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School Finance Adequacy in the context of Educational Management Organizations

by

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I. INTRODUCTION

In Spring 2005, the Chicago Public Schools web site displayed this message, titled "Education Funding Crisis Ahead," from CEO Arne Duncan:

> "School districts all across the state are facing serious budget shortfalls for next year. CPS is no exception with a projected $175 million operating deficit staring us in the face. Governor Blagojevich clearly recognizes that more school funding is needed and increased his proposal for new funding next year from $140 million to $440 million statewide, which would provide approximately $88 million to Chicago. He's also proposed $500 million in capital, which would bring $110 million to Chicago for needed school improvement projects. It's still not enough, however, and we are especially concerned because the funding sources for all of this new money – both capital and operating – are up in the air."[1]

In light of such on-going budget crises, the policy issue of adequacy involves not just finding additional new resources, but also, how to do more (or the same) with less resources. Faced with this predicament, Educational Management Organizations (EMOs) seem to some as an apt solution. Cities such as Philadelphia have turned to EMOs for help, and other cities such as Buffalo are giving serious thought to allowing EMOs to take on a large role in their school reform efforts.[2]

EMOs are attractive in part because they offer the hope of introducing comprehensive new school management models which can provide cost-savings without

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[1] Message at: http://www.cps.k12.il.us/ as of April 5, 2005. Myers (2005b) has further documented the current CPS budget crisis.

[2] For background and analysis on the Philadelphia experience, see: DeJarnatt, Susan L. (2004). The Philadelphia Story: The Rhetoric of School Reform. University of Missouri at Kansas City Law Review. 72 UMKC L. Rev. 949. Also, see Maranto, Robert. (2005). "A Tale of Two Cities: School Privatization in Philadelphia and Chester," American Journal of Education, 111 (February 2005). And Gewertz, Catherine, "State-Run Pa. District Battles Host of Woes," Education Week, , 3/2/2005, Vol. 24, Issue 25. For background on Buffalo, see: Bracey, Gerald. (2004). City-wide Systems of Charter Schools: Proceed With Caution. Policy Brief, Education Policy Research Unit (EPRU), Division of Educational Leadership and Policy Studies, Arizona State University. and Education Innovation Consortium. (2003). *Creating a Network of Charter Schools in Buffalo*.

reductions in educational services. Speaking at a Brookings sponsored conference in 2003, former Secretary of Education Bill Bennett echoed these sentiments: "It's a very good thing to have people who think like entrepreneurs creating new ideas."[3] Five years later, in the context of Edison's work with the Philadelphia public schools, Edison Founder and CEO Chris Whittle still argues that, "creating a healthy fresh look at private-sector partnerships in public education may prove to be one of Philadelphia's most historic outcomes."[4]

Non-profit and for-profit organizations are beginning to move into the public educational sector to compete for government contracts to run schools that are subject to district governance. Contracted schools are not charter schools that enjoy school-site autonomy over personnel hiring, student recruitment, and compensation. Contracted schools, though exercising a certain degree of programmatic discretion, are often governed by virtually all the district and state guidelines, including collective bargaining agreements between the district and the unions and academic standards and assessment that are applicable across the school district.

A key feature of EMOs is that the district or the state (i.e., the contract agency) is willing to grant management autonomy to the contracted service providers, which in turn agree to meet certain measurable outcomes within a given time frame. In this governance arrangement, the contracted service providers are expected to "do the job better, or cheaper, with no fewer positive side effects and no more negative ones than the public alternative."[5]

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[3] Quoted in Brownfeld (2003), p. 1.
[4] Whittle, Chris. (2005). "The Promise of Public/Private Partnerships," Educational Leadership, February 2005.
[5] Donahue, (1989), p.221; also see Walberg and Bast (2001).

In the context of school finance adequacy, EMOs can be thought of as a special case of the "exemplary school/district" that is featured in the evidence-based approach (Odden 2004).[6] If EMOs are able to reduce costs without reducing services, they would create a new alternative for school funding schemes. The rub, however, is that it's not clear that EMOs do in fact reduce costs. More generally, although there has been much rhetoric on both sides about profit motives and market dynamics, it is not yet clear that EMOs budgetary decisions differ markedly from those of other schools of choice.

