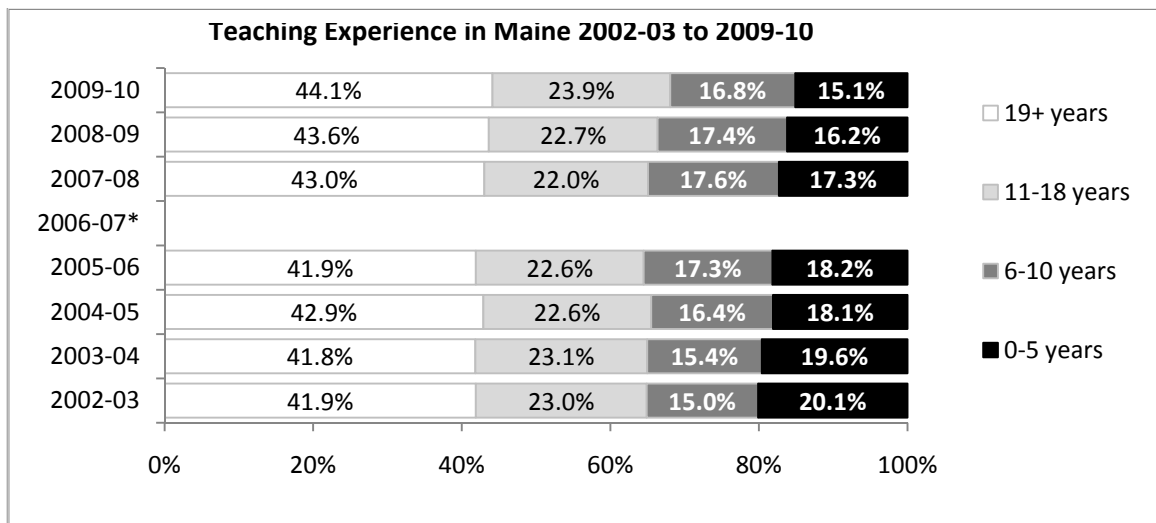


Figure 19: Source: Maine Department of Education, 2010

*2006-07 data not available

19. Gender of Teachers and Administrators

The proportion of female to male teachers in Maine has shifted only slightly since 1998-99 when 70 percent were female and 30 percent were male. In 2009-10, 74.4 percent of teachers were female and 25.6 percent were male. However, if one looks at *elementary* teachers, one sees a wider discrepancy according to gender, as shown in Figure 20.

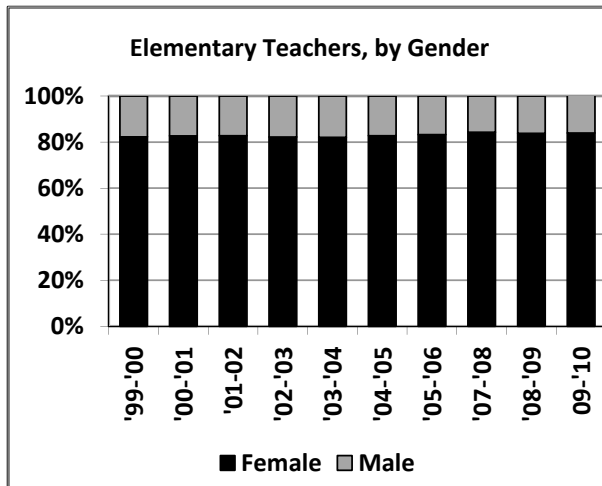


Figure 20: Source: Maine Department of Education, 2010.

In 1999-00, 82.3 percent of all *elementary* school teachers were female, while 47.7 percent of all *secondary* school teachers were male. In 2009-10, 84 percent of all *elementary* school teachers were female, while 47.1 percent of all *secondary* school teachers were male. Between 1999-00 and 2009-10, the proportion of male elementary teachers decreased from 17.7 percent to 16 percent. Of more than ten thousand elementary teachers, only 1,597 are male. Figure 21 shows a

relatively even split between male and female *secondary* teachers.

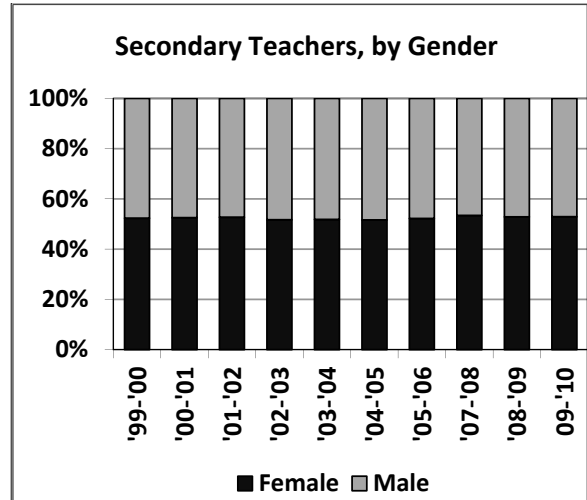


Figure 21: Source: Maine Department of Education, 2010.

In terms of administrative staff, the Maine Department of Education reported that in 2009-10, 22.7 percent of superintendents and 50.4 percent of principals were female, continuing the steady increase from the 6.0 percent reported in 1990-91.

20. Educational Attainment of Teachers and Administrators

The National Center for Education Statistics reported that in 2007-08, the most recent available national data, 47.4 percent of public school teachers nationwide had only a bachelor's degree, while 44.5 percent had attained master's degrees. One percent of teachers nationwide had doctorates.

In 2009-10, 39.6 percent of all full-time public teachers in Maine reported that their highest level of educational attainment was a bachelor's degree, while 10.9 percent had attained 15 credit hours beyond the bachelor's. Another 8.9 percent had attained 30 hours of credit beyond the bachelor's, and an additional 28.2 percent had attained a master's degree. Those who had attained

credits beyond the master's degree equaled 9.3 percent. Finally, 1.5 percent had a certificate of advanced study and 0.5 percent had a doctorate, as shown in Table 15.

When compared to other New England states (Figure 22), the percentage of Maine's teachers who have attained a Master's degree is less than other states in the region.

Table 15: Educational Attainment of Teachers, 2009-10

Educational Attainment	Full-time Teachers
Less than bachelor's degree	1.1%
Bachelor's degree	39.6%
Bachelor's degree +15 hours	10.9%
Bachelor's degree +30 hours	8.9%
Master's degree	28.2%
Credits beyond master's	9.3%
Certificate of advanced study	1.5%
Doctorate	0.5%

Source: Maine Department of Education, 2010.

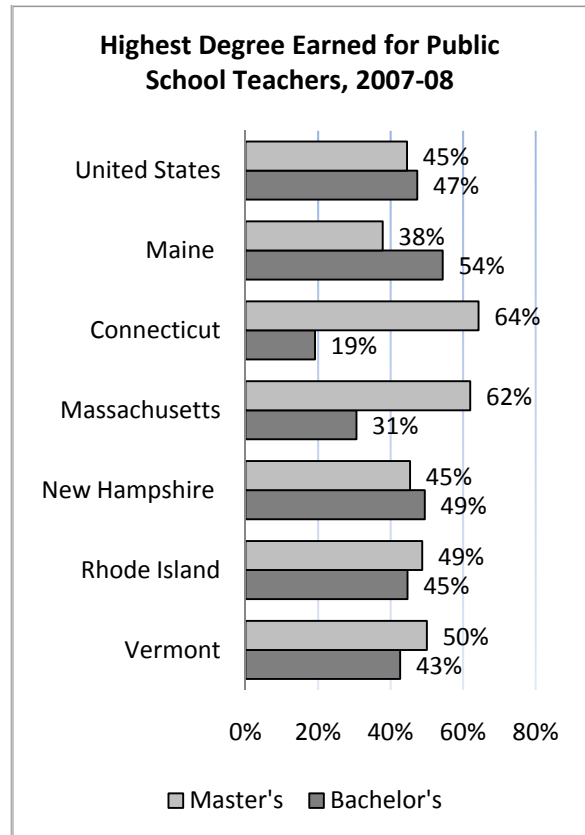


Figure 22: Source: National Center for Education Statistics, 2010; http://nces.ed.gov/programs/digest/d09/tables/dt09_067.asp

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According to the Maine Department of Education, 43 percent of Maine's principals and superintendents held master's degrees as their highest level of study, 23 percent had attained either master's plus 15 or master's

plus 30 credit hours, 19 percent had achieved the certificate of advanced study, and 7 percent held doctorates in 2009-10, as shown in Table 16.

Table 16: Educational Attainment of Administrators, 2009-10

Educational Attainment	Administrators
Bachelor's degree	2.4%
Bachelor's degree +15 hours	3.1%
Bachelor's degree +30 hours	1.6%
Master's degree	43.3%
Master's degree +15, +30 hours	23.4%
Certificate of advanced study	19.0%
Doctorate	7.0%

Source: Maine Department of Education, 2010.

Program

The Program section provides information on the school district organizational structure and other specific programs within schools that enhance education in Maine. This section provides information on the following indicators:

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21. School District Governance Structures

Maine has a rather complex educational system consisting of many school administrative units (SAUs) with a variety of governance structures. The six major governance structures are SAUs under Individual Supervision, Community School Districts (CSDs), Regional School Units doing business as School Administrative Districts (SADs), Regional School Units (RSUs), Unions, and Alternative Organizational Structures (AOS).

To clarify the differences between each of these governance structures, an *SAU under individual supervision* is a single municipality. A *community school district* (CSD) is a combination of two or more municipalities and/or districts formed to build, maintain, and operate a school building or buildings to educate any or all grades. A *regional school unit* (RSU) is a combination of two or more municipalities who pool all their educational resources to educate all students. A *regional school unit with the option of doing business as a school administrative district* (RSU/SAD) is also a combination of two or more municipalities who pool all their educational

resources to educate all students. A *union* is a combination of two or more school administrative units joined together for the purpose of sharing the costs of a superintendent and the superintendent's office. An *alternative organizational structure* (AOS) is a combination of two or more school administrative units joined together for the purpose of providing administrative and sometimes educational services.

During the 2010-2011 school year, the governance structures consisted of 64 SAUs under individual supervision, 6 community school districts (CSDs), 48 regional school units with the option of doing business as a school administrative district (RSU/SADs), 22 regional school units (RSUs), 9 unions, and 11 alternative organizational structures (AOS). The following table further illustrates the number of units as well as the number of municipalities included in each type of unit.

Table 18: Distribution of School Administrative Unit Structures in Maine (2010-11)

School Administrative Unit (SAU)	Number of SAUs	Number of Municipalities
SAUs under Individual Supervision	64	64
Community School Districts (CSD)	6	21
Regional School Units (RSU) doing business as School Administrative Districts (SAD)	48	196
Regional School Units (RSU)	22	111
SAUs in Unions (including Maine Indian Education)	9	28
Alternative Organizational Structures (AOS)	11	86
TOTALS *	160	492*

*14 municipalities belong to more than one type of school administrative unit structure:

2 are members of a school administrative district (SAD) and a community school district (CSD); 7 municipalities are member entities of an alternative organizational structure (AOS) and a community school district (CSD); the 5 remaining municipalities are school administrative units in school unions and are members of a community school district (CSD)

Source: <http://www.maine.gov/education/eddir/summry.htm>

22. School District Reorganization

In 2007 the Maine State Legislature passed legislation to reduce the number of school districts in the state from 290 to 80. The law set forth state policy to ensure that schools be organized as units in order to provide equitable educational opportunities, rigorous academic programs, uniformity in delivering programs, a greater uniformity in tax rates, more efficient and effective use of limited resources, preservation of school choice, and maximum opportunity to deliver services in an efficient manner.

Table 19 indicates progress toward the target of the policy as of October 2010. Between 2007 and 2010, the number of school units in Maine has been reduced from 290 to 179 which reflects a 38.3 percent

reduction in the number of school districts. Among the 179 school units, 64 were unchanged from their original configuration: 45 met the criteria set forth in the law to remain as they were (due to size, performance, or isolation), and 19 were exempted from the requirement to reorganize due to special circumstances. Thus 56.4 percent of students in the state are in districts that were unchanged by the law. 144 former units have consolidated into 33 new units. Students in these districts represent 32.3 percent of public school students in the state. 82 units (11.3 percent of students) are non-conforming with the reorganization mandate.

Table 19. Reorganization Status of All Maine School Systems, October 2010

Status	# Former Units	# Current Units	Enrollment (Oct. 2008)	% of students
Unchanged Units	64	64	107382	56.4%
Approved Alternative Plans	45	45	106,126	55.7%
Exempt (Island, Maine Indian Education, geographic isolation)	19	19	1,256	.7%
Reorganized	144	33	61,673	32.3%
<i>Regional School Unit (RSU)</i>	78	22	46,483	24.4%
<i>Alternative Organizational Structure (AOS)</i>	66	11	15,190	8.0%
Non-conforming	82	82	21,589	11.3%
TOTAL	290	179	190,644	100.0%

Source: Maine Department of Education, 2010.

<http://www.maine.gov/education/reorg/planstatus20101019.pdf>

23. School Type, Grade Span Configuration, and Average Enrollment

Another factor in understanding the organization of Maine schools is the different types of schools that exist throughout the state. These include elementary schools (including any combination of kindergarten through grade 8); secondary schools (including any combination of grades 9 through 12); and combined elementary and secondary schools (including any combination of kindergarten through grade 12). Table 20 shows the number of public schools in Maine by type for 2010-11.

Table 20: Public Schools by Type, 2010-11

School Type	Number
Elementary Schools	505
Secondary Schools	123
Total*	634

Source: Maine Department of Education, 2010; <http://www.maine.gov/education/eddir/summry.htm>

*Schools that span elementary and secondary grades are included in both figures but are counted only once for the total.

Included in these school categories are other types of schools, including 19 Technology Centers, 8 Technology Regions, 3 Alternative/Special Education schools, and 4 state funded schools. Early Kindergarten/4-Year Old Programs are offered in 151 public schools.

Table 21 indicates the sizes of Maine’s schools in 2009-10 (the most recent

year for which data are available). The majority of schools in Maine enroll between 200 and 499 students (47%), but 5.8 percent have less than 50 students, and 2.1 percent have more than 1,000 students.

According to the National Center for Education Statistics, Maine’s public school average student enrollments were significantly smaller than the national average for elementary and secondary schools. In 2007-08, Maine’s elementary schools (defined as K-8) had an average enrollment of 244; the national average was 475 students. Forty-three states had, on average, more students in their elementary schools. Maine’s average enrollment for secondary schools in 2007-08 was 533, compared to the national average of 816 students. Forty states had, on average, more students in each of their secondary schools than those in Maine.

Table 21: Sizes of Maine Schools, 2009-10

Enrollment Size	Public Schools
1000 or more	2.1%
800 to 999	1.4%
500 to 799	10.7%
200 to 499	47.1%
100 to 199	21.5%
51 to 100	11%
Under 50	5.8%

Source: Maine Department of Education, 2010; <http://www.maine.gov/education/enroll/attending/statefallpub.htm>

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For the 2009-10 school year, there were a total of 624 public schools with 52 different grade configurations. The most common type of public school in Maine is the grade 9-12 secondary school with a total of 100 followed by the K-8 elementary school at

55. However, as shown in the following table, there are a wide variety of grade configurations throughout the state, due to the differing needs and available space within each district and the geographic size of districts.

Table 22: Public School Grade Configurations and Average Student Enrollment, 2009-10

Grade Span	Number of Schools	Average Number Students Enrolled	Grade Span	Number of Schools	Average Number Students Enrolled
4YO	1	64	1-4	2	307
4YO-K	3	147	1-5	2	9
4YO-1	4	118	1-6	2	333
4YO-2	9	276	2-3	1	98
4YO-3	16	265	2-4	3	280
4YO-4	15	245	2-5	4	122
4YO-5	36	252	2-6	1	94
4YO-6	29	269	2-8	1	6
4YO-8	33	162	3	1	195
4YO-12	4	250	3-4	4	220
EK-K	1	229	3-5	14	317
EK-4	1	19	3-6	1	194
EK-5	2	193	3-8	1	337
EK-7	1	45	4-5	11	269
EK-8	4	127	4-6	5	292
K	0	0	4-8	7	301
K-1	5	106	5-6	1	319
K-2	21	222	5-8	28	320
K-3	9	326	6-7	1	3
K-4	17	209	6-8	50	404
K-5	57	231	6-12	4	235
K-6	26	241	7-8	12	395
K-7	2	8	7-12	9	337
K-8	55	170	8-12	1	12
K-12	5	141	9-12	100	531
1-3	4	270	10-12	1	132

Source: Maine Department of Education, 2009;

<http://www.maine.gov/education/enroll/attending/statefallpub.htm>

Key: 4YO = 4 Year Old programs; EK = Early Kindergarten programs

24. Construction of Public Schools

Since 1972 the number of school projects that have been funded under the state's school construction debt ceiling (Major Capital Improvement Program) is 507. Of the 507 projects, 299 were additions and renovations to existing facilities. New school facilities that replaced existing buildings numbered 208, according to the Maine Department of Education. The projects are funded on a competitive basis by the Debt Service Limit, the amount of state money available for approved construction costs in a given year. In 1990-91 the limit was \$48 million; in 2010 the limit was \$108 million. And in 2011 the limit is projected to be \$126 million. Figure 22 shows school building projects in Maine by decade since 1910, including the current decade to date. The 1950's through the 1980's show the highest growth.

