

# Online Course-Level Funding: Toward Colorado Self-Blended Secondary Learning Options

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by Benjamin DeGrow  
Senior Policy Analyst,  
Education Policy Center,  
Independence Institute



## Executive Summary

Many Colorado secondary students may benefit from greater opportunity to take a number of traditional face-to-face classes and digital courses simultaneously. Students' ability to "self-blend" courses in this manner is hampered by school district control of per-pupil funding and course options. Following the national Digital Learning Council's guidelines, Colorado should alter the K-12 education funding system to enable greater student access to effective online course options.

State tax dollars make up the largest share of Colorado's K-12 funding, including the School Finance Act's Per-Pupil Revenue (PPR) formula, various categorical programs, and school construction grants. Personnel policies and central programs largely dictate how education dollars flow through district offices to individual learning sites. Students enrolled full-time in a multi-district online program receive less PPR than traditional district students. Students enrolled full-time in a single-district online program bring in the same PPR as a full-time brick-and-mortar student. Even in cases where students can access courses through an outside provider, district authority narrows the available field of providers. Colorado Online, the state's largest supplemental online provider, receives a line-item subsidy from the legislature in addition to individual course enrollment fees from districts.

A few states have enacted funding systems that allow secondary students to customize course-level learning--including Florida, Minnesota and Idaho. Utah's new Statewide Online Education Program provides the best example of student-driven, course-level blended learning. A similar system could operate effectively in Colorado as follows:

- Funds should be distributed to schools based on multiple count dates rather than the current single October 1 enrollment count, using school membership rather than attendance;
- Dollars should be divided beyond full-time and part-time to reach the course level, using a tiered funding structure to differentiate costs based on course content;
- PPR and categorical funds should be combined and allotted to individual K-12 students, weighted according to need, and directed to their chosen school and/or courses; and
- At least 50 percent of funding should be given to providers only after successful course completion, with bonuses contemplated for measurable excellent achievement.

To balance concerns, the state also should contract with an outside entity to monitor and report on course and provider outcomes. Two significant barriers to a student-centered, course-level funding system are the lack of common course testing measurements and concerns about how to "share" accountability for a student's performance. While specific solutions to these challenges lie outside the scope of this paper, the new funding system would align with efforts to shift much of the accountability burden from input-based demands to standard, transparent performance measures and market-based quality control.

To win support for significant statewide changes, a cross-section of 10 or more school districts could be selected to pilot the program locally. Yet regardless of how rapidly it is implemented, Colorado needs to empower students to direct funds among numerous effective course options to help fulfill the potential of blended learning and to unleash new opportunities to improve students' academic development.

## Introduction

Educational opportunity for many Colorado youths is hampered by ineffective delivery systems and insufficient access to engaging programs. Significant room remains to improve the outcomes of both the state's K-12 online schools and traditional brick-and-mortar schools. Greater access to high-quality digital course options can better engage some students on a full-time basis, and many more on a part-time basis. The growing technology of online course delivery systems provides both a student-centered and cost-effective approach to addressing some of the state's educational challenges.

The first full-time online education programs emerged in Colorado more than a decade ago. Today there are more than 20 multi-district online programs, including both school districts and public charter schools certified by the Colorado Department of Education to serve students across the state.

In addition, more than 20 single-district programs serve students within their boundaries. Nearly 2 percent of the state's 850,000 K-12 public school students are served in a full-time online program. Most of these students work from home with a parent learning coach and regular remote access to a licensed teacher. Others daily attend a learning center to access digital instruction.

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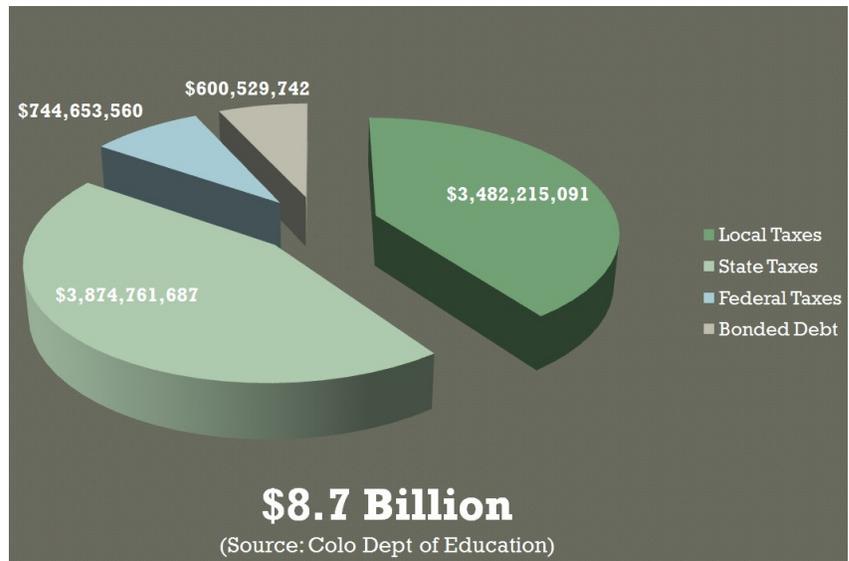
Some students are best served by a full-time virtual program. Thousands more could benefit from greater opportunity to take digital courses through remote delivery. A student may need credits for an Advanced Placement or college prep physics class, but lack a good option in his brick-and-mortar school. A student may wish to enroll in two music performance classes concurrently, but not be able to do so without missing a graduation requirement in math or English. An accelerated student may find online course options that enable her to target early graduation, while a classmate may need to recover credits in an especially challenging subject area.

