Highlights & Recommendations

of The Declining Enrollment Study

Prepared for

Colorado Department of Education

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PACEY ECONOMICS GROUP

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Forward

The ultimate objective of the education system is to educate students, the next generation of workers. Hence, it is important to understand how the performance of students in declining enrollment districts compares to the performance of students in non-declining districts.

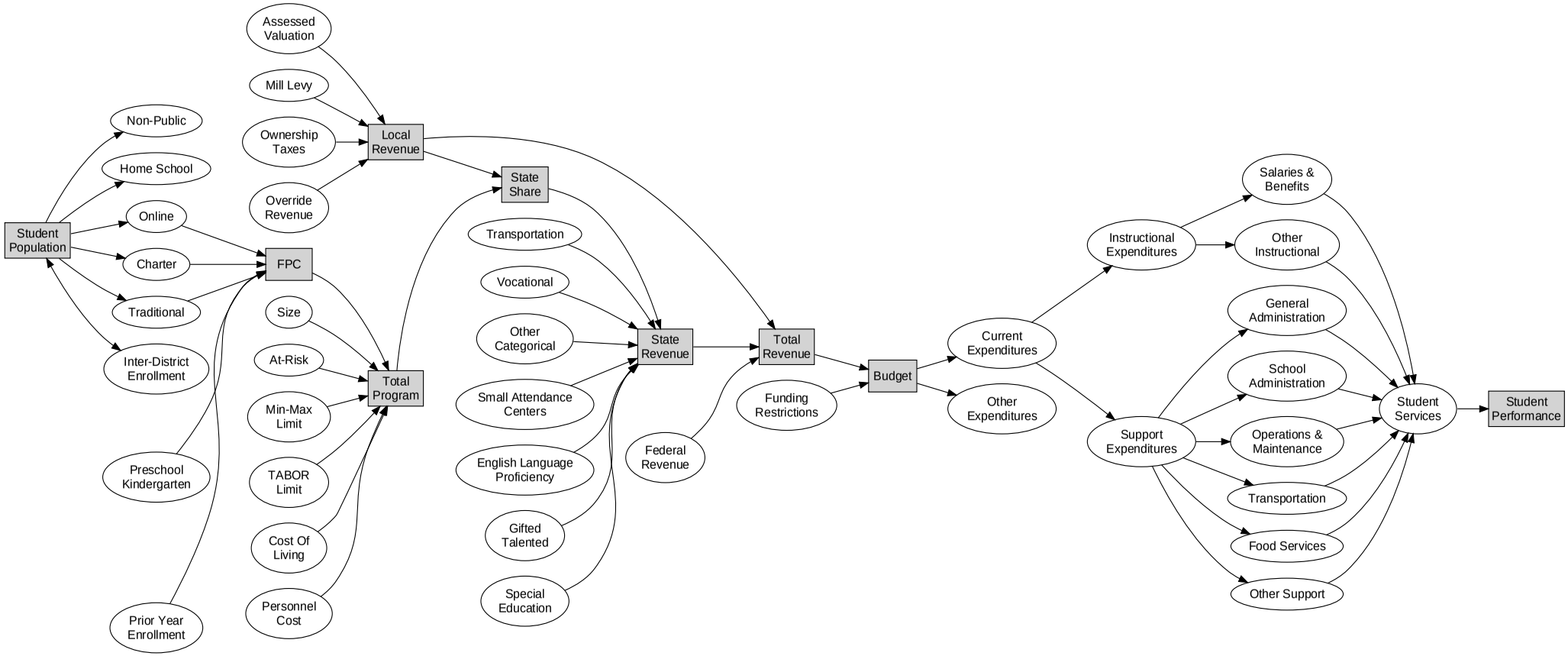
The declining enrollment study was tasked to consider the impacts to students in school districts with a long-term decline in pupil enrollment, school districts with a large short-term decline in pupil enrollments, and school districts in which an increasing number of pupils attend a charter school in the district.

The key issues are outlined in this Highlights & Recommendations. The complete report provides the requisite information regarding data and methodology, an overview of the Colorado public education system, evaluation of student performance as it relates to multiple aspects of declining and non-declining school district enrollments and the provision of education services through the Colorado Public School Finance Act of 1994 (CPSFA).

Schematic of Colorado Public School Finance

The following schematic provides an overview of Colorado School Public Finance. As is illustrated, the financing of public schools encompasses many factors including enrollment, funding formula, local and state revenues, categorical funding, federal funding, expenditure categories, and student services/performance.

Schematic of Colorado Public School Finance



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Executive Summary

This document, *Highlights & Recommendations,* provides an overview of The Declining Enrollment Study. The study provides a comprehensive analysis and review of the funding for the Colorado Public School Education system and the impact of such funding on student performance given school district enrollment sizes and geographic settings as well as education choice opportunities and enrollment trends. More detail regarding this study can be found in *The Declining Enrollment Study: A Comprehensive Review of Funding for Colorado Public School Education*.

Student Performance

- A key result of the analysis is that student performance is not statistically significantly different between districts with declining and non-declining enrollments (irrespective of enrollment size or geographic setting) after accounting for other factors expected to impact performance. (This result does not reflect whether or not school districts are meeting current or long-term expectations, just that there is no discernible impact from enrollment trends.)

- Another important result is that reading and math performances (as measured by CSAP) are both positively related to instructional expenditures per pupil, although the relationship is stronger for math than for reading.

- The percent of online students is negatively related to reading and math performance, but the percent of charter students is not statistically related to student performance.

School District Funding

- When comparing the total enrollment between academic years 2002-03 and 2007-08, 109 of the 177 school districts (without Vilas RE-5[1]) experienced declining enrollments despite an increase over the six year period in the student population for the state of Colorado. The majority of declining enrollment districts have small enrollment (less than 1,000 students per district) and/or are in rural or small town environments. However, there are also a number of larger school districts in the urban and Denver Metro area experiencing decreases in student enrollment.

- Importantly, at-risk, whether defined as free lunch and/or reduced lunch has increased over the six years considered in this analysis for school districts of all enrollment sizes and settings and also irrespective of enrollment trend. At-risk students account for as much as 30 to 50 percent of school districts with declining enrollments while, generally, non-declining enrollment school districts have a lower percent of at risk students.

- School districts are particularly limited in their ability to adjust expenditures year to year for transportation; however, they do have somewhat more flexibility in adjusting expenditures on other categories such as other

[1] After reviewing and analyzing the data and following discussions with CDE, Vilas RE-5 was omitted from the analyses in this study. This is a small enrollment school district that operated the Hope Online Learning Academy for two years during the time frame for this study. Including Vilas RE-5 skewed the results when viewed by size and setting category to the extent that relevant interpretations were not practical. In addition, the Hope Online program is now being operated by Douglas County and, therefore, this program no longer impacts Vilas RE-5 as it did during the study time frame. As such, the results with Vilas RE-5 included no longer reflect the current school district environment.

supporting operations and maintenance, instructional salaries and benefits, food service, and administration. The most flexible category of adjustment for school districts has been shown to be other instructional expenditures.

Funding Formula and Declining Enrollments

- Enrollment averaging provides important funding stability to districts facing declining enrollments, although school district superintendents express concern that the enrollment averaging is not adequate to offset the impacts of such decreases (because of the fixed nature of many of the school district costs).

Education Choice

- There are costs associated education choice.
    - An additional school facility will generally increase expenses including administration, instruction, etc. If a new school facility would have been required because of enrollment increases or changes in demographics, the extra costs associated with the opening of a new school may be mitigated.
    - Most of the per pupil funding follows a student to whatever type of school (traditional or charter) they attend. However, school districts have a number of fixed costs which make it difficult to adjust to changes in enrollments.
    - A perhaps unintended consequence of enrollment averaging is an incentive to reallocate charter school

students to the Charter School Institute (CSI) with no apparent increase in "choice" but resulting in an increased cost to the state in the delivery of education services.

- School choice results in traditional schools educating the more expensive students as the study finds the percent of students at-risk or with special needs is higher in traditional schools than in charter schools. It is broadly acknowledged additional monies allocated to school districts for at-risk and special needs students do not fully cover the expenses associated with these students. If this trend continues, the gap between the traditional school and charter school for the delivery of education services will continue to widen.

Costs of Providing an "Adequate Education"

- Actual funding for Colorado public education in academic year 2004-05 was substantially below the base costs for most levels of school district enrollment using either the Professional Judgment (PJ) or Successful School District (SSD) approach. Furthermore, the gap between the actual state average per pupil total program funding ($6,661 for academic year 2004-05) and the comparable cost estimate using PJ and SSD measures indicates the state does not provide the resources believed by professionals in education necessary to meet student performance expectations. Given state budget issues, this gap is likely to continue to increase.

- These adequacy cost measures do not yet incorporate the planned implementation of CAP4K, which is creating new

standards, assessments, and accountability systems. The investment to sustain this educational commitment (anticipated to enable Colorado students to compete globally in the 21st century) is likely to increase adequacy costs.

Consolidation

- The literature reviewed and the empirical analysis outlined in this report do not identify obvious cost savings or increased academic opportunities from an across the board or formula driven consolidation of school districts. At best, on a case-by-case school district basis, the data reviewed identifies some very limited opportunities for cost savings or increased academic opportunities from the consolidation of school districts. (At the school level, it is important to note that the economic and civic impacts to a community of closing a school are often difficult to assess and may outweigh any potential gains from consolidation.)

- There are alternatives to consolidation which include collaborations with other school districts. In Colorado, smaller school districts are afforded some of the benefits associated with size such as duplication of programs, risk management, price negotiation, etc. by collaborating through the Boards of Cooperative Educational Services (BOCES).

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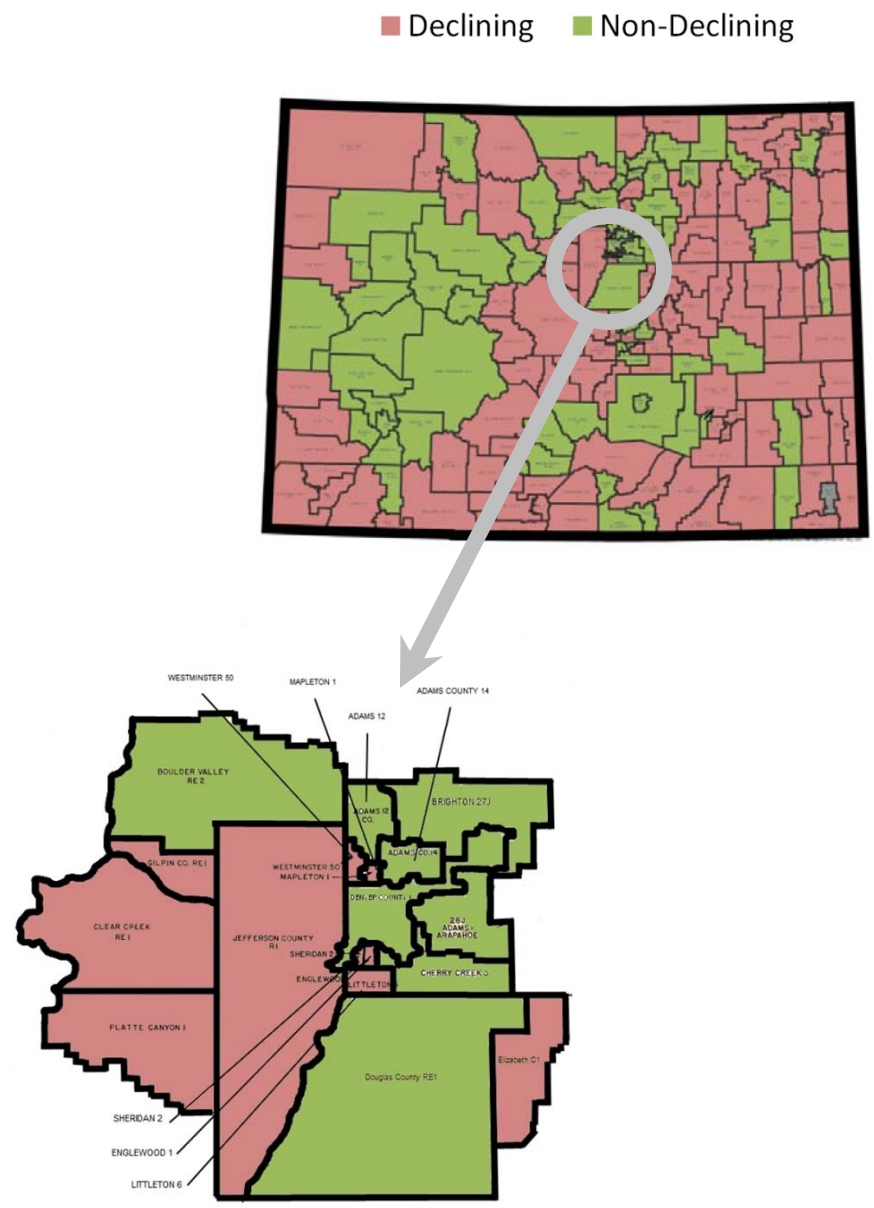
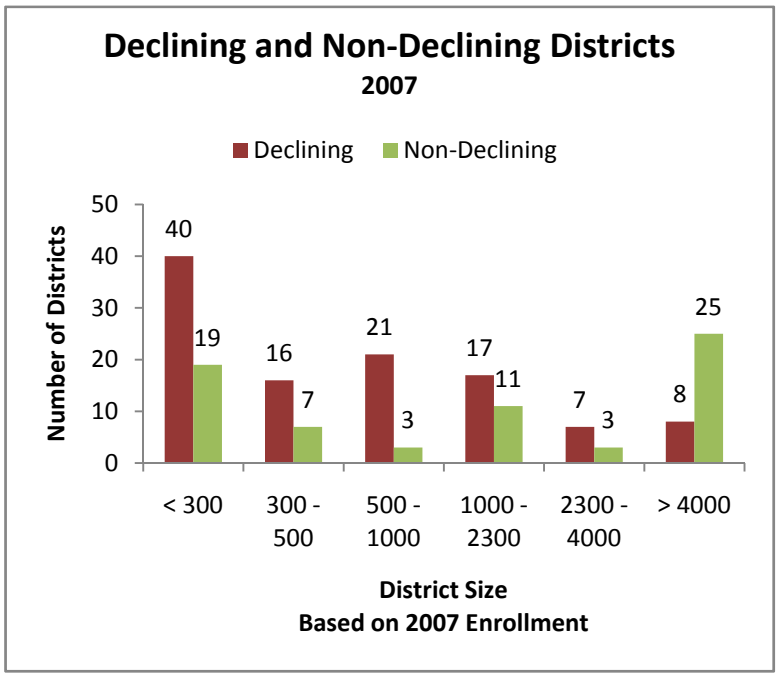
Highlights of Study

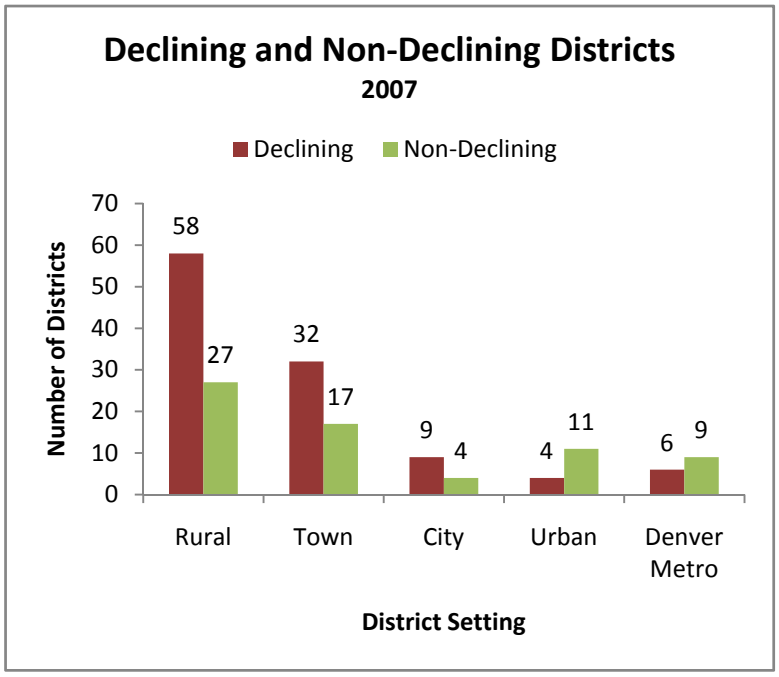
The following map and charts identify school districts in the state with either declining or non-declining enrollment. Declining enrollment is defined as a decrease in total funded enrollment between academic years 2002-03 and 2007-08. On the map, the school districts with declining enrollments are shaded in red while those school districts with non-declining enrollments are in green. The charts provide additional information for school district (enrollment) size and geographic setting. (A specific listing of each school district by enrollment trend is found in the full report.) Notably, despite increases in the student population for the state over this six year period, the preponderance of school districts (approximately 60%) are experiencing declines in student enrollment.

