DOCUMENT REVIEWED:	"**The Financial Impact of Ohio's Charter Schools"**
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Summary of Review

Claims by the Buckeye Institute that charter schools in the "Big Eight" urban school districts in Ohio are producing greater achievement gains, increasing revenues in the traditional public schools of these districts, and are operating at lower costs are found to be without merit. The lack of convincing evidence of the effectiveness of charter schools has not been remedied by this brief's author nor by his prior publications. Any increases in revenues in the Big Eight urban districts have little or nothing to do with the existence of charter schools. Ohio's charter schools operate at lower cost because they offer fewer services and pay employees less than traditional public schools.

Review

I. INTRODUCTION

The cost of charter schools and how their existence might change school finance more generally is a matter of concern to legislators, taxpayers, and educators wherever this new model for public education is being implemented. Some are concerned that the growth in charter school enrollments will be accompanied by a siphoning off of revenue from traditional public schools. Charter school proponents are concerned that state allocations in charter schools are lower than allocations to traditional public schools. Many millions of dollars are at stake in individual states.

The policy brief under review here was produced by the staff of The Buckeye Institute for Public Policy Solutions of Columbus, Ohio. The Buckeye Institute describes itself as a "highly effective, *independent* institute that analyzes state and local government programs, taxes, and regulations in Ohio and offers policy alternatives consistent with a respect for individual liberty, private property and limited government."[1] The brief's author, Matthew Carr, is a former staff member of the Manhattan Institute and plans to enter graduate school at the University of Arkansas at Fayetteville in Fall 2006. Carr produced 16 articles for The Buckeye Institute in the first seven months of 2006.

II. CONCLUSIONS AND FINDINGS

The brief under review here[2] makes three primary claims:

1. that charter schools in the eight largest school districts (the "Big Eight") in Ohio have been shown to produce academic achievement gains superior to those of comparable traditional public schools (fully one third of the brief is devoted to reporting this claim though the brief's title makes no mention of charter school "effectiveness");
2. that charter schools in the Big Eight urban school districts are "creating increased per pupil revenues" (p. 1) for the traditional public schools of those districts; and
3. that charter schools in the Big Eight urban districts "operate at lower cost than their urban counterparts" (p. 1).

III. THE REPORT'S RATIONALES FOR ITS CONCLUSIONS AND FINDINGS

The first claim, viz., that charter schools are more effective than traditional public schools in producing academic achievement, is supported merely by recapitulating the findings of Carr's earlier brief.[3]

The second claim, viz., that charter schools in the Big Eight urban school districts are "creating increased per pupil revenues" for the traditional public schools, is supported by the arithmetic demonstration (Table 3, p. 4, mistakenly referred to as Table 2 in the text of the brief) that per pupil revenues in the traditional public schools of the Big Eight districts increased anywhere from $150 to $1,410 while charter school enrollments (Average Daily Membership, or ADM) increased from 143 students to 1,700 students between the 2002-2003 and 2003-2004 school years.

The third claim, viz., that charter schools in the Big Eight urban districts "operate at lower cost than their urban counterparts," is supported by a calculation (Table 4, p. 5) comparing per pupil expenditures for charter schools vs. traditional public schools for the Big Eight urban school districts in Ohio (Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo, Youngstown).

IV. REVIEW OF THE REPORT'S USE OF RESEARCH LITERATURE

The brief cites no supporting research literature for its conclusions. As noted earlier, for approximately 30 percent of the manuscript, Carr repeats the conclusions of his own prior Brief on charter school effectiveness. Such briefs are not subjected to peer review.

With respect to the claim of superior charter school effectiveness in producing achievement gains, the absence of a connection to published research is a serious shortcoming of the brief. Ohio charter schools would not be expected to differ from charter schools in other locations in this regard, so supporting analyses from other states could bolster the claim while conflicting findings elsewhere could raise doubts. There is a fairly extensive literature comparing academic performance in charter vs. traditional public schools, which Carr would have done well to reference.[4]

The absence of citations to the research literature with respect to the claim that charter schools are "creating increased per pupil revenues" for the traditional public schools is less serious than the absence of a connection to research relevant to the other two claims. The phenomenon, if true, would likely depend on the idiosyncrasies of the Ohio school finance system.