A 2012 report by the California-based Innosight Institute defines blended learning as "a formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace and at least in part at a supervised brick-and-mortar location away from home."<sup>1</sup> One key form of blended learning is the ability for (particularly secondary) students to enroll simultaneously in one or more remotely-delivered courses from a selection of competing providers. Existing policy barriers hamper the opportunity for Colorado students to "self-blend" core, elective and enriched content. In particular, school districts retain essential control of both per-pupil funding and available course options, thereby limiting a student's options to those the district chooses to offer or permit.

In 2010 the national Digital Learning Council, convened by former governors Jeb Bush and Bob Wise, issued a comprehensive set of recommendations to promote digital learning as "the catalyst for transforming education." Among their proposed 10 Elements of High-Quality Digital Learning<sup>2</sup> was a call to change state funding systems in ways that expand student choices while giving incentive to improve academic performance. Colorado's current funding system presents a significant obstacle that restricts students' ability to maximize learning options through a combination of traditional and online delivery systems.

## Colorado's Current Funding System

Colorado public schools on average annually receive more than \$10,000 per student in local, state and federal tax revenues. The largest portion comes from state tax dollars, nearly \$3.9 billion in the 2009-10 school year (see figure 1).<sup>3</sup> The two major sources of state-level funding to Colorado K-12 public school operations are per-pupil revenue through the School Finance Act and designated categorical funding for an array of educational purposes.



**Figure 1. Colorado K-12 Education Tax Revenues, Fiscal Year 2009-10.**

Core funding for Colorado school districts and other local education providers comes through the School Finance Act, adopted in 1994 and regularly amended since. "Total program" funding is driven by an October student count that may be averaged up to five years (the current year and four preceding years) to hold harmless districts with declining enrollment. Each student counted for funding purposes generates per pupil revenue (PPR) for the local education provider. PPR is derived from a base funding amount modified according to a district's size, cost of living, personnel costs, and the number of students deemed "at risk" based on federal family poverty measures.<sup>4</sup>

In fiscal year 2011-12, seven of Colorado's 178 school districts are able to fund their "total program" entirely through locally-collected property and vehicle ownership taxes. Most districts, however, depend on some share of state funding to backfill PPR, as much as 95 percent in one rural district. More than 60 percent of School Finance Act dollars comes out of the state treasury rather than local taxes.<sup>5</sup>

In addition to School Finance Act "total program," the state also directs categorical funds to school districts to help defray costs for an array of needs:

- Rural small attendance centers
- Students with limited English proficiency
- Gifted and talented students
- Students with special needs or disabilities
- Transportation of students between home and school
- Vocational education programs

While raising funds for school construction and major maintenance projects is primarily a local responsibility, the state can play a role, too. In fiscal year 2011-12, 29 school districts and charter

schools secured a total of \$143 million in BEST state grant funds for construction or renovation, with an additional \$45 million in local matching fund requirements.<sup>6</sup> Capital improvement loans also are available for high-growth districts through the State Treasurer’s office, though none have yet been made.<sup>7</sup>

### *Directing Dollars to Schools*

State PPR and categorical funds are directed to school district offices to deposit in the general fund for use in personnel and programs. Dollars do not necessarily follow students to the school of their choice. The general exception is public charter schools, which receive 100 percent of PPR, though their school district or Charter School Institute authorizer may keep up to 5 percent for administrative overhead. Yet even in charters, dollars are not broken out to the course level.

The vast majority of Colorado districts allot dollars to schools based on seniority-driven personnel groupings. Collective bargaining agreements or other policies grant teachers preference of school assignments. Higher-paid, more senior teachers bring more dollars to the school site. Support personnel and other services likewise are typically doled out by central district office formulas. These formulas typically allocate bodies based on average salaries rather than dollars. As an exception, the state’s 22 innovation schools<sup>8</sup> have greater flexibility and autonomy to choose how to staff service – for instance, hiring an additional counselor rather than an assistant principal.

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### *Online Funding: Full-Time vs. Part-Time Options*

Students enrolled full-time in a *single-district* online education program bring the district the same amount of funding as students attending a traditional brick-and-mortar school. However, each student enrolled full-time in a *multi-district* online program attracts standard PPR below the minimum total program to which district brick-and-mortar students are entitled. In 2011-12 the multi-district online per pupil amount is \$5,913.93, nearly 4 percent less than the district minimum of \$6,137.34.<sup>9</sup>

For any public school program, whether online or brick-and-mortar, a student can be funded only as half-time (0.5 PPR) or full-time (1.0 PPR). A student can be dually enrolled on a part-time basis in two different districts, but the PPR can’t be split further. Many districts still choose to pay a per course fee to online providers.

To be enrolled for full-time funding in a single-district or multi-district online program, a secondary student must take four or more of that program’s online courses. A full-time online student may wish to take a course at a district brick-and-mortar school to supplement his learning. The receiving district has the discretion to deny a full-time online student access to the course, to offer the course for free, or to set a tuition rate that a cyberschool must pay.<sup>10</sup> As the school of record, the online provider remains accountable for the student’s test scores. Some districts require full-time online students to take at least two classes, if they are to take any. The district claims 50 percent of PPR, a rate that unfairly burdens cyberschools.