Colorado School Districts

By Declining or Non-Declining Enrollment




Declining and Non-Declining Districts
2007
Declining
Non-Declining
Number of Districts
50
40
30
20
10
0
40
19
16
7
21
3
17
11
7
3
8
25
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment

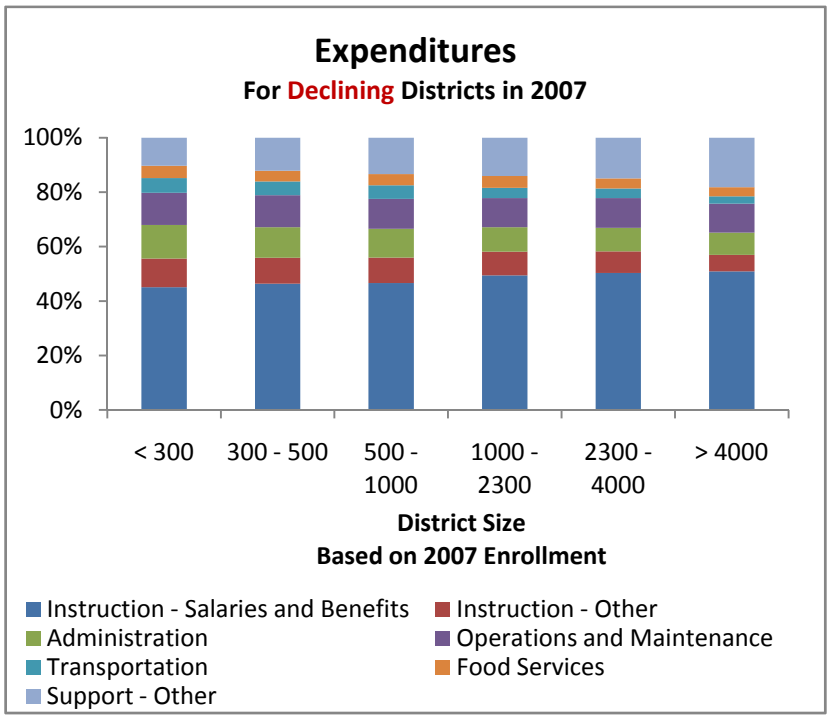

Declining and Non-Declining Districts
2007
Declining
Non-Declining
Number of Districts
70
60
50
40
30
20
10
0
58
27
32
17
9
4
4
11
6
9
Rural
Town
City
Urban
Denver Metro
District Setting

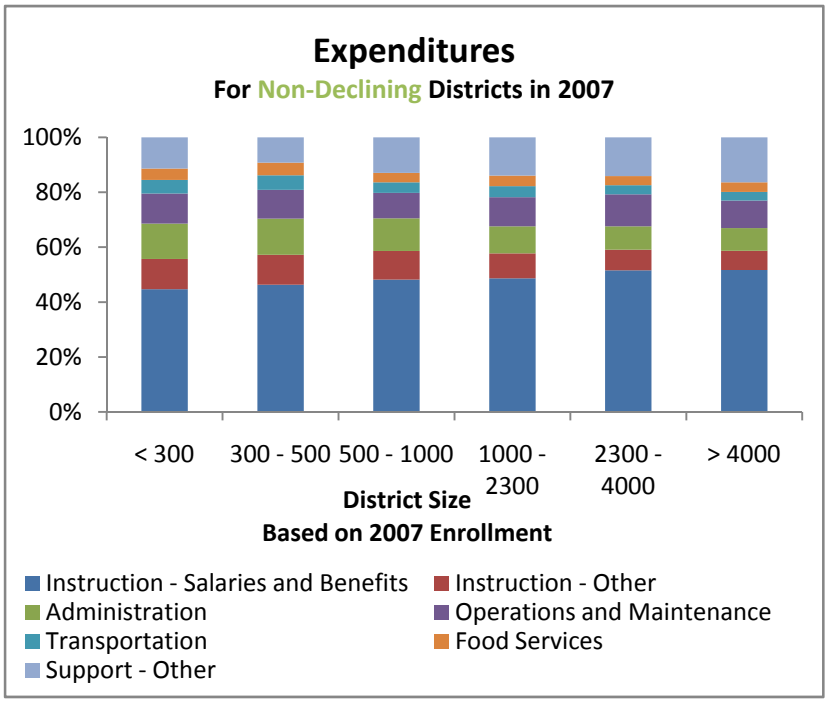
Expenditures - Aggregate

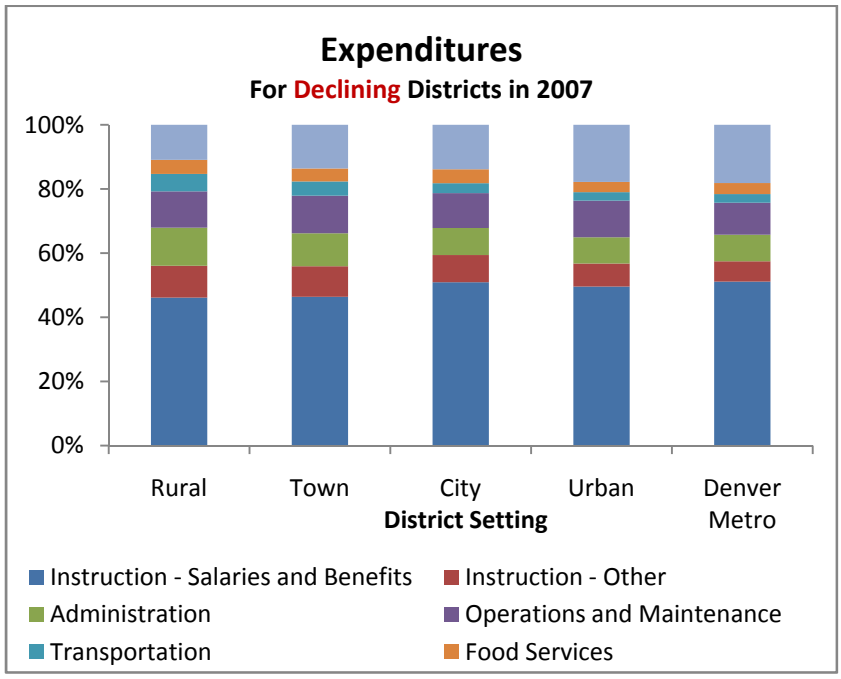
The following two charts identify the allocation by major expenditure categories for school districts with and without declining enrollments, initially by school district size followed by the geographic setting of the school district.

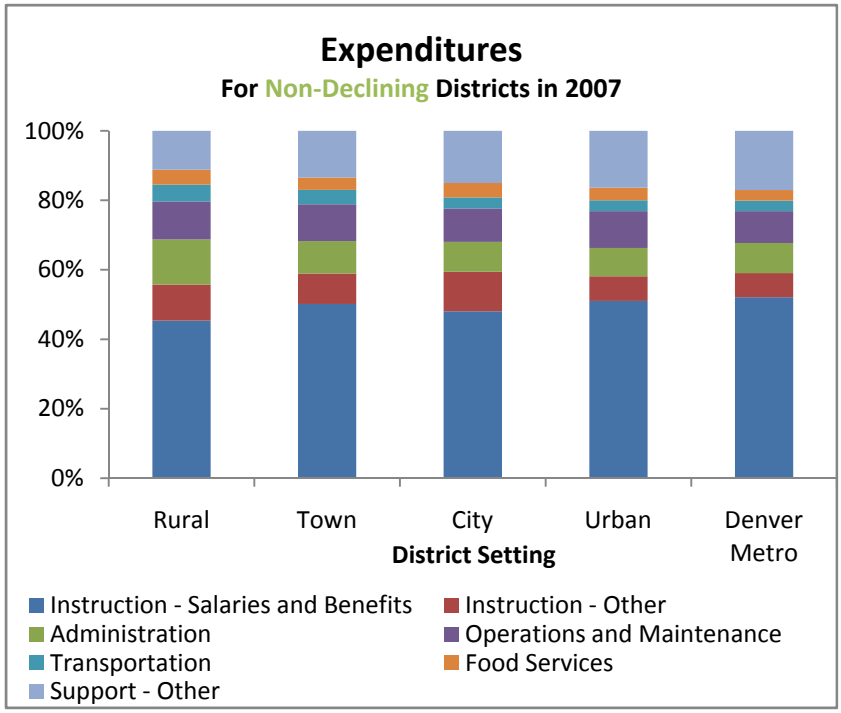
- The allocation of the expenditures by major categories is extraordinarily similar for all school districts, irrespective of school district size or setting or whether the school district is in a declining or non-declining enrollment environment.

- The academic year 2002-03 (charts not included) shows no discernible difference in the budget allocation, again irrespective of size or setting or enrollment trend.


Expenditures
For Declining Districts in 2007
100%
80%
60%
40%
20%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment
Instruction - Salaries and Benefits
Instruction - Other
Administration
Operations and Maintenance
Transportation
Food Services
Support - Other


Expenditures
For Non-Declining Districts in 2007
100%
80%
60%
40%
20%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment
Instruction - Salaries and Benefits
Instruction - Other
Administration
Operations and Maintenance
Transportation
Food Services
Support - Other

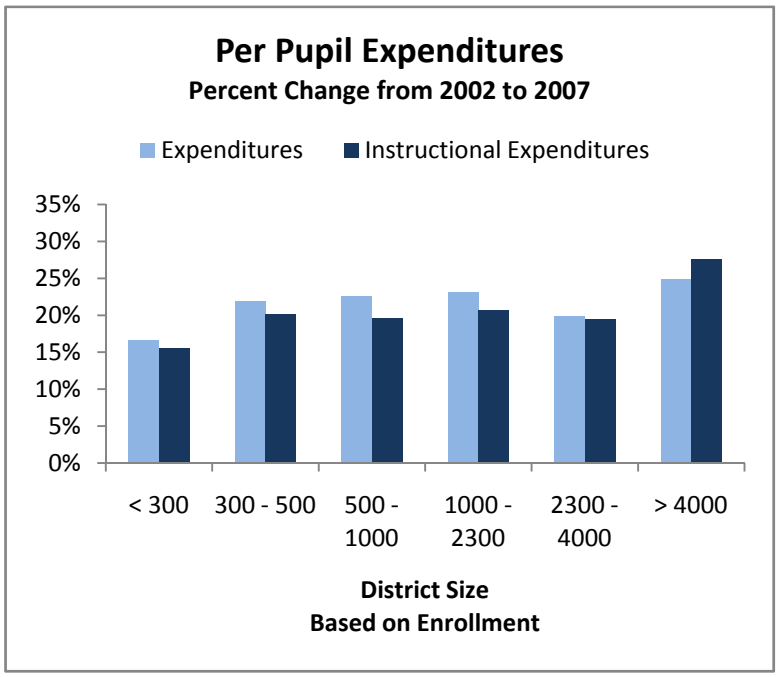

Expenditures
For Declining Districts in 2007
100%
80%
60%
40%
20%
0%
Rural
Town
City
Urban
Denver Metro
District Setting
Instruction - Salaries and Benefits
Instruction - Other
Administration
Operations and Maintenance
Transportation
Food Services

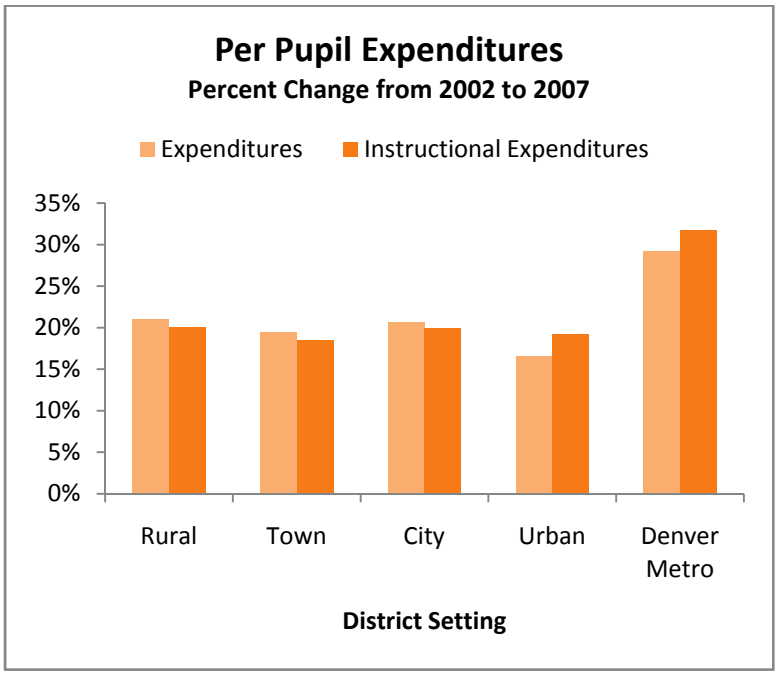

Expenditures
For Non-Declining Districts in 2007
100%
80%
60%
40%
20%
0%
Rural
Town
City
Urban
Denver Metro
District Setting
Instruction - Salaries and Benefits
Instruction - Other
Administration
Operations and Maintenance
Transportation
Food Services
Support - Other

Per Pupil Expenditures – Change Over Time

- To simply maintain the per pupil expenditure levels provided in academic year 2002-03 requires a nearly 20% increase for inflation. The charts demonstrate most school districts, irrespective of size or setting, had monies to maintain academic year 2002-03 levels. The exception to this is the schools in the Denver Metro area, with substantially greater increases in their per pupil expenditures.

- As it relates to instructional commitment, with the exception of the very smallest school districts (less than 300 students), the per pupil expenditures on instruction have also kept up with inflation but are slightly lower than the percent change in total per pupil expenditures with the exception of Denver Metro districts.

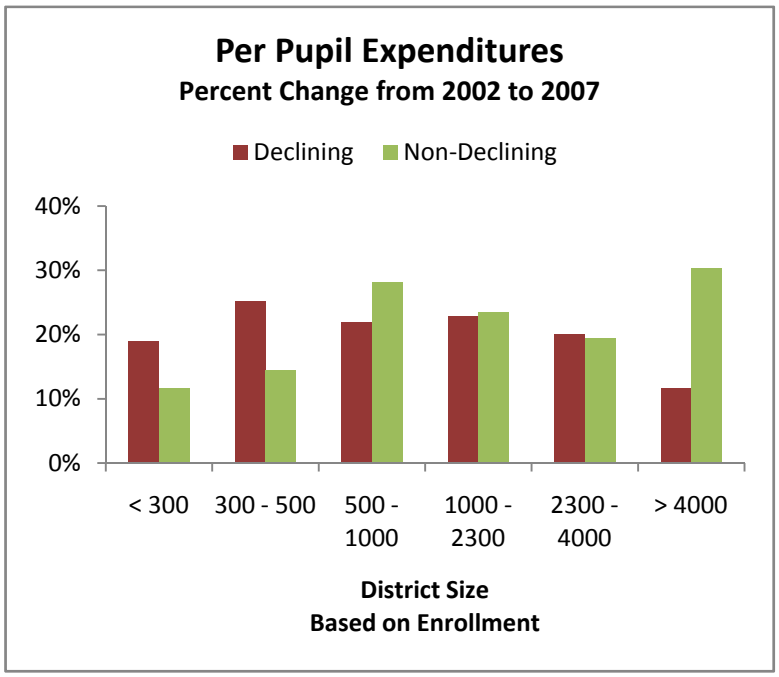

Per Pupil Expenditures
Percent Change from 2002 to 2007
Expenditures
Instructional Expenditures
35%
30%
25%
20%
15%
10%
5%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on Enrollment

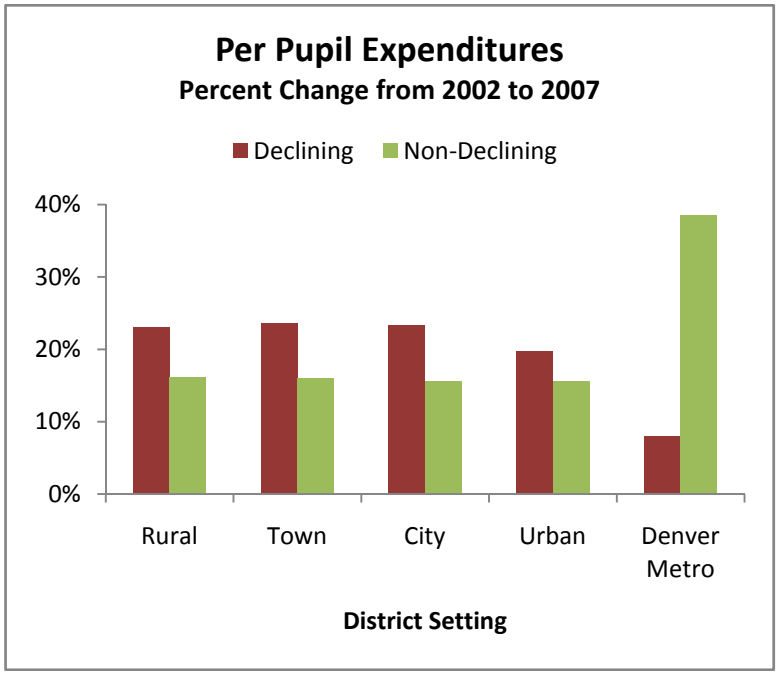

Per Pupil Expenditures
Percent Change from 2002 to 2007
Expenditures
Instructional Expenditures
35%
30%
25%
20%
15%
10%
5%
0%
Rural
Town
City
Urban
Denver Metro
District Setting

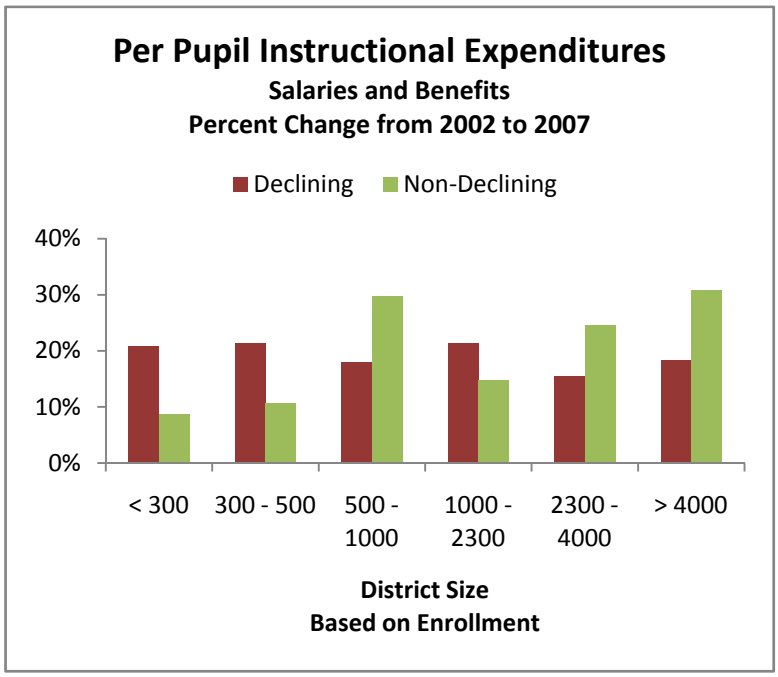
Per Pupil Expenditures – Change Over Time by Enrollment Trend

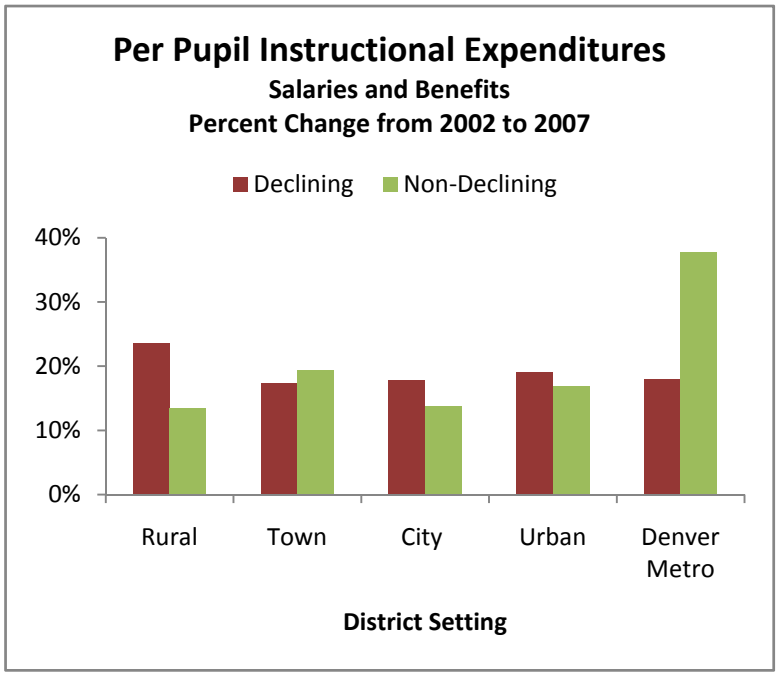
- A somewhat different picture emerges when analyzing per pupil expenditures by enrollment trend, as the declining enrollment small sized school districts (less than 500) and in all school district settings, with the exception of Denver Metro, have fared better than their counterparts in non-declining school districts.

