

DATE: March 23, 2023

TO: Reps. Carpenter, Allard, McKay, McCabe, Tilton, Gray, Groh, Ruffridge, Prax, McCormick, Himschoot, Story
 FROM: Bob Griffin, Senior Education Research Fellow; Sarah Montalbano, Education Policy Analyst, Alaska Policy Forum

RE: Follow-Up Answers from Alaska Policy Forum, Joint House Ways and Means and Education Committee Hearing, March 15, 2023

Summary Page

More complete elaboration and citations may be found on the pages indicated, and further questions are answered in the following packet. Please contact sarah@alaskapolicyforum.org for clarification or to ask further questions.

Retention rates (pg. 2): Florida: 2.7% retained for 2021-2022. Mississippi: 8.5% for 2021-2022 retained. Retention rates have declined over time. The national retention rate was 1.9% in 2016.

Florida and Mississippi Early Literacy Funding (pg. 2): Mississippi provided \$15M/year in funding for its Literacy-Based Promotion Act (2013), or about \$93 per K-3 student enrolled in 2014. Rather than large amounts of additional new spending, both FL and MS prioritized literacy funding within existing budgets and their overall education spending grew less than the national average and Alaska between 2004-2022.

AP course incentives (pg. 3): A study of an AP exam incentive program in Texas found a correlation between the adoption of the program and increased AP scores and exam taking. Florida's incentives increased participation in AP programs and led to a "169 percent increase in passing scores in a 10-year period." Some programs nationally only increase participation, not pass rates.

Delaware (pg. 3): Delaware does not have private choice programs. Delaware has 14% of its students in private schools (3rd highest in the U.S.) vs. Alaska (3rd lowest in the U.S., 3%). These more affluent students are excluded from public school NAEP results 4 times more often than in Alaska.

Free and Reduced Lunch (pg. 4): FRL is not equivalent to poverty metrics. All jurisdictions (not just Alaska) aggressively identify students who qualify for federal funding implication. By definition, it includes families well above the poverty line, and some studies suggest FRL is oversubscribed, in part because of lax enforcement of income eligibility. However, FRL offers important information about other aspects of economic disadvantage than household income alone.

Teacher Retention rates (pg. 5): Very little data is available to indicate teacher retention and recruitment rates in Alaska are dramatically worse or better than other states. Some estimates in Florida suggest 40% of new teachers leave their profession within 5 years and Mississippi reports 17% of teachers leaving their districts annually. Turnover varies on several factors.

Class size (pg. 5): Evidence suggests class size reduction (CSR) matters, but only up to a point, and reduction is most appropriate for specific circumstances rather than across the board. Most studies find small impacts on achievement, and a study of Florida's CSR efforts in particular did not find discernable effects on achievement. Statewide teacher/student ratios do not correlate to positive NAEP achievement levels in reading.

Charter school laws (pg. 7): Alaska's charter schools may predominantly serve upper-middle income students and communities, but many states and cities target their charter school programs specifically toward at-risk students and still report large improvements in proficiency.

PISA Test Scores (pg. 7): Three of the top four western countries in 2018 PISA test scores have publicly funded private or religious schools; Finland is the only one that does not.

Decline in Enrollment (pg. 8): Alaska's K-12 enrollment has declined almost 1.8% since 2005, but the number of correspondence students has increased to comprise a larger share of enrollment. The number of correspondence students almost doubled between FY2020 and FY2021 and remains elevated at 42% higher than pre-pandemic enrollment.

Retention Rates

The percentage of students retained a grade in Florida and Mississippi is likely not large enough to significantly increase average scores for any grade level tested, even though there is evidence that retained students improve their outcomes. Florida’s 2021-2022 [retention rate](#) was 2.7%, and retention levels hovered around 7% after the program’s inception in the early 2000s.

Mississippi’s [retention rate](#) was around 8.5% the same year, but Mississippi’s early literacy program was instituted in 2013, so it has not had the same amount of time to decline. [Nationally](#), “Between 2000 and 2016, the percentage of students retained in a grade decreased from 3.1 to 1.9 percent.”

There is significant evidence that these programs’ retention policies boost achievement. An NBER [working paper](#) on Florida English language learners found retention reduced “the time to proficiency by half” and decreased the likelihood of taking remedial English courses in middle school by one-third. Retention also doubled the likelihood of taking advanced math and science in middle school and tripled the likelihood of taking college credit-bearing courses in high school. A [meta-analysis](#) also challenges the prevailing narrative that retention negatively affects students by pointing out that studies of lower-quality research design are the ones finding these negative effects, while high-quality studies show the opposite.