On the other hand, a brick-and-mortar school that gives a secondary student at least 528 hours<sup>11</sup> of on-site semester instruction owns the student's test results and receives the full PPR funding through the school district. That student is eligible to take as many as three concurrent courses from an online program, a more common scenario than a full-time online student taking a limited number of brick-and-mortar classes.<sup>12</sup> Often, the only online provider available is a district-run program that allows students to enroll either on a full-time or part-time basis (e.g., Jeffco's 21st Century Virtual Academy, DPS Online, or Falcon Virtual). Students can blend their learning within a district – which keeps the entire PPR – but retain limited choices.

A small number of districts have opted to contract with an existing cyberschool to provide a brick-and-mortar student up to three online courses. Districts usually pay from \$175 to \$450 for a semester course, based on the content. Allowing Colorado students to split their time across district lines in this way remains rare, though indications are that more districts are preparing to open the door to additional options.<sup>13</sup> Yet even this permissible approach restricts the incentive for course providers to participate based on demand from district officials rather than from individual students.

#### *Online Funding: Colorado Online Learning*

As defined by the Colorado Department of Education, supplemental online programs offer “one or more on-line courses to students to augment an educational program provided by a school district, charter school, or BOCES.”<sup>14</sup> District arrangements to contract with outside online providers are considered supplemental programs. The state's largest provider of supplemental secondary online courses is Colorado Online Learning (COL).<sup>15</sup> COL was founded in 1998 as a consortium of 14 Colorado school districts to provide remote learning opportunities from licensed instructors while allowing students to stay enrolled in their home district. In 2005, COL converted to a 501(c)(3) nonprofit corporation and now contracts with the Mountain Board of Cooperative Educational Services (BOCES).

Since 2007 the General Assembly has appropriated \$480,000 a year in federal mineral lease revenue funds to support COL's operations. Mountain BOCES retains 2 percent, or \$9,600, for administrative overhead. A typical semester includes 650 to 900 COL course enrollments. The provider is limited to serving 1,400 students in a given school year.<sup>16</sup> Students enroll to take COL courses for a variety of reasons, but mostly because of scheduling conflicts or because the desired course is not available in their (typically small, rural) district. Many students take the course at the high school lab during a free hour. The material is presented in an asynchronous fashion, which means contact between the student and the off-site teacher does not take place in real time but through delayed communication such as email.<sup>17</sup>

*Yet even this permissible approach restricts the incentive for course providers to participate based on demand from district officials rather than from individual students.*

COL assesses semester course fees to the sending district in the amount of \$200 each. According to the supplemental provider's website, “Districts are invoiced for all students who are on the COL roster two weeks after the COL semester has begun.”<sup>18</sup> The district-paid fees cover the compensation for teachers, Colorado-licensed instructors who work with COL on a contract basis.<sup>19</sup> Students who withdraw within the first two weeks incur a \$50 drop fee for the sending district. In rare cases, a

student not enrolled in a Colorado school district may take courses through COL but at the higher rate of \$350 apiece.

Because of its cost and service arrangement, COL's existence as a supplemental provider does not directly compete with school districts as full-time virtual schools do. The state appropriation subsidizes the nonprofit provider regardless of how many students are served. COL receives more enrollments from students in certain smaller districts with greater limitations on course offerings and with whom COL has established a working relationship.<sup>20</sup>

### **Other States**

Other states have preceded Colorado in revising their K-12 funding formulas to allow for greater course-level choice made possible by blended learning technologies. As identified in the October 2011 release of the Nation's Digital Learning Report Card, six states fully achieve the elements of a funding system that "allows customization of education including choice of providers."<sup>21</sup> Four of the six states are in the interior West, the same region as Colorado. A brief description of some key states' course-level funding policies is included below.

#### *Florida*

Florida is home to the largest and one of the longest-standing statewide online K-12 programs in the nation. The Florida Virtual School (FVS) was founded in 1997 to provide distance learning course

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options for secondary students. For the first six years of its existence, FVS was funded by a state legislative line-item appropriation. As growing student demand outstripped available dollars, lawmakers in 2003 established a performance-based funding system. FVS receives a full one-sixth of high school per-pupil revenue for each student course enrollment that is successfully completed. Dollars are not taken from a student's home district but supplemented by the state. Similar to brick-and-mortar district schools, FVS also receives an extra appropriation for "instructional materials" to

develop its online courses. FVS is not eligible to receive most other specially designated school appropriations.<sup>22</sup>

The number of annual successful course completions grew from 12,761 in the 2002-03 school year to nearly 260,000 in 2010-11. However, only since 2011 when state lawmakers adopted the Digital Learning Now Act (HB 7197) are Florida high school students able to select among different online course providers to blend their learning experiences. The legislation requires school districts to provide both full-time and part-time virtual instructional programs, either through direct operation, multi-district cooperation, or outside contracting. Charter schools also now can offer a full-time cyberschool program or various blended learning opportunities.<sup>23</sup>

#### *Minnesota*

In 2003 Minnesota adopted the Online Learning Options Act, providing students with both the options of a full-time virtual education or supplemental<sup>24</sup> courses. More than 20 Online Learning Programs, all operated by local public K-12 agencies (including charter schools), are accredited to

receive course-level funding. Courses receive a relatively smaller share of funding than they do in Florida. Each semester course taken from an approved provider outside the student’s district of residence generates 88 percent of one-twelfth of a total yearly student payment based on “average daily membership.”<sup>25</sup>

