

Copyright is retained by the first or sole author, who grants right of first publication to the **EDUCATION POLICY ANALYSIS ARCHIVES**. EPAA is a project of the [Education Policy Studies Laboratory](#).

Articles published in **EPAA** are indexed in the [Directory of Open Access Journals](#).

Volume 12 Number 31

July 2, 2004

ISSN 1068-2341

Colorado's Voucher Law: Examining the Claim of Fiscal Neutrality

Kevin G. Welner
University of Colorado, Boulder

Citation: Welner, K. G., (2004, July 2). Colorado's voucher law: Examining the claim of fiscal neutrality. *Education Policy Analysis Archives*, 12(31). Retrieved [Date] from <http://epaa.asu.edu/epaa/v12n31/>.

Abstract

Colorado's voucher law was declared unconstitutional by the Colorado Supreme Court on June 28, 2004. Voucher supporters have begun drafting revised legislation designed to address the legal problem. This article calls into question the key financial claim of revenue neutrality—a claim that was central to the promotion and passage of the departing voucher law. The author concludes that the voucher law was not revenue neutral, even though it attempts to exclude from eligibility those children already enrolled in private schools. In fact, this law, as well as any revised law with similar eligibility provisions, would actually cost taxpayers an additional \$10 million per year once fully implemented because the eligibility provision provides little more than a short-term damper on the law's long-term fiscal impact.

Summary

Colorado's school voucher law, called the Colorado Opportunity Contract Pilot Program, was found unconstitutional by the state Supreme Court on June 28th (*Owens v. Colorado Congress of Parents*, 2004). Immediately, the law's chief legislative sponsor declared that she will draft revised legislation for the following legislative term (Sarche, 2004). This revision, she explained, would address the court's legal concern. It would likely, however, leave untouched another concern – one that was never addressed when the original legislation was enacted in 2003.

At the time, the state was in the midst of a budget crisis, and legislators from both parties were

disinclined to support any bills that required increased expenditures. Accordingly, the voucher bill was promoted as revenue neutral. To accomplish this, the bill excluded from eligibility those children already enrolled in private schools. The bill thus avoided the extensive costs that would have resulted if the state took on an obligation to pay for the education of these existing private school students. Colorado's official legislative fiscal analyst supported the claim of fiscal neutrality. The analyst routinely prepares a 'fiscal note', which accompanies legislation as it makes its way through the house and senate. The note for the voucher bill concludes, "No additional state funding will be required for the Colorado Opportunity Contract Pilot Program." Yet the law's key eligibility exclusion, barring students already enrolled in private school, amounts to little more than a short-term damper on what would have been the law's long-term fiscal impact. This exclusion did not and could not apply to students *entering* kindergarten – students who have never before enrolled in any school, whether public or private.

The Colorado law was targeted at low-income students who live in the attendance areas of low-performing public schools. For children entering first grade or beyond, the eligibility provisions include attendance in public school. For those entering kindergarten, however, this provision was inapplicable, and the only remaining eligibility criteria required that the child's family be low-income and live within the boundaries of a neighborhood school rated "low" or "unsatisfactory." Students meeting these eligibility criteria for children entering kindergarten are already (pre-voucher-policy) enrolled in private schools. That is, some low-income families in these attendance areas currently choose to enroll their children in private school even without the benefit of a voucher.

Accordingly, a current snapshot of private school enrollments would include a subset of students who are low-income and who live in the eligible attendance areas. If, under the 2003 voucher law, future such families received a voucher, the state would have begun picking up the tuition tab for this subset of students. By projecting twelve years into the future, one can understand how this eligibility provision would have undermined the voucher law's fiscal neutrality. High school seniors in 2016 would have entered school as kindergarteners in the fall of 2004. Virtually every student then enrolled in private school who could satisfy residency and income requirements would have begun as a kindergartener with a chance to obtain a voucher. The provision excluding from eligibility those children already enrolled in private schools would become progressively meaningless with each passing year and would have become virtually obsolete in 2016.

This study estimates the fiscal effect of the taxpayer subsidization of this likely group of voucher recipients who would attend private school irrespective of voucher availability. It identifies two significant fiscal impacts – one for taxpayers and one for public school districts: 1) Once the voucher law was fully implemented, it would have cost taxpayers an additional amount of approximately \$10 million per year. 2) Once the voucher law was fully implemented, it would have provided an additional source of funding to the participating school districts, in estimated amounts ranging from \$12,000 annually for St. Vrain Valley School District to over \$1.8 million annually for Denver Public Schools.

Neither of these conclusions bears directly on the merits of the voucher law. A conclusion that the voucher law was not fiscally neutral says nothing about whether the law is good public policy. In fact, the recipients that are the focus of this analysis are children and families that are, by definition, low income and whose local school is rated as "low" or "unsatisfactory" by the state. One could make a sound public policy argument that taxpayers should provide financial assistance to these families. Similarly, a conclusion that the voucher law would have resulted in additional funding to the participating school districts says nothing about these districts' level of need. The participating districts are called upon to administer the law, and this would have generated attendant costs that may or may not have been covered by the other funding provided to the districts. Moreover, these school districts have been identified by the state as in need of improvement, and the additional resources may have provided much-needed help in that regard. This analysis simply does not attempt to address such issues.

Introduction

The United States Supreme Court recently removed the federal establishment clause barrier to school voucher programs (*Zelman v. Simmons-Harris*, 2002). Colorado's new voucher law (HB03-

1160), officially named the “Colorado Opportunity Contract Pilot Program,” was the nation’s first post-*Zelman* voucher policy. The U.S. Congress recently passed a voucher law for Washington D.C., with student eligibility provisions very similar to Colorado’s.

The Colorado law was expressly designed to be fiscally neutral. To accomplish this, the law was written to exclude from eligibility those children already enrolled in private schools. (Note 1) It also maintained the same allocation per student. The official ‘fiscal note’ attached to the bill by the legislative fiscal analyst concludes, “No additional state funding will be required for the Colorado Opportunity Contract Pilot Program.”

While the legislation was pending, I joined in warning of three ambiguities with the potential to undermine the law’s fiscal neutrality (Howe & Welner, 2003). One of these ambiguities was directly addressed through an amendment by the legislation’s authors. (Note 2) A second ambiguity – appearing to expand eligibility to all private school students in grades 1-3 residing in the attendance areas of low-scoring public schools – persisted in the law’s language. However, the state Department of Education interpreted the clause so as to exclude such student eligibility. (Note 3)

Yet a third ambiguity remained, in part because there exist few ways to remove it. Although, as noted above, the voucher law excludes from eligibility those children already enrolled in private schools, this provision cannot apply to those students *entering* kindergarten – students who have never before enrolled in school. These entering low-income kindergarteners are made eligible if they live within the boundaries of a neighborhood school rated “low” or “unsatisfactory.” (Note 4) As set forth below, some students fitting this description are already (pre-voucher-policy) enrolled in private schools. Some low-income families in these attendance areas choose to enroll their children in private school even without the benefit of a voucher. Accordingly, a current snapshot of private school enrollments would include a subset of students that are low-income and who live in the eligible attendance areas. If future such families receive a voucher, the state will begin picking up the tuition tab for an additional subset of students, and the Colorado law will lose its revenue-neutrality.