According to the Maine Department of Education, it is the numerous construction projects of the 1950's and 1960's that are now requiring repairs, renovations, and replacements. In response, the Maine Legislature established the Maine School Facilities Finance Program and the School Revolving Loan Fund. The fund is used to finance the cost of school repair and

renovation, among other costs. Since 1999, a total of 520 necessary repairs and renovations of school facilities have been funded through this program at an estimated total cost of \$153 million.

Research by the Maine Education Policy Research Institute reported that many variables influence the amount of money a district must spend in order to maintain their facilities. In 2001-02, maintenance expenditures by Maine SAUs varied widely, from a low of \$306 per pupil, to a high of \$3,568 per pupil. Preliminary analysis suggests that the square footage per pupil and the school enrollment size are the best available predictors of per pupil maintenance expenditures.

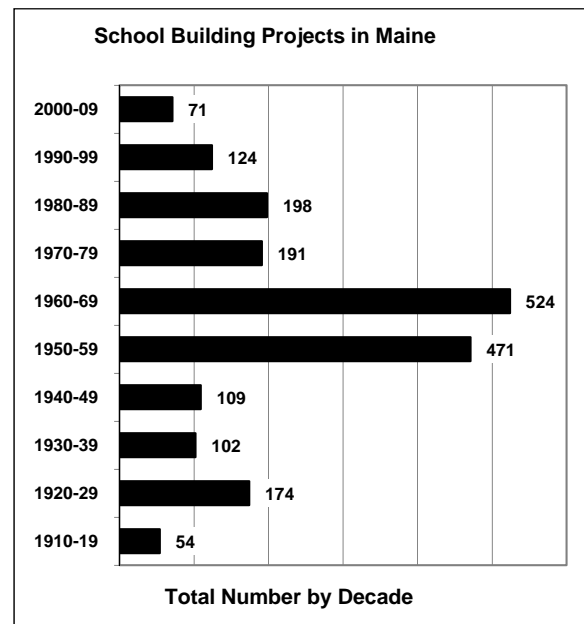


Figure 22: Source: Maine Department of Education, 2010.

25. Early Childhood Education

Studies have shown that participation in center-based early childhood care and education programs such as Head Start, nursery school, and prekindergarten not only provide childcare support for working parents, but also are instrumental in preparing a child for elementary school. The National Center for Education Statistics reported that in 2000-01, 35.3 percent of the public elementary schools in the United States offered prekindergarten classes. In that same year, 10.7 percent of public elementary schools in Maine offered prekindergarten classes. Since then the number of elementary schools offering prekindergarten programs has increased in Maine to 29.9 percent (151 schools). 25.3 percent of Maine 4-year olds are now enrolled in these programs.

Recent studies have also shown that increasing the length of time kindergartners are in school may increase their cognitive, social, and physical development. These children also have greater access to other school services, such as the school lunch program, guidance services, special education services, and Title I services. In Maine, the number of schools offering all day kindergarten has increased significantly since 2000-01, as seen in Table 23. Consequently the number of children attending these all day programs has also increased from 32.4 percent of all kindergarten students in 2000-01 to 86 percent in 2007-08. The most recent national information available indicated that 69.7% percent of kindergarteners nationwide attended a full-day program in 2005-06.

Table 23: Prekindergarten and All Day Kindergarten in Maine

Year	Early Kindergarten and/or 4-Year Old Programs		All Day Kindergarten		
	Schools Offering	Students Attending	Schools Offering	Students Attending	% of Total Kindergarten Students
2000-01	60	1,062	153	4,463	32.4%
2001-02	75	1,333	201	5,515	40.2%
2002-03	78	1,525	220	6,729	49.0%
2003-04	91	1,659	225	7,125	50.8%
2004-05	91	1,872	259	8,511	62.0%
2005-06	124	2,173	n/a	n/a	n/a
2006-07	110	2,250	178	11,428	82.0%
2007-08	129	2,589	320	11,870	86.0%
2008-09	121	2,784	n/a	n/a	n/a
2009-10	151	3,661	n/a	n/a	n/a

Source: Maine Department of Education, 2010.

Early childhood 200-2005; <http://www.maine.gov/education/enroll/earlych/earlychprog.htm>

All-day kindergarten 2000-2005; <http://www.maine.gov/education/enroll/earlych/alldayk.htm>

Head Start: While both Head Start and prekindergarten are designed to provide children with experiences that will prepare them for school, their services and target recipients differ. Head Start programs focus on providing comprehensive services for low-income children and their families, specifically, services that center on education, socio-emotional development, physical and mental health, nutrition, and parental supports. Prekindergarten tends to focus only on the child – in contrast to the dual child-family focus of Head Start.

The administration of Head Start is also different from prekindergarten programs. Head Start funds flow directly from the U.S. Department of Health and Human Services to grantees. Head Start grantees are mostly nonprofit organizations, but some are schools or school districts.

In Maine, 3,748 infants, toddlers and preschoolers benefited from Maine’s Head Start programs in FY 2009. Programs received funding from both federal and state governments. Maine received \$28.5 million in federal funding for its Head Start programs in FY 2009.

Head Start programs are required to screen and provide on-going assessment of all enrolled children. Outcome measures across the State of Maine demonstrate that all children ages 3 to 5 participating in Head

Start increased their literacy skills. Family and Child Experiences Survey (FACES) research has shown nationally that at the end of the program year, the typical Head Start child possesses specific cognitive and social skills that signify a readiness to learn in kindergarten. The research also shows that in kindergarten, Head Start children exceeded the growth expectation of a typical kindergartner. Attendees show significant gains in vocabulary, letter recognition, writing, and other pre-literacy skills.

Early Childhood Program Quality: In 2008, Maine implemented Quality for ME, a quality rating system (QRS) of early care and education providers. Maine’s Quality Rating System is a four-step program for licensed care providers and “is designed to increase awareness of the basic standards of early care and education, to recognize and support providers who are providing care above and beyond those standards,” (*State of Maine Early Care and Education Quality Rating System Application Manual*) and to provide information about program quality. The state requires programs receiving government subsidy to enroll in QRS but enrollment by other programs is voluntary.

The Maine Department of Health and Human Services reports that as of October 2010, 35 percent of the 2,253

licensed child care providers in the state are enrolled in QRS. Family child care programs have enrolled in QRS at a lower rate (27 percent) than center-based child care programs (51 percent). Figure 23 describes the rating system, and Figure 24 illustrates the distribution of participating early care providers across the 4 steps. The majority of providers are at Step 1 (524) which meets basic licensing requirements.

Quality for Maine Rating System	
Quality for ME is a voluntary system for licensed child care providers to have their quality assessed on a 4-step rating scale.	
Step 1	The program is in good standing with child care licensing and all staff members have enrolled in the Child Care provider Registry.
Step 2	This program has some policies, procedures, and staff qualifications that are above and beyond those required by child care licensing.
Step 3	This program has several policies, procedures, and staff qualifications above and beyond those required by licensing. These include: parent conferences, staff evaluations, and written daily communications for infants and toddlers.
Step 4	This program has received Maine's highest quality rating. This program has been accredited by a national organization, has staff with a high level of experience and education in early childhood education, and actively utilizes Maine's Early Learning Guidelines and/or Infant Toddler guidelines.

Figure 23. Source: Maine Children's Growth Council, 2010, School Readiness; http://www.maine-eccs.org/MCA_CGCreport_web.pdf

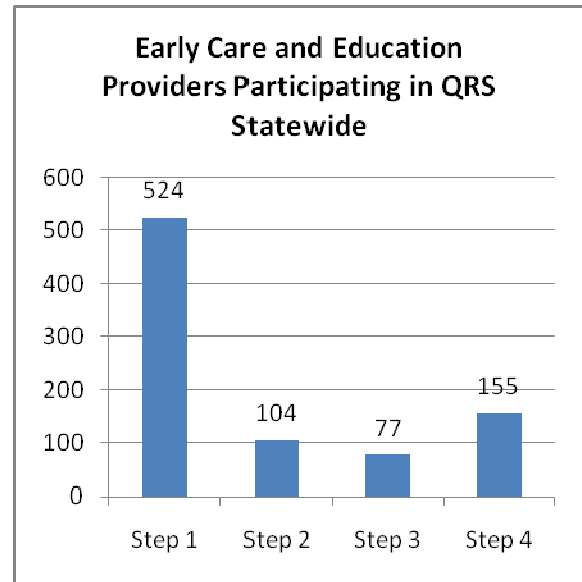


Figure 24: Source: Maine Department Health and Human Services 2010; https://gateway.maine.gov/dhhs-apps/dashboard/qom/childcare_provider_qrs.aspx, retrieved 12/6/10.

Identification of special needs: The early identification of developmental delays and behavioral problems can lead to timely interventions that best support a child's development. Research has demonstrated that interventions can be the most effective and can reverse negative impact when they are delivered during a child's first five years. Figure 25 shows the number of kindergarten students in Maine in 2008-09 with special needs as a percent of the total kindergarten population and the timing of services provided to them. The largest group (11 percent) received services prior to kindergarten, followed by students who received services before and during kindergarten (7 percent). Six percent of

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children entering kindergarten were identified as needing special services upon entering kindergarten but had not previously received services.

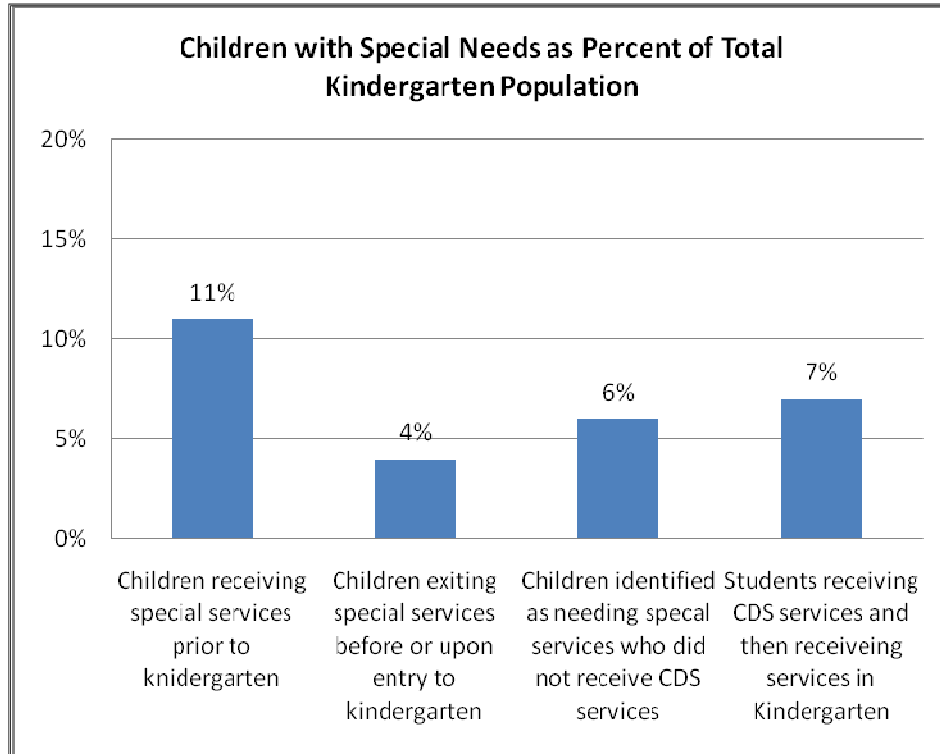


Figure 25: Source: Maine Children's Growth Council, 2010, *School Readiness*; http://www.maine-eccs.org/MCA_CGCreport_web.pdf

26. Instructional Time in Maine Schools

Maine statute establishes a minimum number of days required during the school year and the minimum instructional time in each day. Maine schools must have a minimum of 180 days with at least 175 days for instruction and a minimum of five hours of classroom instruction each day. Some variation exists throughout Maine where, in some districts, students attend school for more days in the year or for longer days than required. Districts have a variety of requirements for classroom instruction, and some districts vary the hours depending on the grade levels within the school. Table 24 shows the percentage of Maine elementary, middle, and secondary schools with differing lengths of school days. The most common length of the school day is between five and five and three-quarter hours.

According to the Education Commission of the States (2008), state requirements vary on the number of instructional days and hours in the year.

While 30 states set minimum number of instructional days at 180 days, eleven states' minimum is between 160 and 179 days (including Maine). Only two states set the minimum above 180 days. Eight states do not set a minimum number of instructional days and instead measure the school year in numbers of hours. Figure 26 shows the difference in the minimum number of days required in three New England states for classroom instruction. Maine requires 175 days which is the same as Vermont, but less than New Hampshire.

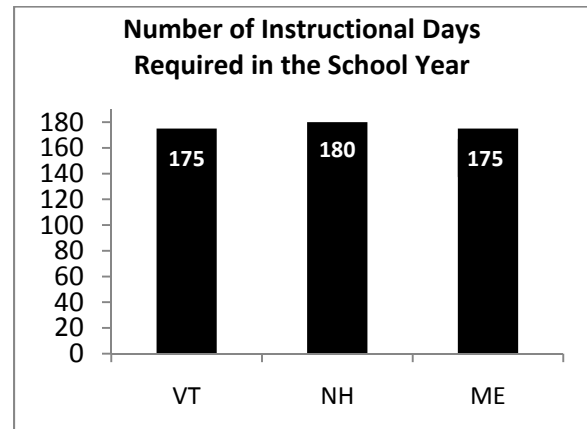


Figure 26: Education Commission of the States (2008), *Number of Instructional Days/Hours in the School Year*; <http://ecs.org/clearinghouse/78/24/7824.pdf>

Table 24: Total Classroom Time in Maine Schools

Length of School Day	K-5 Schools	K-8 Schools	6-8 Schools	9-12 Schools
4.0-4.75 Hours	14.3%	4.9%	1.9%	1.2%
5.0-5.75 Hours	68.3%	67.1%	59.3%	62.7%
6.0-6.75 Hours	16.2%	25.9%	35.2%	33.7%
More than 7 hours	.6%	0%	0%	0%

Source: 2009-10 Maine Public School Census Survey, MEPRI, 2010.

27. Time Spent on Learning Results Content Areas in Elementary Schools

To achieve the Learning Results, all Maine children need to receive sufficient instruction in each of the eight content areas. In the 2009-10 Maine Public School Census Survey, elementary principals were asked how many minutes per week students received instruction in these areas.

As shown in the table, approximately 37 to 40 percent of the time was spent on English/Language Arts (which includes reading). An additional 23 to 24 percent

was spent on mathematics. Instructional time in the other six content areas was considerably less. Approximately nine percent of the week was spent on each of the areas of science/technology and social studies, and five to six percent of the week was spent providing instruction in visual and performing arts, and health and physical education. Only about two percent of the instructional week was devoted to foreign language instruction and career preparation.

Table 25: Percent of Time per Week Spent on Content Areas

Content Area	K	1	2	3	4	5
Career Preparation	2%	2%	2%	3%	3%	4%
English/Language Arts	38%	40%	40%	39%	39%	37%
Foreign Languages	1%	1%	1%	1%	1%	1%
Health & Physical Education	5%	5%	5%	5%	6%	5%
Mathematics	23%	23%	24%	23%	24%	24%
Science & Technology	8%	8%	9%	9%	10%	10%
Social Studies	8%	8%	8%	8%	9%	9%
Visual & Performing Arts	6%	6%	6%	6%	7%	6%

Source: 2009-10 Maine Public School Census Survey, MEPRI, 2010

28. Percent of High School Students Completing Mathematics and Science Courses

In order to achieve the Maine Learning Results standards, students need opportunities to learn the content and skills of each discipline. In the 2009-10 Maine Public School Census Survey, principals were asked to indicate the percent of high school students who will have completed different courses in mathematics and science by the time they graduate from high school. While completion of standard courses is not the only way students may acquire the knowledge and skills found in the Learning Results, participation in these courses is the only statewide indicator currently available for describing the academic opportunities offered to Maine's high school students.

Table 26 reports the estimated percent of students statewide who will have completed different mathematics courses by high school graduation. Seventy-eight percent of Maine's students will have completed Algebra I and 69 percent will

have completed Algebra II. Seventy-four percent will have completed Geometry and a quarter will have completed Trigonometry/Pre-calculus.

These percentages represent a decrease in the number of students taking mathematics courses by graduation at Maine's high schools since the survey was done in 2007. Algebra I completion dropped eight percentage points from 86 percent, and Algebra II completion dropped six percentage points from 75 percent. The percentage of students taking Geometry also dropped from 81 percent, and Trigonometry/Pre-Calculus decreased from 31 percent. Students taking Pre-Algebra decreased from 15 percent.

