



## K-12 TUITION TAX CREDITS

The section on K-12 education is perhaps the best example of our earlier discussions for the need to recognize common principles and to come to understand which fundamentals cause the split in citizens' views on education funding.

Colorado's constitution calls for a state guarantee that children be educated. No reasoned debate starts with the thought that some children don't need or should not have an education. Once we recognize that basic point of agreement, then we need to ask some very fundamental questions about the delivery of education.

The first consideration is whether the State has fulfilled its constitutional requirement to fund education. Consider as you read through this section whether adequate resources are spent each year.

We know funding has been going up substantially and taking a larger portion of state taxes. Reality must force a limit at some point. An extreme example makes the point that no one wants to spend resources to teach children if it means the State can no longer protect them or that families have too little to feed and clothe a child. If you reach the conclusion that education funding is inadequate, what spending would you delete in the public or private sectors?

There was once a goal of schooling all children in the government schools so as to inculcate certain common values. Yet we

perceive broad failure of the system to even impart basic scholastic knowledge. Many parents are opting out to home-school, and people inside and outside of the system are seeking alternatives.

If one size does not fit all and citizens are increasingly bitter about the values taught, would greater harmony be found by giving parents more options, even if children are not schooled in an official government program?

We must recognize moneys cannot be directed to other parts of the budget while a constitutional requirement remains to mandate that citizens add to the system every year. If our collective will is to sacrifice other important programs always in favor of K-12 education, the best these suggestions could accomplish would be to take the pressure off local district budgets.

### OVERVIEW

For the current fiscal year of 2010-11, appropriations to K-12 education comprise the largest share of the state's general fund (45.6%). In all, the state is slated to appropriate \$4.339 billion for K-12 education, down from \$4.726 billion in 2009-10. The reduction returns Colorado K-12 state-appropriated funding to real 2007-08 dollars levels. Two-thirds of the decline is accounted for in a \$257 million rollback in state-appropriated federal dollars from a record-high 2009-10 appropriation of \$827 million.<sup>1</sup> The decline will be partially offset by nearly \$160 million in federal funds to hire or rehire employees through the Education Jobs Fund.

The recent reduction represents a small offset to the long-term trend. In the past quarter century, state funding of Colorado K-12 education has grown both in real terms and as a share of total education funding. The annual amount of real state-appropriated dollars per pupil rose by 72.6 percent from 1984-85 to 2009-10.<sup>2</sup> Over time the state has assumed an ever-increasing share of the elementary and secondary education funding burden.

Rising expenditures for public schools are mandated in the state

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constitution. In 2000 Colorado voters narrowly approved Amendment 23. The law mandates annual increases to School Finance Act and categorical funding of 1 percent above inflation through 2010-11, and at the rate of inflation in years thereafter. Amendment 23 also created the State Education Fund through a designated marginal increase in the state income tax. Additionally, Amendment 23 enacted a “maintenance of effort” provision that requires a 5 percent annual increase in General Fund contributions to K-12 education—except when the state economy slows and personal income growth fails to reach 4.5 percent.

During the 1990s—before Amendment 23 was enacted—the General Fund contribution to education grew every year in real dollars while decreasing as a share of General Fund contributions from 40.8 percent to 37.8 percent. In the nine years since Amendment 23, K-12 education has taken greater shares of General Fund moneys, increasing to 43.3 percent in 2009-10 and a projected 45.6 percent in 2010-11. Meanwhile, with the rapid rise in federal funds and Amendment 23’s creation of a separate State Education Fund, the General Fund now only provides 68.6 percent of state-appropriated K-12 education dollars as opposed to 87

percent two decades earlier.<sup>3</sup>

Amendment 23 has greatly increased the State’s share of the burden to fund K-12 education. In particular, the provisions requiring automatic, annual inflation-based increases and General Fund “maintenance of effort” have limited legislative flexibility. They also have obligated the state to underwrite unending increases regardless of revenues with no incentive to enhance learning productivity. These provisions, the heart of Amendment 23, need to be revisited.

## **K-12 FUNDING AND RECENT COLORADO POLICY DEBATES**

The public is woefully uninformed about how much money is spent in public K-12 education. A 2007 Education Next-PEPG

survey of nearly 2,000 American adults found more than 90 percent of respondents underestimated their school district’s

per-pupil expenditure. The median response of \$2,000 was more than 80 percent below the actual figure<sup>4</sup> of roughly \$10,000. It is unclear whether the Colorado voting population provides an exception to the rule.

The accelerated increases in Colorado’s K-12 per-pupil spending during the recent decade largely can be attributed to voter approval of the statewide ballot measure Amendment 23 in 2000. The constitutional change has guaranteed spending increases above the rate of inflation for the School Finance Act and categorical programs, representing the core of public school budgets.

Several subsequent state-level tax-hike efforts have been predicated on increasing revenues “for the children.” Some proponents of 2005’s narrowly-approved Referendum C promised one-third of new dollars would be furnished for K-12 education. The 2007 property tax mill levy rate freeze enacted by the General Assembly without a popular vote, despite a strong case that it violated the Taxpayer’s Bill of Rights, was presented as a way to free extra

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funds to spend on preschool, full-day kindergarten and other education programs.<sup>5</sup>

In 2008 Amendment 59 sought to dismantle the Taxpayer's Bill of Rights by taking dollars available for TABOR refunds and dedicating them to fill requests for funding increases to K-12 education. Fifty-five percent of Colorado voters rejected the measure. More recently, a coalition called DECIDE moved during the 2010 legislative session to repeal voter approval of future tax increases for education. The resolution failed to receive the necessary two-thirds vote from either chamber. But some lawmakers who supported Senate Bill 191, the recently-adopted tenure reform legislation, stipulated during debate that its passage would enlist greater business interest backing of future education tax increase proposals.