This paper takes a first step in empirically assessing the budgetary effects of EMOs. Using school-level budget data from the state of Michigan, we compare selected revenue and expenditure measures for four of the largest EMOs: Chancellor Beacon, Edison Schools, Heritage Academy, and Mosaica. We compare these to measures from other Michigan charter schools ("public school academies"). Our preliminary analysis suggests that there are significant differences to note between management styles, and we pave the way for a second round of analysis that will attempt to explain why these differences exist.

The rest of the paper is organized into four sections. Section II reviews literatures on school finance adequacy and EMOs. Section III discusses the data and methods that we use in this paper. Section IV presents the results of our preliminary analysis, and Section V concludes with a discussion of future research tasks.

[6] Odden, Allan R. (2004). Summary and Reflections on 14 Years of CPRE School Finance Redesign Research. Consortium for Policy Research In Education University of Wisconsin-Madison Madison, CPRE-UW Working Paper SF-04-01, June 2004.

II. THEORY BUILDING AND LITERATURE REVIEW

II.A. Emergence of EMOs raises unique adequacy issues

According to Arizona State University's Education Policy Research Unit, there are over 30 major for-profit companies that manage almost 400 traditionally public and public charter schools in two dozens of states.[7] Bushweller (2003) founds that EMOs continue to grow in popularity, with five driving forces: "a history of outsourcing for special education services, growth in accountability policies, increasing use of school choice programs, greater use of school district outsourcing, and increases in the number of charter schools."[8]

In the context of charter schools, Brown, et. al. (2004) found that charters managed by EMOs were larger and had less site-based management. They emphasize the importance of distinguishing between different types of charter schools. We go a step further in this paper by beginning to distinguish between different types of EMOs, on the basis of their budgetary decision making.

Analysis of EMOs can fit into each of the three standard approaches for determining adequacy: (a) Resource Cost Models, (b) Evidence-based approaches, and (c) Econometric modeling. From a resource cost perspective, one might want to look at the costs that EMOs are faced with. How do these differ from traditional public schools and from other schools of choice (run by non-EMOs)? From an evidence-based approach, one can perform empirical analysis of EMO schools to see what exactly it is they're doing from a school finance perspective. Finally, one might craft econometric models

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[7] Molnar, Alex, Glen Wilson, and Daniel Allen. Profiles of For Profit Education Management Companies 2002-2003 (Tempe, AZ: Commercialism in Education Research Unit, Arizona State University, January 2003).

[8] Bushweller, Kevin. (2003). "Education Business," Education Week, 12/3/2003, Vol. 23 Issue 14.

based on the market interactions expected from an EMO. While each of these theories is useful for learning more about EMOs, in this paper we adopt the evidence-based approach in our attempt to determine how EMOs spend their money differently than others.

II.B. Promises and Limitations of EMO Cost Savings

There is much debate as to how EMOs will manage their schools. Proponents of EMOs argue that EMOs will produce costs savings, without reductions in educational services. Critics of EMOs counter that either (a) EMOs will not really be able to lower costs, or (b) cost-cutting will come at the expense of core educational services. In this section, we lay out both sides of this debate.

Proponents of EMOs have often promoted the idea that EMOs would be able to provide more (or the same) level of educational services for less money. As a policy brief from the pro-EMO Cato Institute suggested that competition from EMOs would "likely result in decreased tuition costs."[9] More recently, Gerwetz (2004) reported on gains in Edison's Philadelphia schools. The standard view is that a competitive education marketplace will force private educational management groups to cater to customers (i.e. parents and students).[10]

While proponents argue that market forces will encourage for-profit firms to be responsive to customer-parents, critics have argued that instead of serving parents and students, for-profit education firms will serve their shareholders first. The NEA has been particularly vocal in rejecting EMOs. In one article, they quote a former Edison teacher,

[9] Lips, Carrie. (2000). "Edupreneurs: A survey of for-profit education," Cato Institute, Policy Analysis No. 386. November 20, 2000. Page 18.