- The per pupil expenditure for instruction is mixed where some school districts (by size, setting and enrollment trend) have mostly kept up with inflation, again with notable exceptions as demonstrated on the final set of charts.


Per Pupil Expenditures
Percent Change from 2002 to 2007
Declining
Non-Declining
40%
30%
20%
10%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on Enrollment


Per Pupil Expenditures
Percent Change from 2002 to 2007
Declining
Non-Declining
40%
30%
20%
10%
0%
Rural
Town
City
Urban
Denver Metro
District Setting


Per Pupil Instructional Expenditures
Salaries and Benefits
Percent Change from 2002 to 2007
Declining
Non-Declining
40%
30%
20%
10%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on Enrollment

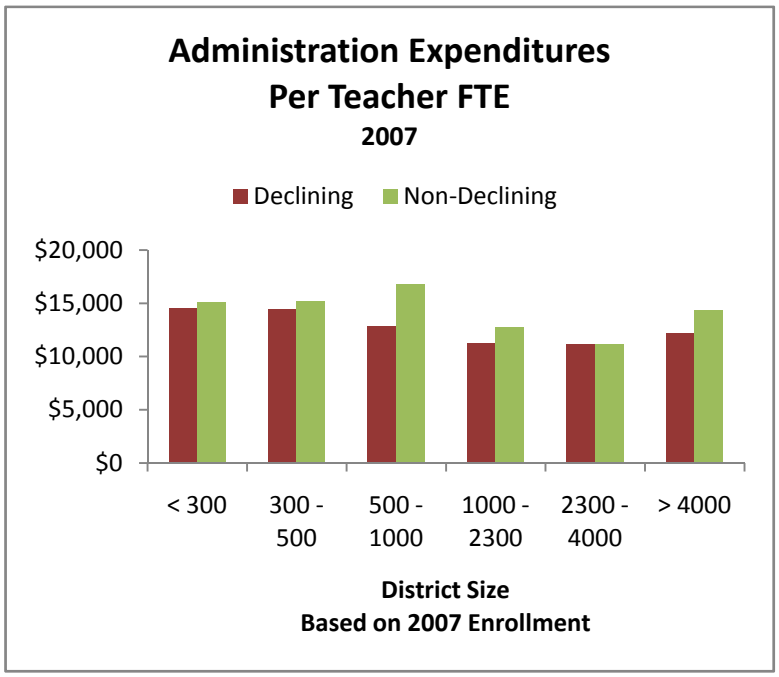

Per Pupil Instructional Expenditures
Salaries and Benefits
Percent Change from 2002 to 2007
Declining
Non-Declining
40%
30%
20%
10%
0%
Rural
Town
City
Urban
Denver Metro
District Setting

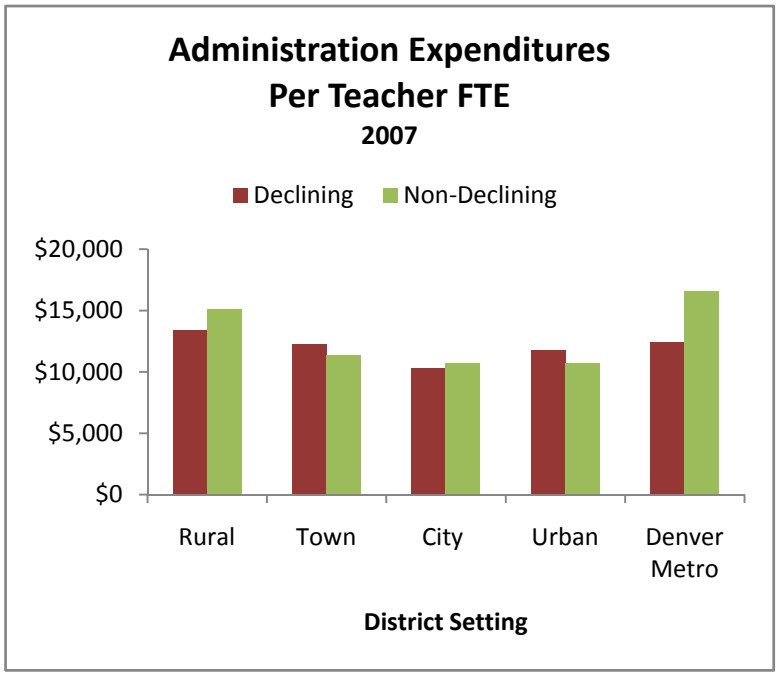
Administration Expenditures

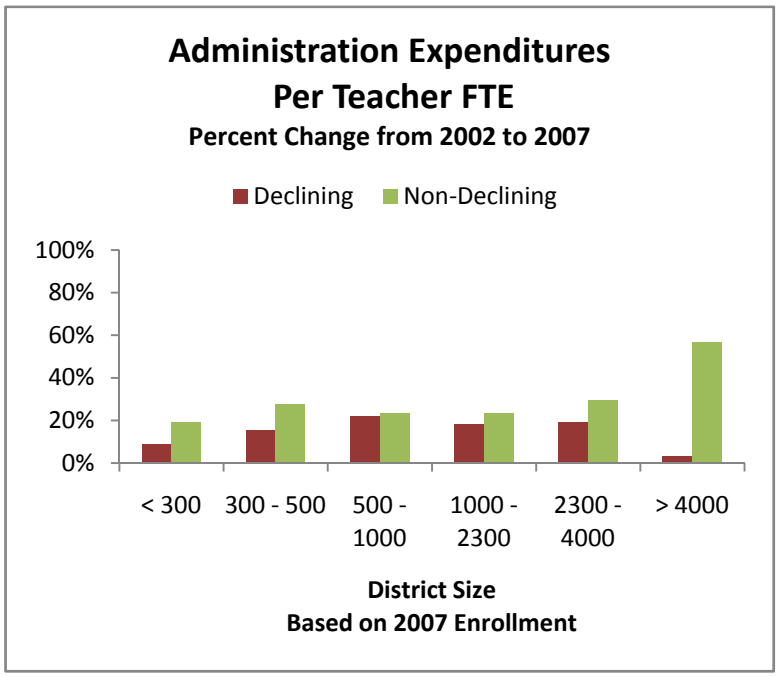
- One measure of an efficient school district operation is the evaluation of administration expenses. It is important to note that administration expenses are not easily measured as responsibilities and job descriptions vary widely across school districts. For example, administration positions at large enrollment school districts will have demanding but narrowly defined job responsibilities while a superintendent in a small enrollment school district will have an equally demanding position but is likely to have "multiple roles" ranging from superintendent, to principal, to academic counselor, etc. As such, administration expenditures include both general and school administrators.

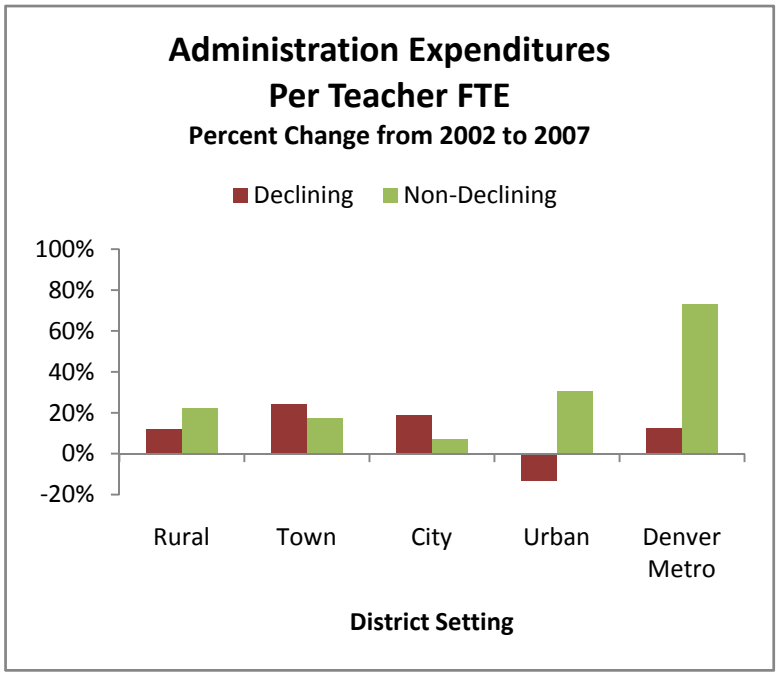
- The following charts demonstrate administration expenditures relative to teacher full-time equivalents (FTEs), based on the expectation that administration expenses are related to the size of required personnel and not to the number of students, provides an interesting perspective as all size categories incurred greater expenditures (with the exception of the 2,300 to 4,000 size category) for non-declining enrollment than their declining enrollment counterparts. However, by geographic setting, where expenditure shares are relatively similar, there is more variation across enrollment trend.

- The second set of charts shows the percent change in administration expenditures per teacher full-time equivalent (FTE) has no identifiable pattern with the exception of non-declining school districts of 4,000 students or greater or the Denver Metro which have surprisingly large increases in these expenditures.


Administration Expenditures
Per Teacher FTE
2007
Declining
Non-Declining
$20,000
$15,000
$10,000
$5,000
$0
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


Administration Expenditures
Per Teacher FTE
2007
Declining
Non-Declining
$20,000
$15,000
$10,000
$5,000
$0
Rural
Town
City
Urban
Denver Metro
District Setting


Administration Expenditures
Per Teacher FTE
Percent Change from 2002 to 2007
Declining
Non-Declining
100%
80%
60%
40%
20%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


Administration Expenditures
Per Teacher FTE
Percent Change from 2002 to 2007
Declining
Non-Declining
100%
80%
60%
40%
20%
0%
-20%
Rural
Town
City
Urban
Denver Metro
District Setting

Student Characteristics

In the mission of educating the student population, both school educators and school policymakers recognize certain demographic and socioeconomic characteristics can limit or impact student performance.

- At least one of these factors, the presence of at-risk students in the school district, is incorporated into the funding formula to provide additional monies for program costs.

- Additional monies for school districts, referred to in the educational arena as state categoricals, are provided by the state primarily for students with limited English language skills (ELL), special education needs or special provisions for the gifted and talented.

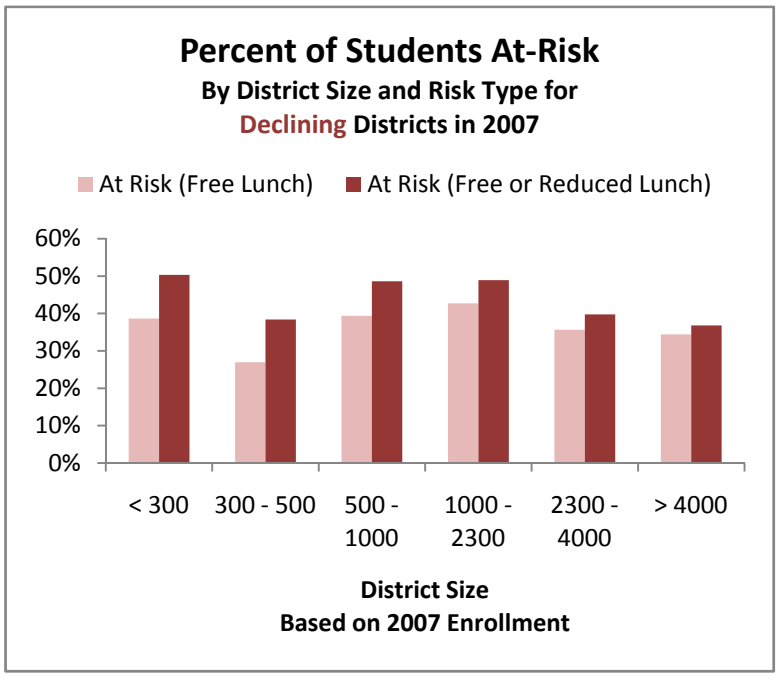
- The provision of these state monies is based on specific student need characteristics (not on full enrollment counts) and also is not fully funded (i.e., the distribution of extra monies by the state for these students does not fully fund the extra program needs for these students).

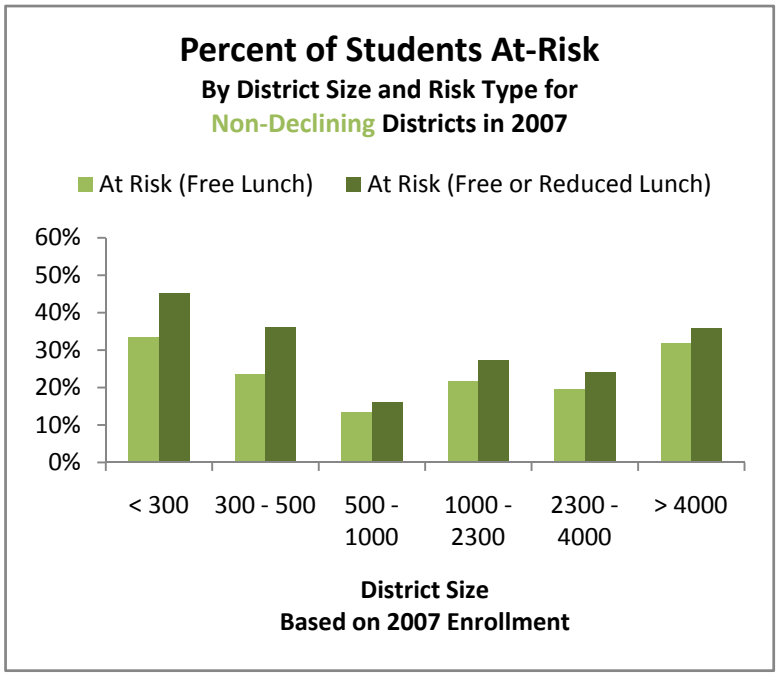
At-Risk Students

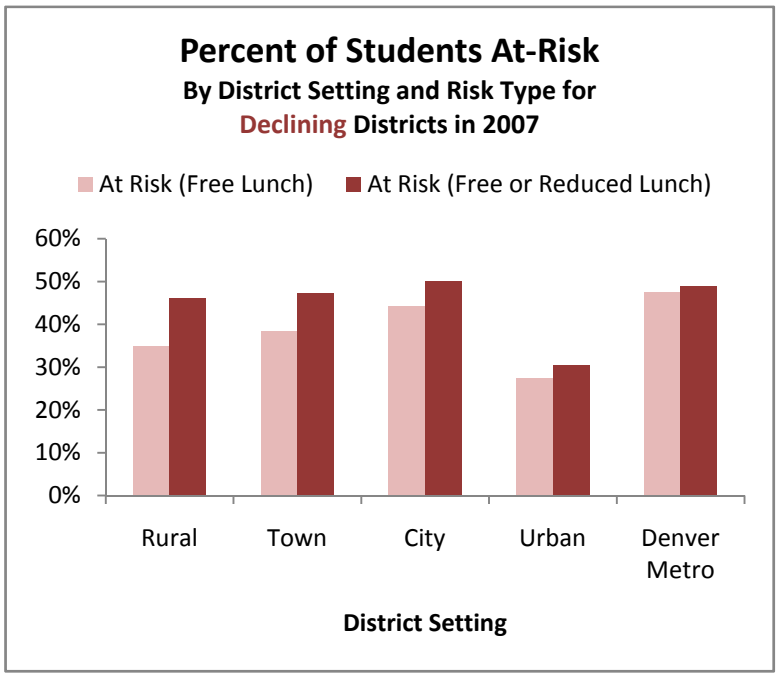
- The percent of at-risk students is higher in declining school districts relative to non-declining school districts for all size and nearly all setting categories. This is an interesting trend and, upon more detailed inspection (discussed in the full report), appears to be attributable to a number of factors, including school choice.

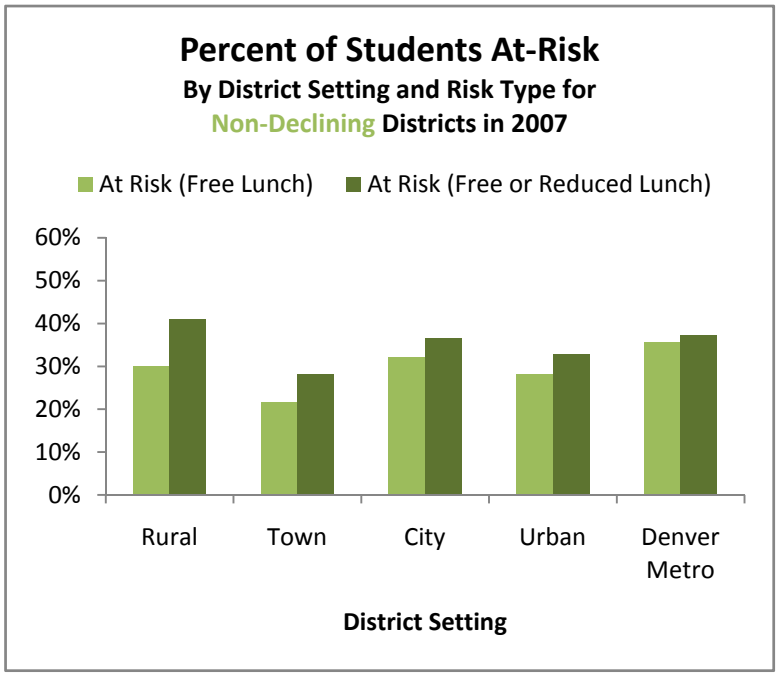
- Importantly, at-risk, whether defined as only free lunch as calculated in the Colorado public school funding formula or also including reduced lunch (more consistent with the actual delivery of these services to the students), has increased over the six years considered in this analysis for school districts of all enrollment sizes and settings and also irrespective of declining and non-declining enrollment status (academic year 2002-03 charts are not included).