## SCHOOL FINANCE ACT

The Colorado state constitution guarantees the provision of "a thorough and uniform system of free public schools."<sup>6</sup> The lion's share of funding for public schools comes in the form of tax revenue collected by state and local governments. Most funding to the state's 178 local school districts—and to the Charter School Institute, a special authorizer created in 2004—is administered through the School Finance Act. The Act's basic existing framework was adopted in 1994, though it has been amended regularly in subsequent years.

The core funding each district receives through the School Finance Act is known

as its *total program*. The total program amount is derived from a statutory formula that factors in a funded pupil count (an average of up to five years of actual October pupil counts to protect districts with declining student enrollments), a base funding amount and various factors that attempt to reflect the cost of providing education services in different parts of the state:

- A factor that expresses the difference in cost of living between a metropolitan Denver suburb, a rural farm community and an upscale mountain resort town
- A factor that accounts for local and regional personnel costs, as employee salary and benefits make up the dominant share of local education budgets
- A factor that compensates for a school district's size, recognizing especially the constraints on purchasing power and the greater demands for transportation in a geographically large rural district

Additional considerations that drive the formula and determine a district's total program amount include:

- The number of at-risk students (i.e., students eligible for the federal free and reduced lunch program due to limited family income) increases the amount of funds received; and
- Students enrolled in an online education program that operates across district lines are funded at a standard rate lower than statewide average per-pupil funding.

Total program funding for 2010-11 originally was estimated at \$5.807 billion, but a "stabilization factor" enacted to address state budget shortages reduced the amount to \$5.441 billion. Individual district receipts range from \$6,358 in per pupil revenue (PPR) for Branson School District Re-82 in Las Animas County (because most students are enrolled statewide through a special online program) to \$14,749 in PPR for Silverton School District 1 in southwestern Colorado's San Miguel County. Larger

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districts like Jefferson County Public Schools and Denver Public Schools receive PPR of \$6,652 and \$7,239, respectively.<sup>7</sup>

## Earmarked Revenue

As currently amended, the School Finance Act only has one statutory obligation on local districts for the use of total program funding. At least three-fourths of the dollars received to provide at-risk student funding must be designated “to school or district-wide instructional programs for at-risk pupils or to staff development associated with teaching at-risk pupils in each district.”<sup>8</sup> Before 2009-10 the School Finance Act required specified minimum amounts of total program funding to be allocated to instructional supplies (including textbooks), as well as to reserve funds for capital and insurance purposes. The General Assembly concluded in 2009 that local education agencies needed fewer earmarked revenues and greater discretion over the use of general education dollars.

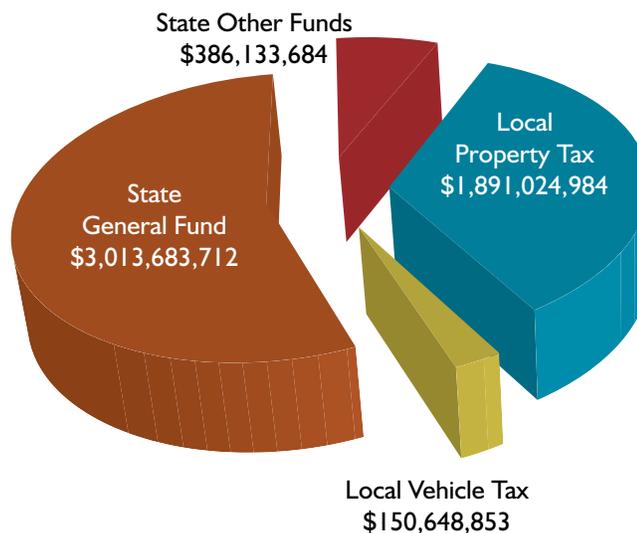
Public charter schools are entitled to receive 100 percent of PPR based on October 1 enrollment count. Authorizing districts with more than 500 students may charge up to 5 percent of PPR for administrative services. Authorizing districts with fewer than 500 students may charge up to 15 percent of PPR.<sup>9</sup>

## State vs. Local Share

Funds generated locally through property taxes on homes and businesses furnish \$1.891 billion toward the School Finance Act. Total program mill levy rates vary by district—from 1.68 mills in rural southern Colorado’s Primero School District to 27 mills, the maximum allowed by statute. The remaining \$150 million comes from locally-collected vehicle ownership taxes. These two revenue sources provide the foundation of a district’s School Finance Act funding.

In most districts, the combined property and vehicle ownership tax revenue falls short of the total program formula amount defined in statute. The remaining funds are backfilled through

## Colorado School Finance Act Funding: Local vs. State Revenue (FY 2010-11)



income taxes and other funds collected at the state level. In 2010-11 nearly nine out of every 10 state dollars used to pay for the School Finance Act comes directly from the general fund, more than \$3 billion.<sup>10</sup> The remainder is appropriated from the State Education Fund (created by Amendment 23) and the State Public School Fund.