There is research literature with respect to the third claim that charter schools in the Big Eight urban districts "operate at lower cost than their urban counterparts." That literature offers plausible explanations for such a difference. Scholarly opinion places the lower cost of charter schools in a less favorable light than did Carr's Brief.[5]

V. REVIEW OF THE REPORT'S METHODS

With respect to the claim of superior academic achievement in charter schools, previous research has led to no credible general conclusions. Virtually all research on this topic suffers from the same problems with method as Carr and Staley's own prior research. First, inadequate controls (the design does not meet the U.S. Department of Education's criterion for "scientifically based research" of random assignment)[6] and insufficient post hoc statistical corrections for pre-existing differences between students in charter and traditional public schools render the comparisons dubious. Second, invalid comparison of gain scores at different regions of the test scale (initially low scoring groups have an easier time of making larger gains) make the comparison of gains invalid. Third, regression to the mean invalidates most comparisons. Many charter school students enter charter schools at a point when their performance in traditional public schools is very low; hence, some spontaneous improvement—a "regression effect"—will occur wherever they attend school, just as sick children in the pediatrician's office will show less sickness on average if contacted a week later regardless of how they are treated.

The claims regarding charter school finance and its impact on the financing of traditional public schools in the Big Eight school districts were investigated simply by dividing revenue figures by ADM figures. The data for the calculations of revenues and expenditures are reported in Appendix A of the brief. In the original publication (released on July 6, 2006), the per pupil revenue calculations are in error. The author of the brief, Carr, has corrected these figures in a version posted on the Buckeye Institute's website on July 19, 2006, so versions of the brief downloaded earlier should be discarded.

The sources for the revenue and expenditure data and the counts of numbers of students, ADM, are not reported in the brief. Moreover, they do not agree with the revenue data available from the Ohio Department of Education website.[7] Consequently, it is difficult to verify the raw data. In a private communication, Mr. Carr reported that "I collected state revenue data from the SF-3 forms which disaggregate state funding and the charter pass-through. The local share funding was collected from the Ohio Department of Taxation. The federal funding had to be collected from the ODE website as that was the only place I could find it reported at a disaggregated level. Lastly, the enrollment figures were also drawn from the SF-3 reports and are ADM numbers."[8] These figures are taken at face value for the remainder of this review.

Carr presents a table (page 1, not numbered) that purports to demonstrate that increases in numbers of students attending charter schools in the Big Eight districts are correlated with increases in revenues per pupil in those districts:

Change in Per Pupil Revenues in Traditional Public Schools and Change in the Number of Students Attending a Charter School Between 2003 and 2004

City	Increase in Per Pupil Revenue	Increase in Number of Students Attending a Charter School
Akron	$350	419
Canton	$854	143
Cincinnati	$289	1,036
Cleveland	$358	1,384
Columbus	$1,410	1,163
Dayton	$649	698
Toledo	$423	1,700
Youngstown	$150	385

However, at a minimum in making the case that the two variables are causally related, it would be necessary to show that districts outside the Big Eight with no charter school enrollments showed no revenue gains or gains much smaller than those for the Big Eight districts. Such data are not presented.

It should be noted that Table 2 on page 4 is incorrectly titled "Ratio of Local to State Operating Revenue," when in fact what is reported is the local revenue as a percentage of state plus local revenue.

VI. REVIEW OF THE VALIDITY OF FINDINGS AND CONCLUSIONS

The validity of the claim that the charter schools in the Big Eight urban school districts produce academic achievement superior to that of the traditional public schools in those districts is without merit due to the inadequacies of the design and analysis methods used. In the absence of randomized and

controlled experimental studies, this question has not been convincingly answered in any venue in the United States to date. The Buckeye Institute's analysis of the Big Eight data is no exception.