- Interestingly, students at-risk (by free and reduced lunch counts) generally account for as much as 30% to 50% of the school districts with declining enrollment while non-declining enrollment school districts generally have a somewhat lower percent of at-risk students.


Percent of Students At-Risk
By District Size and Risk Type for
Declining Districts in 2007
At Risk (Free Lunch)
At Risk (Free or Reduced Lunch)
60%
50%
40%
30%
20%
10%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


Percent of Students At-Risk
By District Size and Risk Type for
Non-Declining Districts in 2007
At Risk (Free Lunch)
At Risk (Free or Reduced Lunch)
60%
50%
40%
30%
20%
10%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


Percent of Students At-Risk
By District Setting and Risk Type for
Declining Districts in 2007
At Risk (Free Lunch)
At Risk (Free or Reduced Lunch)
60%
50%
40%
30%
20%
10%
0%
Rural
Town
City
Urban
Denver Metro
District Setting


Percent of Students At-Risk
By District Setting and Risk Type for
Non-Declining Districts in 2007
At Risk (Free Lunch)
At Risk (Free or Reduced Lunch)
60%
50%
40%
30%
20%
10%
0%
Rural
Town
City
Urban
Denver Metro
District Setting

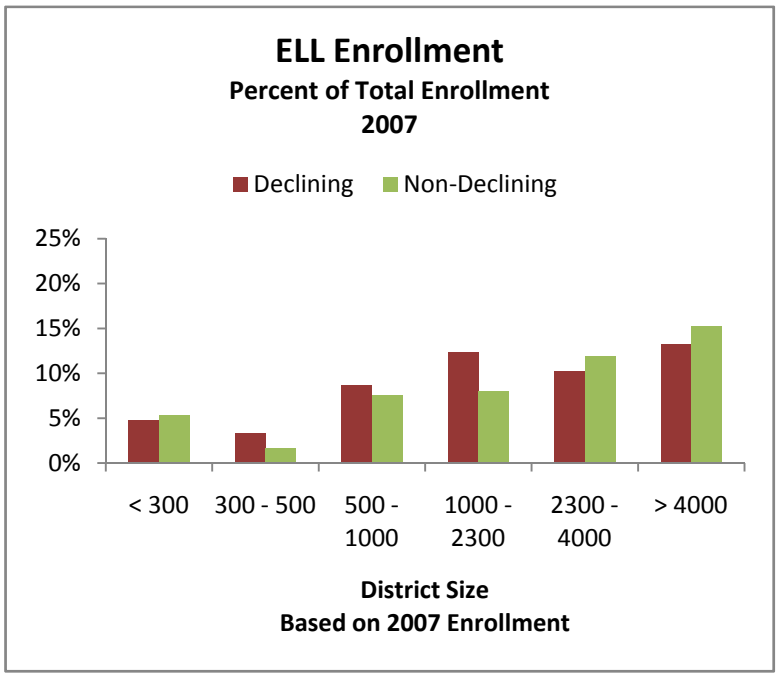
ELL/Special Education/Gifted and Talented Students

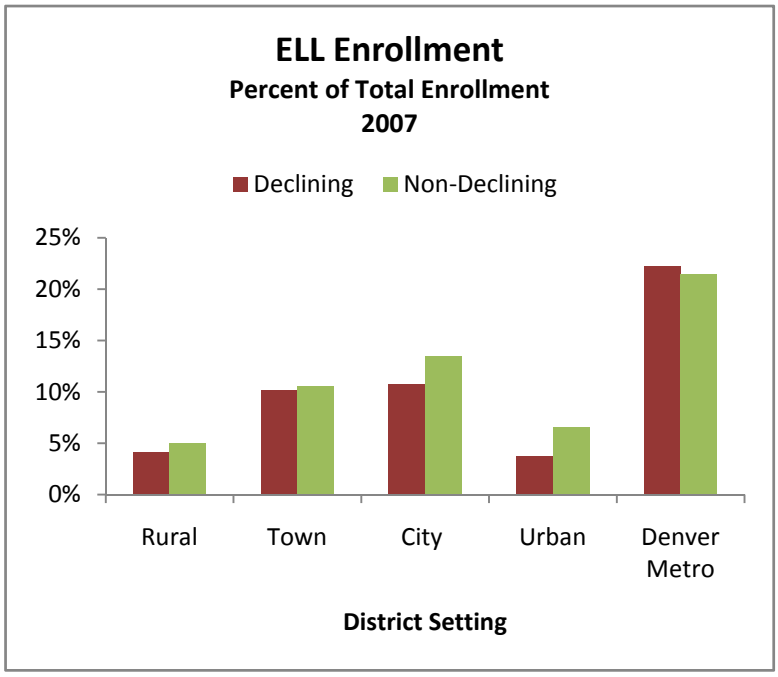
- Under the English Language Proficiency Act (ELPA), school districts are required to provide programs to improve the language skills of students who are determined to be English Language Learners (ELL). The data indicate no trend associated with ELL between declining versus non-declining enrollment districts, although there is some nominal variation across academic years 2002-03 (chart not shown) and 2007-08.

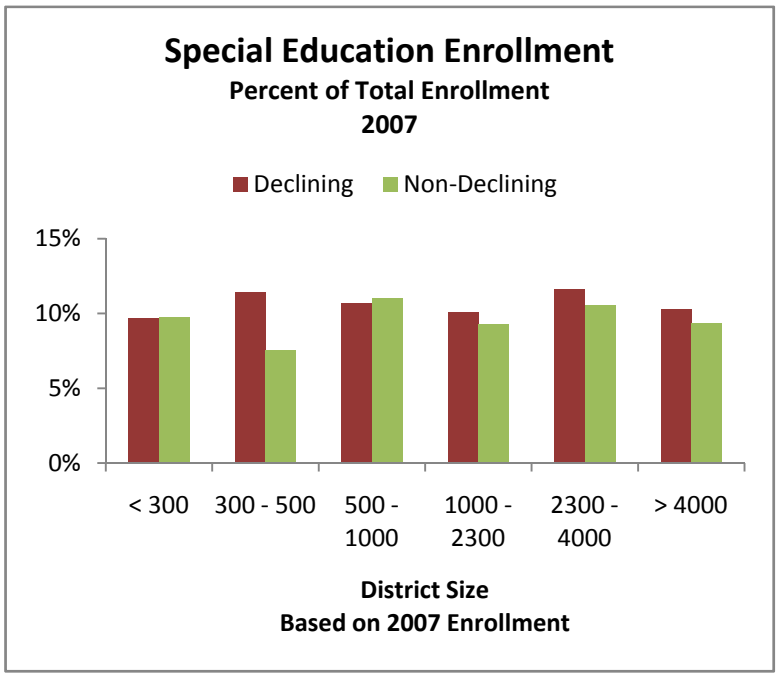
- School districts are also required to provide education services to children who need and/or are eligible for special education. These include children for whom an individual education plan (IEP) has been created, recognizing these needs can be minor or required to address more severe learning issues.

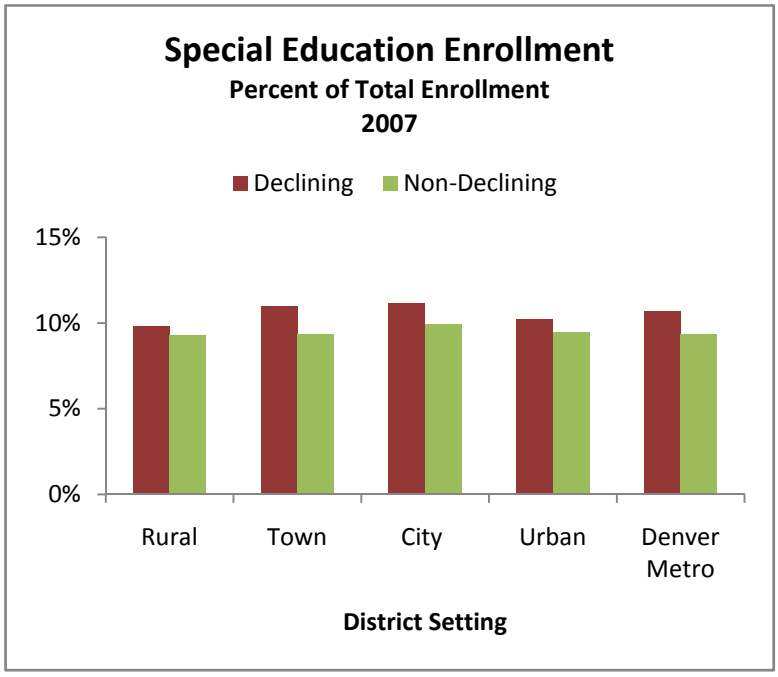
    - In nearly all of the school district sizes and setting categories, the percent of special education enrollment is greater in the districts with declining enrollments relative to the districts with non-declining enrollments.

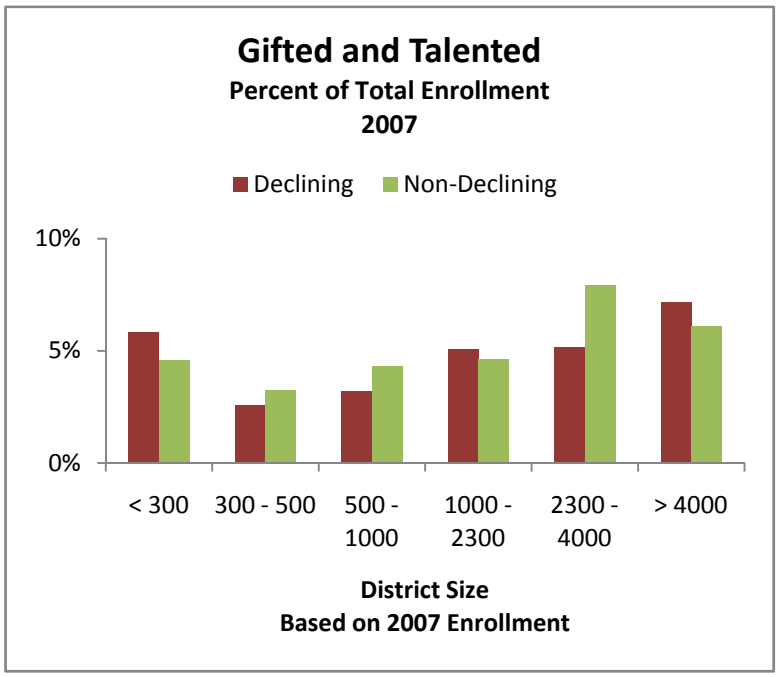
- No discernible pattern for gifted and talented exists by any school district characteristic (declining/non-declining, size, or setting).

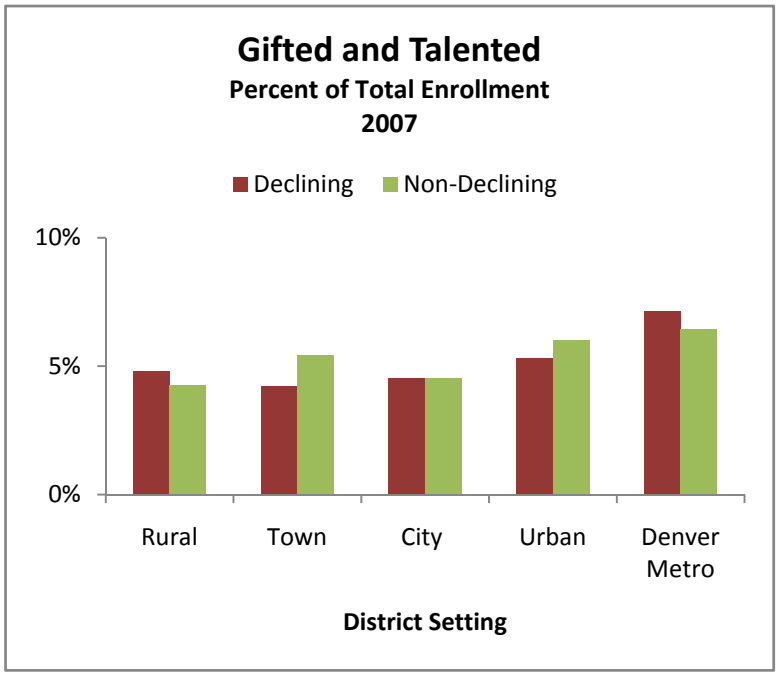

ELL Enrollment
Percent of Total Enrollment
2007
Declining
Non-Declining
25%
20%
15%
10%
5%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


ELL Enrollment
Percent of Total Enrollment
2007
Declining
Non-Declining
25%
20%
15%
10%
5%
0%
Rural
Town
City
Urban
Denver Metro
District Setting


Special Education Enrollment
Percent of Total Enrollment
2007
Declining
Non-Declining
15%
10%
5%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


Special Education Enrollment
Percent of Total Enrollment
2007
Declining
Non-Declining
15%
10%
5%
0%
Rural
Town
City
Urban
Denver Metro
District Setting


Gifted and Talented
Percent of Total Enrollment
2007
Declining
Non-Declining
10%
5%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment

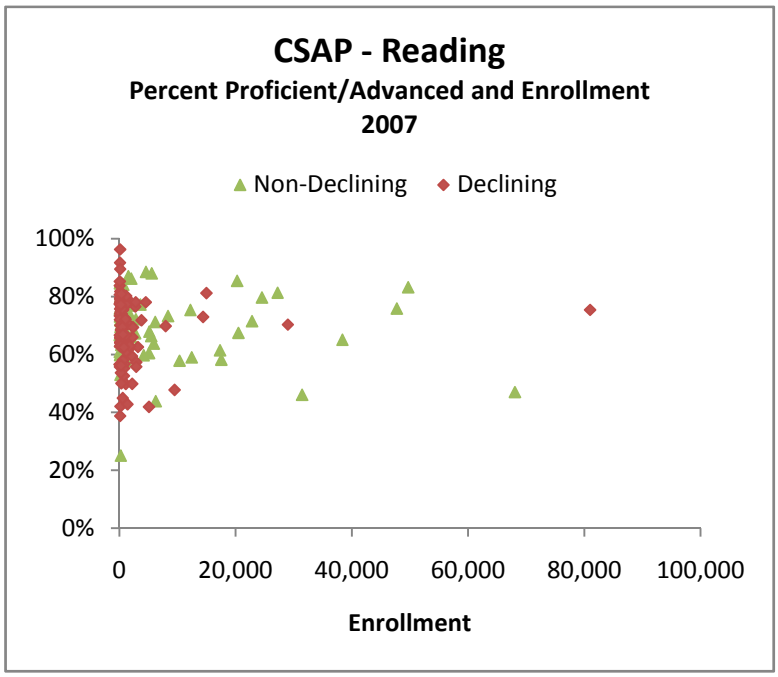

Gifted and Talented
Percent of Total Enrollment
2007
Declining
Non-Declining
10%
5%
0%
Rural
Town
City
Urban
Denver Metro
District Setting

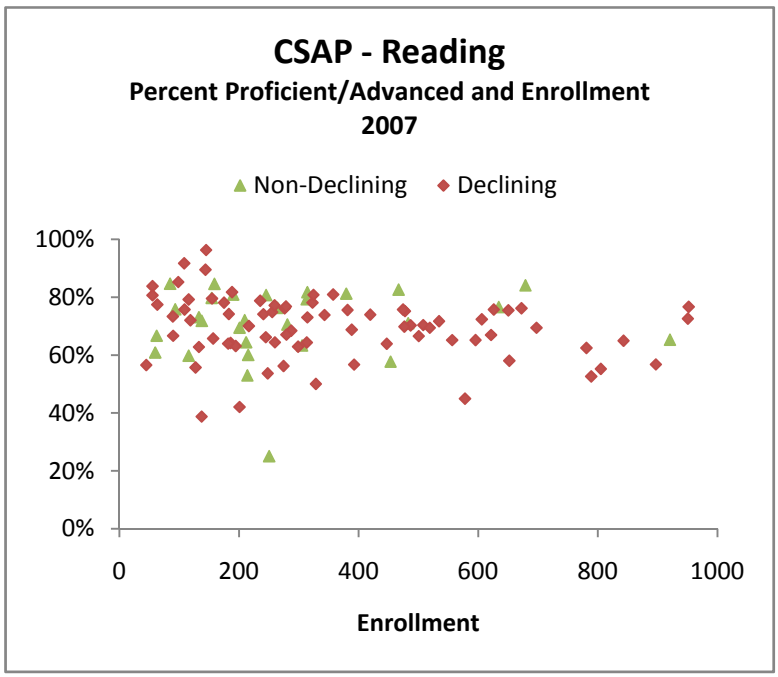
Student Performance

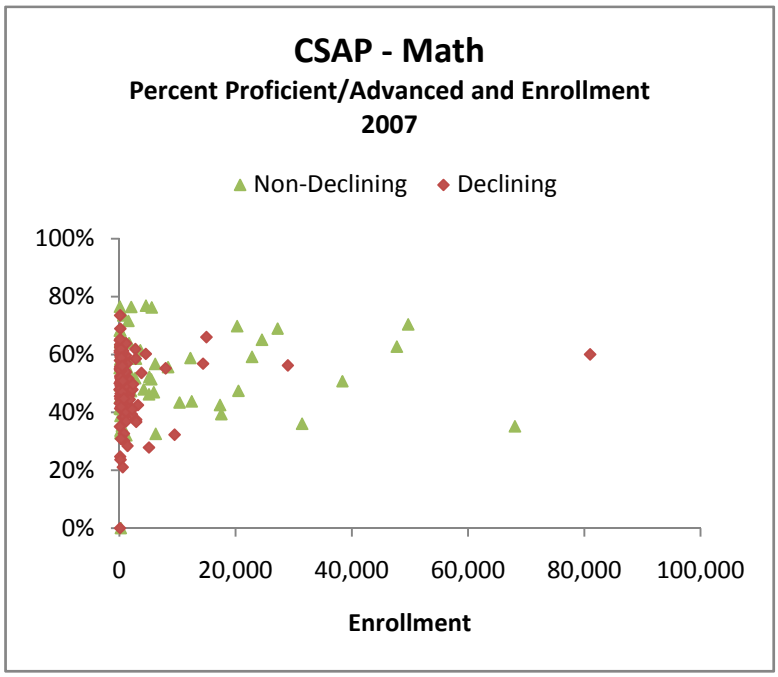
The graphs on the following pages provide perspective on the relationship between student performance and enrollment.