In reality, this is not so much an *ambiguity* as a straightforward shortcoming of the power of legislation to distinguish among the inner thoughts of potential beneficiaries. A voucher law cannot be designed to exclude families who would have chosen private school even without the availability of vouchers. There is simply no sensible means of identification, even if it were somehow good policy to do so. (Note 5)

Yet, by projecting twelve years into the future, one can understand how this eligibility provision would undermine the fiscal neutrality of the law. High school seniors in 2016 would have entered school as kindergarteners in the fall of 2004. Virtually every student then in school who could satisfy residency and income requirements would have begun as a kindergartener with a chance to obtain a voucher. (Note 6) The only significant exceptions would be those students who moved into the state or into a voucher-eligible attendance area (as explained below) after the child turned seven years of age. (Note 7) Thought of another way, the voucher law contains a key provision that was supposed to guarantee revenue neutrality: the provision excluding from eligibility those children already enrolled in private schools. But this provision would have become progressively meaningless with each passing year and would have become virtually obsolete in 2016.

The purpose of this study is to estimate the fiscal effect of the taxpayer subsidization of this likely group of voucher recipients who would attend private schools irrespective of voucher availability.

To move forward with this analysis, one need not know the proportion of entering low-income kindergarteners that would have attended private school notwithstanding the availability of vouchers. Instead, the necessary assumption is that the vast majority of such kindergarteners would have indeed pursued vouchers. This is akin to assuming that someone purchasing a \$25,000 car will, if given the choice, opt to have someone else pay the purchase price. It is grounded in the same basic principle underlying the voucher policy itself: that parents will make rational choices. A low-income parent who has already decided to send her child to private school is likely to seek the voucher subsidy.

This article calculates the cost of that subsidy by combining two approaches. Due to differences in data availability between Denver and the rest of the state, the Denver calculations use extensive data on private school attendance and free and reduced-lunch numbers. The calculations for the remainder of the state apply national rates to particular Colorado school districts. Each of these calculations yield estimates of how many of the state's future voucher recipients would have attended private schools irrespective of voucher availability. As set forth below, this estimate, in turn, yields estimates of two significant fiscal impacts: one for taxpayers and one for public school districts.

In particular, the following analysis concludes that once the voucher law was fully implemented it would have cost taxpayers approximately \$10 million additional per year. It would also have provided an additional source of funding to the participating school districts, in estimated amounts ranging from \$12,000 annually for St. Vrain Valley School District to over \$1.8 million annually for Denver Public Schools. (Note 8)

Limits of this Analysis

Given a statewide dataset with fields linking student eligibility for free or reduced lunch (FRL), public school attendance area, and actual school attended, this analysis would be fairly straightforward. However, the actual analysis makes due with more limited data. Assumptions are necessary at almost every step, but each assumption is justified and the more conservative path is generally pursued.

Another cautionary note concerns the policy implications of this analysis. A conclusion that the voucher law would not have been fiscally neutral says nothing about whether the law is good public policy. In fact, the recipients that are the focus of this analysis are children and families that are, by definition, low income and whose local school is rated as "low" or "unsatisfactory" by the state. Families such as these are currently (before the availability of vouchers) paying for private schools notwithstanding a limited ability to do so. One could make a sound public policy argument that taxpayers should provide financial assistance to these families. The present analysis does not attempt to address this issue; instead, the sole focus is to provide information about the actual cost of the program.

Similarly, a conclusion that the voucher law would have resulted in additional funding to the participating school districts says nothing about these districts' level of need. In fact, the additional funding may be good public policy. The districts were called upon to administer the law, and this would have generated attendant costs that may or may not have been covered by the other funding provided to the districts. Moreover, these school districts have been implicitly identified by the state as in need of improvement, and the additional resources may have provided needed help in that regard. Again, this analysis does not attempt to address such issues.

Background

Like most American voucher programs, Colorado's was means-tested – meaning that it was expressly designed to benefit students from low-income families. These students have, as a general matter, been under-served in America's public schools, with a result being that their measured achievement lags behind their more advantaged peers; means-tested vouchers promise to provide some immediate relief to these students and their parents (Howe, 1997).

HB 1160 was crafted to avoid certain criticisms commonly leveled at voucher programs. Among the most prominent are that vouchers (1) most benefit the already advantaged by indifferently subsidizing their tuition expenses (voucher programs often provide a voucher amount that covers only a portion of tuition charges such that many lower-income families could not afford to pay the difference); (2) result in private school "skimming" of the most able public school students; and (3) harm public schools by diverting their funding to private schools.

As just discussed, under the Colorado's law students already attending private schools are ineligible. Also, participating students must either be at-risk or live in the attendance area of an under-

performing school. These facets of the law help to address criticisms 1 and 2, above.

The law addresses the third criticism by leaving with the home school district some of the per-pupil operating revenue (PPOR) for each voucher student. Under the state's foundation grant system, the state calculates the appropriate PPOR for each school district and then allocates sufficient state funding to the districts after accounting for local revenues (40-50% of the PPOR funding is generated locally). The voucher law requires the public school districts to locally administer the policy. To fund this administration and other costs, full PPOR for each voucher student is provided to the district; voucher money is then deducted from school district budgets at a rate of 85% of PPOR for high school, 75% for elementary and middle school (grades 1-8), and 37.5% for kindergarten. (Note 9) The districts retain the difference. This provision significantly reduces the likelihood that public schools would have been financially harmed by diverting their funding to private schools.

The law has three general requirements for students to be eligible to participate. Students must (1) reside in one of eleven identified school districts in which at least eight schools received an academic performance rating of "low" or "unsatisfactory" in the 2001-02 school year, (Note 10) (2), be eligible for free or reduced-cost lunches, and (3) be either entering kindergarten or have attended a public school in the year prior to application.

A fourth requirement is tied to grade level. Students in grades 4-12 must have performed unsatisfactorily on one of the CSAP tests. For children in grades k-3, for whom CSAP test data is unavailable, the law identifies two alternative ways to become eligible. Students must reside in the attendance area of a school rated "low" or "unsatisfactory," or lack "overall learning readiness," based on certain risk factors or low performance on certain reading assessments.

In the first year of the program, participation was to be capped at 1% of a participating school district's enrollment. This cap increases each year, stopping at 6% in the 2007-2008 school year, when the legislation was expected to be reviewed by the legislature. In the event that a school district was faced with more eligible applicants than available vouchers, priority was to be first given to present participants and then to their siblings. Remaining slots would be filled by lottery. (Note 11)

The Colorado Department of Education developed a flow chart to help explain the eligibility requirements. This chart is reproduced here as Appendix D (and can also be found at www.cde.state.co.us/choice/download/flowchart.pdf). The part of this chart that presents the kindergarten eligibility exception is along the left-hand margin, concerning students "4 years and older but under the age of 7" in the fall of a given school year. As this chart makes clear, such children are eligible if they reside "in an attendance area of a neighborhood school with a low or unsatisfactory state rating."

