



LEGISLATIVE RESEARCH SERVICES

Alaska State Legislature
Division of Legal and Research Services
State Capitol, Juneau, AK 99801

(907) 465-3991 phone
(907) 465-3908 fax
research@legis.state.ak.us

Research Brief

TO: Senator Berta Gardner
FROM: Roger Withington, Legislative Analyst
DATE: May 30, 2013
RE: Estimated Fiscal Impact to the State K-12 Foundation Formula Budget of Including Students Who Currently Attend Private or Religious Schools
LRS Report 13.385

You asked for information on the State's K-12 education foundation formula budget. Specifically, you were interested in an estimate of the fiscal impact to the State's K-12 foundation formula budget of including students who currently attend private or religious schools. You also asked about the potential impacts to the amount of state education aid received by the Anchorage School District if a certain number of students left the District to attend private or religious schools.

According to Marcy Herman, Special Assistant to the Commissioner of the Alaska Department of Education and Early Development (DEED), the DEED does not collect information on student enrollment in private or religious schools in any consistent manner.¹

As a result, we retrieved estimated data from the U.S. Census Bureau on the enrollment status of Alaska children of elementary and secondary school age, which we provide in Table 1. These figures are averages of the counts from the three years 2009-2011, based on responses to surveys from a sample of the state's population and are therefore subject to margins of error consistent with all such estimates.²

As you can see, the sum of age cohorts in the table does not precisely correspond to the number of students in the grades that typically correspond with those ages. This may be due to margins of error from sampling, variations in sampling methods, or some other factor.

¹ Marcy Herman can be contacted at 907-465-2803.

² The Bureau conducts surveys of a sample of the U.S. population each year between decennial censuses using its American Community Survey program (ACS). More information on the ACS, including a complete explanation of sampling methodology, is available at <http://www.census.gov/acs/www/>.

Table 1: Estimated Number of Children of Elementary and Secondary Age by Enrollment Status and Grade Level in Alaska, 2009-2011

Age	Public	Private	Not Enrolled	Total
5 to 9 years	41,409	4,530	3,352	49,291
10 to 14 years	47,933	4,024	986	52,943
15 to 17 years	28,102	2,347	1,389	31,838
Total	117,444	10,901	5,727	134,072
Grade Level				
Kindergarten	8,834	791	Not Applicable	9,625
1 to 4	36,658	3,132		39,790
5 to 8	38,488	3,497		41,985
9 to 12	40,573	3,360		43,933
Total	124,553	10,780		135,333
Notes:	These figures are extrapolated from samples of the Alaska population, and are subject to margins of error as are all survey data. In general, the smaller the population surveyed, the larger the margin of error. As a result, the numbers for students in private school or not enrolled in school may be somewhat less precise than those for public school students. Discrepancies between the figures for given ages and the typically corresponding grade levels may be due to margins of error from sampling, variations in the method of sampling, or some other factor.			
Source:	U.S. Census Bureau, 2009-2011 American Community Survey, 2009-2011 American Community Survey 3-Year Estimates, C14002: School Enrollment By Level Of School By Type of School for The Population 3 Years and Over, and C14003: School Enrollment By Type Of School By Age For The Population 3 Years And Over, http://www.census.gov/acs/www/data_documentation/custom_tabulations/ .			

The Base Student Allocation Adjusted for Inflation

Alaska’s public K-12 school funding is determined using a statutorily defined formula to calculate the amount of state aid to individual school districts each year. Adopted in 1998, the formula is intended to equitably distribute aid for education throughout the state.³

Incorporated into the formula are factors intended to account for variations in school size, geographic cost differences, special and intensive needs student populations, correspondence programs, federal aid, and the ability of communities to provide local contributions.

The public school funding formula consists of state aid, a local contribution if required, and eligible federal impact aid. State aid to each school district is calculated annually based on student enrollment, or the “average daily membership” (ADM). A District’s ADM is first adjusted for school size to recognize that larger schools benefit from economies of scale (AS 14.17.450). With the exception of the Anchorage School district, the ADM adjusted for school size is then increased by district cost factors (AS 14.17.460) and special needs and intensive services funding (AS 14.17.420). Then, any correspondence program membership is added to the adjusted membership to achieve a final adjusted ADM (AS 14.17.430). This final adjusted ADM is then multiplied by the Base Student Allocation (BSA) to determine each district’s level of funding.

³ Senate Bill 36, enacted as Chapter 83 SLA 1998. For more information on the formula, see Public School Funding Program Overview, at http://education.alaska.gov/news/Funding_Program_Overview_2012.pdf.

Since its creation in 1998 the BSA has been increased eight times, through six statutory amendments. The BSA currently stands at \$5,680.⁴ Table 2 provides a calculation of the BSA, adjusted for inflation, for each state fiscal year since FY2011, the last fiscal year in which the BSA was increased.