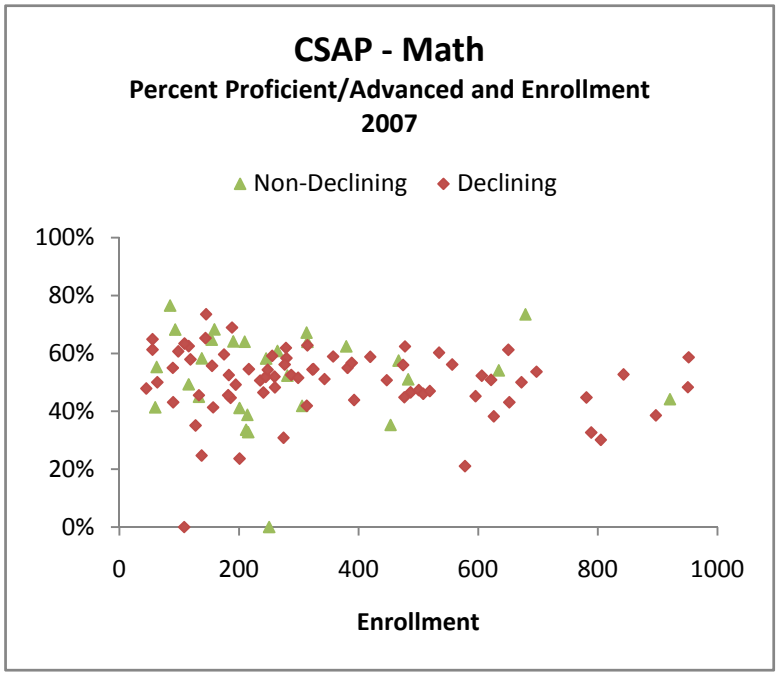
- The first scatterplots for both reading and math result in fairly indistinguishable clusters of all observations, limiting analysis. Hence, the scatterplot below each focuses on enrollments up to 1,000 students, representing nearly two-thirds of the school districts in the state, and also provides better insight regarding student performance for both declining and non-declining school districts. (Similar patterns for student performance exist for the larger enrollments but are not included on the following graphs.)

- The scatterplots demonstrate some variation, although there is no trend in the student performance (CSAP scores) for reading or math across all enrollment levels, irrespective of whether the school district is in a declining or non-declining enrollment environment, after accounting for other factors.


CSAP - Reading
Percent Proficient/Advanced and Enrollment
2007
Non-Declining
Declining
100%
80%
60%
40%
20%
0%
0
20,000
40,000
60,000
80,000
100,000
Enrollment


CSAP - Reading
Percent Proficient/Advanced and Enrollment
2007
Non-Declining
Declining
100%
80%
60%
40%
20%
0%
0
200
400
600
800
1000
Enrollment


CSAP - Math
Percent Proficient/Advanced and Enrollment
2007
Non-Declining
Declining
100%
80%
60%
40%
20%
0%
0
20,000
40,000
60,000
80,000
100,000
Enrollment


CSAP - Math
Percent Proficient/Advanced and Enrollment
2007
Non-Declining
Declining
100%
80%
60%
40%
20%
0%
0
200
400
600
800
1000
Enrollment

Student Performance – Regression Results

Regression analysis (econometric modeling) provides the opportunity to explain the variations in student performance when "controlling for" or "accounting for" specific factors and characteristics known or believed to be related to performance outcomes. Regression is a statistical procedure which allows for inferential analysis. (A description and explanation of the model plus the detail of the results are outlined in the full report).

- Student performance is not statistically significantly different between districts with declining and non-declining enrollments. However, as measured by CSAP, the percent of students at a proficient or advanced level in reading generally ranged between 60 to 80 percent while this range was between 40 to 60 percent for students in math performance.

- Importantly, the teacher average salary for the school district is statistically significant and positively related to both reading and math performance, where its impact on math performance is substantially greater than for reading. It is noteworthy that teacher experience measured as a percent of teachers with a master's degree or greater, is not statistically significant on the impact of student performance in our analysis. (It would appear that important teacher characteristics are being captured in this salary measure, which may be appropriate if teachers are being properly compensated for their attributes).

- The percent of online students is negatively related to reading and math performance as well as graduation rates (if graduation rates are used as a performance measure). That is, online students perform less well than others with similar student and school district attributes that are not in online programs.

- The percent of both incoming and outgoing students is one measure of choice and is positively related to math performance indicating school choice has had a positive impact on student performance.

- The percent of charter students does not have a statistically significant impact on student performance.

- Student attributes have the expected relationship with student performance. That is, the percent of at-risk and IEP students are negatively related to reading and math performance indicating an increase in the percent of these students in a district, all other things being the same, will decrease student performance for the district.

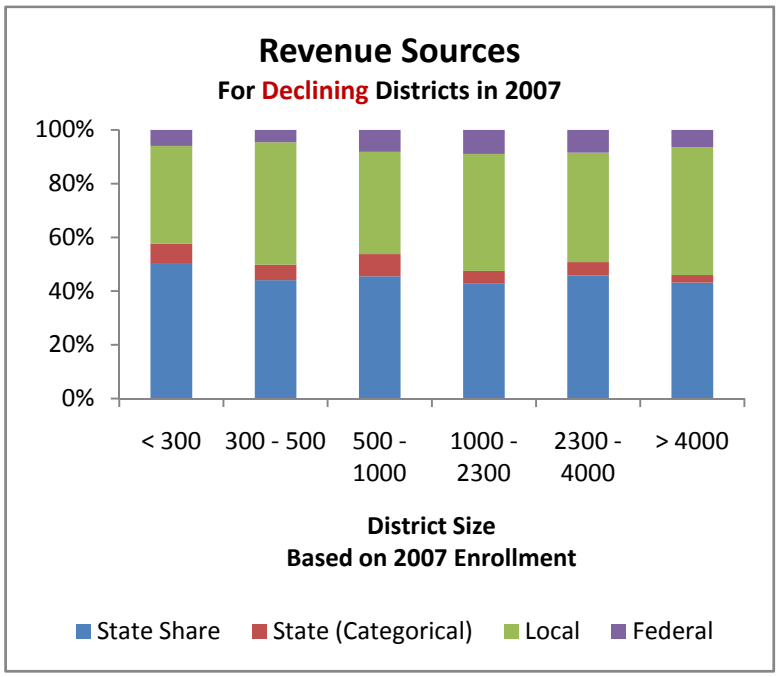
Revenue Sources

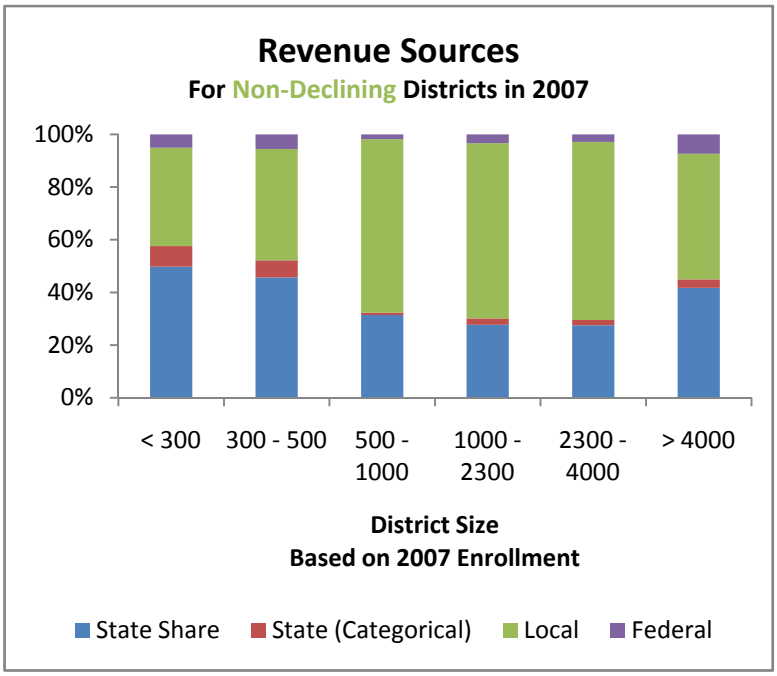
- When evaluating major revenue sources (by mid-sized enrollment) non-declining school districts have more local revenue support and a relatively smaller provision of monies from state and federal government sources while school districts with less than 500 students, irrespective of enrollment trend, receive more state and federal support. A similar distribution exists for non-declining school districts in town and city settings which receive more limited state and federal support (the chart by geographic setting can be found in our full report).

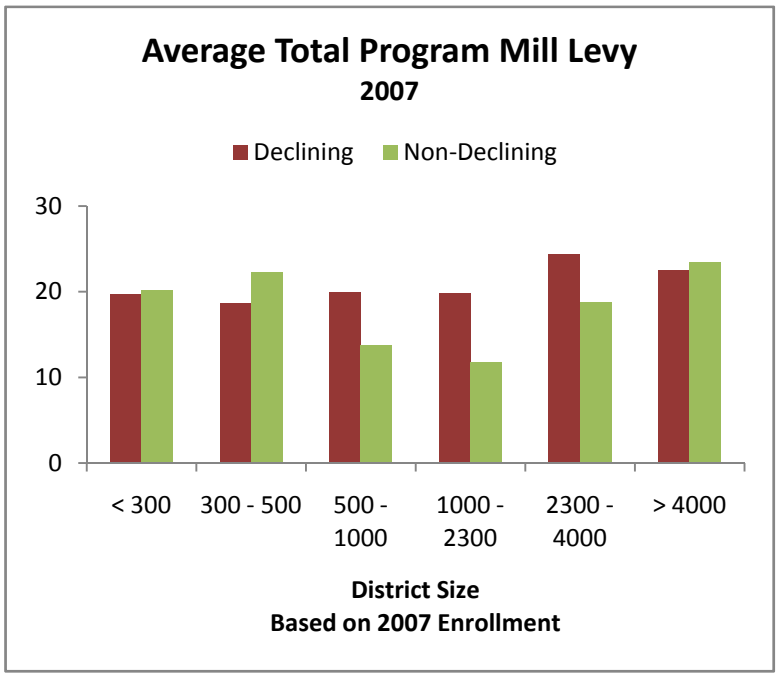
- Generally, declining school districts have somewhat greater average total program mill levy rates than their non-declining counterparts, whether it is a district size or setting criteria is used for comparison. Again, a similar trend is found when evaluating the average total mill levy rates (where the chart by geographic setting can be found in our full report).

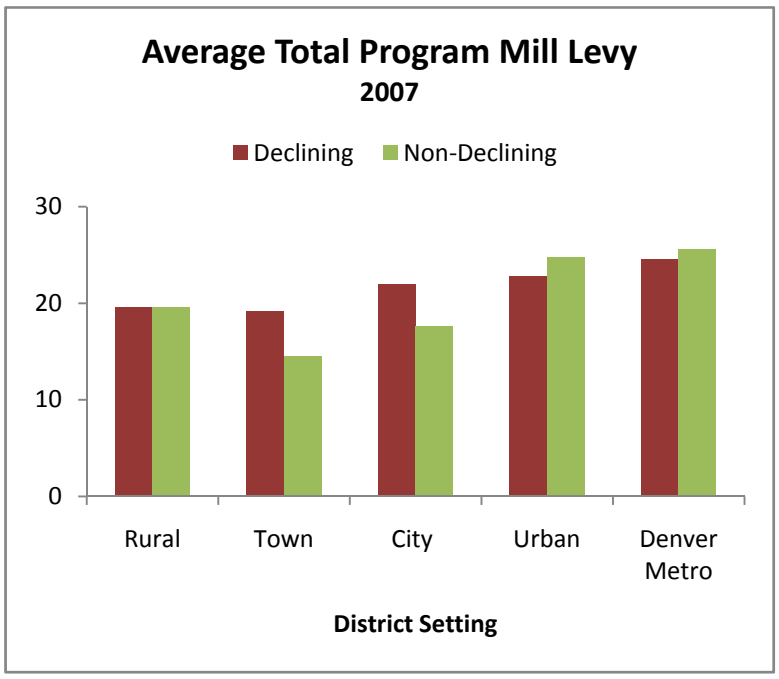
- Override dollars, i.e., monies approved by voters for additional public school funding, is quite mixed across school district size, setting, and/or enrollment trend. For example, substantially greater override monies have been approved for larger school enrollment districts (mostly the urban and Denver metro areas) and generally with larger provisions for the declining enrollment school districts.

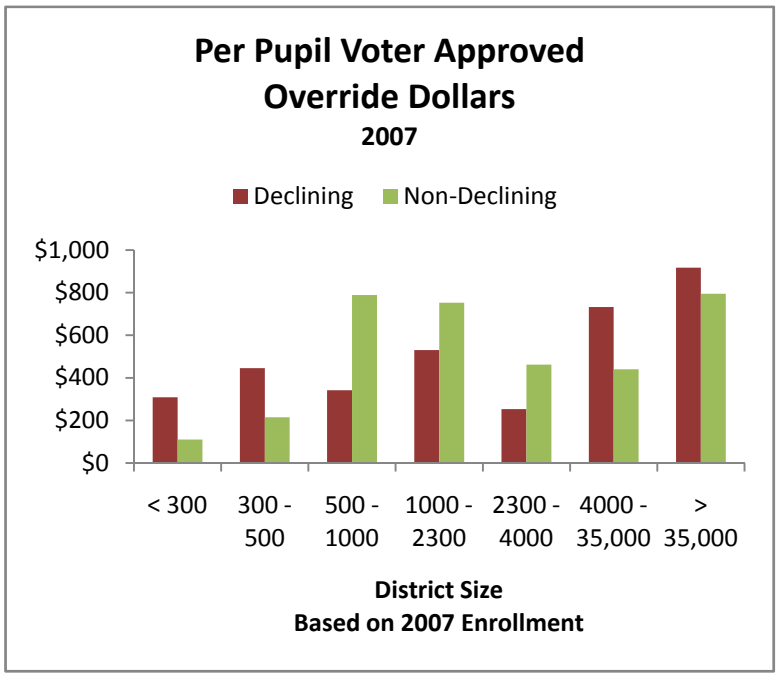
- Non-declining districts with enrollments from 500 to 2,300 have approved higher level override dollars while more limited override dollars have been approved in small sized and rural districts as well as the districts with enrollments of 2,300 to 4,000 students.

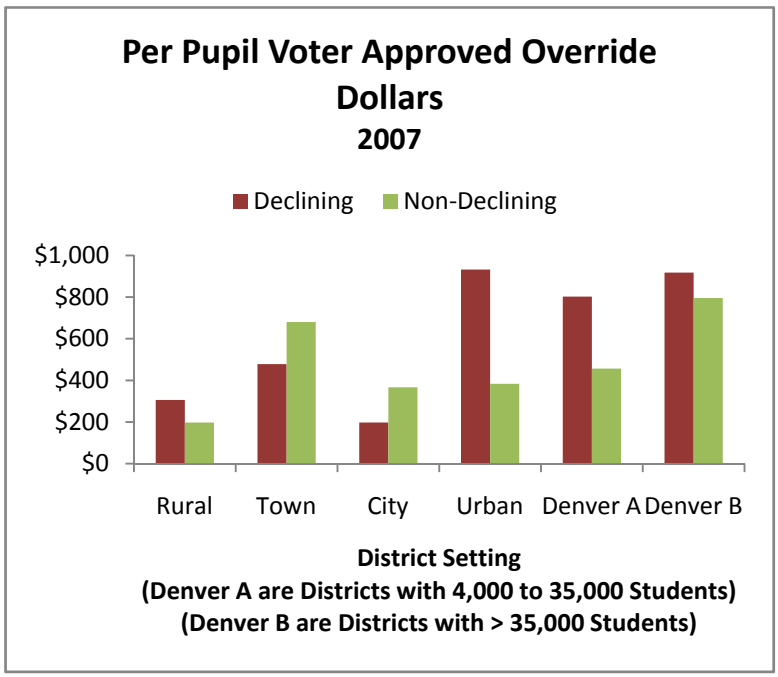

Revenue Sources
For Declining Districts in 2007
100%
80%
60%
40%
20%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment
State Share
State (Categorical)
Local
Federal


Revenue Sources
For Non-Declining Districts in 2007
100%
80%
60%
40%
20%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment
State Share
State (Categorical)
Local
Federal


Average Total Program Mill Levy
2007
Declining
Non-Declining
30
20
10
0
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


Average Total Program Mill Levy
2007
Declining
Non-Declining
30
20
10
0
Rural
Town
City
Urban
Denver Metro
District Setting


Per Pupil Voter Approved Override Dollars
2007
Declining
Non-Declining
$1,000
$800
$600
$400
$200
$0
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
4000 - 35,000
> 35,000
District Size
Based on 2007 Enrollment


Per Pupil Voter Approved Override Dollars
2007
Declining
Non-Declining
$1,000
$800
$600
$400
$200
$0
Rural
Town
City
Urban
Denver A
Denver B
District Setting
(Denver A are Districts with 4,000 to 35,000 Students)
(Denver B are Districts with > 35,000 Students)

Necessary Costs of Providing Education Services

When enrollment changes, school districts must reallocate resources across expenditure categories (e.g., salaries and benefits, administration, transportation). However, some categories may be easier to adjust than others. A different regression analysis was developed to estimate adjustment factors for the main expenditure categories (detailed in the full report) and found school districts are:

- Particularly limited in their ability to adjust expenditures from year-to-year for transportation;

- Have somewhat more flexibility in adjusting expenditures on other support (instructional staff assistance, purchased services, supplies and materials as well as employed students), operations and maintenance, instructional salaries and benefits, food services and general and school administration;

- School districts have the most flexibility adjusting expenditures on other instructional (e.g., teacher aides, etc.) expenditures.