Analysis

Due to differences in data availability, this analysis is divided into two parts. The Denver calculations use extensive data on private school attendance and free and reduced-lunch (FRL) numbers. The calculations for the remainder of the state apply national rates to particular Colorado school districts. The logic behind these calculations is straightforward: by estimating how many how many of the state's future voucher recipients would have attended private schools, irrespective of voucher availability, one can calculate an estimate of the additional cost to the state's taxpayers.

Denver

Data concerning the current attendance of FRL-eligible students attending private schools in Denver were obtained from three sources – the U.S. Department of Agriculture, the Denver Public Schools, and the Archdiocese of Denver. (Note 12) These three institutions produced substantially consistent numbers. (Note 13)

The data identify at least 1,473 FRL-receiving students presently attending private schools in Denver. (Note 14) Of these, 1,246 attend schools that include kindergarten and other primary grades.

Ultimately, the goal of this analysis is to forecast the additional expenditures by Colorado taxpayers (and additional allocations to public school districts), as the law would have moved toward full implementation. To do this, I will first arrive at an estimate, per grade level, of the number of low-income students presently attending private schools in Denver.

The private schools enrolling the 1,246 students referenced above vary from k-5 to k-12 schools. Accounting for the number of grade levels served at each particular school yields a figure of 142.5 low-income students per primary grade level currently enrolled in private school in Denver (see Appendix A). (Note 15)

But, while all these students are income-qualified, some of them will nonetheless not be eligible to participate because they do not live in the attendance area of a low or unsatisfactory DPS elementary school. Seventy-one percent of DPS schools are rated low or unsatisfactory; 29% are rated average or higher. Students who live in the attendance area of one of this latter group of higher-achieving schools would not be eligible for vouchers, even if they themselves qualify for FRL.

Assuming that Denver's low-income students are evenly distributed geographically and assuming that the student population in each attendance area is approximately equal, then we can predict that 71% of the 142.5 students (101 students) per grade level qualify pursuant to both the income requirement and the attendance area requirement.

But one would not expect such an even distribution. Rather, one would expect that more of the current private school low-income students live in the neighborhoods with the most low-income families. That is, assuming that the choice of a low-income family of whether or not to attend a private school is made independent of the family's residence, then the rate would not vary by attendance area, and the attendance areas with higher numbers of low-income families would produce more such families attending non-public schools.

In the following example I will, for simplicity's sake, call the 71% of DPS schools that are ranked low or unsatisfactory "Group A" schools; the 29% higher-ranked schools are then in "Group B." Imagine two attendance areas, one for a school ranked low (i.e., in Group A) and one for a school ranked high (in Group B). Each area includes 1,000 kindergarten-aged children. The attendance area of the low-ranked school has a poverty rate of 80% (approximately 800 kindergarteners qualify for FRL); the attendance area of the high-ranked school has a poverty rate of 40% (approximately 400 kindergarteners qualify for FRL). If the rate of opting for private school among low-income families is one percent, then the first group would produce eight such kindergarteners, while the second would produce only four.

In actuality, the percentage of low-income students in low and unsatisfactory DPS schools averages over twice that of higher-ranked schools (84% versus 36%). (Note 16) Given the 84/36 ratio, we can make the conservative assumption that current private school low-income students are twice as likely to live in Group A attendance areas than in Group B attendance areas. (Note 17)

Is this a reasonable assumption? On the one hand, we might expect low-income families who live in wealthier areas to have more social capital and to be more efficacious and more likely to be active choosers. The friends, neighbors, and other contacts of these families are probably more educated and informed about how to negotiate the process of school choice. But we also might expect more families to opt for a private school if their local public school is less successful. For instance, one-quarter of students enrolled in DPS's Steck Elementary receive FRL. But the school is highly ranked. A low-income family in the Steck attendance area may opt for private school, but the impetus is likely to be religious beliefs or some other nonacademic criterion. In contrast, DPS's Ford Elementary (with 90% FRL) has an unsatisfactory rating. A low-income family in the Ford attendance area may choose a non-public school for similar religious reasons but is also more likely to make such a choice based on academic considerations.

Overall then, the assumption that current private school low-income students are twice as likely to live in Group A attendance areas than Group B attendance areas seems reasonable. (Note 18) Applying this assumption to the data, we come up with 1.82 students per grade level in Group A school

attendance areas, and 0.91 students per grade level in Group B school attendance areas (see below calculation). Since there are 65 Group A schools in DPS, this results in a figure of 118 private school students (65 x 1.82) per grade level who qualify pursuant to both the income requirement and the attendance area requirement.

Calculation of Weighted Estimate

- 92 elementary schools in DPS
- 65 Group A schools
- 27 Group B schools
- (x)(27) private FRL students total in the attendance area of Group B schools
- (x)(65)(2) private FRL students total in the attendance area of Group A schools
- $27x + 130x = 142.5$
- $x = 0.91$
- $2x = 1.82$

The per pupil operating revenue (PPOR) in DPS is \$6,350.56. For these 118 students, the current annual PPOR expenditure is \$749,366. But this is just for one grade level. As the policy was implemented, the cohort of eligible kindergartens would have advanced toward 12th grade, and a new cohort of eligible kindergarteners would fall in behind the first. Thirteen years from the time of the policy's initiation, the additional annual cost to taxpayers becomes \$9,367,076. (Note 19) This figure is an approximation of the additional taxpayer expenditure, after full implementation, for students in the DPS schools' attendance areas. (Note 20)

Before moving on to the other school districts, I should note that not all the private schools currently enrolling FRL students were on the list of Denver area schools approved for participation in the voucher program. As shown in Appendix A, eight Denver schools currently serving low-income students and currently enrolling a total of 36.6 such students per grade level, were not among the private schools approved by DPS to receive voucher students. (Note 21) Some low-income families who would have strongly desired to attend the non-approved schools (or who receive other financial assistance) may have opted to eschew vouchers. Since the focus here is on entering kindergarteners, the choice is not one of leaving such a non-approved school; rather, the choice is to change an initial preference in favor of a school on the approved list. (Note 22)

If we assume that voucher availability would not have factored at all into the choice process, the subtraction of these non-approved schools reduces the 142.5 students per grade level to 105.9. This, in turn, reduces the weighted distribution estimate to 87, the annual per-grade increase to \$553,134, and the full implementation estimate to \$6,914,172. The midway assumption is of 124.2 students per grade level, a weighted estimate of 103, an annual per-grade increase of \$652,203, and a full implementation estimate of \$8,152,531.