Course taking patterns may be changing, but less than complete survey return, and the possibility of course reconfigurations may have contributed to the results presented here.

Table 26: Percent Completing Mathematics Courses

Mathematics Courses	Percent (%) Taking Course by Graduation	Mathematics Courses	Percent (%) Taking Course by Graduation
Review Mathematics	9%	Trigonometry/Pre-calculus	25%
General Mathematics	7%	Calculus	5%
Applied Mathematics	6%	AP Calculus	5%
Pre-Algebra	14%	Statistics	5%
Algebra I/Integrated Math I	78%	AP Statistics	3%
Algebra II/Integrated Math II	69%	Computer Science	8%
Geometry	74%	Other Mathematics	5%

Source: 2009-10 Maine Public School Census Survey, MEPRI, 2010.

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Course completion patterns for science appear in Table 27. Almost 80 percent will have taken a Biology class by graduation time, approximately 59 percent will have taken a chemistry class, 48 percent a Physical Science class, and 30 percent an Earth science class.

As with the Mathematics courses, there have been changes in participation in science courses since the 2007 Census Survey. Participation rates decreased in all sciences, with the exception of Physical Science, Technology and AP Biology. AP Chemistry and AP Physics remained the same.

It is important to note, both in the case of mathematics and science, that the findings from the survey report *estimated* percentages of course completion. The percentages may vary widely among the schools depending upon course availability, course schedules, and the number of students prepared academically to take the courses.

Further study is also necessary to discover whether these course increases and reductions are the result of reporting ambiguities (there is considerable variation in course titles, for example) or an actual trend.

Table 27: Percent Completing Science Courses

Science Courses	Percent (%) Taking Course by Graduation	Science Courses	Percent (%) Taking Course by Graduation
General Science	9%	Biology	79%
Physical Science	48%	Technology (taught as a science course)	11%
Earth Science	30%	AP Biology	5%
Environmental Science	13%	AP Chemistry	3%
Integrated Science	10%	AP Physics	2%
Chemistry	59%	Other Science	9%
Physics	34%		

Source: 2009-10 Maine Public School Census Survey, MEPRI, 2010.

29. Percent of High School Students Completing Advanced Placement Courses

Maine's students need to be ensured opportunities to achieve their full academic potential. One measure of opportunity is the participation of students in Advanced Placement (AP) courses. Students who successfully complete AP courses and earn above a designated score on the standardized AP tests become eligible to receive college credits.

Table 28 reports the average percent of students in Maine's high schools who will have taken Advanced Placement course(s) upon graduation, as reported by principals in the 2009-10 Maine Public School Census

Survey. As indicated in the table, only small percentages of Maine high school students will have completed Advanced Placement courses. The highest participation rates were in AP English and AP History (11% and 9%), followed by AP Calculus (5%) and AP Biology (5%).

The percentage of students completing AP courses is fairly consistent with percentages recorded in the 2007 Census Survey. It is important to note that many factors including course availability, course schedules, and academic preparation likely influence these student participation rates.

Table 28: Percent Completing AP Courses

Advanced Placement Courses	Percent (%) Taking Course by Graduation	Advanced Placement Courses	Percent (%) Taking Course by Graduation
AP English	11%	AP European History	2%
AP History	9%	AP Government	2%
AP Calculus	5%	AP Physics	2%
AP Statistics	3%	AP French	1%
AP Biology	5%	AP Spanish	1%
AP Gen. Studio Art	1%	AP German	.1%
AP Drawing Studio Art	1%	AP Art History	.3%
AP Chemistry	3%	AP Latin	.1%
AP Economics	1%		

Source: 2009-10 Maine Public School Census Survey, MEPRI, 2010.

30. Career and Technical Education

According to the Maine Department of Education, the mission of Career and Technical Education (CTE) “is to ensure that students acquire the high-quality technical skills that will prepare them for post-secondary education and entry into an ever-changing workplace and society and meet the rigorous academic standards” of the Maine Learning Results. CTE is offered to high school students through 19 CTE centers and eight regions across the state.

In 2008-09 25.6 percent of all students in grades 11 and 12 participated in 374 CTE programs. Enrollment in Career and Technical Education programs has increased nearly 4 percent since 2001-02, from 7,949 to 8,144 as seen in Table 29. In 2008-09 enrollment in CTE programs was 63.7 percent male and 36.3 percent female.

Table 30, on the following page, shows that the largest program areas within CTE are Education and Training which may include early childhood education, special education, speech and language and paraeducation (19.3 percent of students); Transportation, Distribution and Logistics (14.5 percent); and Architecture and Construction (12.8 percent). More males were enrolled in Architecture and Construction (937) and Transportation areas

Table 29: CTE Enrollment Trend, 2001-2009

Enrollment			
Year	CTE	Statewide in Grades 11 and 12	Percentage Participation
2000 - 2001	7,631	27,806	27.4%
2001 - 2002	7,949	28,223	29.7%
2002 - 2003	8,697	29,212	29.8%
2003 - 2004	8,702	29,657	29.3%
2004 - 2005	8,051	29,711	27.1%
2005 - 2006	8,622	29,683	27.4%
2006 - 2007	8,055	30,069	26.8%
2007 - 2008	8,102	29,792	27.2%
2008 - 2009	8,144	31,777	25.6%

Source: Maine Department of Education, 2010;
<http://www.maine.gov/education/it/forms/index.htm>

(1108) than other areas, while more females Enrolled in Education and Training (869) and Health Science (662).

Table 30: Enrollment by Program Cluster 2008-09

Program Cluster	Enrollment	Percentage
Agriculture, Food, & Natural Resources	365	4.5%
Architecture & Construction	1,045	12.8%
Arts, A/V Technology & Communications	615	7.6%
Business, Management & Administration	553	6.8%
Education and Training	1,568	19.3%
Finance	76	.9%
Government & Public Administration	0	0%
Health Science	722	8.9%
Hospitality & Tourism	624	7.7%
Human Services	0	0%
Information Technology	393	4.8%
Law, Public Safety & Security	231	2.8%
Manufacturing	552	6.8%
Marketing, Sales & Service	147	1.8%
Science, Technology, Engineering & Mathematics	72	.9%
Transportation, Distribution and Logistics	1,181	14.5%
Total	8,144	100%

Source: Maine Department of Education, 2010

31. Maine Learning Technology Initiative (MLTI): Middle School One-to-One Laptop Program

Beginning in fall 2002 the State of Maine, through the Maine Learning Technology Initiative (MLTI), implemented a one-to-one middle school laptop program. All 7th and 8th grade students and their teachers were provided with laptop computers. In addition, schools and teachers were provided with technical assistance and professional development for integrating laptop technology into their curriculum and instruction. In 2009-10 this initiative was spread to many high schools in the state as well.

Evidence collected in 2010 as part of the longitudinal evaluation of the initiative

concerning laptop use and impacts by the Maine Education Policy Research Institute (MEPRI) appears in Figures 27 and 28.

The information presented in Figure 27 indicates the ways in which middle and high school teachers report using laptops. In terms of instruction, 78 percent of middle school teachers report using teacher and student laptops during class time and 59 percent report using laptops to adapt activities to individual students' needs. There is less usage in instruction at the high school level. In terms of assessment, 65 percent of middle school and 57 percent of high school teachers are using laptops in

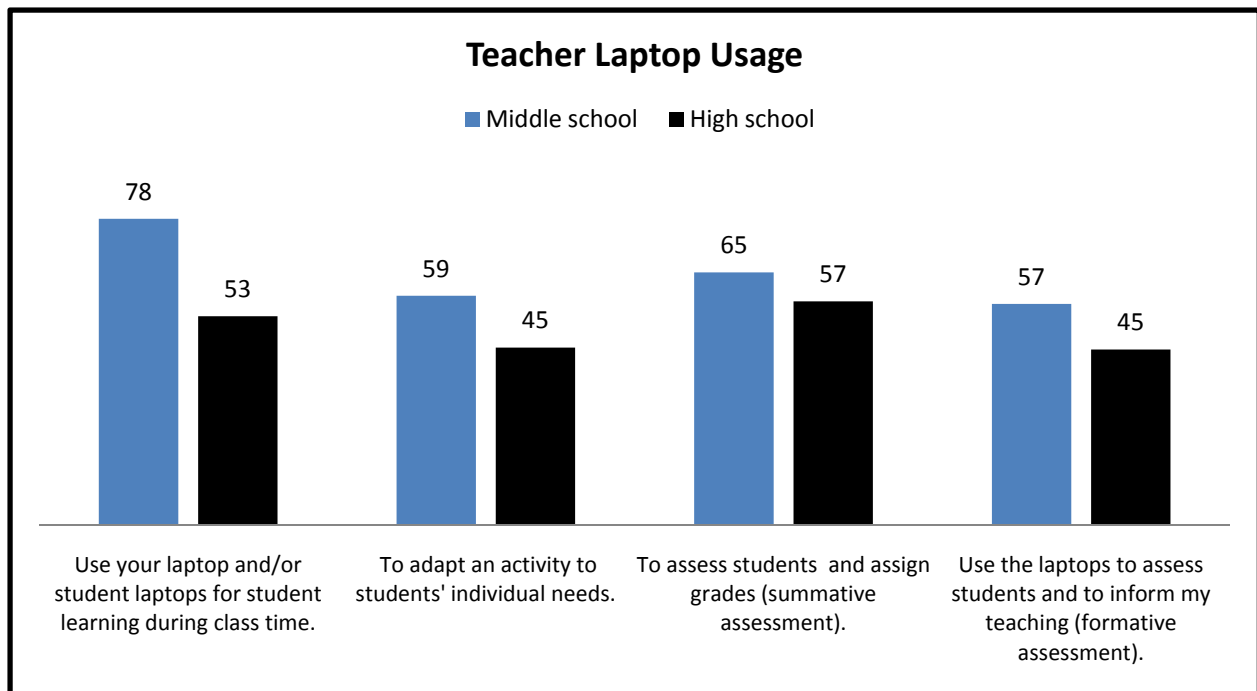


Figure: 27 Source: Silvernail, MEPRI, May 2010

assessment and grading, and 57 percent of middle school and 45 percent of high school teachers are using laptops for formative assessments to inform their teaching.

Figure 28 presents the impact of the initiative on instruction. The majority of middle school teachers indicate that laptops have enabled them to explore topics in greater depth with their students (89 percent) and teach some types of content and skills more effectively (88 percent). In addition, the majority indicated that they are able to cover more material in class (70 percent) and teach more efficiently because students have laptops (78 percent). In addition, 69 percent of teachers reported that laptops

facilitate teachers' ability to teach students to be critical thinkers.

In terms of student impacts, Figure 29 indicates that the majority of middle school teachers report that laptops facilitate students' ability to integrate information from multiple sources (75 percent) and that the quality of student work increases when using laptops (74 percent). More than half of teachers surveyed also indicate that their students are better able to understand when they use laptops (62 percent) and laptops assist students in grasping difficult concepts (61 percent).

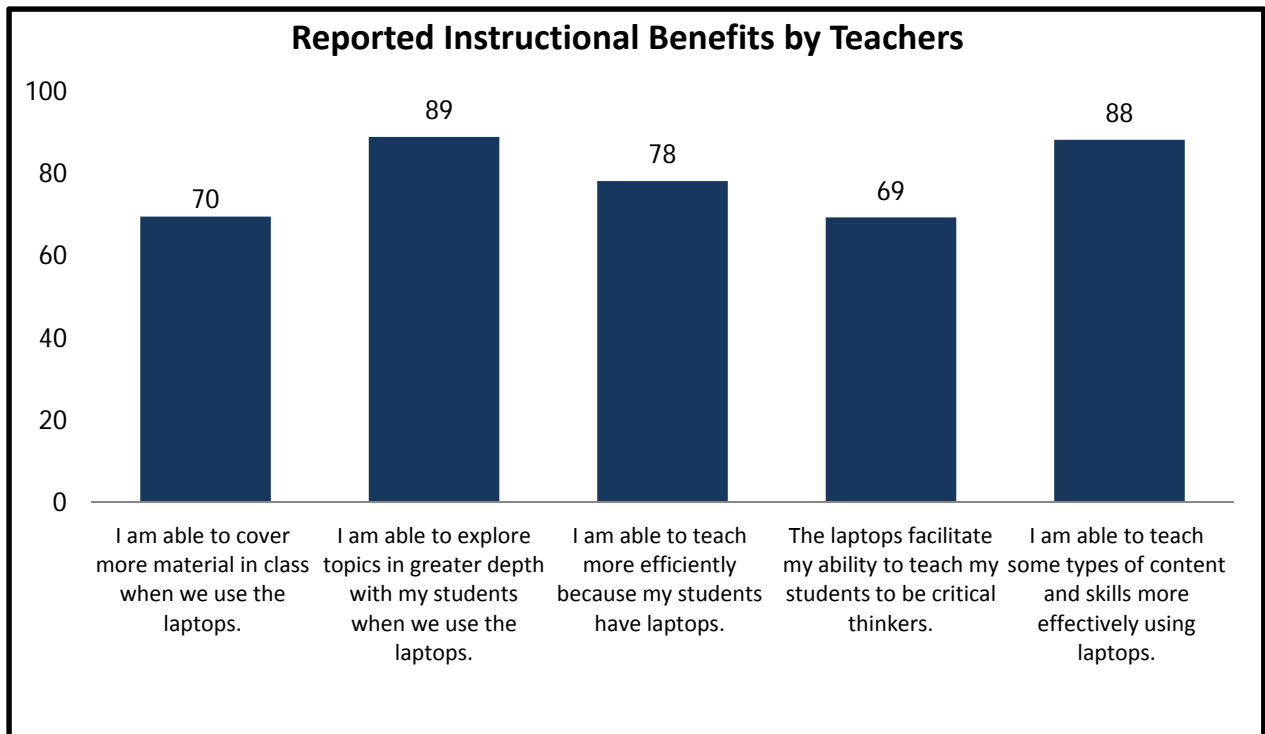


Figure: 28 Source: Silvernail, MEPRI, May 2010

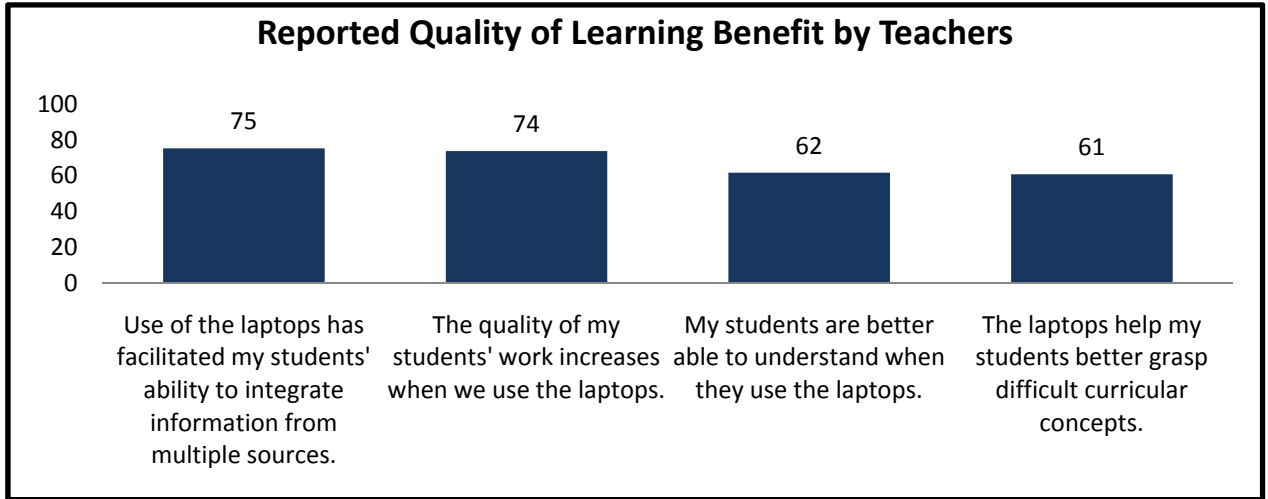


Figure: 29 Source: Silvernail, MEPRI, May 2010

32. Cocurricular and Extracurricular Opportunities

Cocurricular and extracurricular activities play a major role in developing identity and having a positive impact on academic achievement. Cocurricular activities are defined as academic opportunities such as yearbook, National Honor Society, student council, debate, and performance opportunities like band, chorus, and drama. Athletic opportunities like soccer, baseball, track, basketball, and cheerleading are defined as extracurricular activities.

According to the 2009-10 Maine Public School Census Survey, Maine's middle and secondary schools provided a variety of cocurricular and extracurricular opportunities. Table 31 provides a comparison of the percentages of student participation rates at the middle and secondary levels. Participation rates overall are similar for middle school and high school, and at both levels, participation in extracurricular activities is higher.