Necessary Costs of Providing Education Services – Related to Size Measure

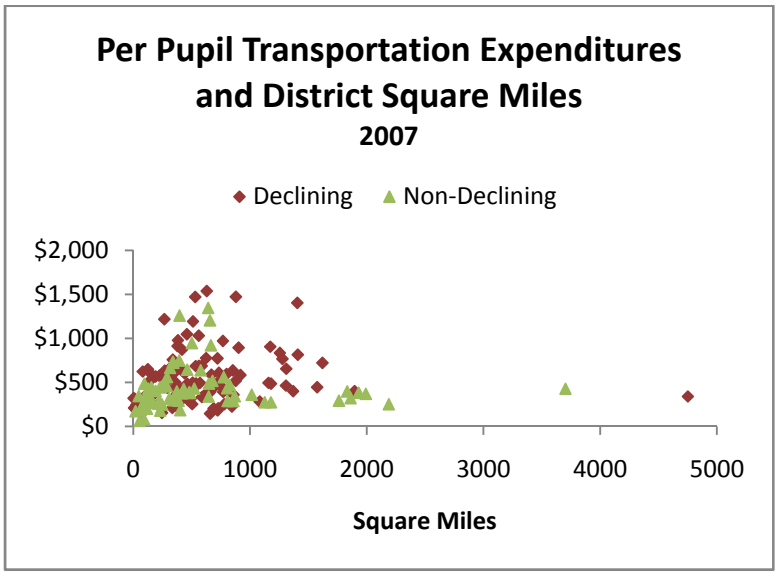
An alternative view of the variability in the components of school expenditures is also provided by considering how these expenditures are related to appropriate measures of size. For example, the following charts illustrate how per pupil transportation expenditures are related to the size of the district in square miles; how per pupil food services expenditures are related to total enrollment; and how operations and maintenance expenditures are related to building square feet.

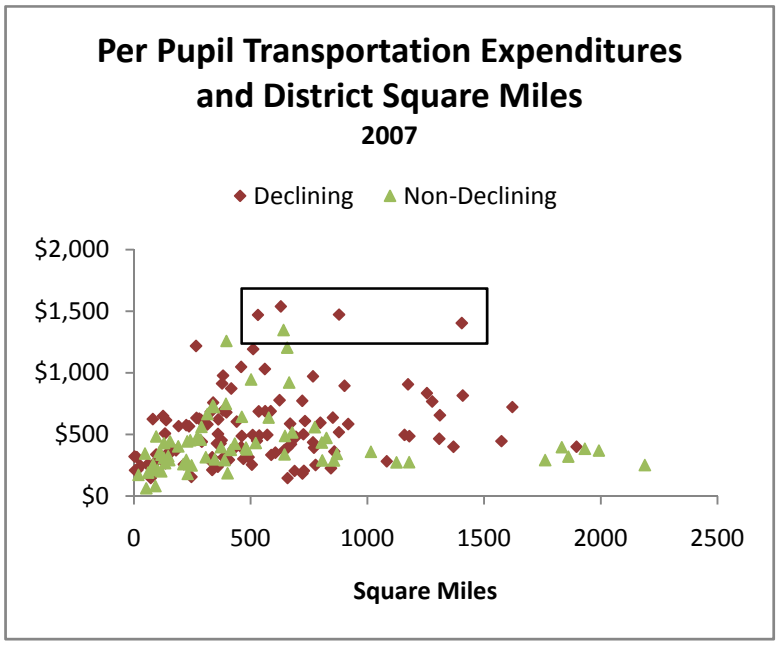
The distinguishing characteristic of all the plots is that there is very little trend in per pupil expenditures over a wide range of district sizes, be it measured in square miles, enrollment, or building square feet.

- The implication is that the per pupil cost for these expenditure categories is relatively fixed with respect to district size. (That is, total costs in these categories are, in general, relatively fixed per pupil or proportional to the number of students in the school district.)

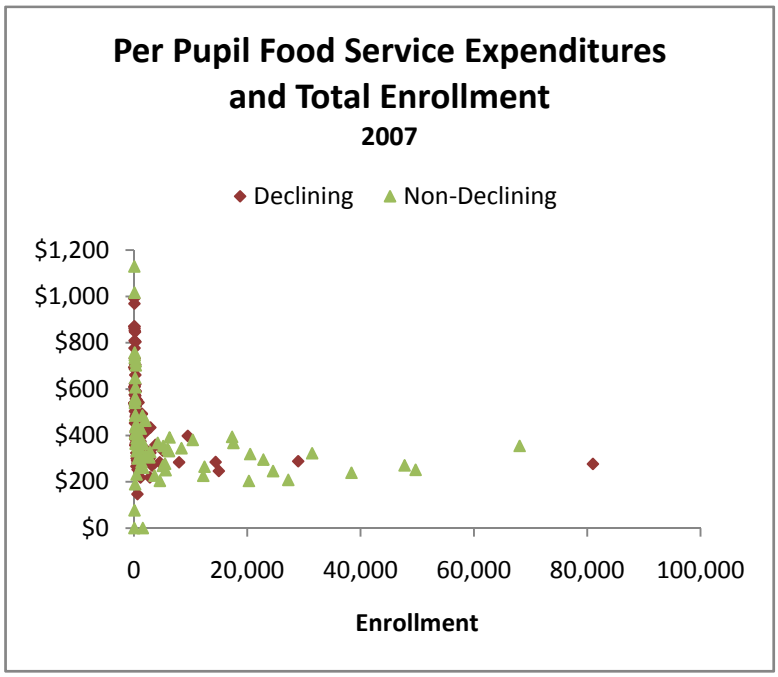
- However, there does appear to be some increase in per pupil food service expenditures in districts with small enrollments (less than 300 students).

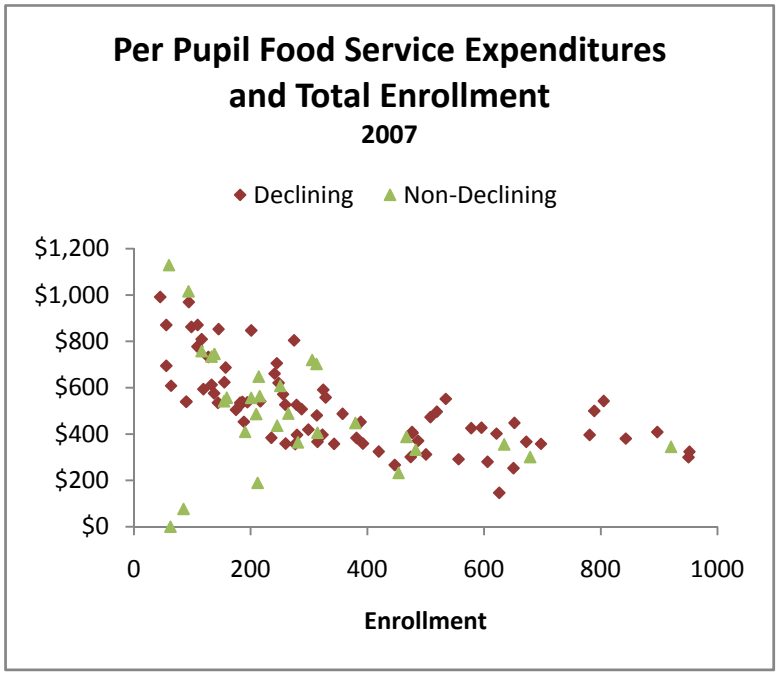
- Also, a few districts with very small building areas have relatively high operations and maintenance expenditures and a few districts of medium area (500-1,500 square miles) have relatively high transportation expenditures.

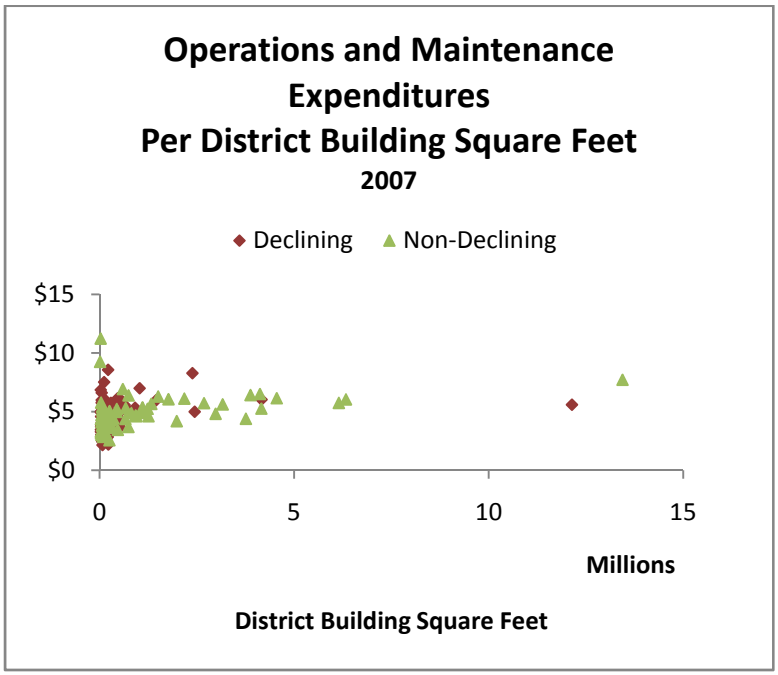


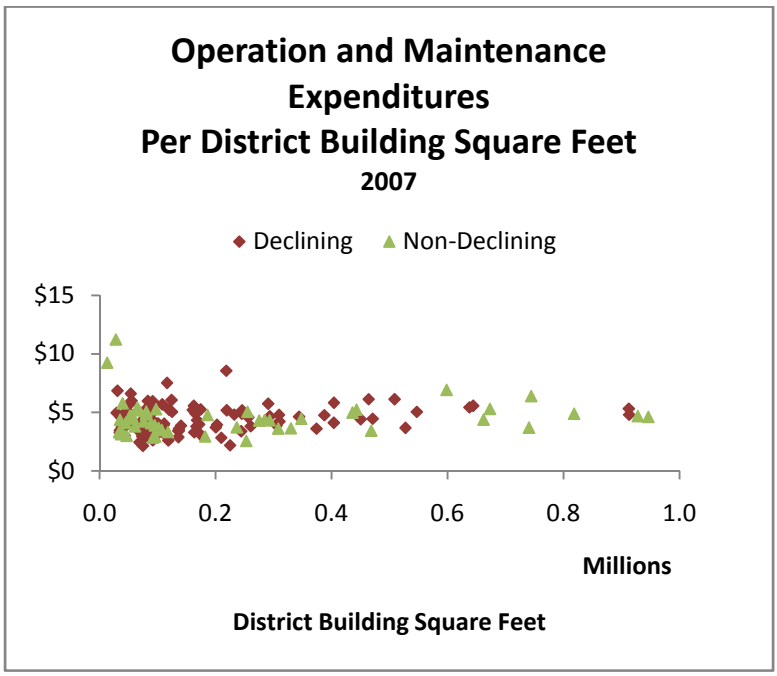


In the box: Woodlin R-104, Kit Carson R-1, Plainview Re-2, Kim Reorganized 88, Arickaree R-2
Removed: Gunnison Watershed RE1J and Moffat County RE1 (outliers) and, for reasons discussed earlier, Vilas RE-5.


Per Pupil Food Service Expenditures and Total Enrollment
2007
Declining
Non-Declining
$1,200
$1,000
$800
$600
$400
$200
$0
0
20,000
40,000
60,000
80,000
100,000
Enrollment


Per Pupil Food Service Expenditures and Total Enrollment
2007
Declining
Non-Declining
$1,200
$1,000
$800
$600
$400
$200
$0
0
200
400
600
800
1000
Enrollment


Operations and Maintenance
Expenditures
Per District Building Square Feet
2007
Declining
Non-Declining
$15
$10
$5
$0
0
5
10
15
Millions
District Building Square Feet


Operation and Maintenance
Expenditures
Per District Building Square Feet
2007
Declining
Non-Declining
$15
$10
$5
$0
0.0
0.2
0.4
0.6
0.8
1.0
Millions
District Building Square Feet

Average Teacher Salaries and Benefits

Salaries and benefits for teachers and instructional staff employed by the district represent half of state school expenditures in academic year 2007-08. This category is the largest expense for every school district.[2] Naturally, school districts that are experiencing declining enrollments have lower revenues and, therefore, may have a more difficult time paying competitive teacher salaries. Additionally, without a good measure of teacher "quality", parents may perceive a school district that is able to pay their teachers more as one that can provide a higher quality of education.

The following set of charts demonstrates nominal differences in average teacher salaries and benefits for similarly situated school districts whether measured by size or setting or enrollment trend.

- Although there is little variation in teacher salary by enrollment trend (declining/non-declining), the average salary clearly increases as school district size (enrollment) increases. That is, teacher salaries for small sized school districts of less than 500 students are lower than the teacher salary in the larger or urban and Denver Metro school districts.

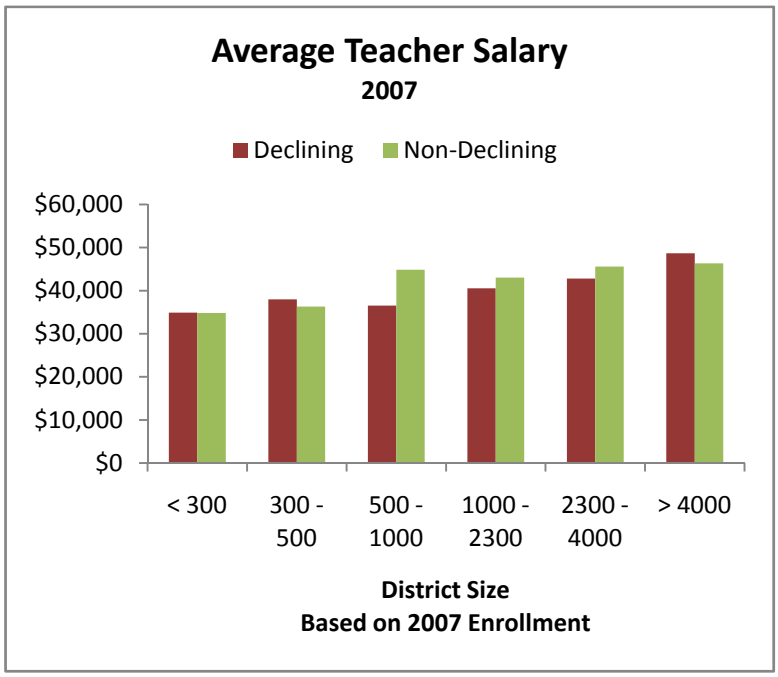
- Two main components of employee benefits are pension contributions and health insurance. All school districts in the State now participate in the Colorado Public Employees' Retirement Association (PERA), a defined

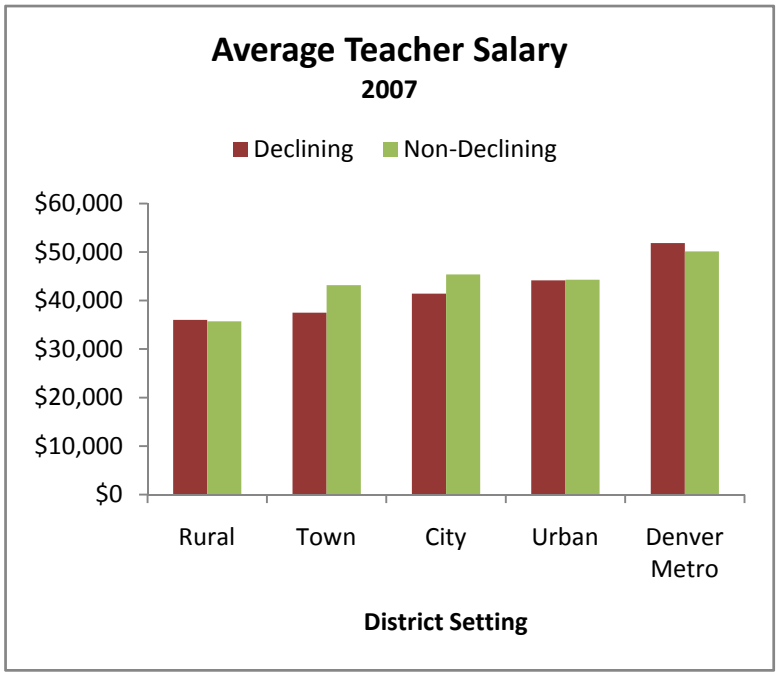
[2] The average teacher salary for academic year 2007-08 for each school district along with comparisons for similarly situated schools in terms of school district size (enrollment) and setting plus state averages are illustrated in Appendix A in the full report (the school district profiles). Similar comparisons for the percent increase in salary across the six year period are also included in this Appendix A.