With regard to the second claim that charter schools in the Big Eight urban school districts are "creating increased per pupil revenues" for the traditional public schools of those districts, no significance whatsoever attaches to the claim. The presumed force of such a conclusion for policy makers derives from the fact that it appears to refute a common sense "theory of action" that holds that as charter schools grow in popularity, local school districts will reduce revenues as the burden of support shifts from local municipalities to the state government; and since charter schools operate at lower cost than traditional public schools, per pupil expenditures should drop for all students (charter and traditional) in the school district. On page 3 of the brief, Carr explains this rationale—which he claims his analysis refutes—for why per pupil revenues should be expected to decrease as charter school enrollments rise:

> Intuitively it would seem that any charter school gains in funding would come at the expense of traditional public schools.
>
> But, in fact, this is not the case due to the method that Ohio uses to fund its schools. …the traditional public schools are funded both by the state and through local taxation (typically property taxes). When a student decides to leave a traditional public school to attend a charter school, the local portion of the funding stays in the traditional public school…. Charter schools are only funded by state revenue….

Carr demonstrates that contrary to expectations per pupil revenue rose by an average of $560 across all eight school districts from 2002-2003 to 2003-2004, as the enrollment in charter schools in these districts also rose by an average of about 870 ADM. However, $240 (43%) of that total per pupil revenue change in the eight districts is due to the increase in federal government revenues to the districts, which comes primarily in the form of Title I and special education monies that have nothing to do with charter schools. In fact, federal per pupil revenues rose more than inflation in seven of the eight districts, while local per pupil revenues rose in only two of the eight (Canton and Columbus) relative to inflation and fell in actual amounts in three of the eight districts. These data hardly justify the conclusion that charters are a money maker for local districts. In fact, this would support the exact opposite conclusion. Public schools have the same fixed expenses with less (after correction for inflation) revenue. These calculations appear in the Appendix to this review.

Given the fact that the local tax base for schools will not be changed precipitously but takes time to adjust to changing circumstances, it is not surprising that the transfer of an average of 870 pupils out of 35,000 (roughly 1 out of every 40 students) would have no immediate impact on the local school finance system.

In the short run, increases in charter school enrollments like those from 2002-2003 to 2003-2004 in the Big Eight districts will have no impact at all on local revenues. In the long run, since all charter school support comes from the state, significant growth in charter school enrollments can only be expected to shift the burden of funding Ohio's public schools from local municipalities to the state.

Finally, Carr claims that charter schools in the eight urban districts "operate at lower cost than their urban counterparts." He pro-

vides per pupil expenditures for charters and traditional public schools in Table 4 on page 5 (incorrectly referred to as Table 3 in the text). No date for when these data were collected is given.

Comparing the Average Per Pupil Expenditures for Charter Schools and Traditional Public Schools in the Big Eight Urban Districts in Ohio

Expenditure Category	Traditional Public	Charter
Administrative	$734	$1,898
Building Operations	$1,898	$2,228
Staff Support	$582	$478
Pupil Support	$1,156	$399
Instructional	$6,914	$4,716
Total	*$11,284*	*$9,719*

It was not possible to verify the data in the above table since no year was given. The figures are taken at face value in what follows.

Carr concludes from these data that charter schools operate "with slightly more efficiency than their traditional school counterparts." (p. 5) He speculates that "the total operating expenditure difference is likely to increase once charter schools become more adept at, and build capacity for, creating economies of scale in administration and building operations." (p. 5) It is clear from the above figures that the greatest economic advantage of charter schools derives from two sources: Instructional costs, and Pupil Support costs. These advantages are illusory and would quickly disappear in an environment composed entirely of charter schools. The lower instructional costs derive from lower salaries paid to teachers, often significantly less experienced, in charter schools. Moreover, although charter school teachers in Ohio are required to be certified, there are loopholes that permit uncertified teachers to be hired, likely at lower pay. Since charter schools are widely known to exercise dubious and at times illegal measures to exclude students requiring special services,[9] the per pupil support costs are not only lower than in traditional public schools, but they would in the long run greatly increase in traditional public schools as these schools became the sole provider of education to disabled and otherwise challenged students.