*Utah*

In 2011 the Utah state legislature adopted Senate Bill 65, creating a Statewide Online Education Program that enables public high school students to receive a share of state funding to select digital courses from multiple approved providers. With SB 65, Utah became the first state to enact a comprehensive policy encompassing all 10 of the Digital Learning Council’s recommendations. The program allows students to take no more than two online courses in each of the 2011-12 and 2012-13 school years, gradually phasing up to a total of six online courses by 2016-17.<sup>26</sup>

Through formal course credit acknowledgments with a district or charter school, online providers in the program’s first year are eligible to receive one-eighth of 77 percent of Utah’s total charter school funding, or \$726 per year-long course. Half of the funding is withheld until the course is completed with an earned student grade of D or above. About 200 secondary students are enrolled in the program’s first year, with 41 of the state’s 41 districts and three charters signed on as providers from which courses may be taken.<sup>27</sup>

In 2012 Utah lawmakers enacted a tiered cost structure, based primarily on the amount of “teacher touch” needed to meet course demands. Among other program refinements, Senate Bill 178 requires larger payments to providers for core content and other academic courses than for certain electives (see table 1). A proposal to award providers with two separate performance bonuses – \$100 for a student passing an AP or IB exam, and \$50 for a student scoring the highest level of proficiency on the relevant state assessment – was not included in the final legislation.<sup>28</sup>

**Table 1. Utah Statewide Online Education Program Tiered Cost Structure**

<b>Courses</b>	<b>Semester Cost</b>	<b>Annual Cost</b>
Math, Science, Language Arts, AP, IB	\$350	\$700
Social Studies, World Languages	\$300	\$600
Fine Arts, Career & Technical, Uncategorized Electives	\$250	\$500
Financial Literacy, Health & Fitness, Computer Tech, Drivers Education	\$200	\$400

*Idaho*

The Idaho Legislature adopted Senate Bill 1184 in 2011 as part of a sweeping slate of education reforms championed by state superintendent Tom Luna. Starting in the 2012-13 school year, prorated state funding will follow each enrolled public school student to the online course level. The chosen course provider will receive two-thirds of the funds designated for the fraction of the school day in which they are educating the student. If a student takes one of seven required courses digitally, the provider will receive 9.5 percent (two-thirds of one-seventh) of the student’s state per-pupil allotment.<sup>29</sup>

## A New Funding Model

Colorado would have to make a number of changes to its existing school funding structures in order to make possible the kind of choice and customized learning opportunities described in this report. The principle changes are outlined below:

### 1. Change Student Count System

The distribution of Colorado's current K-12 funding, the School Finance Act, is based on a single, high-stakes attendance count on and around October 1. Only three other states (Connecticut, Iowa and Kansas) count students for the purpose of education funding in the same manner.

The transfer of students among brick-and-mortar or online schools after the count date often results in inefficient distribution of funds. Incentives remain weak for schools to engage and retain marginal students at risk of dropping out. According to a November 2011 Colorado legislative staff report, the number of students counted for funding purposes during the 2006-07 to 2010-11 school years dropped off from 1.6 to 2.9 percent by the state assessment period in March. More than 80 percent of school districts lose, rather than gain, students over that time.<sup>30</sup>

*To operate an equitable, transparent and effective funding system that supports student-driven blended learning, the state should be able to fractionalize PPR dollars beyond full-time (1.0) and half-time (0.5).*

In 2010 the General Assembly commissioned a study to determine the feasibility of changing the student count system. The report recommended schools be funded on the basis of student membership (on the active rolls) rather than attendance (directly participating on a given day). The report also called for the use of multiple count dates to enhance incentives for retaining and recovering student drop-outs.<sup>31</sup>

### 2. Extend Fractional Funding

A critical limiting factor to self-blended course selection is the rigidity of the School Finance Act, which distributes PPR on a full-time or half-time basis.<sup>32</sup>

As explained earlier, many students currently can access up to three online courses from an outside provider while remaining enrolled full-time in a brick-and-mortar district school. However, discretion ultimately remains with district officials, who control a student's PPR and negotiate course fees with the provider. A system in which students had greater latitude to choose directly from a menu of multiple providers also would necessitate a standard formula to define the student's individual "purchasing power" in selecting courses.

To operate an equitable, transparent and effective funding system that supports student-driven blended learning, the state should be able to fractionalize PPR dollars beyond full-time (1.0) and half-time (0.5). To help make the case, consider a registered full-time online student who wishes to supplement her learning with one or two traditional district-provided courses. In order to collect 50 percent of PPR dollars, some districts require such students to take at least two courses each. The arrangement limits student options by forcing full-time multi-district online programs, already funded at a lower rate, and their students to make a difficult choice. Either the program absorbs extra costs for a student it spends a majority of time serving, or the student is denied the option of taking courses from both providers.

Each of the four states examined above has implemented a system of course-level funding for secondary students based on a fraction of state per-pupil revenue. Funding shares available to online course providers range from less than 10 percent in Utah or Idaho to a full 16.7 percent in Florida. A simple and practical option based on Colorado’s current school finance system would be to pay providers one-seventh of the multi-district online per-pupil funding (\$5,913.93 in FY 2011-12).<sup>33</sup> This option translates to a standard rate of about \$850 a year, or \$425 per semester course.

Careful consideration also should be given to determining differentiated rates based on typical teacher demands to deliver content, as Utah has done. A hypothetical payment schedule following Utah’s proposed tiered cost structure could be broken down as shown in table 2.