Table 31: Mean Student Participation Rates in Extracurricular & Cocurricular Activities

	Extracurricular	Cocurricular	All
Middle Schools	52%	48%	65%
High Schools	49%	41%	64%

Source: 2009-10 Maine Public School Census Survey, 2010.

The following table lists the average student participation rates by school size in middle and high school. In middle schools, approximately 50 percent of students participated in cocurricular and

extracurricular activities, while 45 percent of students in high schools participated in both activities. Participation rates were consistent across small and large high schools and middle schools.

Table 32: Mean Student Participation Rates by School Size

	Small Middle School	Large Middle School	All Middle Schools	Small High School	Large High School	All High Schools
Extracurricular	50%	49%	52%	49%	47%	49%
Cocurricular	56%	48%	48%	40%	40%	41%

Source: 2009-10 Maine Public School Census Survey, 2010.

Note: Middle School size, small= 0-149 students, large = 150-2,000; High School size, small= 0-299, Large= 300-2,000.

33. Some Issues Perceived as Problems in Public Middle & High Schools

Schools face many issues that may have an impact on safety and learning. The issues range from student tardiness and absenteeism to the more serious concerns of harassment, drug and alcohol use, and violence. In an effort to discover the extent to which various problem areas impact Maine’s schools, the 2009-10 Maine Public School Census Survey asked principals to rate each problem on a scale from “not problem” to “a very serious problem”. Table 33 reports these findings as reported by the principals of both middle and high schools in Maine.

The most serious problems reported by high school principals are insufficient funding (46 percent), lack of student motivation to learn (39 percent), student substance abuse (25 percent), lack of parental involvement (25 percent) and student absenteeism (16 percent).

Middle school principals reported that the most serious problems in their schools are insufficient funding (43 percent), motivation to learn (33 percent), student bullying (22 percent) and harassment among students (17 percent).

Table 33: Percentage of Principals Ratings for Problems in Middle & High Schools

Problems	Not a Problem or a Minor Problem		Moderate Problem		Serious or Very Serious Problem	
	Middle	High	Middle	High	Middle	High
Student Tardiness	65%	48%	31%	39%	4%	13%
Student Absenteeism	59%	37%	31%	47%	7%	16%
Cutting Classes	98%	76%	0%	19%	0%	5%
Student Bullying	26%	64%	50%	29%	22%	7%
Harassment Among Students	33%	57%	46%	35%	17%	7%
Fighting/Violence	91%	92%	4%	7%	4%	1%
Student Motivation to Learn	35%	20%	31%	41%	33%	39%
Lack of Discipline	78%	75%	15%	20%	6%	0%
Lack of Parental Involvement	57%	36%	31%	37%	9%	25%
Student/Teacher Safety	96%	99%	2%	0%	0%	0%
Teacher Absenteeism	93%	89%	6%	10%	0%	1%
Teacher Morale	80%	76%	17%	19%	2%	4%
Retaining Highly Skilled Teachers	85%	78%	9%	20%	4%	1%
Insufficient Funding	30%	27%	24%	28%	43%	46%
Teacher Workload	72%	69%	19%	22%	7%	10%
Student Substance Abuse	72%	39%	22%	33%	4%	25%
Student Self-Abusive Behavior	35%	81%	13%	18%	0%	1%

Source: 2009-10 Maine Public School Census Survey, MEPRI, 2010

34. School Drug and Violence Prevention

Results from the Youth Risk Behavior Survey associated with the U.S. Department of Health and Human Services revealed that in 2009, 7.7 percent of U.S. high school students reported that they had been threatened or injured with a weapon on school property within the past year. Other findings include: 11.1 percent had been in a physical fight on school property within the past 12 months, 5.6 percent said they had carried a weapon to school on one or more of the past 30 days, and 5 percent said they had not gone to school on one or more of the past 30 days because they felt unsafe.

A partnership of the State of Maine and other agencies sponsored the Maine Safe and Drug-Free Schools Data Collection Project. Data collected for the 2008-09 school year revealed that there were 10,526 reported incidents of prohibited behavior (personal offenses, criminal acts, policy violations, weapons-related incidents, and alcohol, tobacco, and other drug related incidents) within the 637 participating schools; an average of 5.6 incidents per 100 Maine students.

Some incidents resulted in the removal of student(s) from school: a total of 10,526 students were removed from classrooms for one or more days as a result

of prohibited behaviors including assault and battery, fighting, and threatening, according to data collected for school year 2008-09.

In its 2008 Maine Youth Drug and Alcohol Use Survey of 78,029 students in grades 6 through 12, the Maine Office of Substance Abuse found that while a majority of students felt safe at school, 16.1 percent reporting they felt *unsafe*. Related to this, 12.1 percent of students reported that they had attacked someone with intention to harm. When 6-12th graders were asked if they had carried a handgun without permission during 2008, 2.7 percent reported they had done so. Approximately 1.2 percent reported they have taken a handgun to school.

The State of Maine has made efforts toward prevention of drug and alcohol abuse and other prohibited behaviors among school aged children through the Maine Safe and Drug-Free Schools and Communities Act Program (SDFSCA). Specific program activities are no longer reported, but the program offers prevention-related programs, services, and activities (PSAs) to students through the schools and professional development for faculty and staff focusing on drug and violence prevention.

Student Performance

The Student Performance section provides information to assess the productivity and accomplishments of education in Maine. This section provides information on the following indicators:

35. Maine Comprehensive Assessment System (MeCAS).....	58
36. New England Common Assessment Program (NECAP).....	59
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38. SAT – Maine’s 11 th Grade Student Assessment.....	62
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35. Maine Comprehensive Assessment System (MeCAS)

The Maine Comprehensive Assessment System (MeCAS) has several testing components: 1) The Maine Educational Assessment (MEA), for students in grades 5 and 8, provides individual student scores reported for science; 2) the New England Common Assessment Program (NECAP) provides individual student scores in reading and mathematics for all students in grades 3-8, with additional student scores in writing reported at grades 5 and 8; and 3) the Maine High School Assessment (MHSA), for students in grade 11, which provides

individual student scores reported for critical reading, mathematics, writing, and science.

In October 2009, Maine teachers administered the New England Common Assessment Program (NECAP) statewide for the first time. The test is used in Vermont, New Hampshire and Rhode Island. The test replaced the Maine Educational Assessment (MEA) in three subjects, reading, writing, and mathematics for students in grades 3-8. Maine continues to use its own MEA for science because Maine's approach and standards vary significantly from those of the NECAP.

36. New England Common Assessment Program (NECAP)

The NECAP tests measure students' academic knowledge and skills relative to NECAP content standards, known as Grade Level Expectations (GLEs). NECAP Grade Level Expectations in reading, writing, and mathematics for grades 3-8 may be found on the Maine Department of Education website (<http://www.maine.gov/education/necap/standards.html>).

The NECAP is designed to assess learning from the prior year (teaching year) at the beginning of the next school year (testing year). Therefore, grades 2-7 reading and mathematics are assessed at the beginning of grades 3-8. Fourth and 7th grade writing is assessed at the beginning of grades 5 and 8.

Student scores are reported at four levels of academic achievement; Proficient with Distinction, Proficient, Partially Proficient, and Substantially Below Proficient.

Maine's 2009-10 NECAP results are presented in Table 34. The table reports the percentage of students who achieved at each of the four performance levels as well as the average number of points earned (mean scaled score) per grade. For example, Table 34 shows that in 2009-10, 15 percent of 5th graders scored Proficient with Distinction in

reading, while 57 percent were Proficient. 20 percent were Partially Proficient, and 7 percent were Substantially Below Proficient.

The Maine Department of Education reported the following observations regarding the 2009-10 NECAP results: 1) among Maine students in grades 3 through 8 in mathematics, 61 percent scored "Proficient" or "Proficient with Distinction." 2) In reading, 70 percent of students scored proficient or above.

No writing scores are reported for 2009-10 because the NECAP writing test contained pilot test items that will be analyzed and used in future administrations. NECAP pilots new writing questions every five years.

Table 34: Fall 2009 New England Common Assessment Program (NECAP) State Summary Results

Standards Category	2009-2010 NECAP					
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Reading						
Level 4	13%	15%	15%	12%	9%	15%
Level 3	60%	52%	57%	57%	59%	54%
Level 2	19%	21%	20%	23%	23%	24%
Level 1	9%	12%	7%	8%	8%	7%
Mean Scaled Score	346	444	546	645	745	846
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Mathematics						
Level 4	14%	14%	18%	20%	19%	16%
Level 3	48%	48%	46%	43%	41%	43%
Level 2	22%	23%	18%	20%	20%	21%
Level 1	16%	16%	19%	18%	21%	19%
Mean Scaled Score	342	443	543	643	742	842

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient.

Source: Maine Department of Education, 2010.

37. Maine Educational Assessment- Science

The Maine Educational Assessment (MEA) in science was administered in 2009-10 to students in grades 5 and 8 to align with the 2007 Maine Learning Results.

MEA scores are reported by the percentage of students in each of four achievement levels similar to those in other Maine assessments: Proficient with Distinction, Proficient, Partially Proficient, and Substantially Below Proficient.

The MEA now consists of test items focused on Grade Level Expectations based on Maine’s Learning Results. Achievement standards for all grade levels can be found on the Maine Department of Education website.

Table 35 shows the results of the 2008-09 and 2009-10 MEA for grades 5 and 8 in science. The table reports the percentage of students who achieved at each of the four performance levels as well as the average number of points earned (average scaled score) per grade.

In both grades 5 and 8 there were increases in the number of students who met proficiency goals: for fifth graders, there was an increase of 8 percent and among eighth graders, there was a 9 percent increase.

Science	Grade 5		Grade 8	
	08/09	09/10	08/09	09/10
Proficient with Distinction	4%	8%	15%	17%
Proficient	51%	55%	47%	54%
Partially Proficient	31%	28%	26%	20%
Substantially Below Proficient	13%	8%	12%	8%
Average Scaled Score	543	545	846	849

Source: Maine Department of Education, 2010;
<http://www.maine.gov/education/mea/edmea.htm>

NOTE: Achievement levels changed in 09-10 from “Exceeds,” “Meets,” “Partially Meets,” and “Does not Meet.”

38. SAT – Maine 11th Grade Student Assessment

Beginning in Spring 2006, all Maine high school juniors, including all students in their 3rd year of high school, were required to take SAT tests in critical reading, mathematics, and writing. The new testing policy is expected to comply with the *No Child Left Behind Act* and also encourage all Maine students to pursue post-secondary education.

Historically, eleventh grade students were assessed using the Maine Educational Assessment (MEA) along with fourth and eighth graders. The Maine High School Assessment (MHSA) science test augments the SAT which does not test science; it is a continuation of the former MEA grade 11 science tests and is a product of the Maine Department of Education and Measured Progress.

These scores are reported by the percent of students in each of four

achievement levels: Proficient with Distinction, Proficient, Partially Proficient, Substantially Below Proficient, as well as on a standards-based scale score. Since the spring of 2007, all MHSA reports issued refer to a new scale which ranges from 1100 – 1180, which replaces the traditional 200 – 800 scale scoring system previously used. A more detailed explanation and scale score conversion chart can be viewed at the Maine Department of Education website.

The following table reports the results from the 2009-10 Maine High School Assessment. Nearly half of Maine’s eleventh graders are Proficient or above in mathematics (46 percent), reading (48 percent), and writing (47 percent), with 41 percent meeting proficiency standards in science.

Table 36: SAT Eleventh Grade 2009-10 Scaled Score Achievement Level Ranges

Standards Category	Mathematics	Reading	Writing	Science
	09/10	09/10	09/10	09/10
Proficient with Distinction	4%	10%	7%	4%
Proficient	42%	38%	40%	37%
Partially Proficient	32%	30%	32%	27%
Substantially Below Proficient	22%	22%	22%	32%
Average Scaled Score	1142	1141	1140	1141

Source: Maine Department of Education, 2010

http://www.maine.gov/education/mhsa/school_reports.htm

Note: The SAT results of Maine High School Graduates (or College Bound Seniors) are reported in the following indicator.

39. SAT – College Bound Seniors

The SAT is a widely used achievement test required for admission by many colleges and universities. The SAT assesses critical reading, mathematical, and writing abilities and is taken by high school juniors and seniors. The data presented here are for 2010 high school graduates who took the SAT. These results do not include the SAT testing done by all Maine 11th graders in spring 2010 as part of the Maine High School Assessment (MSHA). These results are provided in the previous indicator.

In Maine, 92 percent of high school graduates took the SAT. This exceeds the national rate of 47 percent as reported by The College Board. The average critical reading score of Maine graduates in the year 2010 was 468 (out of a possible 800 points). The average mathematics score in Maine was 467, and the average score in writing was 454.

This compared with national averages of 501 (critical reading), 516

(mathematics), and 492 (writing). Table 37 reports Maine results with those of New Hampshire, Vermont, and the United States. Maine students generally scored lower than students in the two neighboring states and the United States.

The College Board also reported gender disparities in SAT performance across the nation. Nationally, 827,197 females took the SAT in 2010, compared to 720,793 males. Males scored slightly higher than females in critical reading and significantly higher in mathematics, while females scored higher in writing.

When Maine scores were analyzed according to gender, the results showed more female students taking the SAT than males, and males continue to achieve higher test scores than females in mathematics. Figures 30, 31, and 32 on the following page, show the scores by gender.

Table 37: Comparison of SAT Results, 2010.

	Critical Reading	Mathematics	Writing	Participation Rate
Maine	468	467	454	92%
New Hampshire	520	524	510	77%
Vermont	519	521	506	66%
United States	501	516	492	47%

Source: The College Board, 2010; <http://professionals.collegeboard.com/profdownload/2010-sat-trends.pdf>

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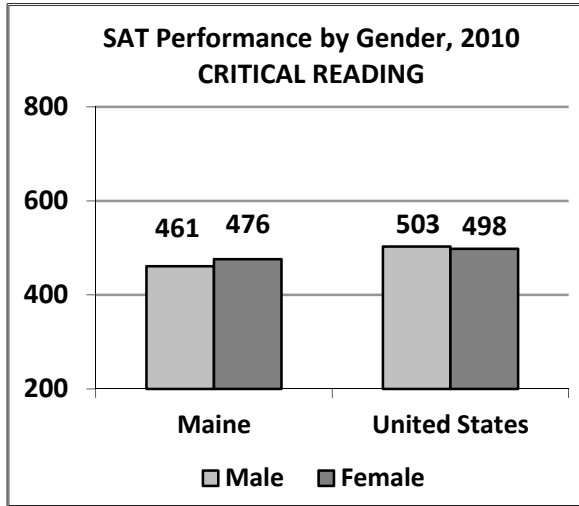


Figure 30: Source: The College Board, 2010.

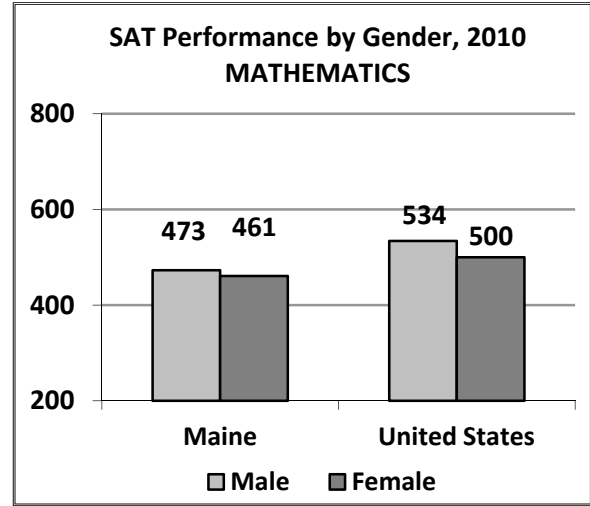


Figure 32: Source: The College Board, 2010.

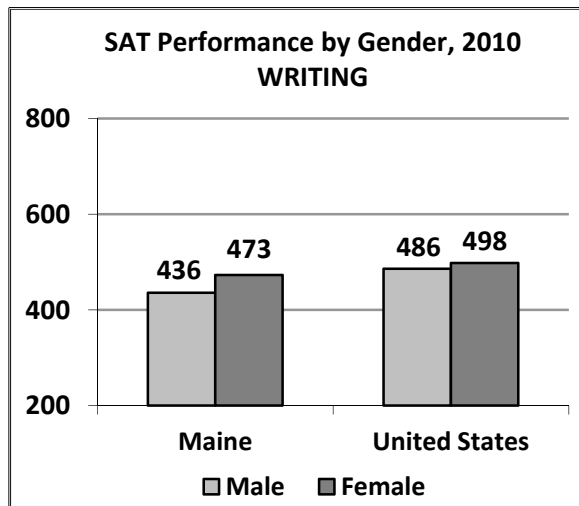


Figure 31: Source: The College Board, 2010.
<http://professionals.collegeboard.com/data-reports-research/sat/cb-seniors-2010>

Additionally, the College Board reported a strong relationship between parental education and student SAT performance. For example, in Maine, students of parents holding a bachelor's degree had an average combined SAT score approximately 100 points higher than those with parents who had earned only a high school diploma, as shown in Table 38.