There is nothing particularly interesting nor useful in Carr's presentation of the comparison of costs between charter schools and traditional public schools. The comparison reflects the same dynamics noted repeatedly in other venues, viz., that charter schools suffer economically as a function of diseconomies of small scale, and that they pay teachers less and give fewer services to special students than traditional public schools.[10] Moreover, charter school advocates complain about the comparison and press for equity in funding. Carr asserts that "charter schools, on average, operate at a lower cost than their urban counterparts, thus relieving stress on the state

budget." (p. 1) But revenue for charter schools comes solely—except for private contributions, fees that they are permitted to charge, and negligible federal funds—from the state. If charter schools gain in popularity, the financial burden would shift from local municipalities to the state, increasing the stress on the state budget.

VII. THE REPORT'S USEFULNESS FOR GUIDANCE OF POLICY AND PRACTICE

Policy makers would do well to ignore the brief's claims of superior academic achievement produced by charter schools.

The claim that increases in charter school enrollments have caused an increase in per pupil revenues in traditional public schools were seen to be dubious and, at most, a mere short run anomaly. Furthermore, increased per pupil revenues in traditional public schools resulted from decreased enrollments, not from significantly increased total revenues. No guidance for long run school finance policy can be derived from these figures.

Finally, per pupil expenditures in charter schools result from their lower level of services to students and their lower teacher salary schedules. If this is the type of education that Ohio policy makers wish to provide for the state's children, then the brief under review will be useful in making the case for increases in the number and size of charter schools.

APPENDIX

							Total Revenue		State Revenue		Local Revenue		Federal Revenue		Charter	
District	Year	State Revenue	Local Revenue	Fed Revenue	Total Revenue	District ADM	Per Pupil	Diff.	Per Pupil	Diff.	Per Pupil	Diff.	Per Pupil	Diff.	ADM	Diff.
Akron	2003	$130,265	$110,426	$26,456	$267,147	30,193	$8,848		$4,314		$3,657		$876		1,402	
	2004	$130,540	$111,065	$31,692	$273,297	29,712	$9,198	$350	$4,394	$79	$3,738	$81	$1,067	$190	1,821	419
Canton	2003	$57,757	$27,915	$13,746	$99,418	11,831	$8,403		$4,882		$2,359		$1,162		473	
	2004	$55,897	$33,448	$16,007	$105,352	11,380	$9,258	$854	$4,912	$30	$2,939	$580	$1,407	$245	616	143
Cincinnati	2003	$121,592	$256,220	$47,267	$425,079	41,462	$10,252		$2,933		$6,180		$1,140		4,046	
	2004	$116,281	$252,462	$62,560	$431,303	40,915	$10,541	$289	$2,842	-$91	$6,170	-$9	$1,529	$389	5,082	1036
Cleveland	2003	$353,355	$222,373	$130,500	$706,228	72,594	$9,728		$4,868		$3,063		$1,798		4,984	
	2004	$360,286	$223,855	$120,840	$704,981	69,891	$10,087	$358	$5,155	$287	$3,203	$140	$1,729	-$69	6,368	1384
Columbus	2003	$198,895	$308,791	$57,562	$565,248	62,470	$9,048		$3,184		$4,943		$921		2,389	
	2004	$199,394	$366,855	$78,489	$644,738	61,651	$10,458	$1,410	$3,234	$50	$5,951	$1,007	$1,273	$352	3,552	1163
Dayton	2003	$80,437	$84,374	$28,485	$193,296	19,896	$9,715		$4,043		$4,241		$1,432		4,276	
	2004	$74,090	$84,434	$34,734	$193,258	18,646	$10,365	$649	$3,974	-$69	$4,528	$288	$1,863	$431	4,974	698
Toledo	2003	$171,231	$117,280	$35,586	$324,097	35,953	$9,014		$4,763		$3,262		$990		2,234	
	2004	$172,159	$116,175	$42,815	$331,149	35,088	$9,438	$423	$4,906	$144	$3,311	$49	$1,220	$230	3,934	1700
Youngstown	2003	$56,844	$25,439	$15,526	$97,809	10,073	$9,710		$5,643		$2,525		$1,541		1,502	
	2004	$57,437	$24,348	$16,783	$98,568	9,997	$9,860	$150	$5,745	$102	$2,436	-$90	$1,679	$137	1,887	385

NOTES & REFERENCES

[1] http://www.buckeyeinstitute.org/about.php Retrieved July 21, 2006.