As shown in figure 1 above, the state’s share of total program funding for the current budget year (2010-11) is projected to be 62.5 percent, or \$3.4 billion. Primarily due to higher local property values compared to student enrollment, seven districts are slated to receive no state total program aid: Aspen, Clear Creek Re-1, Estes Park R-3, Gunnison Watershed Re-1J, Park County Re-2, Summit Re-1 and West Grand 1-Jt. At the opposite end of the spectrum, Edison School District 54 Jt in rural El Paso County is slated to receive the greatest share of state aid at 96.5 percent.<sup>11</sup> (Interestingly, Edison is heavily dependent on state funding despite having



the highest total program mill levy allowed under state law.)

From 2001-02 to 2009-10 Colorado statewide per-pupil spending through the School Finance Act's total program grew by 15 percent in real dollars.<sup>12</sup> During the same time span, the state's share of total program grew from 56.5 percent (\$2.23 billion) to 63.8 percent (\$3.65 billion).<sup>13</sup>

## ADDITIONAL FUNDING SOURCES

Other major sources of public revenue are available to school districts beyond the total program in the School Finance Act. In 2009-10, state lawmakers designated more than \$230 million in categorical funds to serve disabled students, gifted students, students with limited English proficiency, and expelled and at-risk students, as well as to provide extra aid for rural transportation, vocational training, comprehensive health services and small attendance centers.

This amount represents an appropriations increase of 34.7 percent above inflation since 2000-01, compared with 14.9 percent growth in student enrollment over the same time.<sup>14</sup>

State statute also authorizes local districts to seek voter approval for *mill levy overrides*. The amount of override a district can receive generally is capped according to the size of its total program funding.<sup>15</sup> As with the total program mill levy, override revenues are determined by multiplying the mill levy rate to the property's assessed valuation: 7.96 percent for homes and 29 percent for commercial properties. For 2009-10, school districts generated a total

of \$591.2 million in override revenues.<sup>16</sup>

**Example:** A school district has a voter-approved override of 10 mills (.010), with total assessed residential property value of \$100 million and total assessed commercial property value of \$100 million. The assessed valuation for homes is **\$7.96 million** (7.96 percent of \$100 million), and the assessed business valuation is **\$29 million** (29 percent of \$100 million), for a total valuation of **\$36.96 million**. At 10 mills, the school district each year would collect 1 percent of \$36.96 million, or **\$369,600**.

Federal money includes the Title I program for low-income schools and a wide range of other U.S. Department of Education funds. These comprise a significant share of Colorado K-12 funding. In 2008-09, the state's public schools received nearly \$600 million in federal funds administered through state and local education agencies, or about 7 percent of total revenues.<sup>17</sup> Counting only federal funds appropriated through the state agency, the stream of dollars grew from \$70 million in 1982-83 to a whopping \$827 million in 2009-10—representing a compound annual growth rate of nearly 13 percent.<sup>18</sup>

One particular case shows why additional revenue sources beyond the School Finance Act must be included in school funding calculations. Colorado public charter schools by law receive the same PPR as district schools, in most cases minus 5 percent for district administrative overhead (as explained previously). Yet a 2010 study from Ball State University shows that charter schools in 2006-07 on average received 15 percent fewer dollars per student than their traditional public school counterparts. The discrepancy is explained primarily by two factors: 1) The state's charter schools receive significantly less funding from the U.S. Department of Education's Title I program for low-income schools, and 2) Before 2009 charter schools were not eligible to receive a share of local mill levy overrides.<sup>19</sup>

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## Capital Construction Funding

To finance the cost of building new schools local Colorado districts frequently issue voter-approved bonds, or may also create a local mill levy-backed Special Building and Technology Fund. For districts growing in student population, the state treasurer may provide capital construction loans—provided voters have approved the debt, payment method and length of repayment period beyond one year.<sup>20</sup>

The State of Colorado also makes funds available to local schools (including district and charter schools) through the Building Excellent Schools Today (BEST) program, enacted by the General Assembly in 2008. Through BEST, a combination of income generated from state trust lands and matching funds at the local level finances qualifying capital construction projects throughout the state. In 2009 a total of 11 projects were awarded at a total cost to the state of \$76.5 million.<sup>21</sup> In August 2010 the State Board of Education approved awards for construction, renovation and repair in the amount of \$252 million—about \$177 million in state funds tied to \$75 million in local matching requirements.<sup>22</sup>

## THE BIG PICTURE: FUNDING RANKINGS AND FACTS

Traditional media outlets, elected officials and other public figures typically cite *current* expenditures per pupil in drawing comparisons between states and local school agencies in the area of K-12 education finance. Current expenditures exclude money allotted for capital projects and for financing bonded debt. Yet using different assumptions, competing sources yield diverse numbers and rankings, allowing for selective manipulation of statistics.