[10] For iterations of this argument in the context of EMOs, see: Zirkel, Perry A. (2003). "Does "For-Profit" Mean "Re-Failing" Students?" Journal of Law & Education. 32 J.L. & Educ. 239.

who says that EMOs like Edison "cut corners every chance they get because the bottom line for them is making money. They are not in it for the kids, they are in it for themselves."[11]

At issue is whether the service providers can meet not only measurable expectations but also community values. In education, previous attempts to contract out low performing schools have produced mixed results. While service providers seem to be able to raise student performance, they are less ready to address broader community concerns of school quality (Donahue, 1989 p.219). For example, school context and educators' skepticism may pose a major challenge to any generic approach that is adopted by the EMOs (Hernandez and Mahoney, 2002).

Molnar (2003) notes that cost-savings may come through increased commercialization, bringing with it the potential for more student harm. Hentschke, et. al. (2002) also point out a number of pitfalls that EMOs might face. In particular, they note that EMOs may be restrained politically (or otherwise) in the nature of contracting they may engage in.

Taking a legal perspective rooted in corporate law, Conn (2002) argues that, "Neither students nor society can bear the cost of inferior education at the hands of corporate directors operating under a paradigm that requires them to put shareholder

[11] Loschert, Kristen, O'Neil, John, & Winans, Dave, "Cash Cow," NEA Today, Sep2004, Vol. 23, Issue 1. at 1. Similar sentiments are expressed in: O'Neil, John, "Who Profits When For-Profits Run Schools?" NEA Today, Sep2002, Vol. 21, Issue 1.

interests before the interests of students."[12] A recent response to this argument suggests a path for corporations to serve both a private interest and a public good.[13]

In a study of Edison Schools' work in Chester and Philadelphia, Pennsylvania, Maranto (2005) finds that the politics of education can make reform more difficult in an urban setting. This research is consistent with the theory that EMOs may not be able to maneuver past a diverse set of entrenched political interests. To the extent that political barriers do get in the way, one would expect EMOs to demonstrate less innovative fiscal management.

In light of this on-going debate, more empirical analysis seems warranted to help both sides understand what is actually happening in EMO school finances.

II.C. Existing research on EMOs not focused on finances

A look at the existing body of research evaluation of EMOs shows that it has focused mostly on the relationship between EMOs and achievement. There is a mixed body of research on the effectiveness of EMOs in raising student achievement. Not surprisingly, the EMOs themselves suggest that they are in fact helping students achieve academic gains. In their most recent Annual Report on Student Performance, for instance, Edison Schools states that their "record is a strong one".[14] Their report presents a number of positive indicators, but the analysis is not rigorous and comparative.

Those who have carried out more thorough analysis remain mixed about the effects of EMOs on achievement. A 2002 GAO synthesis of studies of Edison, Mosaica,

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[12] Conn, Kathleen. (2002). "For-Profit School Management Corporations: Serving the Wrong Master," Journal of Law & Education. 31 J.L. & Educ. 129. at 148.
[13] See: Fairfax, Lisa M. "Achieving the Double Bottom Line: A Framework for Corporations Seeking to Deliver Profits and Public Services," Stanford Journal of Law, Business & Finance. 9 Stan. J.L. Bus. & Fin. 199.
[14] Edison Schools (2004), p. 4.

and Chancellor Beacon found that, "little is known about the effectiveness of these companies' programs on student achievement, parental satisfaction, parental involvement, or school climate because few rigorous studies have been conducted."[15] A year later, the GAO carried out its own achievement study, but found that, "analyses of test scores in 6 cities yielded mix results."[16] From a comparative perspective, looking at the U.K. experience in conjunction with that of the U.S., Fitz & Beers conclude that, "overall, EMOs have not experienced the success that was expected of them when they launched into the field of public education."[17]

While achievement has been the focus of several studies of EMOs, there remains little research on school finance aspects of EMO operations.