Most importantly, however, is that students are not simply repeating the same grade and therefore getting more time to meet grade-level expectations; they are receiving intensive interventions to help them achieve. Mississippi’s LBPA interventions have been [found](#) to substantially increase 6th-grade ELA scores compared to those students who were barely promoted, which suggests that the effects of the intervention are “sticky” and don’t wear off over time. The study notes the ELA effects were more pronounced “among Black and Hispanic kids.” The study showed no significant impact on 6th-grade math scores, absences in 6th grade or four years after retention, or special education identification in 6th grade or 4 years after retention.

See more studies linked [here](#), [here](#), and [here](#).

Florida vs. Mississippi Early Literacy Funding

Florida and Mississippi appear to have adequately funded their early literacy programs to achieve results. Mississippi allocated [\\$15M per year](#) in specific funding for the Literacy-Based Promotion Act across enrollment of [160,842 K-3 students](#) at its inception in 2013-2014. This equates to about \$93 per K-3 student per year. (DEED lists Alaska’s K-3 enrollment at 39,215 in the 2022-2023 school year, [Data Center](#) “Statewide Enrollment by Grade by Ethnicity.”)

Yet neither state saw large overall spending increases compared to Alaska: according to NEA data, Alaska increased per-student spending by 78.7% between 2004 and 2022, while Florida increased 64.8% and Mississippi increased 69.7%. (Inflation was 54.9% over that timeframe). Mississippi and Florida prioritized their spending on early literacy from other sources, recognizing that there is little else that is a higher priority than early literacy.

AP course availability, AP pass rates, and incentives

It's hard to establish causality with policy interventions and social science researchers often must rely on observational studies. One study of an AP class incentive program in Texas (which paid both students and teachers for passing scores, and reduced AP exam fees for students) found a correlation between adopting the program and “[increased](#) AP course and exam taking, increases in the number of students with high SAT/ACT scores, and increases in college matriculation.” The Texas program (Advanced Placement Incentive Program, or APIP) targeted primarily low-income, majority-minority districts, and “campuswide increases in the percentage of students in 11th and 12th grades who take AP or IB exams are driven primarily by increased participation among black and Hispanic students.” The author [speculates](#) that this is because it created a culture shift in these schools where AP classes were no longer for just “the smart kids.”

This [policy brief](#) goes into depth about the effectiveness of different incentives for AP course participation and exam-taking in different states and finds generally mixed results. The study notes, among other states, that Florida's incentives have increased participation in AP programs and led to a “169 percent increase in passing scores in a 10-year period.” Although it's probable that states and districts with AP courses offered in a higher percentage of their schools would have higher pass rates, the policy brief above lists examples of some programs in which incentives increased *participation* in courses and exams but did not lead to more students passing the exams. Access to the AP course is the first step — and this begs the question of why Alaska does not offer more AP courses to more students — but access to the course is not necessarily sufficient to pass the test with a 3 or higher.

What about Delaware?

Delaware and Alaska seem to differ most significantly in the rate of participation in private schools. Alaska's private school participation rate is 3% — the 3rd lowest in the U.S. — and Delaware reports 14%, which is 3rd highest in the U.S. Delaware, as pointed out by Rep. Grey, have no publicly funded private school options like Florida and Mississippi. Yet private school attendance remains high, suggesting that these more affluent students are excluded from state testing four times more than in Alaska, so our sample is enriched compared to Delaware.

K-12 spending in Alaska is 12th (\$19,621) and Delaware is 14th (\$18,939). These figures are per student ADA adjusted for price parity in 2021, from NEA and BEA. Alaska's K-12 spending increase (ADA) ranked 24th and Delaware ranked 42nd from 2004-2022. Delaware's rate of free and reduced lunch was 38%, or 6th lowest, and Alaska was 43%, or 15th lowest. Delaware reported the 12th highest percentage of students of color (58%) and Alaska was 20th (53%). Per capita income is also similar: Delaware is about \$60.0K and Alaska is \$67.7K.

Free and Reduced Lunch Concerns

As far as schools and districts possibly undercounting the students qualifying for free and reduced lunch, the motivation is there for districts to identify these students to maximize federal funding. FRL rates routinely exceed the rates of poverty in communities and schools in part because the program's eligible income levels are by definition higher than the poverty line, and in part, because there is evidence that FRL student counts are overstated due to lax verification requirements.