For example, the U.S. Department of Education, the U.S. Census Bureau and the National Education Association offer substantially different information on Colorado's current expenditures per pupil for 2007-08 (the most recent school year with comparable data):

- US Dept of Ed: \$9,152 per pupil, ranked 35th in the nation<sup>23</sup>
- Census Bureau: \$9,079 per pupil, ranked 36th in the nation<sup>24</sup>
- NEA: \$9,335 per pupil, ranked 29th in the nation<sup>25</sup>

Regardless of the source, the long-term trend remains clear. According to the U.S. Department of Education, real current per-pupil expenditures at the state level and nationwide roughly doubled between 1970 and 2000, and have grown by about 20 percent since the turn of the millennium. Colorado's spending growth outpaced most states during the 1970s but lagged them during the 1980s and 1990s. Yet as it did in 1970, Colorado currently spends about 90 percent of the national average on each enrolled public school student.<sup>26</sup>

## Total Per-Pupil Expenditures

The U.S. Department of Education also measures total expenditures per pupil—including capital construction and debt financing costs. On a statewide basis, comparisons using these statistics provide a fairer and fuller picture of the full financial resources available to public schools. Recently released data show Colorado spent nearly \$8.93 billion on K-12 education in the 2007-08 school year, or \$11,133 per pupil. Colorado ranks 32nd in total per-pupil spending, about a thousand dollars below the national average of \$12,121.<sup>27</sup>

Measuring the growth of dollars spent is more meaningful than comparing rankings, as states almost universally have increased expenditures beyond student enrollment for years and decades. Starting in the 1988-89 school year, the U.S. Department of Education began reporting consistent yearly information on total K-12 expenditures. Within nearly two

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decades Colorado's total spending grew by 31 percent in real dollars per student, a substantial increase but smaller than the national increase of more than 45 percent.<sup>28</sup>

Some interest and advocacy groups frequently seize on this disparity to make comparisons showing Colorado lagging national spending averages. A commonly-used misleading chart displays the red line of Colorado's per-pupil spending going down—an effect that only works by making the fast-rising national spending average

into a flat line.<sup>29</sup> If Colorado had matched the nation's inflation-adjusted K-12 spending increases since 1988-89, the state would have spent \$12,362 per student in 2007-08—ranking the state at 18th and above the national average. An additional \$985 million in funding from state revenue or other sources would have been required for that year alone.

## **In Context: Comparing with Other States**

Colorado's 2007-08 total per-pupil spending is comparable to or greater than most neighboring and other regional states. Colorado's student-level expenditure ranks slightly higher than Kansas, Montana, New Mexico and Texas, places the state significantly ahead of Nevada and Arizona, and is more than two thousand dollars greater than Idaho, Oklahoma and Utah. Only Nebraska (which spends just above the

national average) and rural Wyoming (which has no income tax but funds its schools largely through oil and gas revenues) regionally outspend Colorado on a per-student basis.<sup>30</sup>

Nationally, no state spends more than the District of Columbia's \$20,269 per student. Closely following are New Jersey (\$19,154), New York (\$18,801), Wyoming (\$17,572) and Alaska (\$17,360). By most measures on the National Assessment of Educational Progress (NAEP), these high-spending states and D.C. perform roughly the same or worse than Colorado.<sup>31</sup>

There is no clear correlation between significantly greater amounts of money spent per student and academic results. According to a comprehensive analysis performed in the late 1990s, two-thirds of 163 academic studies showed insignificant correlations and a handful showed a negative relationship. Only 27 percent demonstrated “a statistically significant relationship between increased per-pupil spending and student performance.”<sup>32</sup>

## **49th in Funding?**

Some advocates of increased spending claim Colorado ranks 49th in K-12 education funding, but few explain the context. The reference is to the amount of dollars spent as a share of residents' personal income. Because Colorado is a wealthier state, the income denominator is high. More dollars need to be spent per student than in poorer states to achieve a comparable ranking. Those who say Colorado ranks near the bottom in education funding use a statistical comparison that implies the more money you make, the more you should spend on education programs—no matter how well those programs work.<sup>33</sup>

U.S. Census Bureau data for 2006-07 ranks Colorado 49th in public school revenues and expenditures as a share of \$1,000 in personal income. When measured against personal income, Colo-

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**Table 1. K-12 Spending Categories, Colorado vs. U.S. Average (2007-08)**

Category	Colorado	US Average
Instructional (Classroom Teachers, Textbooks)	57.9%	60.8%
General Administration (Boards, Executive, Legal)	1.9%	2.0%
School Administration (Principals and Office Staff)	7.0%	5.6%
Student Support (Guidance, Health, Intervention)	4.7%	5.4%
Instructional Support (Libraries, Teacher Training)	5.4%	5.0%
Student Transportation	3.1%	4.2%
Operation / Maintenance / Food Service	13.2%	13.7%
Other Support (Business, Research, Personnel)	6.8%	3.2%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>

Colorado's spending on school administration and general administration rank 32nd and 38th, respectively.<sup>34</sup> Measuring data from the same year, the National Education Association ranks Colorado 41st in spending as a share of personal income. About 3.5 percent of all earnings in the state are spent on K-12 public school current operating expenditures, compared to the national average of about 4 percent.<sup>35</sup>

## HOW DOLLARS ARE SPENT

For ease of comparison among states, the U.S. Department of Education has defined categories of spending. Table 1 provides an overview comparison that breaks down Colorado's reported current operational spending versus the national average for the 2007-08 school year, the most recent for which data are available<sup>36</sup>:

As shown in table 1, nearly 58 percent of Colorado's K-12 operating budgets reach the classroom level. From 2000-01 to 2008-09, the state's ratio of enrolled students to full-time equivalent (FTE) teachers declined slightly from 17.4 to 17.0.<sup>37</sup> The NEA reports Colorado's student-teacher ratio at 16.8 for 2008-09, placing the state 10th highest and above the national average of 15.2.<sup>38</sup> (It must be noted that student-teacher ratio is not the same as average class size, which in grades K-3 typically exceeds the ratio by 9 or 10. Therefore, the average early elementary class size in Colorado stands at about 26, compared to 24 or 25 nationwide.<sup>39</sup>)