**Table 2. Colorado Online Education Tiered Course Cost Structure (Hypothetical)**

Courses	Semester Cost	Annual Cost
Math, Science, Language Arts, AP, IB	\$425	\$850
Social Studies, World Languages	\$375	\$750
Fine Arts, Career & Technical, Uncategorized Electives	\$300	\$600
Financial Literacy, Health & Fitness, Computer Tech, Drivers Education	\$250	\$500

More than 65 percent of Colorado’s combined total program and categorical funding in the current fiscal year is derived from state tax dollars.<sup>34</sup> The rest comes from local property and vehicle ownership taxes. Seven of the state’s 178 school districts fund their entire School Finance formula with local tax dollars, but still cumulatively receive \$1.23 million in categorical funding.

Dollars currently used to cover categorical programs and the state share of PPR are more than sufficient to pay outside providers for a large number of secondary students’ blended learning course options. Districts would retain control of existing local funds, and no additional state money should be required to enact a Colorado version of the Statewide Online Education Program. Dollars appropriated directly to Colorado Online could be phased out to allow the supplemental service to compete on a level playing field for course funding.

### *3. Put Dollars in Student Backpack*

Colorado’s 179 school districts (including the state Charter School Institute) are the institutions through which K-12 education is primarily funded. State share payments of Per-Pupil Revenue (PPR) under the School Finance Act are made to districts on a monthly basis. Starting in July, the first payments are made based on estimated figures. Adjustments are made at several points throughout the year as actual student enrollment and local tax revenues are determined.<sup>35</sup> Districts receive additional categorical funds to finance programs for special education, gifted education, students with limited English proficiency, rural transportation, vocational training and comprehensive health services.

State funds should be rolled into the School Finance Act per-pupil allotment (i.e., “total program”) and distributed directly into a student’s “backpack” to spend on accredited instructional services of

their choice – whether entirely at one school, divided entirely among different course providers, or some combination of the two. “Backpack funding” promotes competitive innovation and productive spending by freeing dollars currently tied up in “costly administrative structures” and dedicated to the preservation of existing programs.<sup>36</sup> The money instead ought to follow students directly to new options.

Constitutional recognition of local school board authority over instruction might restrict the use of local tax dollars for course-level “backpack funding” across school district lines.<sup>37</sup> Yet since most districts receive a significant amount of state support through the School Finance Act and categorical funds, sufficient student-directed “backpack” dollars should be available to use for outside digital course providers. All 179 districts this year take in enough state funds to provide each enrolled secondary student (grades 7 through 12) at least one online semester course at the \$425 rate. Only six districts do not receive enough state dollars to provide at least four semester course opportunities per secondary student.<sup>38</sup>

*... sufficient student-directed “backpack” dollars should be available to use for out-side digital course providers.*

If a district’s student demand for digital courses from outside providers were to exceed available state resources, the local board of education could adopt a policy to ensure reasonably equitable access to the capped funds or opt to make available a measure of local dollars for course-level “backpack funding.” A longer-term solution might require additional major adjustments to the School Finance Act.

A statewide “backpack funding” system could be built on the backs of existing student-based budgeting systems used in Denver Public Schools and Poudre R-1 (Fort Collins), as well as a system in advanced stages of development in Falcon School District 49. Denver and Poudre both add extra “weight” to the funded amounts they assign to enrolled students for certain grade levels (i.e., primary vs. secondary), as well as factors for at-risk, special needs, English Language Learners, and gifted and talented students. Similar weights could be used statewide to determine the amount of PPR placed in a student's “backpack.”<sup>39</sup>

To facilitate the function of backpack funding, the Center on Reinventing Public Education’s Dr. Paul Hill proposes “a new kind of public entity” to “assemble and disburse all funds.”<sup>40</sup> The Department of Education’s School Finance Unit may be capable of dividing and directing student-attached dollars to multiple providers. But additional personnel or reconfiguration may be necessary for Colorado to accomplish such a change. Further analysis would be required to determine the precise fiscal impact, as it is unclear whether any additional expense could be offset by savings elsewhere to achieve maximum efficiency.

#### *4. Fund Providers Based on Performance*

One crucial incentive to help ensure that online course providers serve students effectively is to withhold a significant share of funds until the course is successfully completed. No timing schedule is set, allowing students to accelerate or slow down to master content at an individualized pace. Under the new Statewide Online Education Program, Utah providers receive only half the funding up front

for a semester course (25 percent for a year-long course, with an additional 25 percent at the midway point). The Florida Virtual School does not receive any of its revenue until successful course completion.

Greater back-loading of payment promotes greater student learning and achievement. With basic checks and controls, it also helps to deter unethical operators from cashing in without providing a quality learning experience. On the other hand, such an approach might also scare away honest fledgling competitors, who would have to wait for their reward. But newer entrants into the course provider market can be challenged to test their ideas and programs first by seeking grant funding (non-profit) or venture capital (for-profit). School districts and charter schools also ought to be eligible to participate, drawing from existing operating funds to provide individual courses digitally. For these reasons, at least 50 percent of dollars available to course providers in a Colorado program should be tied directly to performance.

Additional incentives should be contemplated to promote excellence in academic achievement. Similar to what Utah legislators considered in upgrading the Statewide Online Education Program, performance bonuses of \$100 or more could be awarded to providers for students passing AP and IB tests. Smaller bonuses could be made available either for students achieving “Advanced” ratings on the relevant state assessment, or demonstrating an exceptional level of progress as measured by the Colorado Growth Model, or both. Further consideration may be given to other course performance bonuses for untested subject areas. In all cases, secure, digitally-administered testing would be critical to prevent any organized efforts at cheating or otherwise gaming the system.