Table 38: Highest Level of Parental Education and SAT Achievement in Maine, 2010.

	Critical Reading	Mathematics	Writing
No High School Diploma	394	417	391
High School Diploma	455	453	440
Associate's Degree	483	480	466
Bachelor's Degree	524	527	517
Graduate Degree	561	558	554

Source: The College Board, 2010. http://professionals.collegeboard.com/profdownload/ME_10_03_03_01.pdf

40. Advanced Placement Test

Students have the opportunity to take Advanced Placement (AP) courses which allow them to pursue college-level studies while still in high school. Those students who achieve a qualifying score on the national AP exams may receive college credit, placement, or both. AP courses and exams are offered in over 20 subject areas including calculus, English, U.S. history, science, foreign languages, fine arts, and computer science.

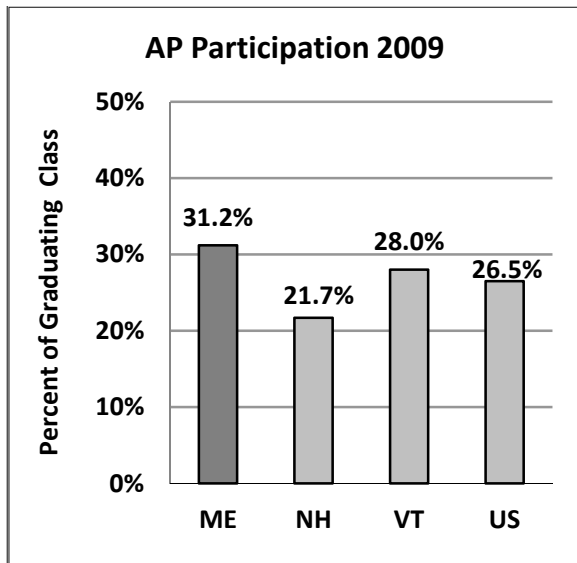


Figure 33: Source: The College Board, 2010; http://www.collegeboard.com/html/aprtn/state_reports.html

In 2009, 3,951 students from the graduating class took at least one AP exam during high school (31.2 percent). The national average was 26.5 percent, while New Hampshire had 21.7 percent and

Vermont had 28 percent of graduates take at least one AP exam.

A score of three or above qualifies a student for possible college credit. Maine's qualifying scores, exceeding the national average by 2.3 percent in 2010, were lower than Vermont's but higher than New Hampshire's scores, as shown in Table 39.

Table 39: Exam Scores that Qualify for Possible College Credit, 2009

State	Percent of Exam Scores Three and Above
Maine	18.2%
New Hampshire	15.9%
Vermont	19.3%
United States	15.9%

Source: The College Board, 2010.

http://www.collegeboard.com/html/aprtn/pdf/ap_report_to_the_nation_raw_numbers_table_1_app_a.pdf

A more detailed analysis of scores from Maine public and private schools in 2010 shows that those exams that were graded "five", the highest grade possible, were 12.4 percent of all exams taken by Maine students. This was lower than the national average of 15 percent, and those of New Hampshire (18.9 percent), and Vermont (17.6 percent).

41. National Assessment of Educational Progress

Maine’s student performance improved on the 2009 National Assessment of Educational Progress (NAEP), also known as "The Nation's Report Card." The NAEP serves as a benchmark for how students across the country are performing in various subjects including reading, writing, mathematics, science, U.S. history, geography, civics, and visual and performing arts, and provides the best available way to compare performance across states.

The NAEP 2009 biennial assessments were given in mathematics and reading. The following table shows the performance in mathematics assessments of Maine fourth and eighth graders in 2009.

The NAEP has established three levels of performance standards: Basic,

Proficient, and Advanced. In 2009, 45 percent of Maine fourth graders who took the test performed at or above the Proficient level in mathematics. Nationally, approximately 38 percent of students performed at or above the Proficient level. Maine eighth graders achieving at or above proficiency equaled 35 percent, which exceeded the national average.

When compared to other New England states, Maine scored lower than all but Rhode Island for both fourth and eighth grade scores. Nationally, Maine ranked 10th for fourth grade and 23rd for eighth grade average scores. According to *The Nation’s Report Card*, Maine’s 2009 average scores for the two grades were not significantly different from the average scores in 2007.

Table 40: 2009 NAEP Mathematics Scale Scores & Percent At or Above Proficient

State	Fourth Graders		Eighth Graders	
	Scale Score	% At or Above Proficient	Scale Score	% At or Above Proficient
Maine	244	45%	286	35%
Connecticut	245	46%	289	40%
Massachusetts	252	57%	299	52%
New Hampshire	251	56%	292	43%
Rhode Island	239	39%	278	28%
Vermont	248	51%	293	43%
United States	239	38%	282	33%

Source: National Assessment of Educational Progress, 2009.
<http://nces.ed.gov/programs/stateprofiles/sresult.asp?mode=full&displaycat=7&s1=09&s2=23&s3=25&s4=33>

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Maine fourth graders who took the NAEP Reading Assessment in 2009 achieved an average score of 224, ranking 19th in the nation. This was higher than the national average of 220 but lower than other New England states except Rhode Island as shown in table 39.

Eighth graders in Maine achieved an average score of 268, ranking 13th in the nation for reading proficiency. This was higher than the national average score of 262, but less than all other New England States except Rhode Island.

Table 41 also shows that 36 percent of Maine fourth graders scored at or above

the proficient level. This was lower than all New England States, except Rhode Island but higher than the national percentage of 31. Eighth graders in Maine scored 37 percent at or above proficient. The national achievement level for eighth graders was 30 percent.

According to *The Nation's Report Card*, Maine's reading scores showed no significant change at either grade level from 2007 to 2009.

Table 41: 2009 NAEP Reading Scale Scores & Percent at or above Proficient

State	Fourth Graders		Eighth Graders	
	Scale Score	% At or Above Proficient	Scale Score	% At or Above Proficient
Maine	224	36%	268	37%
Connecticut	229	42%	272	43%
Massachusetts	234	47%	274	43%
New Hampshire	229	41%	271	39%
Rhode Island	223	35%	260	28%
Vermont	229	42%	272	40%
United States	220	31%	262	30%

Source: National Assessment of Educational Progress, 2010;
http://nationsreportcard.gov/reading_2009/reading_2009_report/

42. Graduation Rate for Maine's High School Seniors

The number of adults having attained a high school degree or equivalent is one indicator of the long-term economic viability of Maine. The graduation rate has an impact on the aggregate earning power within the state and affects state tax revenues.

Maine has moved to a new federally-required method for calculating the graduation rate known as the Adjusted Cohort Graduation Rate, or ACGR, starting with the 2008-09 graduation rate. The purpose of the federal requirement is to use the same method across states and to provide more consistency in reporting and comparisons across states. The new formula counts only students who graduate within four years of entering ninth grade and concentrates on a single “cohort” of students who enter ninth grade at the same time. As a result, graduation rates from 2008-09 forward cannot be compared with those from previous years.

The federal government requires states to report annually on how well

schools are meeting targets in reading and mathematics, as well as on graduation rates. If a school fails to meet targets in any area, including the 80 percent graduation rate target, it is considered as “not making Adequate Yearly Progress (AYP).” Schools that do “not make AYP” are subject to corrective action and, if they are Title I schools, receive support from the Maine Department of Education in improving student achievement.

Table 42 shows high school graduation rates for Maine for 2008-09. The overall high school graduation rate for Maine in 2008-09 was 79.82 percent. Proficiency rates for high school students are described in indicator 37 SAT-Maine 11th Grade Student Assessment.

Table 43, on the following page, shows the graduation rates by county. Graduation rates varied across counties in Maine for 2008-09. The rates ranged from a high of 84.34 percent in Franklin County to a low of 72.65 percent in Androscoggin County.

Table 42: Graduation Rates, 2008-09

Graduation Year	Number of Graduates (Includes Special Education Graduates)	Number of Dropouts	Graduation Rate
2008-09	15,548	2,083	79.82%

Source: Maine Department of Education, 2009; <http://www.maine.gov/education/gradrates/gradrates.html>

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Table 43: Public School Graduation Rates by County for 2008-09

County	Number of Graduates (Includes Special Education Graduates)	Number of Dropouts	Graduation Rate
Androscoggin	964	280	72.65%
Aroostook	782	125	84.00%
Cumberland	2972	318	83.53%
Franklin	307	46	84.34%
Hancock	441	87	77.23%
Kennebec	1094	226	78.88%
Knox	313	48	81.3%
Lincoln	247	29	79.42%
Oxford	615	90	74.91%
Penobscot	1474	317	75.32%
Piscataquis	147	32	80.33%
Sagadahoc	389	62	81.55%
Somerset	507	116	81.12%
Waldo	353	25	81.16%
Washington	248	50	81.85%
York	1639	232	81.42%
Statewide Total – Public Only	15,548	2,083	79.82%

Source: Maine Department of Education, 2010;

<http://www.maine.gov/education/enroll/grads/comprate/08comprate.htm>

43. Yearly High School Dropout Rate

The high school *yearly* dropout rate is also an indicator of the long-term economic viability of the state. The high school dropout rate, computed according to federal guidelines, is determined by dividing the total number of students in grades nine through twelve who have dropped out of school during a *specific school year* by the total nine through twelve enrollment figures on October 1st of that school year. For example, if 100 students were enrolled in grades nine through twelve on October 1st, and only 95 students completed the school year, the dropout rate would be five percent.

Following very specific definitions and categorical guidelines, it is each school district that identifies a student as a dropout, one who has “left school without completing a state or school administrative unit approved secondary program,” according to the Maine Department of Education. The dropout definition excludes from the

dropout count students who leave school and return, most transfers, and students who participate in alternative state-approved secondary programs, such as Job Corps, hospital/homebound instruction, residential special education, correctional institutions, and community or technical colleges.

Table 44 reports that since 2005-06 the dropout rate has decreased from 5.42 percent to 3.59 percent in 2008-09.

A wide range in dropout rates exists among Maine's counties. Table 45, on the following page, presents the difference in yearly dropout rates by county from 2005-06 to 2008-09. The dropout rates for 2008-09 range from a low in Waldo County of 1.79 percent to a high of 5.52 percent in Androscoggin County.

Table 44: Yearly Public High School Dropout Rates*

Year	Secondary Student Enrollment	Number of Dropouts	Dropout Rate
2005-06	61,593	3,337	5.42%
2006-07	61,493	3,182	5.17%
2007-08	60,265	2,584	4.29%
2008-09	58,064	2,083	3.59%

Source: Maine Department of Education, 2010, <http://www.maine.gov/education/gradrates/gradrates.html>

*Does not include 60% public-funded private school students

Table 45: Public School Yearly Dropout Rates by County*

County	Dropout Rate			
	2005-06	2006-07	2007-08	2008-09
Androscoggin	6.62%	6.84%	5.95%	5.52%
Aroostook	4.76%	4.39%	3.30%	3.57%
Cumberland	4.88%	4.28%	3.95%	2.38%
Franklin	4.17%	4.46%	2.99%	3.13%
Hancock	6.37%	5.12%	4.76%	4.24%
Kennebec	5.75%	5.83%	4.92%	4.51%
Knox	5.43%	4.56%	2.80%	3.22%
Lincoln	5.25%	4.46%	6.32%	2.58%
Oxford	5.34%	6.51%	5.26%	3.16%
Penobscot	5.66%	5.78%	4.80%	4.55%
Piscataquis	5.59%	3.97%	4.25%	5.33%
Sagadahoc	6.75%	5.08%	3.13%	3.40%
Somerset	5.69%	5.14%	4.95%	4.79%
Waldo	5.50%	5.11%	3.57%	1.79%
Washington	5.41%	4.86%	3.71%	4.33%
York	5.01%	5.06%	3.35%	2.99%
State of Maine	5.42%	5.17%	4.29%	3.59%

Source: Maine Department of Education, 2010;
<http://www.maine.gov/education/enroll/dropouts/dropbyyear.htm>

*Does not include students from 60% publicly-funded private schools.

44. Aspirations of Students Taking the SAT

Student aspirations, while difficult to measure, are important indicators of the attitudes and beliefs of students in Maine and across the nation. One measure of aspirations is the post-secondary degree plans of students. Students who took the SAT in 2010 indicated a range of degree-level goals. As shown in Table 46, 33 percent of Maine test-takers said they planned to attain a bachelor's degree. Twenty-four percent said they planned to complete a master's degree, 16 percent said a doctoral degree, three percent said an associate's degree, and two percent said a certificate program. The remaining 30 percent were either undecided or indicated another type of degree.

A slightly lower percentage of

Maine test-takers planned on a bachelor's degree (33 percent) than students in Vermont (37 percent), and New Hampshire (37 percent), but higher than the United States average (28 percent). However, slightly higher percentages of students in New Hampshire planned on studying for a master's degree than test-takers in Maine and Vermont. The national percentage of students intending to study for a master's degree, (30 percent) was higher than each of the three states. The percentage of students in Maine who intended to earn a doctorate was slightly above counterparts in New Hampshire and Vermont. Once again, the national average (21 percent), exceeded those of Maine, New Hampshire, and Vermont.

**Table 46: Comparison of SAT Test-Taker's Post-Secondary Plans
Maine, New Hampshire, Vermont, and the United States - 2010**

State	Certificate	Associate's	Bachelor's	Master's	Doctoral
Maine	2%	3%	33%	24%	16%
New Hampshire	1%	3%	37%	26%	13%
Vermont	1%	3%	37%	24%	13%
United States	1%	1%	28%	30%	21%

Source: The College Board, 2010. http://professionals.collegeboard.com/profdownload/ME_10_03_03_01.pdf

45. Maine Students' Interest in Science, Technology, Engineering, and Mathematics Careers

The need for technological advances, improved problem solving strategies, new discoveries, and new products has continued to grow over the past decade and the call for employees who are skilled in science, technology, engineering and mathematics (STEM) has grown as well. In fact, these types of careers are among the fastest-growing in our country. STEM occupations are projected to grow 22 percent nationwide between 2004 and 2014, compared to an average of 13 percent for other types of occupations (Davulis, 2008). Between the years 2004 and 2014, employers are projected to hire approximately 2.5 million new STEM employees entering their occupations for the first time (Terrell, 2007).

STEM-related careers are projected to grow within the state of Maine as well. As employers in Maine move towards using more sophisticated technological tools, manufacturing methods, and scientifically driven systems, a significant shift towards STEM-related careers is expected to occur. Employment in technology-related occupations is expected to grow by 16.4 percent in the state of Maine between 2004 and 2014. Employment for analysts and

other computer support specialists is expected to grow by 19 percent, employment opportunities for life scientists by 12.2 percent, and the employment opportunities for natural science technicians by 12.1 percent (Davulis, 2008).

STEM occupations tend to have higher salaries than many other occupations and in general, individuals employed in STEM occupations receive overall median salaries that are above the national average. Individuals employed in STEM occupations earned roughly 70 percent more than the national average during 2005 (Terrell, 2007). A similar pattern is reported in Maine. The average salary of Maine individuals employed in STEM occupations is \$55,690, which is over twice as much as the average annual salary for all employees in the state (Davulis, 2008)

The tables below present data taken from the 2010 Maine School High School Assessment survey that is administered to all high school students in the state when they take the state-administered SAT. Questions displayed specifically tap Maine high school students' interest in STEM-related careers. The figures compare responses from the general high school population to their peers

who were among the top 15% in performance on the SAT in the state.

Across all areas of STEM-related careers, including science, technology, engineering, and mathematics, Maine students show limited interest in STEM-related careers. Among the fields of science, technology, and engineering, nearly half of all high school students are not interested in related careers. Even among

students in the top SAT performance group, students were largely not interested in these careers. Students overall expressed the most interest in technology-related jobs, and students in the top scoring group expressed the most interest in science and technology careers. However, approximately 20 percent of all high school students indicate that if they knew more about STEM-related jobs, they might be more interested.