As you can see from Table 2, the FY2013 actual BSA (\$5,680) is approximately \$286 less than if the BSA had been adjusted for inflation annually since FY2011, while the FY2014 actual BSA (\$5,680) is approximately \$404 less than if the BSA had been adjusted for inflation annually since FY2011.

Table 2: Inflation Adjustments to the Base Student Allocation, FY2011 - FY2014

State Fiscal Year	Actual Base Student Allocation ^(a)	Prior Fiscal Year's Rate of Inflation ^(b)	Current Year's BSA Adjusted for the Prior Fiscal Year's Inflation Rate ^(c)	FY2011 BSA Cumulatively Adjusted for Annual Inflation Rate ^(d)	Difference Between the Actual and Adjusted Base Student Allocation
FY2011	\$ 5,680	Not Applicable	Not Applicable	Not Applicable	Not Applicable
FY2012	\$ 5,680	1.92 %	\$ 5,789.06	\$ 5,789.06	\$ (109.06)
FY2013	\$ 5,680	3.05 %	\$ 5,883.24	\$ 5,965.62	\$ (285.62)
FY2014	\$ 5,680	1.99 %	\$ 5,793.03	\$ 6,084.34	\$ (404.34)

Notes: (a) The base student allocation set forth in AS 14.17.470 applies to fiscal years 2011 through 2014.
(b) To adjust the base student allocation (BSA) for inflation we used the annual consumer price index (CPI) figures for Anchorage, provided by the Alaska Department of Labor and Workforce Development, Research and Analysis Section. The CPI represents changes in the prices of a representative sample of goods and services purchased for consumption by urban households. The Anchorage CPI figures are available in six month increments which we used to produce inflation rates by state fiscal year. We estimate the rate of inflation for FY2014 using the rate of inflation for Anchorage for the last six months of calendar year 2012 (the first six months of FY2013). Generally, inflation is the process of continuously rising prices (or the continuously falling value of money) in a particular economy. We calculated the rate of inflation as the percent difference of the CPI of one year to the CPI of the previous year.
(c) To adjust the BSA for a given fiscal year, we applied the rate of inflation experienced the previous fiscal year to the current year's BSA. In other words, the inflation adjusted BSA for FY2013 (\$ 5,883.24) is the actual BSA for FY2013 (\$5,680), adjusted by the FY2012 rate of inflation (3.05 percent).
(d) To adjust the BSA cumulatively for each fiscal year, we applied the rate of inflation experienced the previous fiscal year to the prior year's adjusted BSA. In other words, the inflation adjusted rate for FY2013 (\$ 5,965.62) is the adjusted BSA for FY2012 (\$5,789.06), adjusted by the FY2012 rate of inflation (3.05 percent).

Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section, <http://labor.alaska.gov/research/cpi/cpi.htm>.

Estimated Fiscal Impact to the State K-12 Foundation Formula Budget of Including Students Who Currently Attend Private or Religious Schools

Due to limitations on estimating the number of children of elementary and secondary age shown in Table 1, we are restricted to providing an estimate of only the change to the overall Foundation Program budget if the students who currently attend private schools were included in the foundation formula.

In Table 3 we show the total education Foundation Program funding and the average daily membership for each fiscal year, FY2007 through projected FY2014. Since the total amount of available state foundation program aid is dependent on several factors, comparing only the total amount of state foundation formula to the average daily membership is somewhat problematic. In an effort to demonstrate the relative per-student change of foundation program funding over time, we calculated a per-student funding amount, which is also included in Table 3. Generally, from FY2007 through FY2014,

⁴ AS 14.17.470.

foundation program funding has increased approximately 3.1 percent annually, the average daily membership has remained static, and the per-student foundation program funding has increased about 3.2 percent.

Table 3: Total Foundation Program Funding, Average Daily Membership, Per Student Program Funding, FY2007 through FY2014 (in millions of dollars)

Fiscal Year	Foundation Program Formula Funding	Funding "Outside" the Formula ^(a)	Total Foundation Program Funding	Percentage Change From Previous Year	Average Daily Membership	Percentage Change From Previous Year	Per Student Foundation Program Funding	Percentage Change From Previous Year
FY2007	\$912,608.0	\$35,000.0	\$947,608.0	Not Applicable	130,164	Not Applicable	\$7,280	Not Applicable
FY2008	\$931,151.4	\$69,101.0	\$1,000,252.4	5.6%	128,975	-0.9%	\$7,755	6.5%
FY2009	\$959,076.2	\$ 0	\$959,076.2	-4.1%	128,381	-0.5%	\$7,471	-3.7%
FY2010	\$1,012,509.3	\$ 0	\$1,012,509.3	5.6%	129,229	0.7%	\$7,835	4.9%
FY2011	\$1,063,183.0	\$ 0	\$1,063,183.0	5.0%	129,044	-0.1%	\$8,239	5.2%
FY2012	\$1,107,190.1	\$20,000.0	\$1,127,190.1	6.0%	128,886	-0.1%	\$8,746	6.2%
FY2013	\$1,138,762.0	\$25,000.0	\$1,163,762.0	3.2%	128,981	0.1%	\$9,023	3.2%
FY2014 ^(b)	\$1,147,039.0	\$25,000.0	\$1,172,039.0	0.7%	129,323	0.3%	\$9,063	0.4%