*Greater back-loading of payment promotes greater student learning and achievement.*

Many digital courses employ programs that lack the universally recognized status of AP or IB. Thus, establishing a consistent standard to define successful course completion poses a significant challenge to implementing a performance-based course funding system. Whether end-of-course exams or other measures are used in a statewide quality assurance framework, policy makers must create incentives that deter course providers from pursuing a “race to the bottom.” At the same time, any enforcement of a reasonable but rigorous baseline standard must address the constitutional standard of school board “local control of instruction.”<sup>41</sup>

##### *5. Balancing Concerns*

In a 2011 Fordham Institute issue brief, Dr. Paul Hill introduces six policy options that could serve as “risk reducers” to help ensure the appropriate use of tax dollars in a student-centered, technology-friendly finance system. Each policy carries with it likely trade-offs of limiting parental choices and “chilling innovation.”<sup>42</sup>

Besides performance-based funding, as highlighted above, one of the remaining five options should be considered to be enacted without effectively undermining the purpose of the financing system. Specifically, the state should contract with a qualified independent institution to monitor and report to the public on measurable outcomes and other relevant quality information for individual courses

and providers. A small percentage of the per-pupil course revenue could be deducted to cover the cost of this important service of offering data transparently to students and parents.

#### 6. Pilot Program

To win support for significant statewide changes to institute a student-centered, course-level funding system, it may be beneficial to test the waters on a smaller scale first. A representative cross section of at least 10 school districts could volunteer or be selected to participate in a smaller-scale version of

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Utah's Statewide Online Education Program tailored for Colorado, similar to the features outlined above. Secondary students enrolled in one of the 10 districts could register with the program to take up to two courses digitally with an approved provider, initially limited to existing districts and charter schools with basic standards.

During the pilot year a study could be made into implementing a reasonable tiered cost structure for individual online courses based on content. Also after the pilot year, the program could be made available to students enrolled in any school district across Colorado, and the door could be opened to approving additional non-profit and for-profit course providers. Based on the program's early track record and evidence of student demand, the General Assembly also could explore increasing the number of online courses individual students can take to three or four, or eliminating the cap altogether.

#### Accountability and Quality Control

To support the combination of face-to-face and digital learning opportunities, policy changes are needed beyond revisions to the state's K-12 finance system. In their 2011 paper exploring the possibilities of expanded blended learning in Colorado, the Donnell-Kay Foundation's Amy Berk Anderson and Amanda Skrzypchak identified some of the challenges facing an expansion. Among the challenges are determining how to assess and measure student performance, and how to "share" accountability among a student, his school of enrollment, and different course providers.<sup>43</sup>

Writing for the Fordham Institute, education policy scholar Frederick M. Hess calls for a balanced state approach to digital learning quality control based on three major categories, as follows:<sup>44</sup>

- Input and process regulation
- Outcome-based accountability
- Market-based quality control

The governing 2007 Online Education Act has placed more emphasis on input regulation. The legislation added a new office within the state's Department of Education to provide greater oversight of online schools. Implicit in the above funding model, however, is a more balanced approach that includes a focus on outcomes through performance-based funding and greater consumer choice to enhance market-based control.

The issue of accountability is closely linked to course-level funding. Until accountability can be reasonably shared and broken down in effective common assessment measures, it will add difficulty to allowing students to direct funding to the course level. Nonetheless, addressing the issue in depth lies outside the scope of this paper.

## Conclusion

Colorado was an early pioneer in developing and implementing full-time online educational programs for elementary and secondary students. The state similarly should be able to provide secondary students access to a wider range of digital course offerings outside the school in which they are primarily enrolled. While the state has begun to see some forms of blended learning emerge on a limited scale, state policies are holding back many students from their full potential of high-quality digital learning opportunities.

To surmount the challenge, Colorado's school funding system needs a measure of fundamental re-design that liberates students and their families as end consumers. The time has come to break down fiscal policy barriers that greatly limit student access to effective digital-learning course options. First and foremost is ensuring that dollars are attached to students, rather than funneled first through local school district agencies.

*To surmount the challenge, Colorado's school funding system needs a measure of fundamental re-design that liberates students and their families as end consumers.*

The state can consolidate existing state-appropriated education dollars and make a predetermined portion available for students to use in selecting one or more digital courses from an outside provider, beyond the current restraints of "full-time" or "half-time" funding. A system using multiple student count dates to allot funds would provide both needed flexibility and greater incentive to serve student needs. Tying a significant share of funds to course completion would increase motivation for excellence and deter potential bad actors. As outlined above, other measures of transparency and basic accountability could balance the demands of innovation and effective educational results.

The challenge of enacting such large-scale changes overnight may necessitate the immediate development of a pilot program to phase in the new funding system. In any case, the time has arrived for a student-centered system that embraces the ever-expanding possibilities of digital learning technology to connect students with a wider array of options that help to maximize their personal academic development. The power and responsibility to direct funds among a range of quality options should go a long way toward productively transforming educational outcomes in Colorado.