**Table 1
Range of Results for Denver**

Assumption as to whether voucher availability will change choice of private school	Qualifying students per grade in eligible private schools	Annual cost per grade level	Total annual cost
No effect	87	\$553,134	\$6,914,172
Affecting 50% of choices	103	\$652,203	\$8,152,531
Total effect	118	\$749,366	\$9,367,076

For the remainder of this analysis, the \$8,152,000 figure will be used as the best estimate of

additional annual taxpayer costs associated with the kindergarten eligibility exception as it applies to students in the DPS attendance area.

The Ten Other School Districts

To arrive at estimates for the other ten Colorado school districts where students are eligible for vouchers, I turn to national data concerning the likelihood that a low-income student will attend a private school. This second part of the analysis requires several unsatisfactorily grounded assumptions. At each such juncture, the analysis uses conservative assumptions and estimates, almost certainly resulting in a figure that is below the actual cost likely to have been incurred as the voucher policy was implemented. In the absence of better data, however, these conservative assumptions offer the best available option for an analysis of this nature.

Alt and Peter (2002), using data from the NCES "Schools and Staffing Survey (SASS)," state that 49.5% of U.S. private schools in the 1999-2000 school year enrolled at least one FRL student (Alt & Peter, 2002, p. 12, table 6). In those schools, 10.4% of students were FRL recipients. Therefore, we can arrive at a conservative estimate that approximately 5% of private school students nationally were eligible for FRL. (Note 23)

According to the Colorado Department of Education, private schools in the state enrolled over 57,000 students in 2002 (CDE, 2003a). Five percent, or 2,850, of these students are presumed FRL-eligible. In 2002, Colorado's public schools enrolled 212,000 FRL students (CDE, 2003b), so approximately 1.3% of Colorado's FRL students attended private school (2,850/214,850).

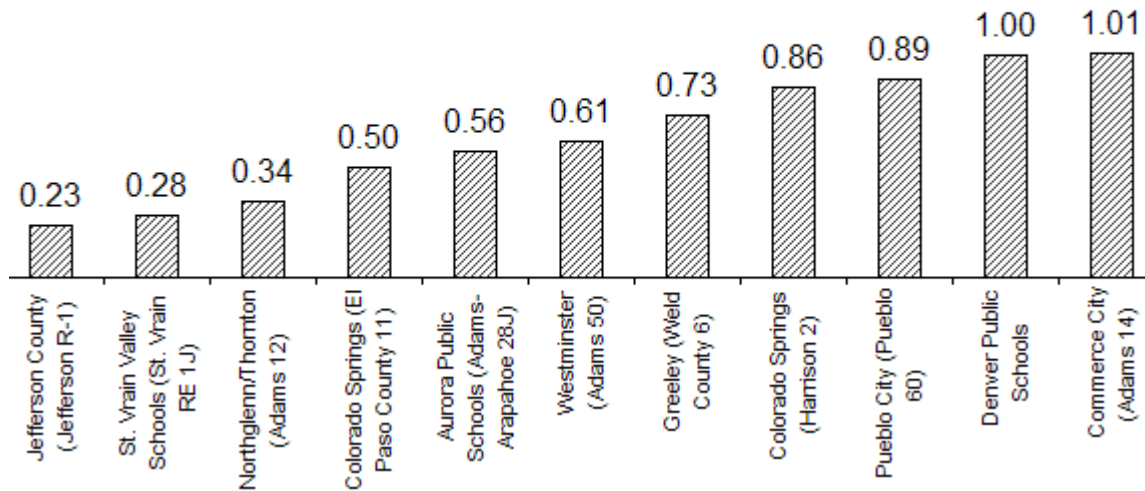
This 1.3% figure can then be applied to the attendance area of each low or unsatisfactory public school in the remaining ten school districts. For instance, Altura Elementary in Aurora school district enrolls 440 students, 183 (41.6%) of whom are FRL recipients. Taking 1.3% of 185 (Note 24) yields an estimate of 2.4 low-income students from the Altura attendance area currently attending private school. Since Altura serves six grade levels, this works out to 0.4 students per grade level. The table in Appendix B presents such results for all eligible schools in the ten school districts. These calculations yield estimates of 255 eligible elementary-aged private-school students, or 42 per grade level.

One concern here is that the statewide FRL and attendance numbers include, and are heavily influenced by, the population of Denver. Given the more reliable data available to calculate DPS numbers, Denver is excluded from this second analysis. But, if there are truly only 2,850 FRL private school students in the state, we have already determined that Denver has about half of these. Moreover, of the 212,000 public school students receiving FRL, 44,000 (21%) are in Denver.

Similarly, this second analysis fails to account for differences between the ten remaining voucher-eligible school districts and the other 167 Colorado districts (besides DPS). These other districts collectively enroll approximately 43% of all FRL public school students in the state even though they enroll approximately 57% of Colorado's public school students. As a group, these 167 districts average 21% FRL-recipient students. In comparison, the ten remaining voucher districts average 29% FRL-recipient students. Such comparisons demonstrate that these ten districts collectively have lesser FRL enrollment than DPS but greater FRL enrollment than the 167 districts not participating in the voucher policy.

The following analyses take a conservative approach and adjust the numbers downward in an attempt to account for the effect of Denver; they do not include a countervailing upward adjustment to account for the presumed difference between the ten districts and the remaining Colorado school districts. Specifically the analyses include an adjustment based on FRL numbers relative to DPS (see Figure A). For instance, Aurora's FRL rate is only 0.56 that of DPS, so the 0.4 students-per-grade-level figure for Altura Elementary is again reduced.