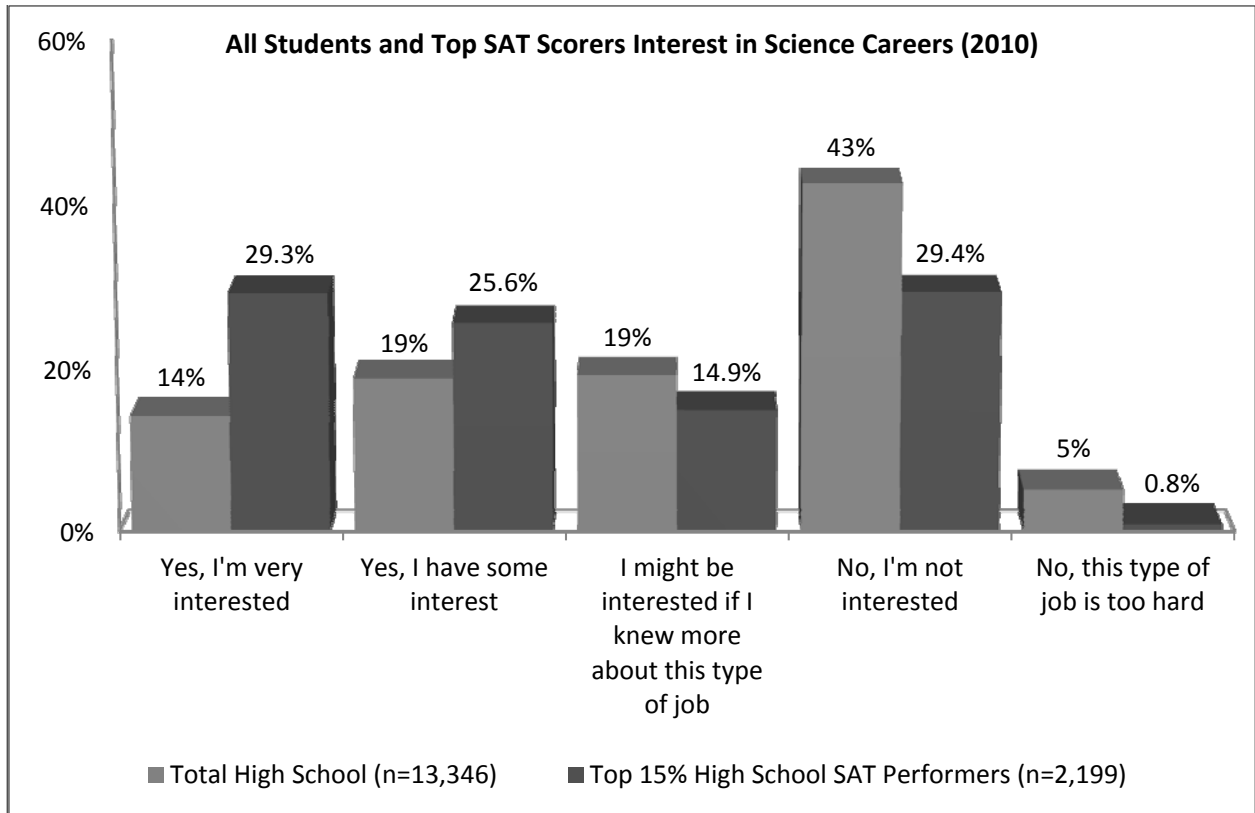


Figure 34: Source: Maine Department of Education, 2010.

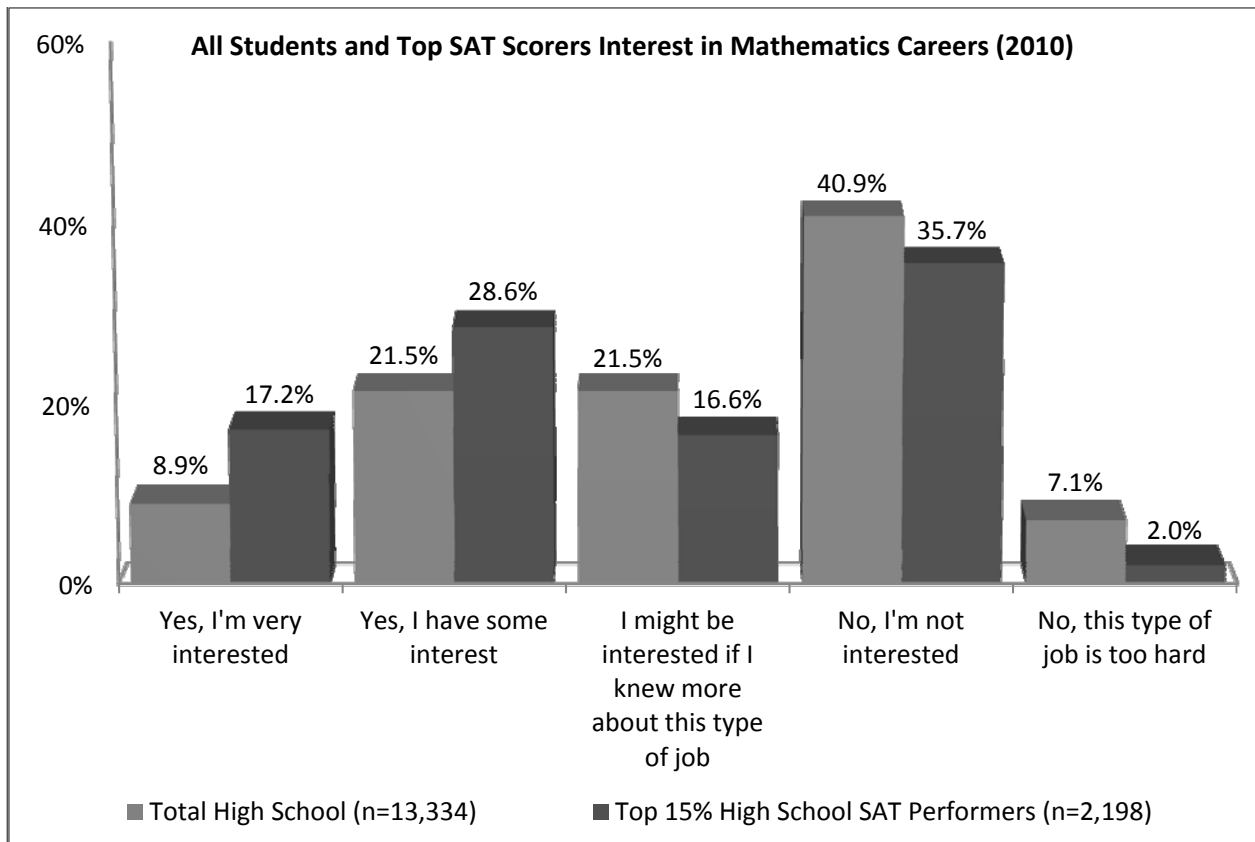
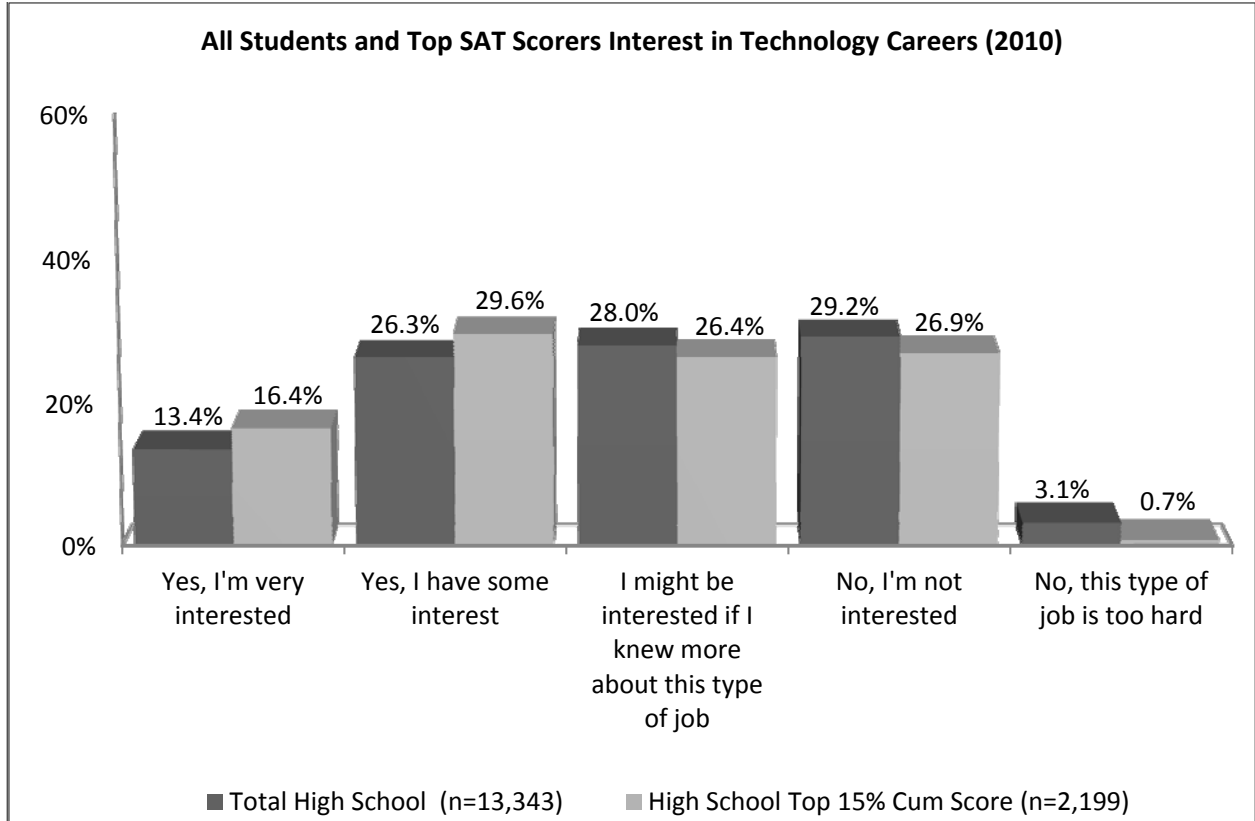


Figure 35, 36: Source: Maine Department of Education, 2010.

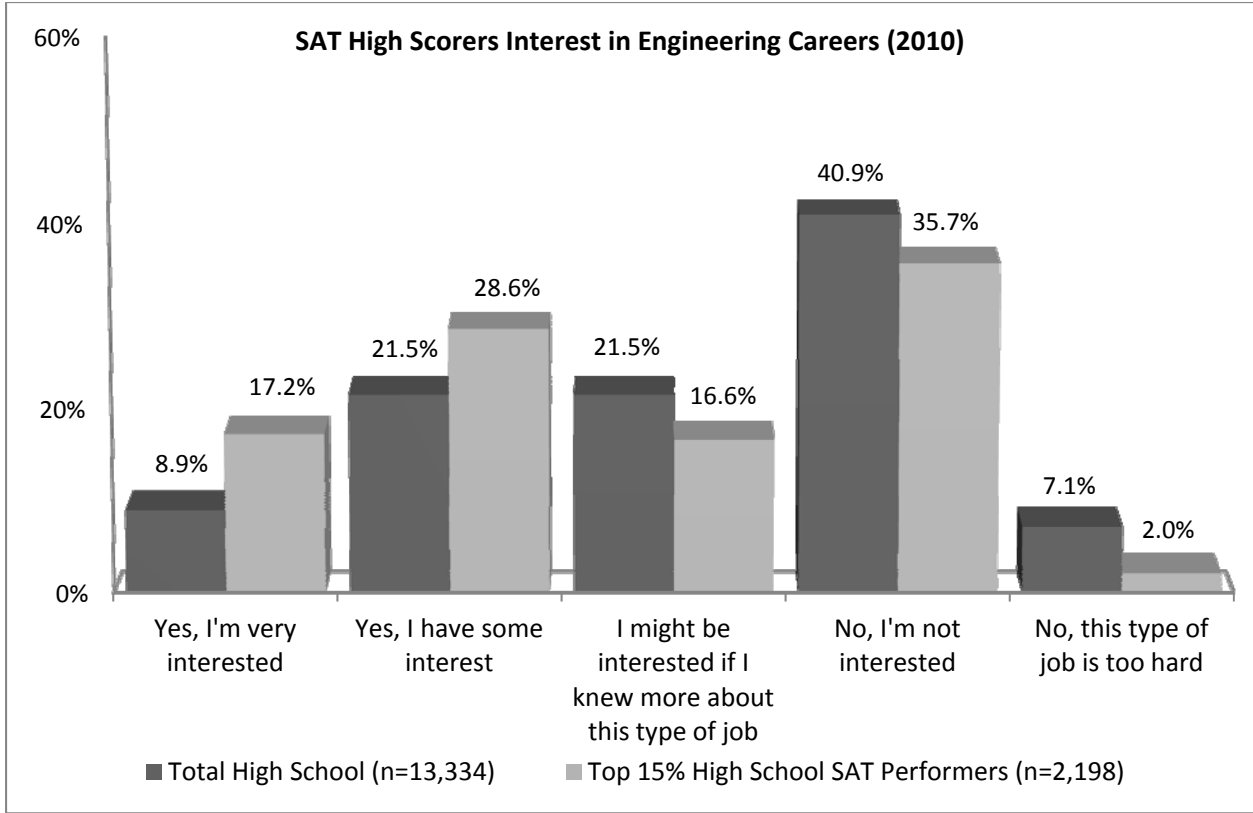


Figure 37: Source: Maine Department of Education, 2010.

Finance

The Finance section provides financial information relevant to education in Maine. This section provides information on the following indicators:

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46. Per Capita Personal Income

Per capita personal income (PCPI) is one measure that may be used to describe the general economic well-being of Maine and its communities. It is an important indicator for understanding the financial capacity of the state of Maine and its communities to support schools. PCPI is calculated by dividing all personal income from all sources by the total population of that area. Table 47 and Figure 38 show a comparison of per capita personal income averages for Maine, New Hampshire, Vermont, and the United States during the last five years. This is based on data released by the Bureau of Economic Analysis in 2010.

According to the Bureau, the estimated per capita personal income for Maine in 2009 was \$36,479, ranking Maine 30th in the nation, or approximately \$3,147 lower than the national per capita personal income, \$39,626. New Hampshire is ranked 10th in the nation, while Vermont is ranked 22nd.

The final column of the table shows the percentage increase of per capita personal income from 2005 to 2009 after adjusting for inflation.

As indicated by the U.S. Bureau of Economic Analysis, the disparity of income within Maine is quite sizeable and varies considerably between counties. Table 48, on the next page, shows 2004 to 2008 per capita personal income for all Maine counties. In 2008 (the most recently available county data) the average county

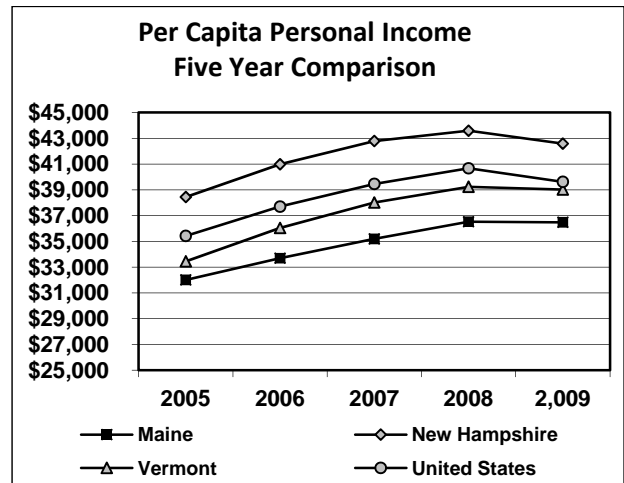


Figure 38: Source: U.S. Bureau of Economic Analysis, 2009. <http://www.bea.gov/regional/spi/drill.cfm>

Table 47: Regional and National Per Capita Personal Income, 2005-2009

State	2005	2006	2007	2008	2009	% Increase after adjusting for Inflation 2005-2009
Maine	\$32,007	\$33,695	\$35,191	\$36,524	\$36,479	3.75%
New Hampshire	\$38,441	\$40,982	\$42,789	\$43,587	\$42,585	.85%
Vermont	\$33,446	\$36,446	\$38,012	\$39,236	\$39,021	6.21%
United States	\$35,424	\$37,698	\$39,458	\$40,673	\$39,626	1.83%

Source: U.S. Bureau of Economic Analysis, 2010. <http://www.bea.gov/regional/spi/>

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per capita personal income ranged from a low of \$29,197 for Somerset County to a high of \$45,147 for Cumberland County. Cumberland County ranked 1st in Maine in PCPI, and it also ranked 203rd of all 3,113 counties in the entire United States.

Six counties in Maine had incomes below \$30,000 and ten had incomes above \$30,000. The average income in Maine's poorest county, Somerset (\$29,197), was only 64.7 percent of the average per capita

personal income in Maine's wealthiest county in 2008.

Between 2004 and 2008, Maine's per capita personal income grew by 1.41 percent (after adjusting for inflation) compared to a national increase of 4.01 percent. During the same time, Piscataquis County showed the highest per capita personal income growth rate within the state while Hancock, Franklin, Knox, and Lincoln showed a decline.