The National Center for Education Statistics ([NCES](#)) notes that while FRL is still useful to researchers, many students eligible for FRL fall above the poverty line by definition. Students with a household income at or below 130 percent of the poverty line qualify for free lunch while household income between 130 and 185 percent of the poverty line are eligible for reduced-price lunch. Adding in "community eligibility options" and other ways of qualifying "results in a percentage that is more than double the official poverty rate."

Alaska also uses a [higher multiplier](#) for FRL-eligible income levels than the rest of the U.S., which means households with borderline incomes that barely do not qualify in the contiguous U.S. would qualify in Alaska. Alaska and Hawaii are the only states that receive a percentage multiplier increase (25% and 15%) to the standard 130% and 185% of the poverty line, to adjust for cost of living compared to the rest of the U.S. [Several other states](#) have higher costs of living than Alaska. Because of this, FRL rates do not capture the same income brackets in the lower 48 as they do in Alaska. A household of four in the contiguous U.S. must earn less than \$36,075 to qualify for free lunches, while a household of four in Alaska must earn less than \$45,097. For reduced-price lunches, a household of four in the contiguous U.S. must make less than \$51,338 but an Alaska household of four must make less than \$64,177, which is [squarely](#) middle class.

A [study](#) looking at FRL rates in Missouri in the 2016-2017 school year found "student enrollment in the program is oversubscribed by about 40 to 50 percent relative to stated income-eligibility rules." The authors attribute this oversubscription, other than direct enrollment for families in other federal means-tested programs, to enrollment being "based on mostly unverified surveys." However, some [research](#) suggests that FRL may capture different aspects of socioeconomic disadvantage better than household income, like income volatility. See more resources [here](#) and [here](#).

The lesson here is not that there are necessarily problems with how the federal government runs the FRL program, but that states and policymakers using FRL as a proxy for "low-income" students or "students in poverty" includes far more students than directly measuring poverty.

Rates of Teacher Retention in Alaska vs. Florida and Mississippi

Teacher turnover, retention, and shortage data are complicated to compare because states do not have uniform reporting requirements. What we [know](#) from national trends is that teacher retention rates depend on the length of career (teachers with less than five years of experience have higher turnover), there are shortages in specific fields and subject areas (STEM and special education primarily), and turnover varies widely based on school and district characteristics.

The Florida Education Association [claims](#) that 40% of Florida’s new teachers left the classroom within their first five years of teaching, which is 15-20% higher than the national average depending on the year. The Florida Department of Education identifies many [core subject areas](#) in shortage in 2022-2023. Mississippi (and the South in general) have high teacher turnover rates; in the 2020-2021 school year, [17%](#) of teachers left their district. Nationally, around [16 percent](#) of teachers change jobs or leave teaching annually. [Rural](#) district annual turnover rates have been estimated at around 20-30%, but Alaska’s [urban](#) districts see rates closer to 8-10% (lower than the estimated national turnover rate).

However, the most important tools for answering this question — Alaska-specific data from authoritative sources from recent years — are either unavailable publicly or difficult to find. Alaska has not [publicly](#) provided “state-specific teacher shortage data within the past five years” and does not follow any of the six best practices for reporting teacher supply and demand data from the National Council on Teacher Quality. Alaska has conducted a [survey](#) of teacher retention in April 2021, which reveals the preferences of teachers. Alaska also does fairly well on its “teacher attractiveness rating,” as [created](#) by the Learning Policy Institute.

How does class size affect outcomes?

How class size relates to outcomes is a perennially debated question in education research and the consensus seems to be that class size reduction (CSR) matters, but only up to a point, and only in certain circumstances. A [study](#) from 2014 found that “class size effects on both average achievement and achievement gaps are small.”