Figure A
FRL Rates in Comparison to DPS

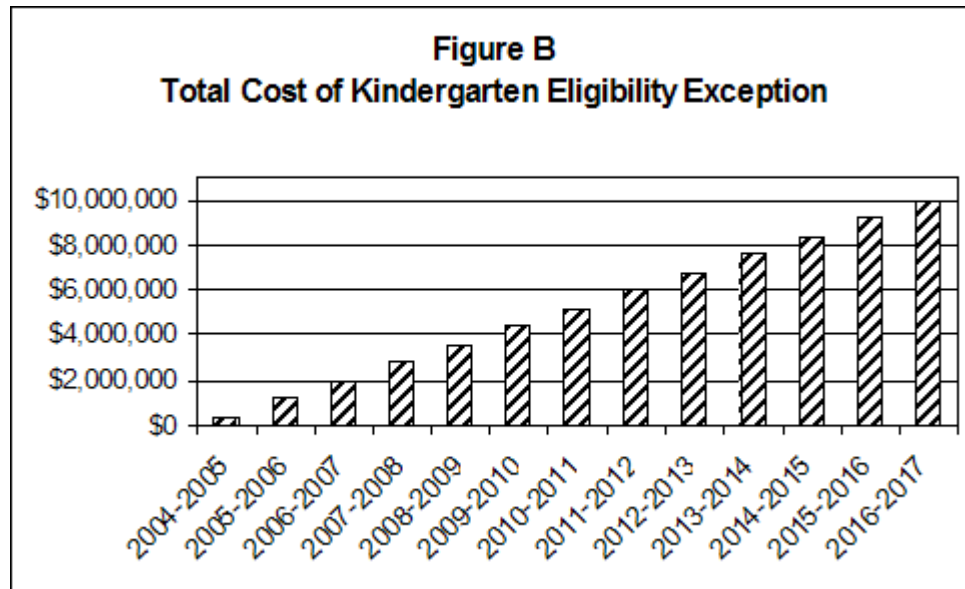


In total, these adjusted calculations yield estimates of 151 (instead of 255) eligible elementary-aged private-school students in the ten districts, or 25 per grade level. As shown in Appendix C, the unadjusted total cost to taxpayers would be slightly over \$3 million at the point of full implementation. Once the DPS adjustment is added, the cost is reduced to \$1,846,000. To determine how sensitive this figure is to the earlier estimate that 1.3% of Colorado’s FRL students currently attend private school, the cost calculation was also performed using figures of 1.2% and 1.4%. The Denver-adjusted figure declines to \$1,702,000 when the rate decreases to 1.2%; it rises to \$1,990,000 when the rate increases to 1.4%. (Note 25) That is, a change in the amount of 0.1% changes the total cost by \$144,000 (slightly over 9%). Nonetheless, using 1.3% as the best conservative estimate, and adding the \$1,846,000 cost to the midway DPS cost figure, the total cost can be estimated at \$9,998,000.

Table 2
Total Cost of Kindergarten Eligibility Exception

Adjustment for effect of Denver	Denver midway cost	Remaining ten districts’ cost to taxpayers	Total cost to taxpayers
No	\$8,152,000	\$3,067,000	\$11,219,000
Yes	\$8,152,000	\$1,846,000	\$9,998,000

Thus, \$10 million is a conservative best guess of the additional annual costs incurred as a result of the eligibility provision regarding kindergarteners. This amount represents the full-implementation cost – after the initial cohort of kindergarteners would have worked its way up to the 12th grade, in 2016. One would have expected a cost of only \$400,000 in year one, followed by annual increases of \$800,000 (e.g., \$1.2 million in year two and \$2 million in year three), reaching the \$10 million figure in year 13 (see Figure B).



Additional Payments to School Districts

As noted earlier, the Colorado voucher law contained a provision designed to reduce the likelihood that public schools would be financially harmed by the diversion of their funding to private schools. Voucher funding was structured as an alteration to the regular foundation grant system. The law called for the state to send each school district an allotment sufficient to fund the usual full PPOR for each voucher student. Voucher money is then deducted from school district budgets at a rate of 85% of PPOR for high school students, 75% for elementary and middle school (grades 1-8) students, and 37.5% for kindergarteners. The school districts retain the difference.

Since the law also required school districts to administer the policy, and since school districts have fixed costs that would not be reduced by the transfer of voucher students into private schools, the money retained by the school districts may or may not have been enough to offset district-level financial costs of the policy. The present analysis does not attempt to address that issue.

Instead, this analysis simply estimates the amount school districts would have received and retained, above and beyond the amount intended and accounted for in earlier analyses. The following table sets forth those additional amounts for each of the eleven school districts.

**Table 3
Gains to School Districts Due to Kindergarten Eligibility Exception**

School District	PPOR	Gain to district from kindergarten voucher payments	Gain to district from grade 1-8 voucher payments	Gain to district from grade 9-12 voucher payments	Total annual gain to school district, unadjusted	Total annual gain to school district, adjusted for DPS	District percent of total gain, adjusted for DPS
Aurora (Adams-Arapahoe 28J)	\$5,734.88	\$17,061	\$109,193	\$32,758	\$159,012	\$89,047	4.0%
Colorado Springs (El Paso County 11)	\$5,724.64	\$8,730	\$55,870	\$16,761	\$81,360	\$40,680	1.8%
Colorado Springs (Harrison 2)	\$5,928.39	\$7,043	\$45,073	\$13,522	\$65,637	\$58,417	2.6%
Commerce City (Adams 14)	\$6,194.60	\$7,019	\$44,922	\$13,476	\$65,417	\$66,071	3.0%

Denver Public Schools	\$6,350.56	\$81,763	\$1,308,215	\$392,465	\$1,782,443	\$1,782,443	80.6%
Greeley (Weld County 6)	\$5,772.55	\$11,153	\$71,382	\$21,414	\$103,95	\$75,883	3.4%
Jefferson County (Jefferson R-1)	\$5,746.78	\$6,450	\$41,278	\$12,383	\$60,111	\$13,825	0.6%
Northglenn/Thornton (Adams 12)	\$5,734.88	\$6,660	\$42,620	\$12,786	\$62,065	\$21,102	1.0%
Pueblo City (Pueblo 60)	\$5,789.51	\$2,895	\$18,527	\$5,558	\$26,980	\$24,012	1.1%
St. Vrain Valley Schools	\$5,781.31	\$4,560	\$29,185	\$8,755	\$42,500	\$11,900	0.5%
Westminster (Adams 50)	\$5,877.32	\$5,116	\$32,740	\$9,822	\$47,677	\$29,083	1.3%
Total		\$158,449	\$1,799,003	\$539,701	\$2,497,152	\$2,212,464	

The figures used as a basis for this calculation are, for DPS, 103 students per grade level (which generated the \$8,152,000 figure for overall taxpayer cost) and, for the other ten districts, private school attendance of 1.3% of each district's FRL students.

As is true of the \$10 million taxpayer-cost figure, this amount represents the full-implementation cost – after the initial cohort of kindergarteners would have worked its way up to the 12th grade, in 2016. Even in DPS, the district that would have expected to receive the largest gain, the first-year benefit would be only \$143,000, followed by annual increases of \$285,000, reaching the \$1.8 million figure in year 13.

Conclusion

Notwithstanding the Colorado Supreme Court's finding that the current voucher law is unconstitutional, voucher proponents will likely pursue revised legislation designed to address the local control issue that formed the basis of the Court's decision. That is, the expected revisions will make substantial changes to the overall flow of money – designed to take school districts out of the monetary sequence – although the fiscal impact for the state would be essentially unchanged from that described above. (Note 26)

The costs estimated here are not large compared to the overall state education budget (\$2.4 billion for k-12 education in fiscal year 2003-04). However, at a time when public schools are financially strapped, \$10 million is real money. Perhaps more importantly, debates about vouchers should be grounded in complete, factual information. As stated at the outset of this article, the conclusion that Colorado's voucher law is not fiscally neutral does not establish whether the law was good public policy. Sound reasoning may support the policy, even at the added cost of \$10 million annually. Yet it is this question of *whether the voucher plan is desirable at this added cost* which policy makers should have considered – not the imagined fiscally neutral policy that was actually considered and adopted.

Notes

1. Throughout this paper, I use the term "private school" to refer to all nonpublic schools, including Catholic, other religious, and secular.
2. This issue concerned the possibility that students in grades 4-12 and attending private schools would be eligible for vouchers because of wording making eligible those students who did not take the Colorado state assessments.
3. Section 22-56-104(2)(b)(II) provides for eligibility of low-income children as follows:

For children entering or enrolled in one of grades one through three, the child:

- (A) Was continuously enrolled in and attending a public school during the previous school year;
- (B) Lacks overall learning readiness attributable to at least three significant family risk factors, as described in section 22-28-106; or
- (C) Resides in an area in which the child's neighborhood school, as defined in section 22-1-122(2)(c), is a public school in the school district that received an academic performance rating of "low" or "unsatisfactory" pursuant to section 22-7-604(5).