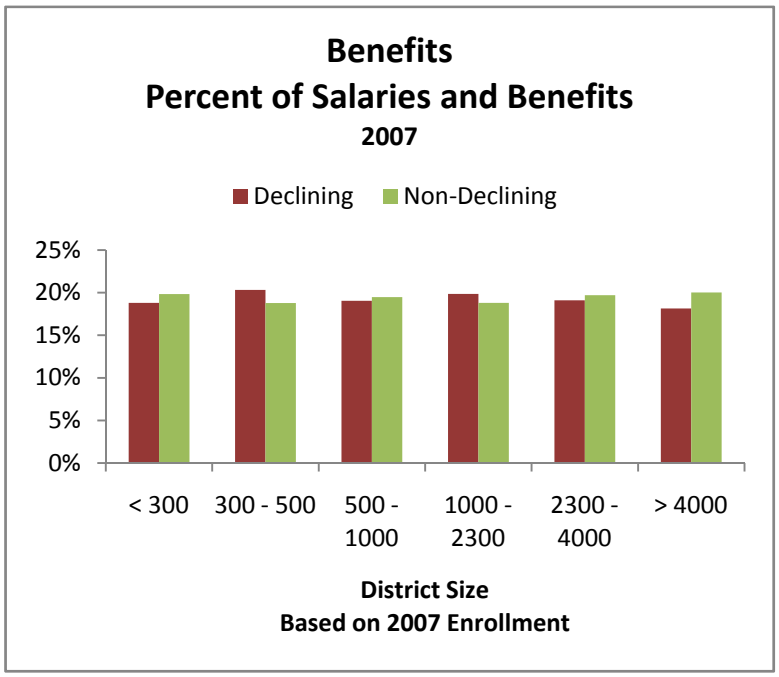
benefit plan and the employees are generally are not eligible for social security retirement benefits.[3]

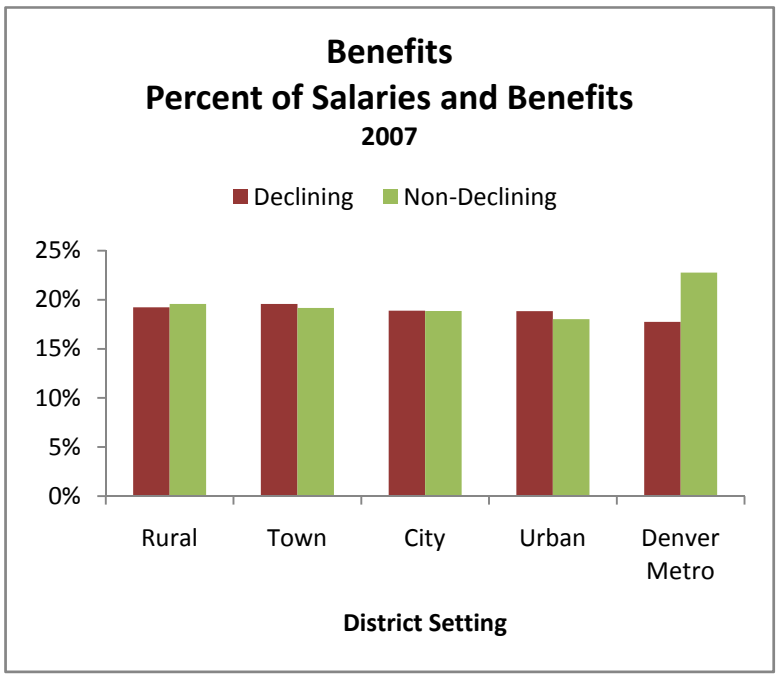
- Although there has been much popular discussion about the increased costs of benefits, the costs of benefits provided by school districts are fairly typical of costs in the private sector.

[3] Even with the requisite forty service quarters (10 years) in a private sector plan (when not working as a school teacher) where social security payments were made by both the employee and employer, a Colorado Public school teacher or employee will only be eligible for a nominal social security payment.


Average Teacher Salary
2007
Declining
Non-Declining
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


Average Teacher Salary
2007
Declining
Non-Declining
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
Rural
Town
City
Urban
Denver Metro
District Setting


Benefits
Percent of Salaries and Benefits
2007
Declining
Non-Declining
25%
20%
15%
10%
5%
0%
< 300
300 - 500
500 - 1000
1000 - 2300
2300 - 4000
> 4000
District Size
Based on 2007 Enrollment


Benefits
Percent of Salaries and Benefits
2007
Declining
Non-Declining
25%
20%
15%
10%
5%
0%
Rural
Town
City
Urban
Denver Metro
District Setting

Teacher Salaries, Course Offerings and Mobility

Superintendents have expressed concern about a geographically close neighbor that is able to provide more course offerings and higher teacher salaries, a legitimate issue (as noted in more detail in the full study) as the regression analysis clearly found instructional dollars positively impact student performance.

- Parents may use teacher salaries and course offerings as "signals" for the quality of education. (That is, school districts that are able to provide better teacher salaries and more course offerings than its neighbor may be better able to attract students into its district).

- Moreover, for urban areas with relatively small (in square miles) school districts, it is easier for students to take advantage of open enrollment and it is also easier for teachers to shift districts to obtain a better salary.

The following two charts cluster neighboring school districts to illustrate these phenomena. These two charts, generally identified by BOCES membership and/or with some additional nearby school districts (excerpted from the full study), provide the average teacher salary in academic year 2007-08 for school district, their non-CSAP program offerings, and overall square miles represented by the cluster.[4]

[4] Of note, this analysis uses average, not entry-level salaries and, as such, will not fully explain the relationships between inter-district enrollment and teacher salaries which requires more sophisticated analysis than these basic observations. Also these mapping examples do not account for a number of important factors (e.g., teacher's years of experience).

Example #1: **DENVER METRO (FRONT RANGE BOCES) AND SURROUNDING AREAS**

- Average teacher salaries range from some $36,000 to $57,000 (when including the outskirts of the Denver Metro area) while non-CSAP course offerings range from only 1 to the full array of 12-14 in a relatively small land area for Denver Metro of 2,400 square miles.

- Sheridan School District, in the midst of Denver Metro, and with declining enrollment has an average teacher salary of $45,500, approximately 20 percent lower than most of its surrounding school districts but has a full array (12) of non-CSAP course offerings.

- Sheridan School District, although experiencing declining enrollment, also has more incoming than outgoing students, indicated demographic changes.

- Thus, the Sheridan School District has high mobility opportunities for both teachers and students despite the lower teacher salaries.

Example #2: **SOUTHEASTERN BOCES**

- The Southeast BOCES has much less variation in average teacher salary (which ranges from $25,800 to $38,700), has little variation in the number of non-CSAP course offerings (although they do vary in type), but has a relatively large land area.

- Exceptions are the Lamar School District with approximately 10% to 15% greater average teacher salary than the surrounding school districts and Kim Reorganized with 20% lower average teacher salary.[5]

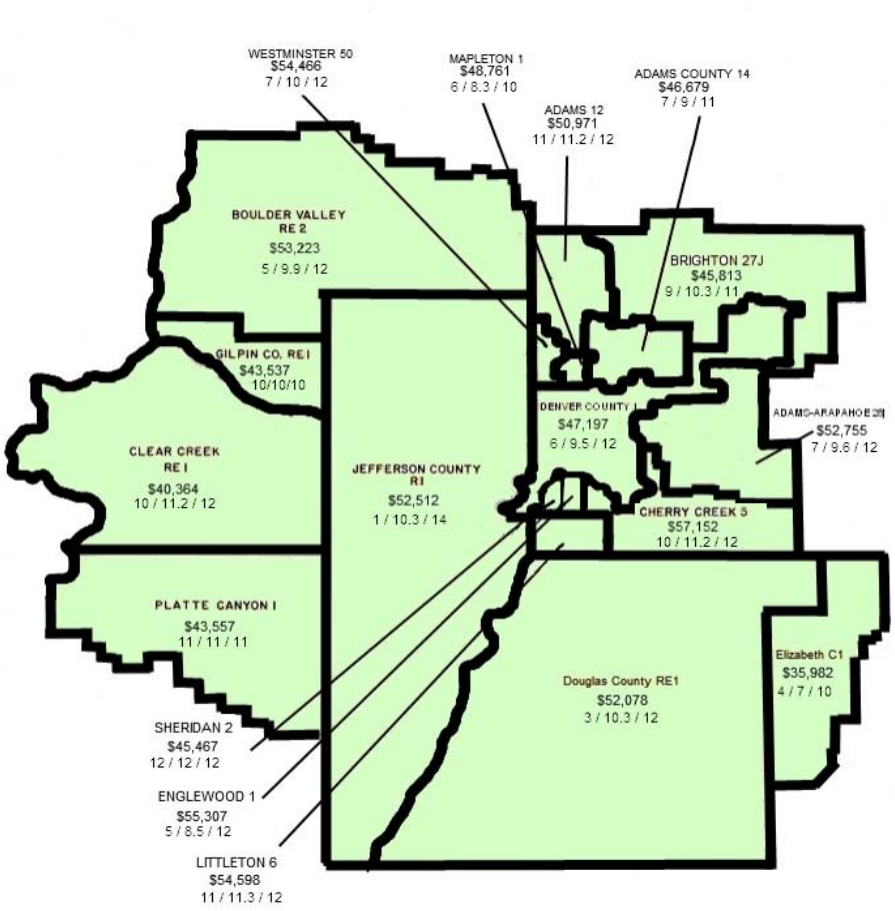
- However, transportation costs (both money and time) plus seasonal weather conditions are likely to limit the mobility of teachers (who have settled into the region) and students.

- A somewhat different but equally compelling limitation is that the average state teacher salary is nearly 20% higher than the Southeast BOCES average teacher salary. This likely limits the school districts' ability to attract and retain teachers. (Data on entry level salaries by school districts would assist in this evaluation, but were not sufficiently available to analyze.)

[5] As noted above, lower average teacher salary may be, in part, related to the fewer years experience or teacher education level, but the phenomena may also be intricately tied to the ability of these school districts to attract and maintain teachers with higher salary levels.

FRONT RANGE BOCES AND SURROUNDING AREAS

AVERAGE TEACHER SALARIES AND NON-CSAP COURSE OFFERINGS (MIN/MEAN/MAX)



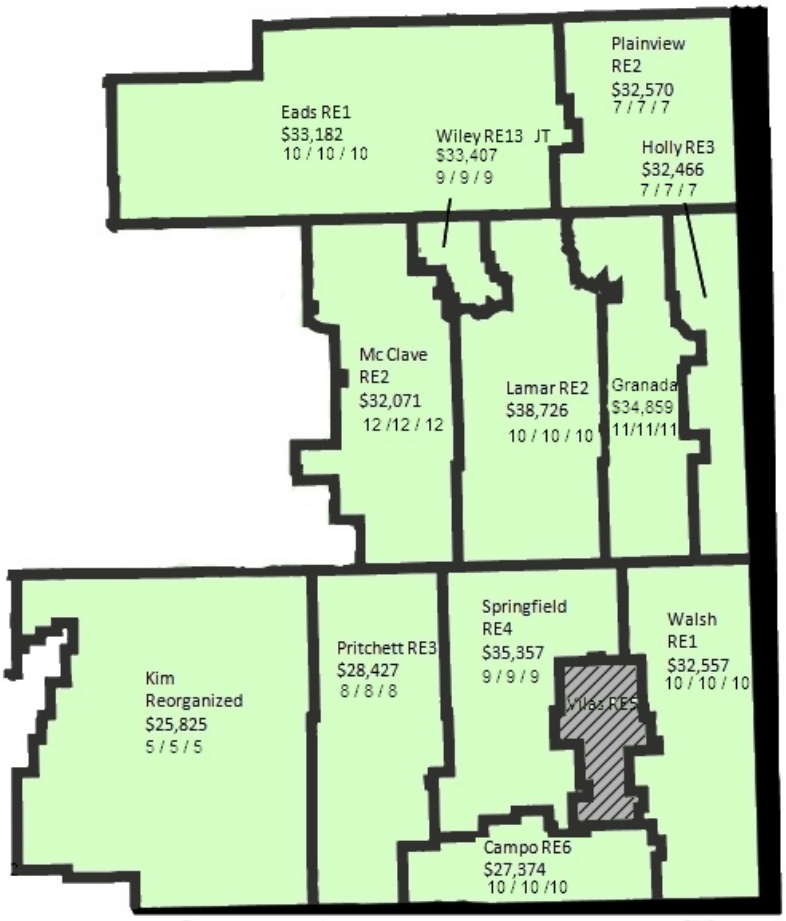
	Salary		Non-CSAP Offerings
	Front Range	State	BOCES Range
Minimum	35,982	25,825	1.0
Average	48,912	39,366	10.0
Maximum	57,152	57,152	14.0

FRONT RANGE SQUARE MILES: 3,848

DENVER METRO SQUARE MILES: 2,412

SOUTHEASTERN BOCES AND SURROUNDING AREAS

AVERAGE TEACHER SALARIES AND NON-CSAP COURSE OFFERINGS (MIN/MEAN/MAX)



	Salary		Non-CSAP Offerings
	SouthEastern	State	BOCES Range
Minimum	25,825	25,825	5.0
Average	32,235	39,366	9.0
Maximum	38,726	57,152	12.0

SOUTHEASTERN BOCES SQUARE MILES: 8,075

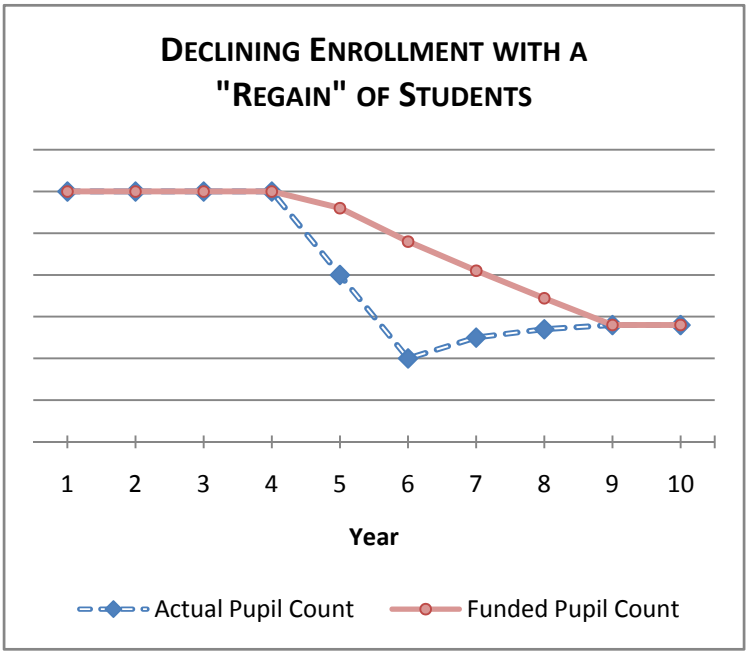
Funding Formula & Declining Enrollments

For districts with declining enrollments, the public school funding formula provides for averaging enrollments over the last two to five years (whatever is most advantageous to the school district) in the determination of funded pupil count. This averaging allows school districts time to adjust costs, most probably other staffing or administration costs but also likely instructional costs, in response to declining enrollment.

If a school district had inconsistent enrollments (e.g., they regained students in a year after some years of decline), total program funding could continue to decline over the prior year. Although this is a legitimate concern in the short-term for school districts, it is not necessarily a flaw in the funding formula, as whenever enrollment decreases, the enrollment averaging criteria will increase funding relative to what it would be without averaging. However, due to the "fixed" cost nature of many of the school district costs, enrollment averaging may not be adequate to maintain critical resources over the long term. A hypothetical example (illustrated in the following chart) demonstrates the reason for this seemingly anomalous result.

- From years 6 to 9, the actual pupil count increases although the funded pupil count (and per pupil funding) continues to decline. This is the result of the averaging of the declining enrollments.

- The five year average continues to be greater than the actual pupil count until year 9, and although revenues to the school district continue to decline, they remain higher than they otherwise would have been absent the five year averaging.


Declining Enrollment with a "Regain" of Students
1
2
3
4
5
6
7
8
9
10
Year
Actual Pupil Count
Funded Pupil Count

Education Choice

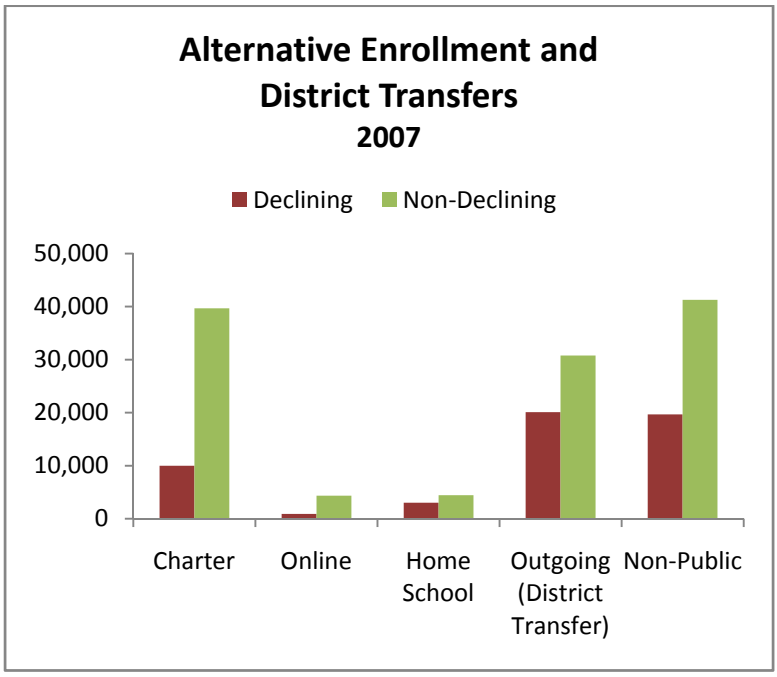
The following charts illustrate that enrollment in non-traditional schools is larger in non-declining school districts than in declining school districts (this may result because declining school districts tend to have smaller total enrollment). Education choice may be shifting students away from declining districts towards non-declining school districts (e.g., declining districts have a higher percent of outgoing students and a lower percent of charter students). The various education choices illustrated in those charts differ in their impact on school finance. Some choice options that have had nominal impact on school district funding and on total state costs over academic years 2002-03 to 2007-08 include non-public, home schooling, online learning, and intra-district enrollment (attending a different school within same school district).

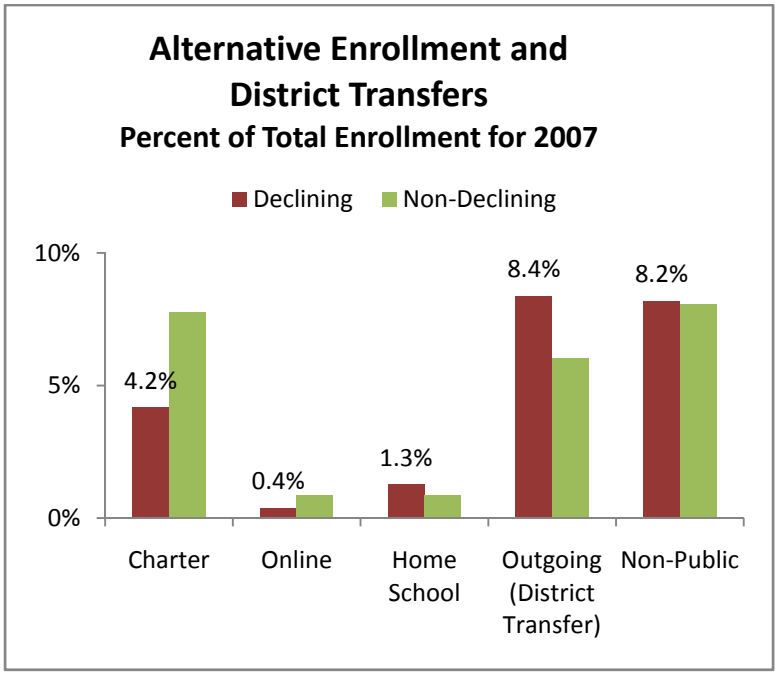
Inter-district enrollment (attending a different school district) can impact school district funding as it increases the funded pupil count in districts with a net import of students and decreases the funded pupil count in districts with a net export of students, although the impact on the total cost to the state is likely nominal.