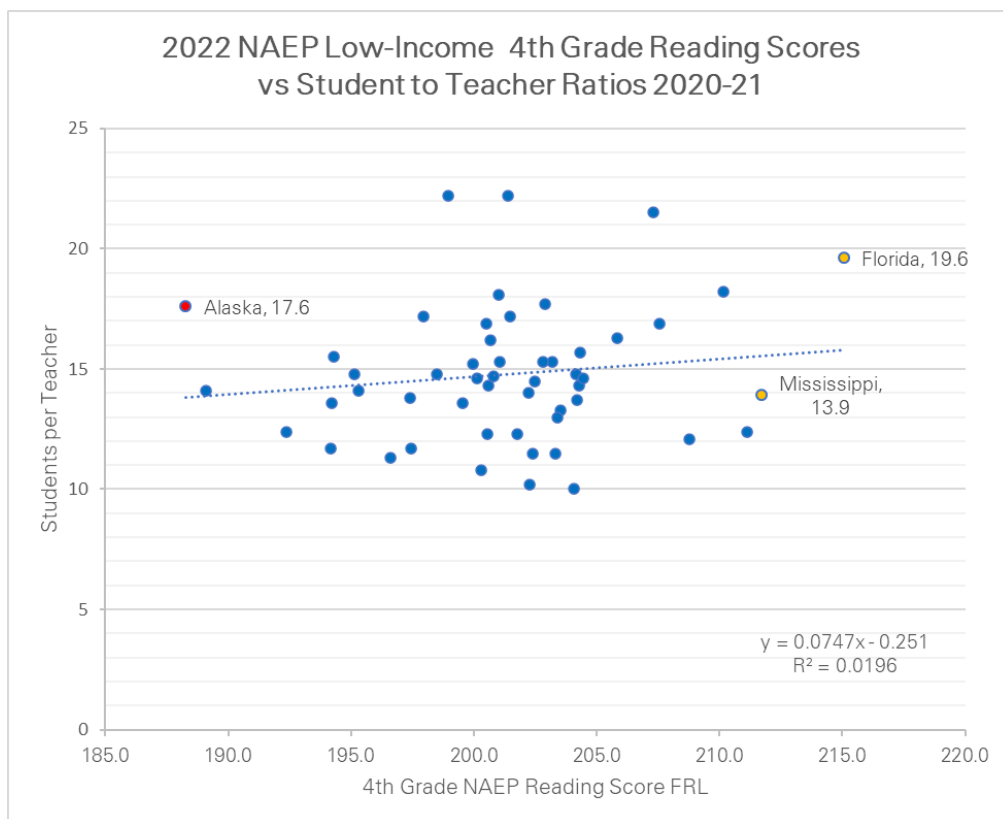
Florida’s mandated class size reductions in particular have not had [discernable](#) effects on student achievement; the study measured deviations from prior trends in districts that were required to reduce class sizes and districts that were not. [NCES](#) data shows Alaska’s student/teacher ratio in the fall of 2019 was 17.6 students for each teacher. Florida’s student/teacher ratio was 17.2, which is not much different than Alaska’s even after intensive reductions in class sizes. Mississippi’s student/teacher ratio was 14.8.

“Class size” as a metric isn’t routinely collected but teacher/student ratios are a reasonable surrogate. It’s important to remember that Alaska’s statewide teacher/student ratio is dragged upward because teachers of correspondence programs are overseeing many more students than teachers in a brick-and-mortar classroom. For instance, the student/teacher ratio in the Galena City School District, which has enrollment predominantly of correspondence students, had a student/teacher ratio of 91.10 in the 2021-2022 school year.

Subtracting correspondence student ADM statewide from total ADM statewide, as is done in the foundation formula, projects an ADM of 108,205.55 students in brick-and-mortar buildings in FY24. The NEA estimates 7,377 teachers in Alaska for the 2021-2022 school year, which would be about 14.67 brick-and-mortar students for each teacher (less than the national average of 15.9). This author recognizes that 1) we don't know yet the number of teachers in FY24 in Alaska and 2) that some small number of teachers included in the NEA's figures are correspondence teachers, but the calculation is still useful to illustrate the scale to which Alaska's correspondence students affect student/teacher ratios.

On a statewide basis, examining fourth-grade reading outcomes on the 2022 NAEP for students eligible for free and reduced lunch, there is no significant correlation between statewide student/teacher ratios (NEA 2021 data) and average NAEP scores. The trend line is positive: the average score increases slightly as class size increases, which is actually the inverse of what we would expect to see if CSR improved outcomes. States with larger student/teacher ratios do slightly better than states with smaller ones.

This overlooks the many ways in which states differ, and the loose interpretation of the R^2 value of the regression suggests that class size only explains about 1.96% of the variation in reading NAEP scores for low-income fourth graders. Note that of the four highest states on student/teacher ratios (California 22.2, Utah 22.2, Nevada 21.5, and Florida 19.6), three of them ([California](#), [Florida](#) and [Nevada](#)) have laws on the books capping class sizes for several grade tiers well below their student/teacher ratio.