Notwithstanding the fairly clear wording, the state Department of Education's eligibility flowchart implicitly but unambiguously interprets this provision to require that "A" be satisfied in all cases and that the student also must satisfy either "B" or "C". This flowchart is available online at www.cde.state.co.us/choice/download/flowchart.pdf and is reproduced here as Appendix D. My analysis here simply accepts the Department of Education's interpretation, although I continue to urge a legislative clarification in order to head off any confusion or litigation.

4. The Department of Education flowchart (Appendix D) diverges again here from the plain language of the statute. Instead of focusing on grade level (kindergarten versus later grades), the flowchart focuses on the child's age. Accordingly, for children seven years of age and older, the eligibility provisions include attendance in public school. For those under seven years old, this provision does not apply, and the only remaining eligibility criteria require that the child's family be low-income and live within the boundaries of a neighborhood school rated "low" or "unsatisfactory." The basic analyses presented here are not, however, affected in any meaningful way by this different interpretation.

5. To avoid this problem, the legislation could have made eligibility contingent upon the student enrolling for some set amount of time (e.g., one or two years) in public school. As a practical matter, this would mean that many voucher-eligible families would enroll their child in kindergarten and/or first grade and then move to private school. Although this would filter out many families that always intended to pursue a private school education and would thus mitigate the taxpayer costs discussed herein, it would not necessarily be good policy and would almost surely lead to families 'gaming' the system.

6. Notwithstanding their eligibility, some of these students would not have taken advantage of voucher availability due, e.g., to lack of information about the program. However, given that the relevant persons here are parents who have already elected to choose a private school education for their children, one would not expect this to happen in many instances.

7. Because low-income families have higher rates of transience, this is not a minor exception. Many such moves may not actually disrupt voucher eligibility (i.e., moving from one voucher-eligibility attendance area to another), but others undoubtedly will. This analysis does not attempt to include such transience in the calculations.

8. An earlier analysis projected a financial loss to the public school districts in an amount exceeding \$89 million annually (CEA, 2003). This figure represents the amount of money required to be sent on to the private schools. The policy effect of this lesser allocation at each district will likely depend on a variety of district-specific issues, such as whether the district is facing overall declining enrollment or, in contrast, overcrowding. The present analysis does not attempt to address that issue. Instead, the fiscal issue addressed herein is focused on the fiscal impact of the kindergarten eligibility exception described above.

9. Kindergartens are funded at half of PPOR, so the 37.5% rate is set at the same proportion as for students in grades 1-8 (75%).

10. Performance ratings are based on the CSAP, or Colorado Student Assessment Program tests, which include assessments in reading and writing in grades 3 through 10, in mathematics in grades 5 through 10, and in science at grade 8.

11. This analysis proceeds on the assumption that the participation caps will have no effect on the financial impact of the kindergarten eligibility exception. This is because the number of possible students that would have received vouchers based on this eligibility exception is much smaller than the participation caps. The only instance where the cap may have become a factor would be the first year in DPS, when the enrollment cap is 1%, or 685 students. This compares to an estimate of 103 students taking advantage of the eligibility exception.
12. I thank all three institutions for their assistance, particularly the Archdiocese, whose schools account for the vast majority of the private school enrollment of Denver's low-income students.
13. In cases of inconsistencies, the numbers were averaged. The author recognizes the inaccuracy of this approach and welcomes clarifying information.
14. The FRL numbers used in this analysis are a conservative underestimate of eligible students, since the category "FRL-receiving students" should be distinguished from "FRL-qualified students." A FRL-qualified student attending a private school does not necessarily receive FRL. This is also true of FRL-qualified students attending public schools, but it is likely a greater issue for private schools, which may choose to eschew the FRL program because of lack of facilities or a principled choice to refuse governmental assistance.
15. Information about grade levels served was obtained from publicly available sources, such as the schools' web sites. The author welcomes updated or corrected information.
16. Almost all schools in Northwest Denver have at least 75% FRL.
17. Initially, of course, we have to make the justifiable assumption that the public school attendance data reflect overall poverty rates in the attendance area.
18. As noted earlier, this analysis does not incorporate any low-income kindergarteners who reside outside the enrollment areas of qualifying public schools. However, the voucher statute includes an eligibility provision for such kindergarteners, so long as they qualify as "at-risk" under any of seven different definitions (e.g., if either of the child's parents was less than 18 and unmarried when the child was born, or if the child's parent or guardian has not completed high school or received a GED).
19. Kindergarten is funded at only half of normal PPOR.
20. This figure does not take into account the annual increases in PPOR, pursuant to the requirements of Colorado's Amendment 23, passed by voters in 2000.
21. This is particularly likely in the case of the Kunsberg School, which is associated with the National Jewish Medical and Research Center and which serves students with medical needs.
22. This analysis also does not account for the small number of students who currently move from public to private schools after kindergarten or the number who currently move from private back to public schools. It is likely that the addition of vouchers would, after the plan is fully implemented, change both these figures. For instance, assume that Joe, in 2003, moved to a private school between grades 2 and 3. This same hypothetical Joe would do the same in 2005, but now he would do so with financial assistance from the voucher. Similarly, assume Karen moves from private school to public school after first grade in 2003. Project ahead to a different Karen in 2007. She began in private school, with the help of a voucher, in 2005. In 2007, her family is less likely to move her to public school, since her private education is funded through the voucher. Since the costs are now externalized, they no longer serve as an incentive favoring public school. Because the overall number of low-income private school students is currently small, the number of Joes and Karens would also be small. It is reasonable to project some additional cost to taxpayers because of such students, but any projection would require too many ungrounded assumptions.

Another movement pattern that may have changed, due to the externalization of the costs of private school, concerns the return of students to public school after the primary grades (see table below, describing national patterns).

Table 4
Private Schools and Enrollment

	Primary	Secondary	Combination
Schools	61%	9%	30%
Enrollment	55%	16%	30%

Source: Broughman & Colaciello (2001).

23. One of the assumptions here is that the private schools with FRL students are the same size as those without. In fact, one would expect the latter group of schools to have smaller overall enrollments. Broughman and Colaciello (2001) point out that Catholic schools are much less likely to be small than nonsectarian or other religious schools. And Catholic schools also are the most likely to enroll low-income students (Alt & Peter, 2002). Alt and Peter (2002) also note that about 25% of private school respondents did not know whether they enrolled any FRL students. Therefore, the 49.5% figure is probably also an underestimate. Moreover, the low-income enrollment numbers are probably higher for schools serving the relatively low-income neighborhoods where students are eligible for vouchers. Given all this, the 5% figure is likely on the conservative side.