While 58 percent of Colorado K-12 operational spending is directed toward the classroom, only 48 percent of K-12 personnel

are classroom teachers.<sup>40</sup> The ratio of fewer than one classroom teacher for every non-teacher K-12 employee is even lower than the national average of 51 percent. For a variety of reasons the nationwide ratio has changed dramatically over the past half-century. In 1960 the national ratio of teachers to non-teacher K-12 employees was 2 to 1.<sup>41</sup>

## State-Level Administration and Miscellaneous Appropriations

K-12 management and administration through the Colorado Department of Education (CDE) is budgeted to take in \$49 million for 2010-11 to fulfill the functions of governance, oversight, professional licensure, CSAP assessment administration, the Charter School Institute and information management. Other smaller appropriations have been made for the Colorado School for the Deaf and Blind (\$14.4 million) and library-related programs (\$5.7 million).<sup>42</sup>

## Personnel Salaries and Benefits

The U.S. Department of Education also breaks down spending by object. In



2006-07, 78 percent of reported current operational expenditures of Colorado K-12 public schools paid employee salaries and benefits.<sup>43</sup> Thus, Colorado's increased K-12 spending during the recent decade largely can be attributed to personnel hiring rates. Between 2000 and 2009 Colorado's public school enrollment grew by nearly 15 percent—from 724,508 to 832,368. During the same time the number of public school employees increased by almost 21 percent, from roughly 108,700 to 131,400.<sup>44</sup>

In 2008-09, Colorado spent nearly \$5.7 billion on K-12 employee salaries and benefits—nearly two-thirds to compensate teachers and about 8 percent to compensate administrators, with all other employees making up a quarter of the payroll.<sup>45</sup> The average teacher's base salary was \$48,485, with an additional 23

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percent typically received in benefits. Average teacher salaries ranged from \$27,250 in rural Campo Re-6 to \$59,177 in Cherry Creek Schools.<sup>46</sup> According to the National Education Association, Colorado ranks 28th in average public school teacher salary.<sup>47</sup>

The average principal's base salary was \$79,759 in 2008-09, while the average base salary for superintendents (including assistant superintendents) was \$109,442—with administrators typically receiving an additional 21 percent in benefits.<sup>48</sup> In addition to the salary and ben-

efits documented here is the high value of deferred compensation in pension guarantees for government employees who become vested through extended years of service.<sup>49</sup>

For most Colorado public school teachers, compensation is subject to the political pressures of budget negotiations and the rigid formulae of service years on one hand and graduate-level credits and degrees on the other. Except in rare circumstances of budget austerity and true salary freezes, as many districts have experienced in 2009 and 2010, a teacher's earning and purchasing power tends to rise steadily and significantly. Education Sector analyst Forrest Hinton notes that since 2005 K-12 employee earnings on average have outperformed their private sector counterparts.<sup>50</sup>

A teacher with a bachelor's degree in Aurora Public Schools—the median district for teacher pay in the Denver metropolitan area—started at \$30,631 in base salary for the 2003-04 school year. As a seventh-year teacher in 2009-10 she earned \$46,780 plus benefits with a B.A., a 37.2 percent rise in real earnings, or an average annual increase of 5.4 percent. If the same teacher has completed a master's degree the increase would be 50.2 percent in real earnings, or an average annual increase of 7 percent. Aurora teachers in their 20th year of service make \$51,243 in base pay with a bachelor's degree, \$58,214 with a master's degree, or \$65,479 with a doctorate.<sup>51</sup>

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## Costs of Collective Compensation

Research shows no correlation between a teacher earning a master's degree credential and effectiveness at improving student learning outcomes. Yet a 2009 report by the Center on Reinventing Public Education notes that Colorado spends 1.76 percent of its current K-12 expenditures on “master's bumps”—rewarding teachers with automatic bonuses for the degree achievement.<sup>52</sup> Similarly, pay raises for seniority ignore the fact that most studies find teacher quality plateaus after the fourth or fifth year and in some cases even may decline as an instructor approaches retirement age.



Since negotiated bargaining agreements and salary schedules determine that teachers are compensated collectively, determining whether individual teachers are adequately paid is a highly difficult proposition. Using Bureau of Labor Statistics reports of annual salaries and hours worked, however, a 2007 Manhattan Institute study determined that the “average public school teacher was paid 36 percent more per hour than the average non-sales white-collar worker and 11 percent more than the average professional specialty and technical worker.”<sup>53</sup>

The average teacher works far fewer days per year than other white-collar professionals. Some teachers complete many hours of additional take-home work, such as grading papers, but no known effective comparison has been made to other professionals’ amount of take-home work. Due to the nature of the subjects they teach or

to other factors, other instructors complete all their work within the contract hours at school. Undifferentiated collective compensation obscures both the value of teacher inputs and outputs that affect student learning.