Charter Schools and Income

According to the [NCES school search](#), there are 7,621 charter school students in Alaska. There may be some evidence that charter schools in Alaska act as an “escape valve” for upper-middle-income families who are dissatisfied with neighborhood public schools. This, however, could be considered a weakness of Alaska’s charter school laws, as other states predominantly target their charter schools to at-risk students.

Aside from a few examples like Ayaprun Elitnaurvik, Knik Charter School, and the Alaska Native Cultural Charter School, Alaska’s charter schools do not specifically seek out at-risk or minority students for enrollment. Students in New York City’s [charter schools](#), for example, are 80% economically disadvantaged, 9% are multilingual learners, and 18% have IEPs. These schools overwhelmingly focus on boosting achievement among minority students: 49% of students are Black and 41% are Latino. Yet charter schools in NYC continue to have an impressive track record in improving proficiency: 62.2% of NYC’s charter school students in 2018-2019 were proficient in math and 57.3% in ELA, compared to 46.7% and 45.4% statewide.

Washington, D.C. is another excellent example. Almost half ([47.5%](#)) of D.C. public school students are in charter schools. Their low-income 4th grade reading NAEP score has gone up 12 points since 2003, while Alaska has declined 4 points.

PISA Test Scores: Finland vs. School Choice jurisdictions

Three of the top four Western countries in 2018 PISA test scores have publicly funded private or religious schools. Finland is the only one that doesn’t. 2018 PISA scores for all countries may be found [here](#), and the table for Western countries is below.

[EdChoice](#) has tackled this question and makes note that, “of the 53 participants, 25 countries’ governments (nine of which have top 20 PISA scores overall) provide vouchers and/or tuition tax credits for students to attend private schools.”

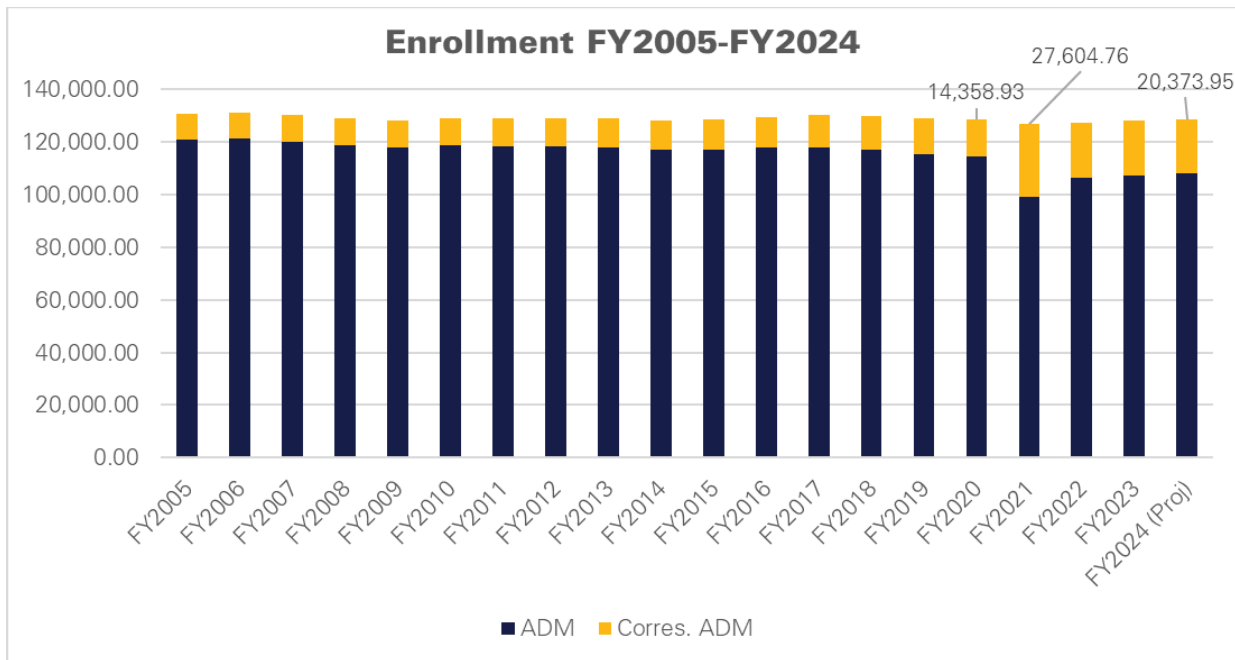
Country	Publicly Funded Private or Religious Schools?
Estonia	Yes
Canada	Yes
Finland	No
Poland	Yes
Ireland	No
United Kingdom	No
Slovenia	No
New Zealand	Yes
Netherlands	No
Denmark	No

Germany	Yes
Belgium	Yes
Australia	No
Switzerland	No
Norway	Yes
Czech Republic	No
United States	Yes

Decline in Enrollment – The Graph You Didn’t See

Alaska’s enrollment has declined overall. Using data from DEED’s Foundation Formula reports between 2005 and 2024 projections, we can plot correspondence ADM (Corres. ADM), brick-and-mortar ADM (ADM), and total ADM (sum of correspondence ADM and ADM, represented by the total height of the bar).