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## Notes

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- <sup>2</sup> <http://digitalllearningnow.com/ten-elements-of-high-quality-digital-learning/>.
- <sup>3</sup> Colorado Department of Education, Public School Finance Unit, FY 2009-10 District Revenues and Expenditures, <http://www.cde.state.co.us/cdefinance/RevExp.htm>.
- <sup>4</sup> Ben DeGrow, "K-12 Tuition Tax Credits," from Citizens' Budget, pgs 55-57, <http://education.i2i.org/wp-content/uploads/2011/04/Citizens-Budget-K-12-Education-Funding.pdf>; Colorado Department of Education, Public School Finance Unit, "Understanding Colorado School Finance and Categorical Program Funding," (July 2011), <http://www.cde.state.co.us/cdefinance/download/pdf/FY2011-12Brochure.pdf>; Colo. Rev. Stat. § 22-54-103(7)(d)(I) and 22-54-104.
- <sup>5</sup> Colorado Department of Education, Public School Finance Unit, Fiscal Year 2011-12 School Finance Funding, <http://www.cde.state.co.us/cdefinance/SchoolFinanceFundingFY2011-12.htm>.
- <sup>6</sup> Colorado Department of Education, Division of Public School Capital Construction Assistance, BEST FY2011-12 Grant Cycle Information, <http://www.cde.state.co.us/cdefinance/CapConstBESTC1112.htm>.
- <sup>7</sup> CDE, "Understanding School Finance," pg 9.
- <sup>8</sup> <http://www.cde.state.co.us/cdegen/SB130.htm>.
- <sup>9</sup> CDE, "Understanding School Finance," pg 4.
- <sup>10</sup> Amanda Heiney, online learning support staff, Colorado Department of Education, telephone conversation with the author, March 7, 2012.
- <sup>11</sup> Colo. Rev. Statutes § 22-33-104 sets the minimum seat-time attendance requirement for secondary students at 1,056 hours per year, or 528 hours per semester.
- <sup>12</sup> Heiney, telephone conversation with the author, February 2, 2012.
- <sup>13</sup> Ibid.
- <sup>14</sup> <http://www.cde.state.co.us/onlinelearning/schools.htm>.
- <sup>15</sup> <http://www.col.k12.co.us>.
- <sup>16</sup> Amy Berk Anderson and Amanda Skrzypchak, *Blended Learning: The Best of Both Worlds*, a report for the Donnell-Kay Foundation (February 2011), pg 7, <http://www.dkfoundation.org/PDF/BlendedLearning-BestOfBothWorlds-Feb2011.pdf>.
- <sup>17</sup> Maryann Pena, Student Services Director, Colorado Online, telephone conversation with the author, August 24, 2011.
- <sup>18</sup> Colorado Online website, <http://www.col.k12.co.us/schools/billinginfo.html>, accessed January 19, 2012.
- <sup>19</sup> Pena, telephone conversation with the author.
- <sup>20</sup> Ibid.
- <sup>21</sup> <http://digitalllearningnow.com/nations-report-card/#>.
- <sup>22</sup> Bill Tucker, "Florida's Online Option," *Education Next* vol. 9 (3), Summer 2009, <http://educationnext.org/floridas-online-option/>; Florida TaxWatch Center for Educational Performance and Accountability, "Final Report: A Comprehensive Assessment of Florida Virtual School," (October 2007), pg 7, [http://www.inacol.org/research/docs/FLVS\\_Final\\_Final\\_Report%2810-15-07%29.pdf](http://www.inacol.org/research/docs/FLVS_Final_Final_Report%2810-15-07%29.pdf); Katherine Mackey and Michael B. Horn, "Florida Virtual School: Building the First Statewide, Internet-Based Public High School," Innosight Institute Education Case Study 002 (October 2009), pgs 11-13, <http://www.flvs.net/areas/aboutus/Documents/Research/FLVS%20Innosight.pdf>.
- <sup>23</sup> "Liberating Learning: Technology, Politics, and American Education," <http://sites.google.com/site/liberatelearn/home/florida>, accessed January 31, 2012; Florida Virtual School website, <http://www.flvs.net/areas/aboutus/Pages/QuickFactsaboutFLVS.aspx>, accessed January 19, 2012; The Florida Senate, HB

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7197 – Digital Learning, Bill Summary, <http://www.flsenate.gov/Committees/BillSummaries/2011/html/7197ED>, accessed January 31, 2012.

<sup>24</sup> The Minnesota Department of Education (MDE) defines supplemental online learning as “an online course taken in place of a course period during the regular school day at a local district.”

<sup>25</sup> Minnesota Statutes, 124D.095, <https://www.revisor.mn.gov/statutes/?id=124D.095>; MDE, <http://education.state.mn.us/MDE/StuSuc/EnrollChoice/Online/>, accessed January 31, 2012.

<sup>26</sup> Robyn Bagley, Parents for Choice in Education, board chair, Independence Institute presentation at the Colorado Department of Education, July 13, 2011, <http://education.i2i.org/2011/07/utah-education-reform-leader-shares-insights-on-cutting-edge-digital-learning-law/>.

<sup>27</sup> Ibid.; Utah Code, § 53A-15-1201 et seq., “Statewide Online Education Program Act,” [http://le.utah.gov/~code/TITLE53A/htm/53A15\\_120100.htm](http://le.utah.gov/~code/TITLE53A/htm/53A15_120100.htm); Bagley, telephone conversation with the author, January 26, 2012.

<sup>28</sup> <http://le.utah.gov/~2012/bills/sbillenr/SB0178.pdf>; <http://le.utah.gov/~2012/bills/sbillint/sb0178.htm>; Bagley, telephone conversation with the author, January 26, 2012.