### Achievement Results

The U.S. Department of Education’s National Assessment of Educational Progress (NAEP) remains the gold standard of testing. Math and reading tests have been administered to statistically representative samples of fourth- and eighth-grade students in states every other year since 2003, and at less frequent intervals before then. In each of the four grade-subject combinations Colorado ranks slightly ahead of the national average in performance, with the state’s progress closely tracking its peers nationwide.<sup>54</sup>

The Colorado State Assessment Program (CSAP) is administered statewide to public school students in four subject areas:<sup>55</sup>

- **Reading** proficiency (tested grades 3 through 10) since 2002 has shown modest gains in most grades and has been flat in the rest
- **Writing** proficiency (tested grades 3 through 10) since

2002 has been flat in some grades and shown modest gains in others

- **Mathematics** proficiency (tested grades 3 through 10) since 2005 has shown a mix of significant improvement, modest gains and flat results
- **Science** proficiency (tested in three grades only) since 2006 has shown significant improvement at the fifth grade level and flat results in eighth and 10th grade

Official calculations for Colorado’s high school completion rate have changed, making valid long-term comparisons extremely difficult. In recent years the state’s graduation rate has remained steady at about 75 percent.

### PROPOSED REFORMS

A wide range of reforms that promote more efficient and effective use of K-12 education resources should be contemplated:

1. Repeal Amendment 23. The effect on the State budget could not be felt until after voters passed the repeal measure, so the next fiscal year would experience no flexibility from this reform. The earliest the legislature could place this measure on the ballot would likely be the general election in November 2012. Some might argue persuasively that the proffered change could be designated as a TABOR issue and therefore could go on the ballot in 2011, but that might not stand the inevitable court challenge. If delayed as expected, the next budget for 2011-12 would have

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no relief from this quarter and other cuts would have to be found.

Proponents couched the need for Amendment 23 as being “for the children,” and indeed it has resulted in more funds being added to the education budget each year, even when revenues are dropping. Most people understand that political decisions are about making trade-offs. More for education means less for something else.

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In a political context, we must deal with something approaching a zero-sum game, where the net benefit to society as trade-offs are made is a wash. The government has no money of its own and must take it from some productive activity. That circumstance is unlike the private sector in which people first create value and then trade it for

something of even higher value, benefiting both parties and raising the standard of living. Amendment 23 locks in the rest of the budget as losers to the largest and more powerful entities and lobbying organizations.

California in the 1980s had a provision to restrict government from growing too rapidly, the GANN Amendment. It was effectively eviscerated by a later measure that was sold as being “for the children” and “to fund education.” The proponents of Colorado’s Amendment 23 were not, and are not today, either stupid or naïve. They undoubtedly hope that bloating the budget in this fashion will make the case to overturn the citizens’ protection against

very rapid government increases, the constitutional provision of the Taxpayer’s Bill of Rights. One of the fundamental questions to be answered if Amendment 23 is not eliminated is whether citizens therefore want to give up the check-and-balance they enjoy by having a veto on new or increased taxes so that education funding increases can stay on autopilot forever. Do they continue to see the benefit of having a say in such an important decision as having less in the family budgets in order to have higher teachers’ salaries and more spending, or do they want to turn control back over to the monopoly providers?

2. Tuition tax credits provide offsetting tax benefits to individuals and/or corporations that provide funds to help enable a student attend non-public school. Setting the value of the credit scholarship below a student’s per-pupil revenue share ensures marginal cost savings while empowering more families to afford a private education. With sufficient demand expressed by education consumers, the state will realize both short-term and long-term savings while ensuring students have access to a wider range of quality education options.

The Cato Institute in Washington, D.C., has developed a formula to measure the fiscal impact of education tax credits, based on current financial and enrollment data and the specific design of the program. For the purpose of the Citizens’ Budget, we postulate the creation of a tax credit program with the following features, largely drawn from Cato’s Public Education Tax Credit model:

- **Private tuition coverage.** Scholarships through the tax credit program could be used to offset the cost for non-public school tuition for students in grades K-12.
- **Corporate and personal income taxes.** Tax burden will be reduced for any business or individual that helps to pay for an eligible student to attend non-public school. Contributions made directly by parents or guardians on behalf of a student or donations to qualifying organizations that provide scholarship aid all receive the tax credit.

*The Cato Institute in Washington, D.C., has developed a formula to measure the fiscal impact of education tax credits, based on current financial and enrollment data and the specific design of the program.*



**Table 2. Colorado Public Education Tax Credit, Projected Migration and Savings**

Tax Credit	Migration	State Savings: 3 Yrs	SAVINGS: 10 YEARS		
			State	District	Total
10%	40,406	\$28,036,079	\$348,661,331	\$510,509,839	\$859,171,170
20%	43,337	\$26,735,511	\$315,048,938	\$547,443,714	\$862,492,652
25%	44,961	\$26,007,160	\$296,288,166	\$567,894,481	\$864,182,647
33%	47,816	\$24,714,232	\$263,080,632	\$603,840,764	\$866,921,396
40%	50,615	\$23,433,102	\$230,280,716	\$639,064,487	\$869,345,203
<b>50%</b>	<b>55,205</b>	<b>\$21,306,738</b>	<b>\$176,030,887</b>	<b>\$696,798,073</b>	<b>\$872,828,960</b>
60%	60,668	\$18,741,195	\$110,828,620	\$765,462,672	\$876,291,292
67%	65,153	\$16,611,402	\$56,864,427	\$821,795,158	\$878,659,585
75%	71,131	\$13,746,657	-\$15,543,274	\$896,791,069	\$881,247,795
80%	75,436	\$11,667,871	-\$67,987,703	\$950,748,405	\$882,760,702
90%	85,767	\$6,640,358	-\$194,496,835	\$1,079,992,057	\$885,495,222
100%	99,339	\$0	-\$360,799,952	\$1,248,914,424	\$888,114,472

- **Not means-tested.** Students qualify for tuition assistance regardless of family income.
- **Phased in.** During the first three years of the program, only previously enrolled public school students (known as “switchers”), along with 5-year-olds and newly enrolled 6-year-olds, would be eligible to receive tuition tax credit assistance. In Year 4, at least 90 percent of tax credit scholarship recipients would be new non-public school students. The figure would decrease to 80 percent in Year 5 before leveling off at 70 percent in Year 6 and thereafter.