Notes: (a) Funding "Outside" the Formula consists of the following:
 FY2007: \$24 million for a temporary adjustment to the District Cost Factors (Chapter 41 SLA 2006) and \$11 million for School Improvement Grants (Chapter 41 SLA 2006).
 FY2008: \$48 million granted to the Department of Education and Early Development to distribute to districts representing about half of the Institute of Social and Economic Research recommended increases to the district cost factors (Chapters 28 and 30 SLA 2007) and approximately \$21 million for School Improvement Grants (Chapters 28 and 30 SLA 2007).
 FY2012: \$20 million supplemental appropriation to help school districts pay for the high cost of energy [Section 14(b) Chapter 3 FSSLA 2011].
 FY2013: One-time \$25 million appropriation distributed to school districts as state aid [Section 21 Chapter 17 SLA 2012].
 FY2014: One-time \$25 million appropriation distributed to school districts as state aid [Section 15 Chapter 14 SLA 2013]. Please note that we did not include the \$21 million appropriation of capital grants to school districts for student safety and security enhancement [Section 27 Chapter 16 SLA 2013].
 (b) Average Daily Membership figures are projected.

Sources: David Teal, Legislative Fiscal Analyst, Legislative Finance Division, 907-465-3795 (<http://www.legfin.state.ak.us/index.php>) and Heidi Reichl, School Finance Manager, Alaska Department of Education and Early Development, 907-465-8682.

Assuming the estimated 11,000 students enrolled in private schools (Table 1) are included in the foundation formula, the BSA remains at \$5,680, and the students currently enrolled in private schools are distributed geographically and experience similar characteristics to those of the students currently enrolled in the Alaska public K-12 education system, the Foundation Program budget would increase by approximately \$99.7 million for FY2014. Please use caution when considering this figure as it is constructed on a number of assumptions, using estimated data.

Estimated Impacts of Declining Enrollment to the State Aid Received by the Anchorage School District

You also asked about the potential impacts to the amount of state education aid received by the Anchorage School District if a certain number of students left the District to attend private or religious schools through a state voucher system. Your question, however, did not provide any specifics of how this hypothetical voucher system would work, nor could we identify any legislation proposed thus far during the 28th Legislature on which to base our estimates. Nevertheless, we constructed Table 4 in an effort to provide some useful information. Applying the methodology we used to construct Table 3, we

calculated the amount of foundation formula state aid received per student in the Anchorage School District annually, FY2007 through FY2014 (projected).

Table 4: Foundation Formula State Aid Received Per Student in the Anchorage School District, FY2007 through FY2014

Fiscal Year	Foundation Program State Aid	Percentage Change from Previous Year	Average Daily Membership	Percentage Change from Previous Year	Per Student Foundation Program Funding	Percentage Change from Previous Year
FY2007	\$ 273,280,556	Not Applicable	48,707	Not Applicable	\$ 5,611	Not Applicable
FY2008	\$ 264,656,768	-3.2%	48,144	-1.2%	\$ 5,497	-2.0%
FY2009	\$ 282,817,900	6.9%	48,227	0.2%	\$ 5,864	6.7%
FY2010	\$ 295,744,487	4.6%	49,061	1.7%	\$ 6,028	2.8%
FY2011	\$ 310,227,404	4.9%	48,613	-0.9%	\$ 6,382	5.9%
FY2012	\$ 311,812,169	0.5%	48,422	-0.4%	\$ 6,439	0.9%
FY2013	\$ 326,251,525	4.6%	48,493	0.1%	\$ 6,728	4.5%
FY2014	\$ 326,182,426	0.0%	48,885	0.8%	\$ 6,672	-0.8%

Source: *Average Daily Membership by Districts FY1988 – FY2013 and State Aid to Each District FY1988 – FY2012, Alaska Department of Education, <http://education.alaska.gov/schoolfinance/>.*

Using FY2014 figures, if the Anchorage School District’s (ASD) average daily membership decreased by five percent to 46,441 students, and the per student foundation formula remained at \$6,672, the ASD would receive approximately \$309,852,684 in state aid. This represents a reduction of approximately \$16.3 million, or a five percent reduction.

Again, using FY2014 figures, if the ASD’s average daily membership decreased by 10 percent to 43,997 students, and the per student foundation formula remained at \$6,672, the ASD would receive approximately \$293,544,648 in state aid. This represents a reduction of approximately \$32.6 million, or a 10 percent reduction.

Once again, please use caution when considering these figures as it is constructed on a number of assumptions, using estimated data. In addition, as we noted above, foundation formula funding is dependent on numerous unique variables. As such, it is improbable that a simple five or ten percent reduction in enrollment will compute to equal reductions in state aid.

We hope this is helpful. If you have questions or need additional information, please let us know.