Table 48: Maine Per Capita Personal Income by County, 2004-2008

Area	2004	2005	2006	2007	2008	% change after adjusting for inflation 2004-2008
Androscoggin	\$ 30,095	\$30,706	\$32,024	\$33,461	\$34,808	1.48%
Aroostook	\$25,488	\$26,680	\$27,555	\$28,420	\$29,817	2.64%
Cumberland	\$39,047	\$39,448	\$42,351	\$43,720	\$45,147	1.44%
Franklin	\$26,236	\$26,490	\$27,193	\$28,175	\$29,636	-0.89%
Hancock	\$32,507	\$32,391	\$33,681	\$34,950	\$36,164	-2.39%
Kennebec	\$30,163	\$30,705	\$32,311	\$33,866	\$35,418	3.02%
Knox	\$33,154	\$33,498	\$35,255	\$36,411	\$37,563	-0.60%
Lincoln	\$32,676	\$32,153	\$33,997	\$35,961	\$37,229	-0.04%
Oxford	\$25,316	\$25,886	\$26,746	\$27,972	\$29,199	1.19%
Penobscot	\$28,598	\$29,436	\$30,571	\$31,705	\$33,149	1.70%
Piscataquis	\$24,925	\$25,586	\$26,683	\$27,917	\$29,950	5.42%
Sagadahoc	\$31,777	\$32,498	\$34,190	\$36,209	\$37,243	2.83%
Somerset	\$25,401	\$25,731	\$26,367	\$27,406	\$29,197	0.85%
Waldo	\$26,979	\$27,457	\$28,563	\$29,901	\$31,457	2.30%
Washington	\$25,637	\$26,682	\$27,202	\$28,052	\$29,464	0.83%
York	\$32,409	\$33,005	\$35,055	\$36,487	\$37,316	1.02%
Maine	\$31,466	\$32,008	\$33,694	\$35,028	\$36,368	1.41%
United States	\$33,881	\$35,424	\$37,698	\$39,392	\$40,166	4.01%

Source: U.S. Bureau of Economic Analysis, 2008. <http://www.bea.gov/regional/reis/>

Note: Figures in this table differ from those in the previous table due to the annual revision released in July 2010 by the Bureau of Economic Analysis

47. Tax Burden

Tax burden refers to the total tax paid as a proportion of total income. The Maine Office of Fiscal and Program Review calculates tax burden by the following method: It combines local and state taxes and divides by the total income received by the population of the state. This method shows how much money the population as a whole has from which to pay state and local taxes.

State taxes include personal and corporate income and sales taxes, insurance taxes on hospitals, taxes on some industries, and fees collected for hunting and fishing

licenses. Local taxes include auto excise, property, and watercraft taxes. Total income available to the population includes dividends, interest, rent, salaries, proprietors' income, social security, and welfare income.

Table 49 shows the state and local taxes as a percentage of income in Maine over the last five years based on information from the Maine Office of Fiscal and Program Review. The last column indicates the combined total tax burden including state and local taxes.

Table 49: State, Local, and Federal Taxes as a Percent of Income in Maine

Fiscal Year	Local Taxes	State Taxes	Combined State & Local Taxes
2006	4.74%	8.27%	13.00%
2007	4.74%	8.18%	12.92%
2008	4.71%	8.01%	12.72%
2009	4.80%	7.32%	12.12%
2010	4.85%	7.20%	12.05%

Source: Maine Office of Fiscal and Program Review, 2009

Figure 39 illustrates the national ranking of tax burden among New England states. In 2008, Maine ranked 15th in the nation in tax burden as a percentage of income when comparing state and local taxes. For all but New Hampshire and Massachusetts, the state and local tax burden for New England states is above the national average of 9.7%. According to the Tax Foundation, Maine’s state and local tax burden has been among the highest compared to other states for the past two decades.

In terms of the federal tax burden, the National Tax Foundation reports that Maine is a “beneficiary state;” Maine taxpayers receive more federal funding per dollar of federal taxes paid than the average state. In 2005, Maine taxpayers received approximately \$1.41 in federal spending for every tax dollar paid. Nationally, Maine ranks 13th in federal spending. The same year, New Hampshire received \$0.82 and Massachusetts \$0.71 per federal tax dollar collected.

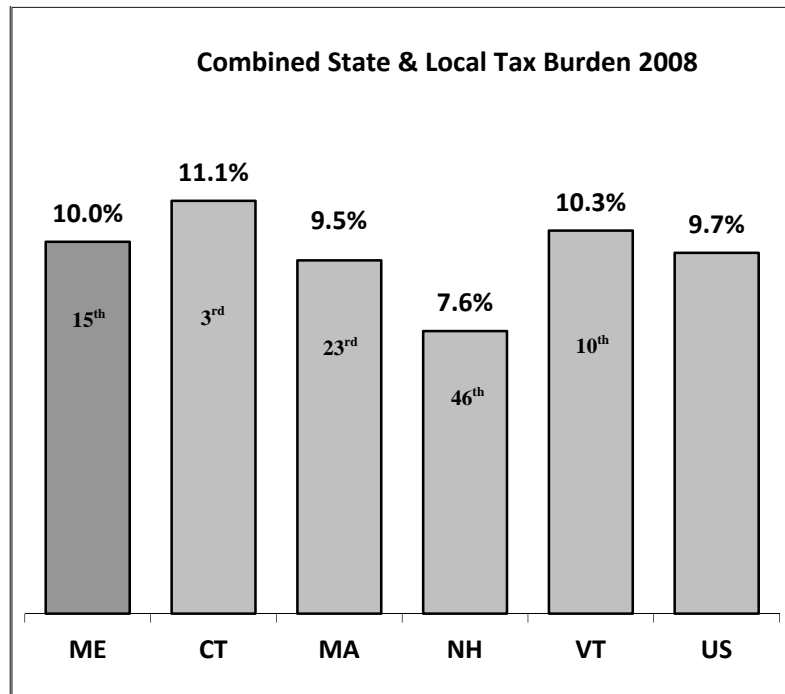


Figure 39: Source: National Tax Foundation, 2008;
http://www.taxfoundation.org/files/sl_burden_1977-2008-200808073.pdf

48. Education Revenues by Source

Funding of education in Maine is primarily a shared responsibility among the state and local governments. According to the Maine Department of Education, the State of Maine spent over \$2.05 billion on K-12 education during the 2007-08 school year.

The concept underlying the school funding formula is “pupil equity”: the adequacy of funding available to support each student’s education should not be dependent upon the wealth of the student’s place of residence. The “pupil equity” principle is balanced by the principle of “taxpayer equity” in that the school funding formula prescribes an amount of money that must be raised locally. The state appropriation, General Purpose Aid (GPA), is then distributed through the school funding formula to each school administrative unit; this includes a method of calculating a minimum subsidy so that all units will receive some state aid for education.

Table 50 and Figure 40 illustrate the distribution of revenue for education per student among federal, local, and state sources for 2007-08 (the most recent date for which data are available) among New England states.

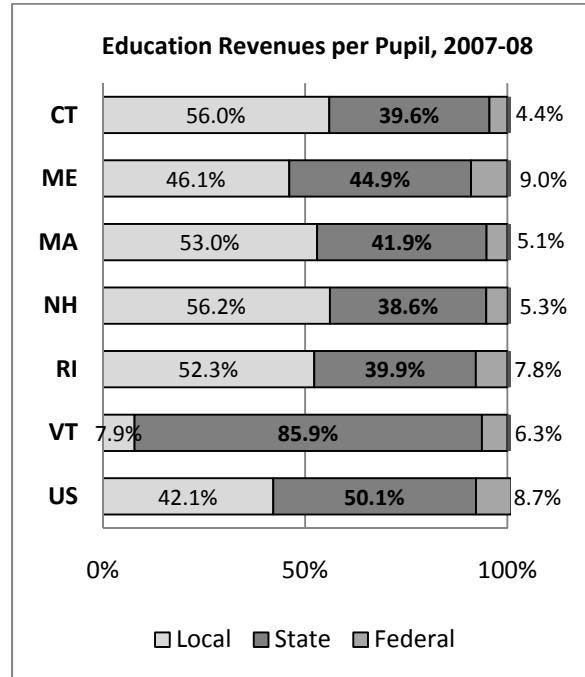


Figure 40: Source: National Center for Education Statistics, “National Public Education Financial Survey (state Fiscal”, 2007-08), 2010

According to the National Center for Education Statistics, the state share of education revenue per pupil in Maine is 46.1 percent, the local share is 44.9 percent and the federal share is 9 percent. Maine’s local share is smaller than all other New England states, except Vermont, but is higher than the national average (42.1 percent). The state share in Maine is higher than all other states, but lower than the national average. Federal revenue per student is higher than all other states and the national average.

Table 50: Education Revenues per Pupil 2007-08

State	Local	Local %	State	State %	Federal	Federal %	Total Revenues per Pupil
Connecticut	\$9,281	56.0%	\$6,560	39.6%	\$737	4.4%	\$16,577
Maine	\$6,111	46.1%	\$5,957	44.9%	\$1,189	9.0%	\$13,257
Massachusetts	\$8,051	53.0%	\$6,363	41.9%	\$782	5.1%	\$15,196
New Hampshire	\$7,312	56.0%	\$5,027	38.6%	\$690	4.4%	\$13,019
Rhode Island	\$7,876	52.3%	\$6,013	39.9%	\$1,172	7.8%	\$15,062
Vermont	\$1,258	7.9%	\$13,736	85.9%	\$1,006	6.3%	\$16,000
US	\$5,106	42.1%	\$6,073	50.1%	\$1,059	8.7%	\$12,118

Source: National Center for Education Statistics, 2010; <http://nces.ed.gov/ccd/bat/>

49. Property Valuation

Property tax is the major revenue source used by local communities to fund their schools. Property taxes are based on the value of property. The state assessor establishes the annual State Property Valuation for each community based on the previous year's real estate sales. The valuation calculated by the state is then

divided by the number of public school students to acquire a valuation per pupil rate for each community. The per pupil valuation, as reported in Table 51, is the major factor in establishing the community's ability to raise local funds for education.

Table 51: Per Pupil Valuation by County, 2009-10

County	Property Valuation	Public School Enrollment	Per Pupil Valuation
Androscoggin	\$ 8,396,850,000	15,976	\$525,592
Aroostook	\$ 4,812,000,000	10,654	\$451,661
Cumberland	\$ 41,772,500,000	39,654	\$1,053,425
Franklin	\$ 4,661,200,000	4,149	\$1,123,451
Hancock	\$ 14,022,550,000	6,886	\$584,164
Kennebec	\$ 10,256,950,000	17,898	\$573,078
Knox	\$ 7,652,750,000	4,761	\$1,670,383
Lincoln	\$ 8,359,900,000	4,566	\$1,830,902
Oxford	\$ 7,243,300,000	9,435	\$767,705
Penobscot	\$ 10,722,200,000	21,900	\$489,598
Piscataquis	\$ 2,563,550,000	2,679	\$956,906
Sagadahoc	\$ 4,704,200,000	5,354	\$878,633
Somerset	\$ 5,328,700,000	8,006	\$665,588
Waldo	\$ 4,824,400,000	4,962	\$972,269
Washington	\$ 3,557,400,000	4,577	\$777,234
York	\$ 31,457,900,000	28,755	\$1,093,998
State Totals	\$ 170,336,350,000	190,212**	\$895,508*

Source: Maine Department of Education, Maine State Revenue Service, 2010;

http://www.maine.gov/revenue/propertytax/sidebar/state_valuation_history.htm

* State per pupil valuation based on the total property valuation divided by the total public school enrollment.

**Total attending enrollment includes all public schools and 60% publicly funded private schools;

<http://www.maine.gov/education/enroll/attending/statefallpub.htm>

50. Per Pupil Operating Expenditures

As reported by the Maine Department of Education, Maine's per pupil operating expenditures have increased steadily over the past ten years. Per pupil operating expenditures are calculated by dividing the total school expenditures (including special education and vocational education, but excluding major capital outlay, transportation, and debt service) by the total number of students. During the last ten years the average per pupil operating costs have increased from \$5,818 in 1999-00

to \$9,625 in 2008-09 (not accounting for inflation). This was an overall increase, since 1999-00, of 65.4 percent (32.8 percent when accounting for inflation) and an average annual increase of 5.8 percent compared to an average annual inflation of 2.5 percent over the same period. In 2008-09, per-pupil operating costs for individual school administrative units in Maine ranged from a low of \$6,967 to a high of \$27,378. Yearly average increases for the last ten years appear in Table 52.

Table 52: Statewide Average Per-Pupil Operating Expenditures

Fiscal Year	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004 - 2005	2005 - 2006	2006-2007	2007-2008	2008-2009
Per-Pupil Operating Costs	\$5,818	\$6,233	\$6,640	\$7,019	\$7,331	\$7,760	\$8,230	\$8,797	\$9,370	\$9,625
Annual Percent Increase	6.3%	7.1%	6.5%	5.7%	4.4%	5.9%	6.0%	6.9%	6.5%	2.5%
Inflation (CPI-U)	3.4%	2.8%	1.6%	2.3%	2.7%	3.4%	3.2%	2.8%	3.8%	-0.4%

Source: Maine Department of Education, 2009; <http://www.maine.gov/education/data/ppcosts/2009/geninfo.htm>

51. Education Expenditures by Category

Maine's total education expenditures for school year 2008-09 were \$2,085,858,082, an increase of \$70 million or 13.3 percent from the previous year. Table 53 shows how the expenditures break down by category statewide. Regular education accounted for nearly half (40.2 percent), or \$837.7 million of the financial resources. The costs in the regular education category included teacher salaries and benefits, support staff salaries and benefits, and materials and supplies.

The second highest category of expenditures was special education. These costs were approximately \$304.5 million (14.6 percent) reflecting expenditures for salaries and benefits, testing, materials, and supplies

for all special education students. Facilities maintenance, the third highest expenditure category, accounted for 12.1 percent of all costs, or \$253.1 million. This reflected all the costs of operating and maintaining the buildings but excluded debt service.

In 2008-09, administration costs totaled approximately 8.5 percent of education costs, with 3.2 percent, or \$67.7 million, spent on superintendents' offices, and 5.3 percent, or \$109.9 million, expended on principals' offices. According to the Maine Department of Education, these categories included expenses for personnel, and supplies and materials. The profile in expenditures varies among school districts across the state.

Table 53: Education Expenditures, by Category 2008-09

Financial Indicator	Amount	Percent
Regular Ed.	\$837,794,568	40.2%
Special Ed.	\$304,548,098	14.6%
CTE Ed.	\$44,446,451	2.1%
Other Instruction	\$62,910,960	3.0%
Student & Staff Support	\$160,254,405	7.7%
System Admin.	\$67,699,231	3.2%
School Admin.	\$109,987,477	5.3%
Transportation	\$108,922,097	5.2%
Facilities	\$253,123,674	12.1%
Debt Service	\$124,983,746	6.0%
Other	\$11,187,375	.5%
Total	\$2,085,858,086	100%

Source: Maine Department of Education, 2010;

<http://www.maine.gov/education/data/sfinstatewide/statewide%20rvsd2010.pdf>

52. Special Education Expenditures

Maine special education costs have risen since 1999-00, when more than \$179.5 million was spent, to approximately \$304.5 million in 2008-09, as shown in Table 54 and Figure 41. This was a 36.2 percent increase after accounting for inflation. This number represents school units' expenditures for special education and does not include federal expenditures. Within this number, instruction is 75 percent of the total, administration is 8 percent, with 17 percent for other services.

Most recent available figures revealed that between school year 2007-08 and 2008-09, special education costs have

increased by 1.46 percent while total school expenditures increased by 1.84 percent. As a share of total education expenditures, special education costs are 14.6 percent in 2008-09, according to the Maine Department of Education.

In terms of enrollments, the total number of public school students decreased by 11.6 percent between 1999-00 and 2008-09, and special education enrollments decreased by 14.2 percent.

Table 54: Special Education Expenditures, 1999-2009

Year	Special Education Expenditures	Annual Percent Increase
1999-00	\$179,456,248	7.70%
2000-01	\$193,516,471	7.83%
2001-02	\$209,370,309	8.19%
2002-03	\$221,109,648	5.61%
2003-04	230,414,128	4.21%
2004-05	240,437,243	4.35%
2005-06	255,468,225	6.25%
2006-07	273,025,244	6.87%
2007-08	300,179,906	9.95%
2008-09	304,548,098	1.46%

Source, Maine Department of Education, 2010;
<http://www.maine.gov/education/data/sfinstatewide/statewide%20rvsd2010.pdf>

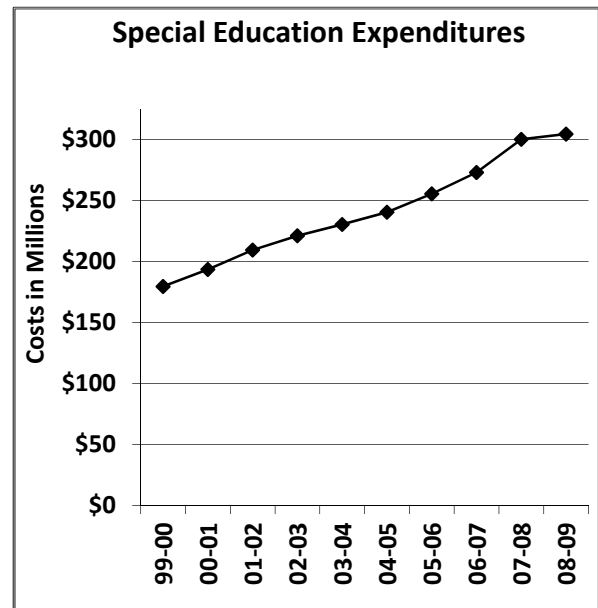


Figure 41: Source: Maine Department of Education, 2010

53. Student Transportation Expenditures

According to the Maine Department of Education, expenditures for school bus transportation of students in the public schools has increased since 1999-00 by approximately \$33 million from \$75.9 million to \$108.9 million in 2008-09, a 43.4 percent increase, as shown in Table 55 and figure 42 (\$14.29 million, or 15.1 percent, when adjusting for inflation).