The credit only would impact the payment of state taxes. As explained earlier, the school finance funding formula is made up of dollars collected through taxes at both the state and local level. Further, school districts derive revenues through other programs and from other sources. To identify the total savings therefore requires a reasonable estimate of the *marginal cost* for Colorado public schools, defined as “the additional spending required to serve one additional student, and also the savings from having to serve one fewer student.”<sup>56</sup> As a result, the school district or other local education agency from which the student transfers would receive large marginal cost benefits regardless of the tax-funded scholarship amount.

In table 2, specific examples of stipulated tax credit scholarship values stated as a percentage of state-funded per-pupil revenue (roughly \$4,400 in fiscal year 2009-10) are listed to show a change in the effect. At 50 percent, a public school student could use about \$2,200 in tax-credited family savings or a tax-funded scholarship to supplement tuition for his new enrollment at a non-public school. The model predicts more than 55,000 students would choose this incentive over time to leave a public school in order to pursue private education. During the first three years, when only public school “switchers” receive the benefit, the state would realize \$21.3 million in savings by having fewer students to fund. In intermediate years the growth of state savings would slow, but would continue to accumulate over time. Most financial benefit would be achieved at the local school district level, as combined in the 10-year savings calculation. A larger scholarship size decreases the state’s savings but neces-



sarily increases the number of students expected to choose a non-public school.

Implementing a tax credit scholarship for public school switchers, worth the value of 50 percent state per-pupil revenue is projected to save **\$21.3 million** at the state level during the first three years of the program. Over 10 years state savings would reach \$176 million, with nearly \$697 million in savings realized at the district level. (See Appendix for more details on calculations, including regional breakdowns of student migrations from public to non-public schools.)

*In addition to the fiscal benefits, recent research has shown that the competitive effects of Florida's private school tuition tax credit program significantly increased the academic performance of public school students.*

Although a strict calculation cannot be projected, it should be noted that further long-term savings also may be realized by a reduced need for new school construction. The potential savings in the area of capital costs presents an additional opportunity to lower the financial burden on the state of Colorado in coming decades.

In addition to the fiscal benefits, recent research has shown that the competitive effects of Florida's private school tuition tax credit program significantly increased the academic performance of public school students.<sup>57</sup>

Unlike the savings proposed through a tuition tax credit program, the State could not immediately realize the savings estimated from the following two propos-

als. As explained above, Amendment 23 constitutionally mandates minimum amounts for the School Finance Act—the core piece of K-12 funding. Any efficiencies achieved therefore would result in local agencies using the funds for other purposes. The State's total bill would be unchanged. The two proposals provide salient examples of how local schools and districts could achieve real, significant efficiencies with modest reductions in state funding for K-12 education.

3. Colorado's local school boards retain the authority to dictate employee pay scales and policies. Still, the General Assembly should consider using its prerogatives to impose an effective statewide cap on salary increases. A formal recognition that educators should not be compensated for earned master's degrees, which show no connection to improved student learning, is one crucial strategy. This observation could be due to the fact that about 90 percent of teacher master's degrees are awarded from schools of education.<sup>58</sup> An exception to the phase-out could be considered for master's degrees in subject content areas relevant to the teaching assignment. The phased-out elimination of ineffective "master's bumps" would save the State as much as **\$137.6 million** per year.<sup>59</sup>

4. As indicated previously, Colorado spends about 3 percentage points less of its current expenditures on classroom instruction than the national average: 57.9 compared to 60.8 percent. The only spending category where Colorado is more out of line with national trends is in the area of other support services, defined by the U.S. Department of Education as follows:

*Expenditures for business support services (activities concerned with the fiscal operation of the [Local Education Agency]), central support services (activities, other than general administration, which support each of the other instructional and support services programs, including planning, research, development, evaluation, information, and data processing services), and other support services expenditures not reported elsewhere.<sup>60</sup>*



In 2007-08, Colorado spent 6.8 percent of its current operating budget, or \$620 per student, on “other support services”—as compared with 3.2 percent, or \$331 per student, nationwide. Only the District of Columbia and Delaware spend more on this category on a per-pupil basis than Colorado does.<sup>61</sup> A study to determine why Colorado spends 87 percent more on “other support services” than the average state should be able to yield significant efficiencies, and what exactly is included in the spending. To reduce the per-student “other support services” spending to \$480 (less than half the difference with the national average) in terms of the 2007-08 budget would have yielded annual savings of \$112.3 million. By this act alone, the state would move the share of its current expenditures in the classroom from 57.9 to 58.8 percent.

## APPENDIX: NOTES ON COLORADO PUBLIC EDUCATION TAX CALCULATOR

The Colorado version of the Public Education Tax Calculator (PETC) was closely adapted from the original version created by The Cato Institute in Washington, D.C., and with assistance from staff members from Cato’s Center for Educational Freedom: Andrew Coulson and Adam B. Schaeffer. A copy of the full spreadsheet calculator can be found online at: <http://bit.ly/dp12W3>.