III. DATA & METHODS

III.A. Focus on School Level Data

Following work in the 1990s by Odden, et. al. (e.g. Busch & Odden, 1997), a growing body of research has developed to examine education finance from the school level. Much of this research confirms that there is significant funding variation between schools within a district. A Chicago Catalyst study in January 2005 looked at allocations to individual schools, and found that, "CPS schools clearly show much variation in

[15] Government Accountability Office (GAO). (2002). Public Schools: Insufficient Research to Determine Effectiveness of Selected Private Education Companies. GAO-03-11.
[16] Government Accountability Office (GAO). (2003). Public Schools: Comparison of Achievement Results for Students Attending Privately Managed and Traditional Schools in Six Cities. GAO-04-62. October 29, 2003.Online at: http://www.gao.gov/docdblite/details.php?rptno=GAO-04-62.
[17] Fitz, J. and Beers, B. (2002). "Education Management Organizations and the Privatization of Education in the US and the UK," Comparative Education, 38 (2), at 151.

funding levels, with more than 50% of schools receiving more or less than 90-110% of their weighted funding allotment."[18]

The Catalyst study is in a long line of studies that have examined intra-district equity. Miller, et. al. (2004) are working with a group at the University of Washington to continue to improve our understanding of the funding variation between schools.[19] Roza & Miles (2002) also have addressed this issue, finding that there is significant variation between schools in terms of the level of funding they receive. In a study of Massachusetts schools, West & Shen (2003) found similar results.

In light of these variations at the school level, our analysis of EMOs is carried out at the school level. Just as differences were found between schools in the same district, we anticipate finding differences between charter schools based on EMO management. We also anticipate differences within EMO groupings, e.g. not all Mosaica schools in Michigan are using identical financial plans.

III.B. Data limitations: Lack of school-level EMO financial data

Although the school-level data is very desirable, it is also harder to come by than statistics aggregated at the school district level. While a lack of data is a common challenge to education researchers, obtaining school-level finance data for EMO schools may be particularly difficult. To see why, we consider three broad reasons for data scarcity in this context: theoretical, practical, and legal.

Theoretically, once we understand the EMO as a private firm maximizing profits, it is easy to see why they might be hesitant to reveal school-level budgetary information. If the comparative advantage of an EMO is its ability to reduce costs (while maintaining

[18] Myers (2005a), p. 19.
[19] See: the Center on Reinventing Public Education, http://crpe.org/.

services), then allowing competitors to analyze a detailed public school budget might undermine their ability to do well in the market. In the same way that a firm would not want to reveal its secret recipe, so an EMO may wish to keep their school budgets relatively hidden from public view.[20]

Practically, it may involve substantial costs to make school budgets available to the public in an accessible form. Although the data exists (i.e. the EMO presumably knows what the school is spending and taking in), it may not exist in form that is readily accessible by the general public. If there is little financial incentive to post the budget, the EMO is likely not to go to the trouble of making their figures public.

Legally, states play a large role in determining how and when education data is published. Although there seems to be a push in the direction of more school-level data, most reporting requirements remain at the district level. In Illinois, for instance, Illinois School Code Section 34-43a says that: "Post annual budget on web site. The school district shall post its current annual school budget, itemized by receipts and expenditures, on the districts Internet web site." It does not require the same of individual schools.

III.C. Focus on Michigan charter schools

With school level budget data not readily available in many states, we turn to Michigan and its wealth of school level financial data. Michigan provides public access to school data on revenues and expenditures. All data was downloaded from the Michigan Department of Education web site. Additional demographic data was added

[20] Our cursory search suggests that the EMOs are reluctant to provide such analysis. In their Individual School Annual Reports, Edison Schools provides much information about each school – but noticeably missing is any financial data, e.g. revenues or expenditure data.

using the National Center for Education Statistic's Common Core of Data. Michigan has the added benefit of being well studied.[21]

The Michigan data we use is school-level data for five years: 1999 to 2003. We limit our universe at this stage to only charter schools. As mentioned in Section I, we focus on four EMOs in particular: Chancellor Beacon, National Heritage, Mosaica, and Edison. Our comparisons are thus between these particular EMOs and the rest of the Michigan charter school universe. It should be noted that this is not a clean "EMO vs. non-EMO" comparison. Some of the "other" charters are also governed by EMOs. What this comparison does allow us to do is to see if the big four stand out in any way from the rest of the pack.