The funding of school district authorized charter schools also has little impact on state costs but does impact funding for the traditional schools within the school district as most of the per pupil funding follows a student to whatever type of school (traditional or charter) they attend (illustrated below in Example 1).[6]

However, shifting the authorization of a charter school from the district to the CSI costs the state additional monies to educate the same students with no increase in choice options (illustrated below in Example 2). (The increased costs are associated with the enrollment averaging opportunities for the school district as well as a potential size factor change.)

[6] Although the district may retain up to 5% (with some exceptions) of the per-pupil charter school funding to cover administration expenses.


Alternative Enrollment and
District Transfers
2007
Declining
Non-Declining
50,000
40,000
30,000
20,000
10,000
0
Charter
Online
Home School
Outgoing (District Transfer)
Non-Public


Alternative Enrollment and
District Transfers
Percent of Total Enrollment for 2007
Declining
Non-Declining
10%
5%
0%
4.2%
0.4%
1.3%
8.4%
8.2%
Charter
Online
Home School
Outgoing (District Transfer)
Non-Public

Example 1: *Most of the per pupil funding follows a student to whatever type of school (traditional or charter) they attend.*[7]

As a simplified example, suppose absent charter schools, charter school students would have attended the district schools in which they reside.

- If the number of funded students (traditional plus charter) is 30,000 and the district per pupil funding is $6,500, the total program funding to the district amounts to $195 million.

- If the school district has 3,000 charter school students, at the same per pupil funding of $6,500, $19.5 million of the $195 million (or 10%) is now not available to the traditional schools in the district although the costs to the state are the same.

- While there is no avenue in the short-term to adjust instructional, administration or operations/maintenance costs, there are some cost savings for food service, transportation, etc. The data indicate that likely as much as 20 percent of these costs would not be incurred, still leaving an 8% loss in funding for existing traditional schools.

[7] School district professionals also indicate that a related but slight different issue is that there is a financial disincentive for school districts to open a charter school, especially for declining enrollment districts.

- If there is advanced notice, the school districts may adjust class sizes, course offerings, and other instruction related expenses to provide for reductions in instructional expenditures associated with reductions in traditional enrollment.

- If a school district would have required an additional facility to meet demographic needs, the funding losses to the traditional school may be further mitigated.

<u>Example 2</u>: Shifting the authorization of a charter school from the district to the CSI costs the state additional monies to educate the same students with no increase in choice options.

Although a likely unintended consequence of the interaction between the enrollment averaging and the creation of the CSI, it nonetheless costs the state and local taxing districts additional monies to educate the same number of students under essentially the same circumstances. This additional cost occurs because the district is allowed to use the enrollment averaging once the charter school is designated as a CSI school as those students are no longer considered district students.

- Again for simplicity, consider a school district of 10,000 students with a per pupil funding of $6,500, amounting to total program funding of $65 million. Of the 10,000 students in the school district, suppose 1,000 students begin to attend charter schools.

- Once the authorization of the charter schools is shifted to the CSI, the school district becomes eligible for enrollment averaging, which allows the school district to essentially keep 80% of the funding for those charter school students in the first year of enrollment averaging (amounting to $5.2 million = 800 * $6,500), 60% in the second year, etc. for a total in this example of $13 million.

- This is an additional cost to the state and local taxing districts because those students are now also fully funded as CSI students. However, this increased cost to the state provides no additional school choice options.

Other Education Choice

Education choice also impacts the cost of operating traditional schools. That is, cost is related to choice because some students are more expensive to educate than others but the state is required to provide an adequate education to all students.

- The data indicate that, irrespective of the enrollment trend, the traditional schools carry a disproportionate share of the responsibilities for the more expensive students, specifically those at-risk and with special needs.

- Regardless of how monies are allocated between traditional and charter schools, the addition of a school will generally increase the total district overhead and reduce the funds, particularly impacting instructional expenditures. If a new school facility would have been required because of enrollment increases or changes in demographics, some of the extra costs associated with the opening of a new school would be mitigated.

Given the recent environment where charter school students have increased by approximately 85% from academic years 2002-03 and 2007-08 (from approximately 27,000 to 49,700 students), it is important to understand how the growth in charter enrollment impacts the expenditures of the traditional schools because of the potentially large impacts on the financing.

- The analysis indicates that, to date, school districts have decreased expenditures proportionally across all major budget categories. That is, they have been able to

maintain the same relative spending on budget categories, albeit at lower spending levels. [8]

- However, if budgets do not increase by at least an inflationary per pupil rate, increases in charter enrollment would be expected to negatively impact expenditure categories given the fixed costs identified in the delivery of education services. The budget categories likely to be affected include other instruction but more importantly (although to a lesser degree) administration, salaries and benefits, and food service expenditures.

[8] This analysis included the same descriptive statistics and regression analysis (but isolating charter school expenditures as discussed in Chapter 4 of the full report).

Costs of Providing an "Adequate Education"

Using Augenblick, Palaich and Associates, Inc. analyses as the measure,[9] actual funding for Colorado public education in academic year 2004-05 was substantially below the base costs for all levels of school district enrollment, whether employing either the Professional Judgment (PJ) or Successful School District (SSD) approach of measuring the cost of adequate education. (The exception is school districts with an average of 10,000 students. For this enrollment category (10,000 students), the actual expenditures fell between the cost estimates for the SSD and PJ approaches.)

Furthermore, the gap between the actual state average per pupil total program funding ($6,661 for academic year 2004-05) and the comparable cost estimate using PJ and SSD measures indicates the state has not provided the resources believed necessary by professionals in education to meet student performance expectations. Given state budget issues, this gap is likely to continue to increase.

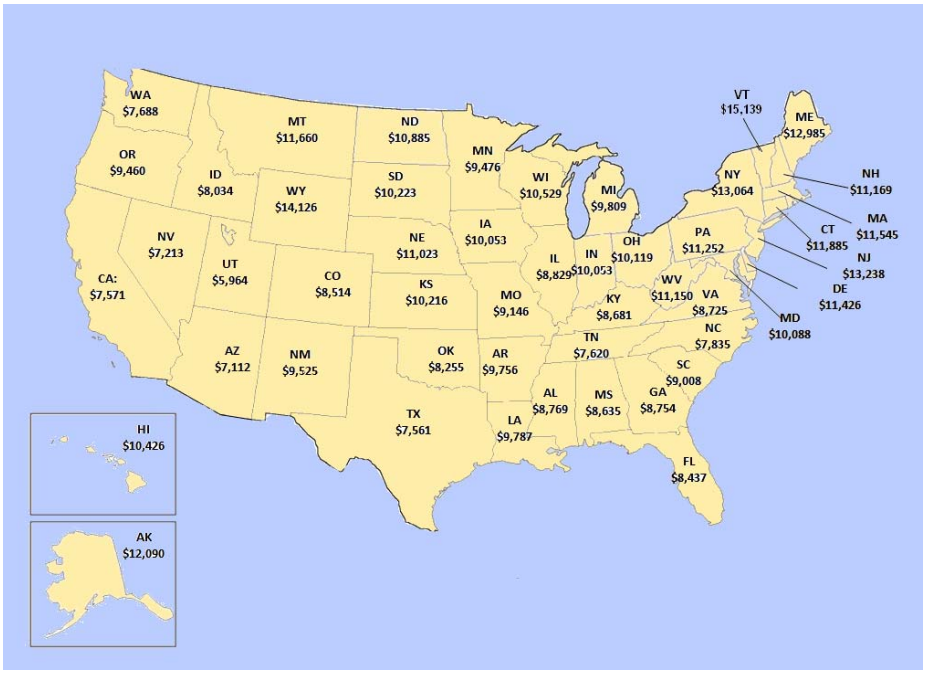
The present adequacy cost measures do not yet incorporate the planned implementation of CAP4K, which is creating new standards, assessments, and accountability systems. The investment to sustain this educational commitment (anticipated to enable Colorado students to compete globally in the 21st century) is likely to **increase** adequacy costs.

If the cost of an adequate education is simply measured as a comparative statistic across other states in the United States, the following map compares per pupil spending for Colorado to all states and the chart reflects the per pupil cost provisions for neighboring states over academic years 2002 to 2009.

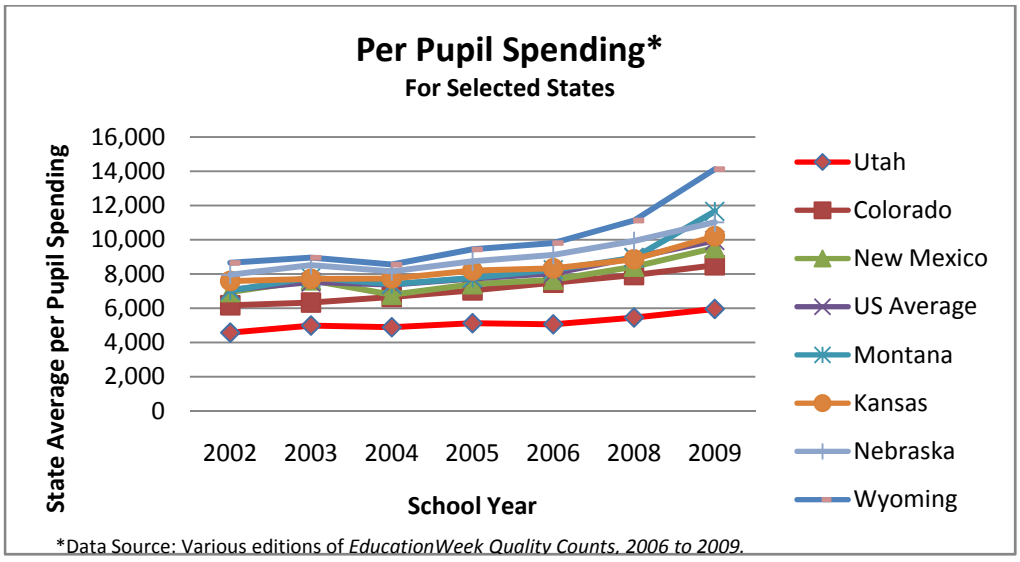
[9] Augenblick, Palaich and Associates, Inc. (APA) has a long and well-known tenure as education specialists. APA has been retained by many states department of education and/or educational organizations across the country and has authored scores of well-respected studies, most recently relating to the cost of adequately educating a student population.

Per Pupil Spending

By State



Source: EducationWeek Quality Counts 2009



*Data Source: Various editions of *EducationWeek Quality Counts, 2006 to 2009.*

Consolidation

The literature reviewed and the empirical analysis (as described in the full report) do not identify obvious cost savings or increased academic opportunities from an across the board or formula driven consolidation of school districts. At best, on a case-by-case school district basis, the data reviewed identifies some very limited opportunities for cost savings or increased academic opportunities from the consolidation of school districts.

There are alternatives to consolidation which include informal and more formal collaborations with other school districts. Smaller school districts are afforded some of the benefits associated with size such as duplication of programs, risk management, price negotiations for supplies, etc. by collaborating through the Boards of Cooperative Educational Services (BOCES).

At the school district level, on a case-by-case basis benefits from consolidation may exist when school districts are geographically close and there is substantial student movement between the districts (i.e., incoming or outgoing), especially if one of the districts is experiencing declining enrollment. At the school level, it is important to note that the economic and civic impacts to a community of closing a school are often difficult to assess and may outweigh any potential gains from consolidation.

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Recommendations

- To date, student performance is not affected by school district enrollment size, geographic setting, or enrollment trend (declining or non-declining). However, this result does not reflect whether or not school districts are meeting current or long-term expectations. In fact, given the present funding levels, student performance does not meet federal and state mandates.
    - Our study found one of the key factors that impacts student performance is instructional expenditures per pupil. Yet, if enrollments continue to decline, instructional expenditures per pupil may ultimately have to be decreased (given the fixed nature of a number of the other expenditures of a school district).
    - Meeting current and new performance standards (e.g., CAP4K) may become increasingly difficult if per pupil instructional expenditures are decreased.
    - Student performance should be considered when funding levels are determined.
- Also, our study found that there are costs associated with declining enrollment school districts. It is broadly accepted that the state has an obligation to provide education services to all students irrespective of geography. It is more expensive per pupil to educate smaller enrollment sized school districts. (This phenomenon is recognized in the size factor in the funding formula). To date, declining school districts have been able to adjust costs to meet the

decreases in funding; however, a number of costs for school districts are "fixed" and reducing costs further becomes increasingly more difficult. If the declines in enrollments continue, it may be necessary to consider other options such as modifying the funding formula, increased cooperation across school districts and/or consolidation, where feasible.

- A review of the revenue sources shows that the state share is a smaller percent of total revenue for non-declining mid-sized school districts (enrollments between 500 and 4,000). This finding may need further exploration to determine the causes and whether some modification to the funding formula would be appropriate.

- Education choice has become increasingly popular and, in conjunction with demographic changes, results in declining enrollments for a number of school districts. As illustrated in this study, education choice may be shifting students away from declining districts towards non-declining school districts (e.g., declining districts have a higher percent of outgoing students and a lower percent of charter students). As such, it is important to recognize that choice options impact school districts differently.

- There is a cost to the state and the local taxing districts for shifting the authorization of a charter school from a school district to the CSI with no increase in choice options. This is because these students are no longer considered part of the school districts and, as such, the district has an incentive to take advantage of the enrollment averaging. However, full per pupil funding is also provided to the CSI for those students.

- This "double counting" associated with shifting authorization can be substantial as illustrated in an example in this study and provides no additional education choice options. That is, the students are still attending the same school as they did prior to the authorization shift.

- As such, a review of the funding formula should be performed to determine whether this funding provision is necessary and appropriate.

- As discussed in this study, there is no formula driven opportunities for consolidation and decisions for this are best made on a case-by-case basis. However, given the increasing popularity of choice (open enrollment as well as charter schools), consolidation is one option to consider. Benefits from consolidation may exist when school districts are geographically close and there is substantial student movement between the districts (i.e., incoming or outgoing), especially if one of the districts is experiencing declining enrollment.

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About the Researchers

Pacey Economics Group, located in Boulder, Colorado, has over 25 years of providing consulting services and analyses on an array of economic and business issues. As a small boutique firm, we have focused on providing economic analyses for state agencies and private or publicly held companies plus offering economic reports or opinions and expert witness testimony in legal matters.

Patricia L. Pacey, Ph.D. – Dr. Pacey is President of Pacey Economics Group and Principal Investigator on the study. She received her Ph.D. in economics and B.A. in mathematics from the University of Florida and held positions with the University of Colorado and the Congressional Budget Office before forming her own firm, Pacey Economics Group. Dr. Pacey is frequently called upon to assess economic issues in litigation matters, to conduct studies for government agencies and corporations, and is presently a member of the Colorado Commission on Higher Education.

Mark S. McNulty, Ph.D. – Dr. McNulty is the Managing Director at Pacey Economics Group and Principal Investigator on the study. He has a joint Ph.D. in economics and statistics from Iowa State University, was a tenured faculty with Kansas State University for 13 years before accepting a technical researcher position with Los Alamos National Laboratory. He was then employed with the University of Wyoming before joining Pacey Economics Group. He has expertise with a wide range of economic and statistical methodologies.

Alicia V. Lehan, M.A. – Ms. Lehan is the Research Director at Pacey Economics Group and Principal Investigator on the study. She received her B.A. in quantitative economics and decision sciences from the University of California, San Diego and went on to obtain her M.A. in economics from the University of Colorado, Boulder while employed at Pacey Economics Group. Her work has included program audits of education and health care programs in addition to highly sophisticated economic and cost-benefit analyses for various state organizations and private companies.

Gretchen Dahlberg, B.A., Paul Park, B.A., and Jeff Nehls, B.A. – Ms. Dahlberg, Mr. Park, and Mr. Nehls are Analysts at Pacey Economics Group and supporting researchers on the study. They all hold B.A. degrees in economics, Ms. Dahlberg and Mr. Park from the University of Colorado, Boulder and Mr. Nehls from the University of Puget Sound. Prior to full-time employment at Pacey Economics Group, they had all worked for the firm for several years as interns/summer associates. Their work includes high level support analyses and research requiring critical thinking in addition to strong analytical and computer skills.

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Appendix

Student Performance Regression Results

Explanatory Variable	Performance Measure		
	CSAP - Proficient or Advanced		
	Reading All Grades	Math All Grades	Graduation Rate
Declining Enrollment District	NS[1]	NS	NS
Instructional Expenditures Per Pupil	0.07**	0.29**	NS
Total Funded Enrollment	NS	NS	NS
Charter Enrollment (%)	NS	NS	NS
Online Enrollment (%)	-0.14*	-0.24**	-0.60**
Incoming Enrollment (%)	NS	0.10*	NS
Outgoing Enrollment (%)	NS	0.12**	NS
At-risk (%)	-0.20**	-0.07*	NS
IEP (%)	-0.44**	-0.52**	NS
Fluent English Proficiency (%)	NS	NS	NS
Limited English Proficiency (%)	-0.12*	NS	NS
Not English Proficient (%)	-0.42**	NS	-1.79**
Gifted (%, program)	NS	NS	NS
Asian (%)	NS	1.19**	1.91**
Black (%)	-0.34**	-0.59**	NS
Hispanic (%)	-0.21**	-0.20**	NS
Native American (%)	-0.40**	-0.41**	NS
Females (%)	-0.14**	NS	NS
Average Teacher Salary	0.18**	0.36**	NS
Teacher Experience	NS	NS	NS
Teachers with MA Degree or Higher (%)	NS	NS	NS
Pupil-Teacher Ratio	NS	0.11**	NS
Number of Non-CSAP Offerings	NS	NS	0.12**
Density	NS	NS	NS
Population with Income > $75,000 (%)	NS	NS	NS
Population with College Education (%)	0.07*	NS	NS
Urban Setting	0.08**	0.15**	NS
City Setting	NS	0.09**	NS
Town Setting	NS	0.11**	NS
Rural Setting	NS	0.09*	NS
Intercept	-1.45**	-6.09**	NS
Number of Observations	1052	1048	353
R-Square	0.66	0.52	0.53

[1]NS indicates not significant at the 0.05 level; * and ** indicate significance at the 0.05 and 0.01 levels, respectively.