[2] Carr, Matthew. (2006, July 6). The financial impact of Ohio's charter schools. Columbus, OH: The Buckeye Institute for Public Policy Solutions. Retrieved July 20, 2006 from www.buckeyeinstitute.org/docs/Policy_Brief_Financial_Impact_of_Charters_(Corrected_Appendix).pdf.

In the course of preparing this review, it was determined that the original Policy Brief posted on July 6, 2006 contained errors in per pupil revenue calculations. The corrected copy was posted on July 19, 2006. For an expanded report of revenue data, see the Appendix to this review.

[3] Carr, M. & Staley, S. R. (2005, December 21). Using the Ohio Proficiency Test to analyze the academic achievement of charter school students: 2002-2004. Columbus, OH: Buckeye Institute for Public Policy Solutions. Retrieved July 19, 2006 from www.buckeyeinstitute.org/docs/Policy_Brief_Charter_Achievement.pdf

[4] Among the many attempts to answer the question of charter school effectiveness, the following standout as reflective of the inconclusiveness of the issue:

Carnoy, Martin; Jackson, R., Mishell, L., & Rothstein, Richard. (2005). *The charter school dust-up: Examining the evidence on enrollment and achievement.*. Washington, DC: Economic Policy Institute.

Rogosa, David. (2003). *Student progress in California charter schools, 1999–2002*. Unpublished manuscript, Stanford University.

Zimmer, Ron; Buddin, R.; Chau, D.; Daley, G.; Gill, B.; Guarino, C.; Hamilton, L.; Krop, C.; McCaffrey, D.; Sandler, M.; & Brewer, D. (2003). *Charter school operations and performance: Evidence from California*. Paper MR–1700. Santa Monica, CA: RAND Corporation.

[5] Krop, Cathy & Zimmer, Ron. (2005). Charter school type matters when examining funding and facilities: Evidence from California. *Education Policy Analysis Archives, 13*(50). Retrieved July 20, 2006 from http://epaa.asu.edu/epaa/v13n50/.

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[6] Reyna, Valerie. (n.d.). What Is Scientifically Based Evidence? What Is Its Logic? Washington, D.C.: U.S. Department of Education. Retrieved July 19, 2006 from http://www.ed.gov/nclb/methods/whatworks/research/page_pg3.html

[7] See http://ilrc.ode.state.oh.us/downloads.asp

[8] Personal communication, Matthew Carr, July 19, 2006.

[9] Becker, H. J., Nakagawa, K. & Corwin, R. G. (1995, April). Parent involvement contracts in California's charter schools: Strategy for educational improvement or method of exclusion? Los Alamitos, CA: Southwest Regional Laboratory Occasional Paper.

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Wells, Amy S., Lopez, A. et al. (1999). Charter Schools as Postmodern Paradox: Rethinking Social Stratification in an Age of Deregulated School Choice. *Harvard Educational Review* **69**(2): 172-204.

Welner, Kevin G. & Howe, Kennth R. (2005). Steering toward separation: The policy and legal implications of "counseling" special education students away from choice schools. In Janelle Scott (ed.), *School Choice and Student Diversity: What the Evidence Says*. New York: Teachers College Press.

[10] Bomotti, Sally; Ginsberg, Rick; & Cobb, Brian. (1999). Teachers in charter schools and traditional schools: A comparative study. *Education Policy Analysis Archives, 7*(22). Retrieved July 20, 2006 from http://epaa.asu.edu/epaa/v7n22.html.

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