<sup>29</sup> Idaho Statutes § 33-1002A, <http://www.legislature.idaho.gov/idstat/Title33/T33CH10SECT33-1002A.htm>; Briana LeClaire, *Chucking the Chalk: How Digital Learning is Improving Education in Idaho*, Idaho Freedom Foundation report (January 2012), pgs 27-28, <http://idahofreedom.net/wp-content/uploads/2012/01/Digital-Learning-Report-2012.pdf>.

<sup>30</sup> <http://education.i2i.org/wp-content/uploads/2012/02/FTE-CSAP-Comparison-Revised.pdf>.

<sup>31</sup> Colorado Department of Education, Public School Finance Unit, Average Daily Membership Study, <http://www.cde.state.co.us/cdefinance/AverageDailyMembershipStudy.htm>.

<sup>32</sup> Colorado State Board of Education, Amended Rules for the Administration of the Public School Finance Act of 1994, 1 Colorado Code of Regulations 301-39, 2254-R-5.00 Determination of Membership and of Pupil Enrollment, [http://www.cde.state.co.us/cdeboard/download/bdregs\\_301-39.pdf](http://www.cde.state.co.us/cdeboard/download/bdregs_301-39.pdf).

<sup>33</sup> CDE, “Understanding School Finance,” pgs 4-5.

<sup>34</sup> State of Colorado Joint Budget Committee, Appropriations Report FY 2011-12, pgs 78-79, [http://www.state.co.us/gov\\_dir/leg\\_dir/jbc/FY11-12apprept.pdf](http://www.state.co.us/gov_dir/leg_dir/jbc/FY11-12apprept.pdf).

<sup>35</sup> Colorado Department of Education, School Finance Act Fiscal Year 2010-11 District Payment Information, [http://www.cde.state.co.us/scripts/fin\\_distpaym\\_submit11.asp](http://www.cde.state.co.us/scripts/fin_distpaym_submit11.asp).

<sup>36</sup> Paul T. Hill, “School Finance in the Digital-Learning Era,” Thomas B. Fordham Institute Working Paper (November 2011), pg 6, [http://www.edexcellencemedia.net/publications/2011/2011\\_CreatingSoundPolicyforDigitalLearning/20111116\\_SchoolFinanceintheDigitalLearningEra\\_Hill.pdf](http://www.edexcellencemedia.net/publications/2011/2011_CreatingSoundPolicyforDigitalLearning/20111116_SchoolFinanceintheDigitalLearningEra_Hill.pdf).

<sup>37</sup> *Owens v. Colorado Congress of Parents*, 92 P.3d 933 (Colo. 2004). Based on Article IX, § 15 of the state constitution, the Colorado Supreme Court has consistently ruled that “local school districts must retain control over any instruction paid for with locally-raised funds.” See also *Belier v. Wilson*, 59 Colo. 96, 147 P. 355 (1915) and *Lujan v. Colorado State Board of Education*, 649 P.2d 1005 (Colo.1982).

<sup>38</sup> CDE data. The five districts are Estes Park R-3, West Grand 1-JT, Meeker RE-1, De Beque 49JT, Clear Creek RE-1, and Pawnee RE-12. An additional \$1.594 million would be needed to ensure these districts also could make available four semester digital course opportunities (\$1,700) to each of its secondary students.

<sup>39</sup> Lisa Snell, *Weighted Student Funding Yearbook*, Reason Foundation (2009), pgs 52-53, 117-118, <http://reason.org/files/wsf/yearbook.pdf>; Denver Public Schools, “Student-Based Budgeting Overview & 2011-12 Budget Recommendations,” presentation to Board of Education, January 18, 2011, <http://businessmanuals.dpsk12.org/11-12/2011-12%20Budget%20Recommendation%20for%20BoE%20-%2011-12.pdf>.

<sup>40</sup> Hill, “School Finance in the Digital Learning Era,” pgs 6-7.

<sup>41</sup> Colorado Constitution Article IX, § 2.

<sup>42</sup> Hill, “School Finance in the Digital Learning Era,” pgs 8-10.

<sup>43</sup> Anderson and Skrzypchak, *Blended Learning: The Best of Both Worlds*, pgs 18-20.

<sup>44</sup> Hess, “Quality Control in Digital Learning: Three (Imperfect) Approaches,” [http://www.edexcellencemedia.net/publications/2011/2011\\_CreatingSoundPolicyforDigitalLearning/20110727\\_QualityControlinK12DigitalLearning\\_Hess.pdf](http://www.edexcellencemedia.net/publications/2011/2011_CreatingSoundPolicyforDigitalLearning/20110727_QualityControlinK12DigitalLearning_Hess.pdf).

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JON CALDARA is President of the Independence Institute.

DAVID KOPEL is Research Director of the Independence Institute.

PAMELA BENIGNO is the Director of the Education Policy Center.

BENJAMIN DEGROW is Senior Policy Analyst for the Education Policy Center. He is the author of numerous Issue Papers and Issue Backgrounders, including *The Ignacio Market Driven Compensation Plan and Why It Fell Short*, *Counting the Cash for K-12: The Facts about Per-Pupil Spending in Colorado*, *A Property Tax Increase by Any Name: The "Colorado Children's Amendment" and Growing School Revenues*, *Pioneering Teacher Compensation Reform: K-12 Educator Pay Innovations in Colorado*, *What Should School District Financial Transparency Look Like?*, *The Citizens' Budget: K-12 Funding Issue Brief*, *Time to Show the Money: Complying with Colorado's Public School Financial Transparency Act* (co-authored with Devan Crean), and *The Future of Colorado Digital Learning: Crafting a Policy Roadmap for Reform* (co-edited with Pam Benigno).

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