We visited each EMO's web site to get a list of their schools in Michigan.[22] Since the financial data as only available through the 2002-03 school year, new charter schools are not included in this analysis. The Common Core of Data also classifies schools according to four categories: (1) Primary schools, (2) Middle Schools, and (3) High schools. Schools that are hybrids or do not otherwise fit into one of these categories are marked (4) Other. In this particular sample, only a very small number of middle and high schools were run by our four EMOs. Thus, we restrict our analysis to schools in the

[21] E.g. Randall W. Eberts and Kevin M. Hollenbeck. (2001). "An Examination of Student Achievement in Michigan Charter Schools," W. E. Upjohn Institute for Employment Research, March 7, 2001. Online at: http://www.huffmantv.com/hartford/charter.htm. They find: "The results show that PSAs managed by for-profit companies have lower test scores relative to public schools than do PSAs not managed by for-profits. The results are not consistent with the position that market alternatives yield better student performance, as measured by test score levels, assuming that schools run by educational management organizations (EMOs) are not systematically different from other charter schools with respect to the other variables in the model. Note that in Michigan, about 70 percent or more of the charter schools are managed by an EMO."

[22] National Heritage Academies: http://www.heritageacademies.com/Brix?pageID=14. Chancellor Beacon Academy: http://chancellorbeacon.com/publicCharter/default.asp.

primary school category. Some schools did not have financial information reported, and they too were excluded from the analysis.[23]

Using data from the MI Bulletin 1014 database, we were able to construct a number of measures for many of the charter schools run by these four EMOs.[24] We constructed the following measures, all at the *school level*:[25]

- Total Revenue per student
- Percent of revenue from federal, state, and local services
- PPE on Total Instruction
- PPE on Basic Instruction
- PPE on Added Needs Instruction
- PPE on Instructional Support
- PPE on Administration
- PPE on Operations & Maintenance
- PPE on Support Services
- Current Operating PPE
- Total General Fund PPE

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[23] In all, we ended up with the following schools: The Mosaica Education, Inc. schools included are: Grand Blanc Academy (Grand Blanc), Capital Area Academy (Lansing), Center Academy (Flint), Bay County Public School Academy (Bay City), and Kalamazoo Advantage Academy (Kalamazoo). The Chancellor Beacon schools included: Conner Creek Academy, Warren Elementary, Conner Creek Academy East High School, Great Lakes Academy, Huron Academy, Pontiac Academy of Excellence, Renaissance Public School Academy, White Pine Academy National Heritage Academies included were: Canton Academy, Canton, Metro Academy, Romulus, South Arbor Academy, Ypsilanti, Walton Academy, Pontiac , Detroit Merit Academy, Detroit , Hamtramck Academy, Hamtramck , Burton Glen Academy, Burton, Linden Academy, Flint, North Saginaw Academy, Saginaw , Windemere Park Academy, Lansing, Endeavor Academy, Springfield, Paragon Academy, Jackson , Eagle Crest Academy, Holland, Timberland Academy, Muskegon, Vanderbilt Academy, Holland, Chandler Woods Academy, Belmont, Cross Creek Academy, Byron Center, Excel Academy, Grand Rapids, Knapp Academy, Grand Rapids , Ridge Park Academy, Grand Rapids, Vanguard Academy, Wyoming, Vista Academy, Grand Rapids, Walker Academy, Walker , Paramount Academy, Kalamazoo.

[24] Data available at: http://www.michigan.gov/mde/0,1607,7-140-6530_6605-21514--,00.html.

[25] When looking at the tables, note that these figures are not adjusted for inflation.