Inputs include the following hard financial and enrollment data (data sources in parentheses):

- Total expenditures (Colorado Department of Education)
- Total expenditures less federal revenues (CDE)
- Share of state expenditures tied to enrollment (CDE, Colorado Joint Budget Committee)
- Per-pupil funding by state, local and federal sources: statewide and by region (CDE)
- Public school enrollment: statewide and by region (CDE)
- Non-public school enrollment: statewide and by region (CDE)

In addition, the calculator’s key, carefully-developed proxies and assumptions are accounted for as follows:

**1. Private school tuition:** In lieu of attempting to collect tuition data from individual private schools within the state, the

Colorado PETC adopted the method used by Coulson in his 2009 PETC analysis for Nevada. The U.S. Department of Education’s most recent edition of the Digest of Education Statistics (2009) provides the average private school tuition for 2003-2004 and 2007-08. Between these school years, in real 2009 dollars, tuition increased about \$420 a year. Median private school tuition is used because the average, or mean, is skewed by expensive, elite schools. The National Center for Education Statistics (NCES) reports that the national median highest tuition paid in private schools was \$3,500.<sup>62</sup> Adjusted to 2009 dollars, the national median tuition is \$3,970.<sup>63</sup> Median tuition is allowed to rise at the same rate as average tuition (\$420/year) for a national median of \$6,490. The tuition figure then is inflated by the U.S. Bureau of Economic Analysis ratio of Colorado-to-national per capita income.<sup>64</sup>

**2. Marginal cost:** In order to determine the cost savings made available to public school districts and other local education agencies, a calculation is needed to determine the marginal cost—the amount of extra spending needed to serve one extra Colorado K-12 student, or conversely the amount of spending saved by not having to serve one fewer student. As explained in Coulson’s Nevada report, determining a precise estimate of marginal cost within a 95 percent confidence interval requires formal statistical regression analysis.<sup>65</sup> In lieu of a full analysis, the Colorado PETC’s marginal cost estimate was taken as a percentage of the total per pupil expenditure, based conservatively on the lowest per-



centage from previous regression analyses performed to determine PETC savings in Nevada and South Carolina: 81.24 percent of \$11,101. A next important step would be to pursue a full regression analysis to refine the marginal cost estimate.

**3. Elasticity of demand:** An elasticity coefficient of -1.1 was adopted to identify parental demand for non-public education and by extension to estimate the number of students who would choose to migrate from public schools. As in previous PETC analyses, elasticity was derived from an average of estimates available in the academic literature.<sup>66</sup>

## ACKNOWLEDGEMENTS

**Ben DeGrow** was primarily responsible for the content of this section. See his biographical material in the Authors section.

Among the professionals reviewing this section was **Pamela Benigno**, the Director of the Education Policy Center at the Independence Institute since 1997. Ms. Benigno initiates, coordinates and supervises projects, writes, and speaks about K-12 education issues. Her professional emphasis has been on public and private school choice, working with education organizations, policymakers, and community leaders to expand school choice opportunities. She has served on various committees, including the State Board of Education's implementation advisory committee for Colorado's school voucher program (later struck down by the court), and is currently a board member of an online charter school. Ms. Benigno was formerly

an elementary school teacher. She holds a degree in Elementary Education from the University of Northern Colorado.

We recognize the significant contribution by the **Cato Institute** by making available its proprietary software model for tuition tax credits. The Cato Institute has offered public policy solutions for 30 years and is now one of the dominant influences on members of Congress and their professional staffs. Cato produces the quarterly academic journal *Cato Review*, an online *Cato Weekly Digest* and *Regulation Magazine*, and frequently publishes books on various public policy problems. Its policy staff is commonly invited for interviews on network television, radio and blogs.

We wish to thank **Andrew Coulson**. He led the team effort in releasing the tuition tax credit model and ensured that Cato Institute was able to fully support our efforts. Mr. Coulson has worked at Cato as Director of the Center for Educational Freedom for five years. Before that, he was Senior Fellow in Education Policy at the Mackinac Center for Public Policy. A former Microsoft software engineer, he holds a degree in mathematics and computer science from McGill University.

**Jay P. Greene** graciously reviewed the material presented in this section for accuracy and factual interpretation. He is the department head and 21st Century Chair in Education Reform at the University of Arkansas. Dr. Greene conducts research and writes about education policy, including topics such as school choice, high school graduation rates, accountability, and special education. He has been a professor of government at the University of Texas at Austin and the University of Houston. He earned his Ph.D. from the Government Department at Harvard University.

**Krista Kafer**, an Independence Institute Senior Fellow, also read this section and offered editorial amendments and suggested improvements in factual interpretation. Ms. Kafer is a freelance writer and consultant on education policy. She formerly was the Senior Policy Analyst for Education at the Washington, D.C. -based Heritage Foundation, a public policy organization whose mission is to formulate and promote conservative public policies based on the principles of free enterprise, limited government, individual free-



dom, traditional American values, and a strong national defense. Her published works include one book and numerous papers and articles. She holds a degree in History from the University of Colorado at Denver.

**Matthew Ladner** graciously reviewed the material presented in this section for accuracy and factual interpretation. Dr. Ladner has been the Vice President for Research for five years at the Goldwater Institute, a public policy organization in Phoenix. Before that he served as the Director of State Projects at the Alliance for School Choice. He has published numerous articles and is the coauthor of the book *Report Card on American Education* published by the American Legislative Exchange Council. He holds a doctorate in Political Science from the University of Houston.

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