Statewide, overall enrollment/ADM has declined from 130,927.70 in FY2005 to 128,579.50 in FY24 projections. This is a decrease of 1.79% in total enrollment. During the same period, correspondence student enrollment grew slowly (from 9,749.99 in 2005 to 14,358.93 in FY2020) until FY2021, when pandemic pressures nearly doubled the enrollment of correspondence students (92.25% increase between FY2020 and FY2021). While correspondence enrollment has dropped since its pandemic high, in FY24 it remains 42% higher than its pre-pandemic enrollment in FY2020. Correspondence enrollment will likely remain an important demographic as many families tried the system during the pandemic and continue, although some returned to traditional public schools.



Administration growth vs. Teacher growth

The National Center for Education Statistics has no agenda to make Alaska look better or worse. To calculate administrative growth, pulled from [Table 85](#) (for 2008) and [Table 213.20](#) (for 2019), we sum the number of “officials and administrators” as well as “administrative support staff,” both of which are included under “school district staff.” We exclude the number of “instructional coordinators” because there are none in 2019 and including those positions in 2008 would understate school district administrative growth. Teachers are in their own category in the NCES tables. The [definitions](#) of these positions follow.

District administrators: “Chief executive officers of education agencies, including superintendents, deputies, and assistant superintendents; other persons with districtwide responsibilities, e.g., business managers, administrative assistants, and professional instructional support staff. Excludes supervisors of instructional or student support staff.”

District Administrator Support Staff: Staff members providing direct support to LEA administrators, business office support, data processing, secretarial and other clerical staff.

Teacher: A professional school staff member who instructs students in prekindergarten, kindergarten, grades 1 through 12, or ungraded classes and maintains daily student attendance records.

We cannot speak to the actual *costs* of these positions without salary and benefits for these positions, district and school differences in salaries and benefits, and other information that NCES does not provide in such detail. Further, the DEED study that Rep. Story mentioned may not have classified the same positions as administrative that NCES considers “school district staff.” We would be grateful if this study could be provided.

Alaska is “nearly void of options.”

97% of Alaskan students are in public schools. Only about [3,000 students](#) were enrolled in private schools in Alaska in 2019-2020, and only there were only 7,621 charter school students. But parental preferences — how they would choose to educate their children with no barriers — do not always align with their actual enrollment decision. EdChoice conducts [regular polling](#), with the most recent in 2022, on the gap between parental preferences and actual enrollment under “Effects of Information,” and “Schooling Preferences vs. Enrollment Patterns.”

In 2020 **81.60%** of students were enrolled in their residentially assigned public district school. Yet only **28.70%** of current school parents list their residentially assigned public district school as their first choice. Private school was the preference of 35% of current school parents but only 9.70% of students are enrolled in private schools. 11% would prefer to homeschool but only 2.60% of students are homeschooled. Large proportions of parental enrollment in Alaska’s public schools does not necessarily mean that parents are satisfied with traditional public schools and prefer it as their first choice, as national polling data reveals.

What are we recommending that couldn't be done by buttressing public schools?

Per-student funding in Alaska experienced a major jump between 2008 and 2009 (\$12,198 per student in ADA to \$17,778) thanks to school funding formula changes that reinstated the Hold Harmless provision and increased intensive needs weighting, among other changes. These formula changes are fungible. Since 2003, outcomes have dropped in all subjects and both grades assessed on the NAEP; in fourth-grade reading, students lost almost a year of progress (8 points).

Increases in spending so far have not produced the improvements in outcomes we all hope for Alaska's students to enjoy. Carefully targeting funding and thinking about the incentives embedded in Alaska's funding formula would be a good start to improving outcomes in Alaska's traditional public schools, as well as considering how to give families more freedom to choose the education that best fits their child's needs. Thinking about the education system and its many numbers is useful, but we cannot lose sight of the purpose of education: to ensure that *each individual* is equipped with the basic skills needed to fulfill their academic, economic, and social potential.