24. The calculation begins with the number of FRL students in public school and then adds approximately 1.3% of that number to reach the approximate number of FRL students attending both public and private school in the public school's attendance area. The final calculation then takes 1.3% of the sum of these numbers to arrive at the estimated private school number. This approximation only works because the percentage of low-income students attending private school is quite small.

25. This sensitivity analysis is particularly important when one takes into account the derivation of the 1.3%. Recall the estimate that approximately 5% of private school students nationally are eligible for FRL. For the reasons set forth in an earlier footnote, this 5% figure is probably a substantial underestimate. Were the estimate to be raised to just 6%, the 1.3% figure would correspondingly increase to 1.6%, and the total cost attributable to the remaining ten districts would increase to \$2,278,000.

26. This analysis does not attempt to address the local control or constitutionality issues. However, such an analysis (in the context of similar legislation) can be found in Bartels & Welner (2004).

References

Alt, M. N., & Peter, K. (2002). *Private Schools: A Brief Portrait*. (NCES 2002-013). MPR Associates, Inc. U.S. Department of Education, NCES. Washington, DC: U.S. Government Printing Office.

Bartels, B. & Welner, K. G. (2004). *Colorado Charter School Authorization and Funding Reform: An Analysis of HB 04-1141*. Boulder, CO: EPIC Policy Center. Available online at <http://education.colorado.edu/epic/index.asp>

Broughman, S.P., & Colaciello, L.A. (2001). *Private School Universe: 1999-2000* (NCES 2001-330). U.S. Department of Education, NCES. Washington, DC: U.S. Government Printing Office.

Colorado Department of Education (2003a). *Fall 2002 Non-Public School Pupil Membership*. Available online at www.cde.state.co.us/cdereval/download/pdf/2002PM/Fall2002NPSbyGrade.pdf

Colorado Department of Education (2003b). *K-12 Free and Reduced Information--As of October 1,*

2002. Available online at www.cde.state.co.us/cdenutritran/download/pdf/20022003FRREDUCED03rev1.pdf

Colorado Education Association (2003). *Financial Impact of House Bill 03-1160 to Affected School Districts*. Available online at <http://www.coloradoea.org/media/hb1160.impact.pdf>

Howe, K. R. (1997). *Understanding equal educational opportunity: Social justice, democracy, and schooling*. New York: Teachers College Press.

Howe, K. R. & Welner, K. G. (2003). *An Analysis of Colorado's School Voucher Proposals*. Boulder, CO: EPIC Policy Center. Available online at <http://education.colorado.edu/epic/index.asp>

Owens v. Colo. Cong. of Parents (slip opinion, Colorado Supreme Court). Available online at <http://www.cobar.org/opinions/opinion.cfm?OpinionID=4688>

Sarche, J. (2004, August 28). Colo. supreme court strikes school vouchers. *Rocky Mountain News*. Available online at http://www.rockymountainnews.com/drmn/local/article/0,1299,DRMN_15_2996408,00.html

Zelman v. Simmons-Harris, 536 U.S. 639 (2002).

About the Author

Kevin G. Welner
 School of Education
 University of Colorado
 Boulder, CO 80309-0249
 (303) 492-8370
 E-mail: kevin.welner@colorado.edu

B.A. University of California, Santa Barbara, 1985
 J.D. University of California, Los Angeles, 1988
 Ph.D. University of California, Los Angeles, 1997

Kevin G. Welner is an Assistant Professor at the University of Colorado at Boulder's School of Education, and co-director of CU-Boulder's Education and the Public Interest Center (<http://education.colorado.edu/epic/index.asp>). He is the author of *Legal Rights, Local Wrongs: When Community Control Collides with Educational Equity* (SUNY Press, 2001). His homepage is at <http://education.colorado.edu/faculty/welner/>

Appendix A Denver Private Schools Enrolling Students Who Receive Free or Reduced Lunch

Name of private school	Grade levels served	Number of grade levels served	Current number of FRL students	FRL students per grade level	Approved by DPS to receive voucher students
Our Lady of Fatima Catholic School	k-8	9	1	0.11	Yes
Notre Dame Catholic School	k-8	9	4	0.44	Yes
Good Shepherd Catholic	k-8	9	4	0.44	Yes

Saint Bernadette School	k-8	9	4	0.44	Yes
Our Lady of Lourdes Catholic School	k-8	9	7	0.78	Yes
Saint John's Lutheran School	k-5	6	5	0.83	Yes
Blessed Sacrament Parish School	k-8	9	8	0.89	Yes
Saint John Evangelist	k-8	9	12	1.33	
St Andrews Lutheran	k-4	5	10	2.00	
Saint James Catholic School	k-8	9	19	2.11	Yes
Saint Clare Assisi	k-8	9	20	2.22	
Saint Catherine of Siena	k-8	9	21	2.33	Yes
Assumption Catholic School	k-8	9	24	2.67	
Saint Anthony	k-8	9	28	3.11	
Escuela Tlatelolco Centro de Estudios	k-12	13	60	4.62	
Loyola Catholic School	k-6	7	44	6.29	Yes
Love Christian Fellowship Educational Center	k-12	13	98	7.54	Yes
Guardian Angels' School	k-8	9	82	9.11	Yes
Escuela de Guadalupe	k-6	7	70	10.00	
Inner-City Christian School	k-5	6	63	10.50	Yes
Kunsberg School	k-7	8	85	10.63	
Saint Rose of Lima	k-8	9	112	12.44	Yes
Presentation of Our Lady	k-8	9	140	15.56	Yes
Saint Francis de Sales	k-8	9	145	16.11	Yes
Annunciation	k-8	9	180	20.00	Yes
				Total: 142.5	

Appendix B
Current Private School Voucher-Eligible Students

Appendix C **Cost to Taxpayers of Kindergartener Eligibility**

Appendix D **Flowchart Illustrating Eligibility of Students for the Colorado Opportunity Contract Pilot Program**

The World Wide Web address for the *Education Policy Analysis Archives* is epaa.asu.edu

Editor: Gene V Glass, Arizona State University

Production Assistant: Chris Murrell, Arizona State University

General questions about appropriateness of topics or particular articles may be addressed to the Editor, Gene V Glass, glass@asu.edu or reach him at College of Education, Arizona State University, Tempe, AZ 85287-2411. The Commentary Editor is Casey D. Cobb: casey.cobb@unh.edu.