The number of children transported has varied throughout the comparison period. A 2003 analysis by the Maine Education Policy Research Institute has shown that two *uncontrollable* cost drivers, number of resident pupils and number of miles of road, are the best available predictors of transportation costs.

Table 55: Transportation and Bus Expenditures, 1999-2009

Year	Transportation & Bus Expenditures	Annual Percent Increase
1999-00	\$75,958,394	5.71%
2000-01	\$80,268,704	5.67%
2001-02	\$85,499,300	6.52%
2002-03	\$88,970,703	4.06%
2003-04	\$93,240,964	4.80%
2004-05	\$96,233,597	3.21%
2005-06	\$100,787,040	4.73%
2006-07	\$106,080,296	5.25%
2007-08	\$109,538,163	3.26%
2008-09	\$108,922,097	-0.56%

Source, Maine Department of Education, 2010;
<http://www.maine.gov/education/data/sfinstatewide/statewide%20rvsd2010.pdf>

The Maine Department of Education reported that there are 2,244 buses that are owned and operated by the public schools and 795 buses are contracted. State funding for school bus replacement was \$7.8 million in 2008-09, including both cash and term purchases. The number of new buses approved for purchase was 134.

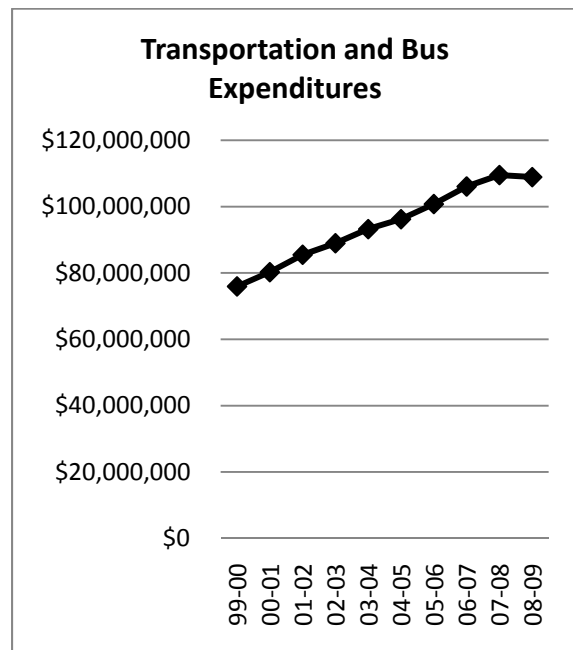


Figure 42: Source: Department of Education, 2010.

End Note

The preceding pages have presented information on K-12 public education in Maine. The information has been obtained from a variety of sources, and encompasses historical data and regional and national

comparisons wherever possible. We hope this information is helpful and that it provides you with a statewide perspective on Maine education.

References

- Annie E. Casey Foundation, *Kids Count Data Book*. (2010). <http://datacenter.kidscount.org>
- Center for Disease Control and Prevention. (2009). Vaccination Coverage in the U.S. <http://www.cdc.gov/vaccines/stats-surv/imz-coverage.htm#>
- Center for Disease Control. (2010). YRBSS: Youth Risk Behavior Surveillance System. <http://apps.nccd.cdc.gov/youthonline/App/Default.aspx>
- Davulis, L. (2008) A labor market and workforce assessment. *Science, technology, engineering, and mathematics (STEM) employment in Maine*: 1-13.
- Education Commission of the States. (2008). *Number of Instructional Days/Hours in the School Year*. Denver Colorado. <http://ecs.org/clearinghouse/78/24/7824.pdf>
- Maine Children's Alliance. (2010). *Maine Kids Count Data Book*. Augusta, ME. <http://datacenter.kidscount.org/data/bystate/Rankings.aspx?state=ME&ind=1586>
- Maine Children's Growth Council. (2010). *School Readiness*. Augusta, ME. http://www.maine-eccs.org/MCA_CGCreport_web.pdf
- Maine Department of Education. (2010). *Career and Technical Education*.
- Maine Department of Education. (2010). *Early Childhood & All-Day Kindergarten Programs*.
- Maine Department of Education. (2010). *Free and Reduced School Lunch Report (2009-10)*.
- Maine Department of Education. (2010). *Graduation Rates*.
- Maine Department of Education. (2010). *Maine Statewide Financial Indicators For School Administrative Units State Totals And Percentages*.
- Maine Department of Education. (2010). *2010-2011 Summary of Maine School Systems*.
- Maine Department of Education. (2010). *Reorganization Status of All School Systems*.
- Maine Department of Education. (2005). *2004-05 Home School Students*.
- Maine Department of Education. (2010). *Maine Educational Assessment Results, 2010*.
- Maine Department of Education. (2010). *New England Common Assessment Program Results, 2010*.
- Maine Department of Education. (2010). *Maine High School Assessment Results, 2010*.
- Maine Department of Education. (2010). *2010 Maine School High School Assessment Survey*.
- Maine Department of Education. (2001). *Maine Special Education Staff & Student Data*.
- Maine Department of Education. (2010). *Maine Statewide Dropout Rate, Public Schools*.
- Maine Department of Education. (2010). *Percent Free and Reduced Lunch by County*.
- Maine Department of Education. (2009). *Per-Pupil Operating Costs*.
- Maine Department of Education. (2008). *Public School Fall Enrollment, by County, 2008-09*.
- Maine Department of Education. (2010). *Public Secondary School Graduation Rates*.
- Maine Department of Education. (2010). *Special Education Enrollment*.

- Maine Department of Education. (2010). *Statewide School Finance Data, 2008-09*.
- Maine Department of Health and Human Services. (2008). *TANF Participation Rates, 2007*.
- Maine Department of Health and Human Services (n.d) *State of Maine Early Care and Education Quality Rating System Application Manual*. Augusta, ME.
- Maine Education Policy Research Institute. (2007). *Maine Public School Census Survey, 2007 & 2010*. University of Maine.
- Maine Head Start. (2007). *Head Start in Maine, 2005-06*.
- Maine Office of Fiscal and Program Review. (2010). *State and Local Tax Burden, 2010*.
- Maine Revenue Services. (2010). *State Valuation History 2000 – 2010*.
- Maine Safe & Drug Free Schools Data Collection Project. (2010). *Bi-Annual Results, 2008-09..*
- Maine State Planning Office. (2007). *Forecast of Maine State/County Population to 2014*.
- Maine State Planning Office. (2010). *Report on Poverty, 2010*. Augusta, ME.
- Matthews, T.J., Sutton, P., Hamilton, B.E. and Ventura, S.j. (2010). State Disparities in Teenage Birth Rates in the United States. NCHS Data Brief. No. 46, October 2010.
- National Assessment of Educational Progress (NAEP). (2009). *The Nations Report Card*.
- National Center for Children in Poverty. (2010).
- National Center for Disease Control and Prevention. (2010). *Adolescent and School Health*.
- National Center for Education Statistics. (2003). *Digest of Education Statistics, 2009*. NCES Washington, D.C.: U. S. Government Printing Office.
- National Center for Education Statistics. (2009). *The Condition of Education, 2009*. NCES Washington, D.C.: U. S. Government Printing Office.
- National Center for Education Statistics. (2010). *Public Elementary and Secondary School Student Enrollment and Staff Counts From the Common Core of Data: School Year 2008–09*. NCES Washington, D.C.: U. S. Government Printing Office.
- National Center for Education Statistics. (2005). *Projections of Education Statistics to 2014*.
- National Center for Education Statistics. (2010). *National Public Education Financial Survey (2007-08)*.
- National Center for Higher Education Management Systems. (2008). *Progress and Completion: Student Pipeline - Transition and Completion Rates from 9th Grade to College*. <http://higheredinfo.org/dbrowser/index.php?submeasure=119&year=2008&level=nation&mode=data&state=0>
- National Education Association. (2010). *Rankings of the States 2006 and Estimates of School Statistics 2010*. Washington, D.C.: Research Division.
- Pennoyer, G. (2010). Personal Communication. Maine Office of Fiscal and Program Review.
- Silvernail, D. (2010). *Maine and Middle School Interest in STEM-Related Careers: A preliminary snapshot* [PowerPoint slides]. Center for Education Policy, Applied Research, and Evaluation, University of Southern Maine.

- Silvernail, D. & Sloan, J. (2004). EPS Maintenance Expense: Preliminary Analysis. Maine Education Policy Research Institute, University of Southern Maine Office.
- Silvernail, D. & Sloan, J. (2004). Proposal for Determining Transportation Costs in the Essential Programs & Services Model. Maine Education Policy Research Institute, University of Southern Maine Office.
- Tax Foundation. (2008). State-Local Tax Burdens, All States.
http://www.taxfoundation.org/files/sl_burden_1977-2008-200808073.pdf
- Terrell, N. (2007). Science technology engineering mathematics occupations. *Occupational Outlook Quarterly*, 51 (1), 26-33.
- The College Board. (2010). *6th Annual AP Report to the Nation*. New York, NY.
www.collegeboard.org
- The College Board. (2010). *SAT® Trends: Background on the SAT Takers in the Class of 2010*. New York, NY. www.collegeboard.org
- The College Board. (2010). *College-Bound Seniors: State Profile Report: Maine*. NY, NY.
- United State Bureau of Labor Statistics (2010).
- United States Bureau of Economic Analysis. (2009). *BEA Regional Facts*.
- United States Census Bureau. (2009). *Annual Demographic Survey*.
http://www.census.gov/hhes/www/cpstables/032010/perinc/new03_127.htm
- United States Census Bureau. (2010). *Current Population Survey, 2010*.
<http://www.census.gov/hhes/www/hlthins/data/historical/files/hihist5.xls>
- United States Census Bureau. (2009). *Poverty Thresholds, 2009*.
<http://www.census.gov/hhes/www/poverty/data/incpovhlth/2009/state.xls>

Appendices

Appendix A: Statutory Language for the Maine Education Policy Research Institute.

Appendix B: Related publications.

**APPENDIX A: Statutory Language for the
Maine Education Policy Research Institute**

Title 20-A Chapter 1 § 10, MRSA.

The Education Research Institute, referred to in this section as the "institute," is established to collect and analyze education information and perform targeted education research for the Legislature. The institute shall create and maintain an education information system that tracks important education data for kindergarten and grades one to 12. The institute shall also conduct exploratory, long-term research on education issues.

1. Legislature to direct institute. The Legislature, through the joint standing committee of the Legislature having jurisdiction over education matters, shall contract with the University of Maine System to establish and maintain the institute. Personnel coordinating the work of the institute must be appointed by the University of Maine System in consultation with the Legislature and those personnel shall consult with and act on behalf of the Legislature, performing such data collection, analysis and research as the Legislature may require.

2. Steering committee. The Education Research Institute Steering Committee, referred to in this section as the "steering committee," is established to advise the Legislature and the University of Maine System on all matters related to the institute. Steering committee members must be appointed by the joint standing committee of the Legislature having jurisdiction over education matters for a term of two years. The steering committee shall meet at least four times each year and must include one member of each of the following:

- A. The joint standing committee of the Legislature having jurisdiction over education matters;
- B. the Department of Education;
- C. the State Board of Education;
- D. the University of Maine System;
- E. the Maine School Management Association;
- F. the Maine Education Association;
- G. the Maine Municipal Association; and
- H. the Maine Principals Association.

The steering committee shall elect a chair from among its members to serve a term of 2 years.

3. Location and access. The education information system and research results gathered pursuant to this section must be maintained by the institute at the University of Maine System. The education information system and research results must be available for use by any interested group or individual in the form available from the institute.

APPENDIX B: Related Publications

The following is a list of selected publications describing various aspects of Maine education.

Reports:

- A Review of the Evidence on the Four-Day School Week: Brief.* Christine Donis-Keller & David L. Silvernail. Center for Education Policy, Applied Research and Evaluation, University of Southern Maine. (2009)
- Alternative Calculations of Geographic Cost Adjustment Component of the Essential Programs and Services Model.* James E. Sloan & David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine Office. (2007)
- An Analysis of the Impacts of Including Income in Determining Community Wealth in the Maine K-12 School Funding Formula.* David L. Silvernail & James E. Sloan. Maine Education Policy Research Institute, University of Southern Maine Office. (2010)
- Analysis of the Impact of School Consolidation on Student Transportation Cost: Brief.* James E. Sloan, Aaron K. Gritter, & David L. Silvernail. Maine Education Policy Research Institute, University of Southern Maine Office. (2007)
- Essential Programs and Services: Equity and Adequacy in Funding to Improve Learning for All Children.* Maine State Board of Education. (1999)
- Essential programs and services: The basis for a new approach for funding Maine's public schools.* David L. Silvernail & Weston L. Bonney, Maine Policy Review, Vol 10 (1), 38-46. (2001)
- Extended School Year Fast Facts.* Rebekah Bickford & David Silvernail. Center for Education Policy, Applied Research and Evaluation, University of Southern Maine. (2009)
- Financial Characteristics of High and Low Performing Schools in a Predominantly Rural State.* David L. Silvernail. Center for Education Policy, Applied Research and Evaluation, University of Southern Maine. (1998)
- Following the Money: How Maine School Administrative Units have Used Increases in State Education Subsidies FY2005-FY2008.* David L. Silvernail, Amy F. Johnson, & James E. Sloan. Maine Education Policy Research Institute, University of Southern Maine Office. (2010)
- Increasing Postsecondary Enrollments in Maine: Changes needed in Higher Education Policies.* David L. Silvernail. Maine Policy Review, Vol. 6 (2), 26-34. (1997)
- K-12 Education in Maine: Steering from a Distance.* David L. Silvernail, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine. (2007)
- Laptop Use by Seventh Grade Students with Disabilities: Perceptions of Special Education Teachers.* Walter J. Harris & Lori Smith. Maine Education Policy Research Institute, University of Maine, Orono (2004)
- Legislative Districts Education Report.* Maine Education Policy Research Institute, University of Maine, Orono. (2007)

- Maine's College Graduates: Where They Go and Why: Revisited.* David L. Silvernail & Brianne Woodard, Center for Education Policy, Applied Research and Evaluation, University of Southern Maine and Finance Authority of Maine. (2006)
- Maine's Middle School Laptop Program: Creating Better Writers.* Aaron K. Gritter & David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine Office. (2006)
- National Board Teacher Certification in Maine: An Exploratory Study.* Sarah V. Mackenzie & Walter J. Harris. Maine Education Policy Research Institute, University of Maine, Orono. (2007)
- Preliminary Assessment of Maine Students' Interest in Science, Technology, Engineering and Mathematics Careers: Tip of the Iceberg?* David L. Silvernail & Alexis M. Berry. Center for Education Policy, Applied Research, and Evaluation, University of Southern Maine. (2010)
- Preliminary Report on Development of a Funding Model for Career and Technical Education.* Maine Education Policy Research Institute, University of Maine, Orono. (2007)
- Preliminary Report on Development of a Funding Model for Gifted and Talented.* Maine Education Policy Research Institute, University of Maine, Orono. (2007)
- Special Education in Maine: Attaining Equity Through Program and Finance Reform.* W. J. Harris & P. Jain. Maine Education Policy Research Institute, University of Maine, Orono. (2002)
- Teacher Workload and Stressors: Perceived Changes in Teachers' Responsibilities, Time Allocation, and Levels of Stress in Maine Public Schools.* Maine Education Policy Research Institute, University of Maine, Orono. (2004)
- The Cost and Characteristics of Maine's Higher Performing Public Schools – Preliminary Analysis.* David L. Silvernail, Maine Education Policy Research Institute, University of Southern Maine Gorham Office. (2006)
- The Development and Implementation of Local Assessment Systems in Maine Schools: A Progress Report.* Maine Education Policy Research Institute, University of Maine, Orono. (2005)
- The Identification of Higher and Lower Performing Maine Schools.* David L. Silvernail. Maine Education Policy Research Institute, University of Southern Maine Office. (2007)
- The Impact of Maine's Essential Programs and Services Program on Student Equity: The Early Evidence.* David L. Silvernail & James E. Sloan. Maine Education Policy Research Institute, University of Southern Maine Office. (2010)
- The Impact of Maine's One-to-One Laptop Program on Middle School Teachers and Students.* David L. Silvernail & Dawn M. Lane, Maine Education Policy Research Institute, University of Southern Maine Office. (2004)