EPAA Editorial Board

[Michael W. Apple](#)
University of Wisconsin

[Greg Camilli](#)
Rutgers University

[Sherman Dorn](#)
University of South Florida

[Gustavo E. Fischman](#)
Arizona State University

[Thomas F. Green](#)
Syracuse University

[Craig B. Howley](#)
Appalachia Educational Laboratory

[Patricia Fey Jarvis](#)
Seattle, Washington

[Benjamin Levin](#)
University of Manitoba

[Les McLean](#)
University of Toronto

[Michele Moses](#)
Arizona State University

[Anthony G. Rud Jr.](#)
Purdue University

[Michael Scriven](#)
University of Auckland

[Robert E. Stake](#)
University of Illinois—UC

[Terrence G. Wiley](#)
Arizona State University

[David C. Berliner](#)
Arizona State University

[Linda Darling-Hammond](#)
Stanford University

[Mark E. Fetler](#)
California Commission on Teacher Credentialing

[Richard Garlikov](#)
Birmingham, Alabama

[Aimee Howley](#)
Ohio University

[William Hunter](#)
University of Ontario Institute of Technology

[Daniel Kallós](#)
Umeå University

[Thomas Mauhs-Pugh](#)
Green Mountain College

[Heinrich Mintrop](#)
University of California, Los Angeles

[Gary Orfield](#)
Harvard University

[Jay Paredes Scribner](#)
University of Missouri

[Lorrie A. Shepard](#)
University of Colorado, Boulder

[Kevin Welner](#)
University of Colorado, Boulder

[John Willinsky](#)
University of British Columbia

EPAA Spanish & Portuguese Language Editorial Board

Associate Editors

Gustavo E. Fischman
Arizona State University
&

Pablo Gentili
Laboratório de Políticas Públicas
Universidade do Estado do Rio de Janeiro

Founding Associate Editor for Spanish Language (1998—2003)
Roberto Rodríguez Gómez
Universidad Nacional Autónoma de México

Argentina

- Alejandra Birgin
Ministerio de Educación, Argentina
Email: abirgin@me.gov.ar
- Mónica Pini
Universidad Nacional de San Martín, Argentina
Email: mopinos@hotmail.com,
- Mariano Narodowski
Universidad Torcuato Di Tella, Argentina
Email:
- Daniel Suarez
Laboratorio de Políticas Públicas-Universidad de Buenos Aires, Argentina
Email: daniel@lpp-buenosaires.net
- Marcela Mollis (1998—2003)
Universidad de Buenos Aires

Brasil

- Gaudêncio Frigotto
Professor da Faculdade de Educação e do Programa de Pós-Graduação em
Educação da Universidade Federal Fluminense, Brasil
Email: gfrigotto@globo.com
- Vanilda Paiva
Email: vppaiva@terra.com.br
- Lilian do Valle
Universidade Estadual do Rio de Janeiro, Brasil
Email: lvalle@infolink.com.br
- Romualdo Portella do Oliveira
Universidade de São Paulo, Brasil
Email: romualdo@usp.br
- Roberto Leher
Universidade Estadual do Rio de Janeiro, Brasil
Email: rleher@uol.com.br
- Dalila Andrade de Oliveira
Universidade Federal de Minas Gerais, Belo Horizonte, Brasil
Email: dalila@fae.ufmg.br
- Nilma Limo Gomes
Universidade Federal de Minas Gerais, Belo Horizonte
Email: nilmagomes@uol.com.br
- Iolanda de Oliveira
Faculdade de Educação da Universidade Federal Fluminense, Brasil
Email: iolanda.eustaquio@globo.com
- Walter Kohan
Universidade Estadual do Rio de Janeiro, Brasil

Email: walterko@uol.com.br

- [María Beatriz Luce](#) (1998—2003)
Universidad Federal de Rio Grande do Sul-UFRGS
- [Simon Schwartzman](#) (1998—2003)
American Institutes for Resesarch–Brazil

Canadá

- [Daniel Schugurensky](#)
Ontario Institute for Studies in Education, University of Toronto, Canada
Email: dschugurensky@oise.utoronto.ca

Chile

- Claudio Almonacid Avila
Universidad Metropolitana de Ciencias de la Educación, Chile
Email: caa@rdc.cl
- María Loreto Egaña
Programa Interdisciplinario de Investigación en Educación (PIIE), Chile
Email: legana@academia.cl

España

- José Gimeno Sacristán
Catedrático en el Departamento de Didáctica y Organización Escolar de la Universidad de Valencia, España
Email: Jose.Gimeno@uv.es
- Mariano Fernández Enguita
Catedrático de Sociología en la Universidad de Salamanca. España
Email: enguita@usal.es
- Miguel Pereira
Catedrático Universidad de Granada, España
Email: mpereyra@aulae.es
- [Jurjo Torres Santomé](#)
Universidad de A Coruña
Email: jurjo@udc.es
- Angel Ignacio Pérez Gómez
Universidad de Málaga
Email: aiperez@uma.es
- [J. Félix Angulo Rasco](#) (1998—2003)
Universidad de Cádiz
- [José Contreras Domingo](#) (1998—2003)
Universitat de Barcelona

México

- Hugo Aboites
Universidad Autónoma Metropolitana-Xochimilco, México
Email: aavh4435@cueyatl.uam.mx
- Susan Street
Centro de Investigaciones y Estudios Superiores en Antropología Social Occidente,
Guadalajara, México
Email: slsn@mail.udg.mx
- [Adrián Acosta](#)
Universidad de Guadalajara
Email: adrianacosta@compuserve.com
- [Teresa Bracho](#)
Centro de Investigación y Docencia Económica-CIDE
Email: bracho dis1.cide.mx

- [Alejandro Canales](#)
Universidad Nacional Autónoma de México
Email: canalesa@servidor.unam.mx
- [Rollin Kent](#)
Universidad Autónoma de Puebla. Puebla, México
Email: rkent@puebla.megared.net.mx
- Javier Mendoza Rojas (1998—2003)
Universidad Nacional Autónoma de México
- [Humberto Muñoz García](#) (1998—2003)
Universidad Nacional Autónoma de México

Perú

- Sigfredo Chiroque
Instituto de Pedagogía Popular, Perú
Email: pedagogia@chavin.rcp.net.pe
- Grover Pango
Coordinador General del Foro Latinoamericano de Políticas Educativas, Perú
Email: grover-eduforo@terra.com.pe

Portugal

- Antonio Teodoro
Director da Licenciatura de Ciências da Educação e do Mestrado Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal
Email: a.teodoro@netvisao.pt

USA

- Pia Lindquist Wong
California State University, Sacramento, California
Email: wongp@csus.edu
- Nelly P. Stromquist
University of Southern California, Los Angeles, California
Email: nellystromquist@juno.com
- Diana Rhoten
Social Science Research Council, New York, New York
Email: rhoten@ssrc.org
- Daniel C. Levy
University at Albany, SUNY, Albany, New York
Email: Dlevy@uamail.albany.edu
- [Ursula Casanova](#)
Arizona State University, Tempe, Arizona
Email: casanova@asu.edu
- [Erwin Epstein](#)
Loyola University, Chicago, Illinois
Email: eepstei@wpo.it.luc.edu
- [Carlos A. Torres](#)
University of California, Los Angeles
Email: torres@gseisucla.edu
- [Josué González](#) (1998—2003)
Arizona State University, Tempe, Arizona

[home](#) [abstracts](#) [complete](#) [editors](#) [submit](#) [comment](#) [notices](#) [search](#)

EPAA is published by the Education Policy Studies
Laboratory, Arizona State University