- Average teacher salary [26]
- Per-pupil instructional salary
- Per-pupil support services salary
- Student Teacher Ratios

III.D. Only descriptive, not explanatory analysis in this draft

It is important to note again that in this draft, we are *not* attempting to explain differences in budget allocations between our four EMOs and other Michigan charter schools. Rather, we are taking the more modest first step of demonstrating that there are differences to begin with. We look for differences within a particular EMO cluster (e.g. between one Beacon school and another Beacon school), and also between the EMO and the others. Our next wave of analysis will be set up to provide explanations for the differences we observe.

The explanations may take many different forms. While one potential force is EMO management decisions (e.g. they want to allocate money in a different way), it may very well be the case that the differences are being driven by school demographics (e.g. EMOs are forced to spend money in a certain way because they have larger at-risk or special education student populations). Preliminary correlation and regression analysis examining these issues produced mixed results that need further study.

In future rounds of analysis, we will need to consider several important controls. First, the percentage of special education students in the school will drive spending. A

[26] This was not reported for every school.

report, revised in 2001, on the costs of special education in Michigan, reminds us that properly ascertaining the impact of special education funding can be complicated.[27]

IV. PRELIMINARY RESULTS

All results are presented in Tables 1-6. Based on the statistical results presented in Tables 1-6, it appears that:

- There are substantive differences between revenue levels between some of the EMO providers we looked at. Chancellor Beacon appears to get less revenue than Mosaica, on average.
- Edison appears to spend more on instruction than the others. They also appear to have higher than average teacher salaries (Table 5), when compared with other charter schools.
- Chancellor Beacon spends more PPE on administration than do the other groups, all three of whom come in under the average of all the rest. (Table 3.1)
- In contract, Chancellor Beacon spends less on operations and maintenance than its peers, by a very significant amount. (Table 3.1)
- Chancellor Beacon, as a group, seem to spend less overall, when measured by the current operating expenses standard or the total general fund PPE (Table 3.2)
- Because the data is incomplete, it looks like it's too early to tell much about teacher salaries (Table 4).
- Chancellor Beacon appears to maintain the lowest pupil/teacher ratio, with the other three right around 20 students/teacher (Table 5).

[27] Michigan Department of Education, Office of Special Education and Early Childhood Intervention. (2001). *Comparison of Special Education and Regular Education Costs for the 1996-1997 School Year*.

- For each Beacon, Mosaica, and National Heritage, there are significant variations within EMO groups. These deserve more attention in future work.

V. PRELIMINARY CONCLUSIONS & QUESTIONS RAISED

This paper has sketched out an approach for understanding EMOs within the adequacy school finance framework. While our findings remain preliminary, they seem to us suggestive of the fact that there are differences in budgetary practice: (a) between EMO managed charter schools and their charter peers, and (b) between individual EMO schools, even schools managed by the same firm. While these differences need to be subjected to further scrutiny, and an explanation developed with proper controls in place, this school level budget analysis seems a promising field for future research.

Moving forward, there are a number of additional pieces of analysis to be completed. They include:

- Controlling for school demographics, e.g. at-risk population and special education populations
- Comparisons with the larger universe of traditional public schools
- Comparisons, if possible, with the private school universe
- Integrating more specific budget data, e.g. from the EMO itself
- Expanding analysis to additional states
- Expanding analysis to smaller EMOs
- Multivariate regression analysis to isolate effects of particular EMOs on expenditure decisions and revenue streams

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Table 1. REVENUE MEASURES for Michigan Charter Schools run by large EMOs, as compared to other Public School Academies operating in Michigan, 1999-2003; Means and N reported

	Total Revenue Per Student				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	7,458	7,263	7,287	6,729	6,736
	(7)	(7)	(7)	(7)	(3)
Edison	7,874	7,339	6,998	6,564	-
	(2)	(2)	(2)	(2)	-
Heritage	7,460	7,515	7,211	6,474	6,264
	(23)	(23)	(22)	(19)	(13)
Mosaica	8,552	8,418	7,755	6,540	7,001
	(5)	(5)	(4)	(4)	(1)
Other Charters	8,303	8,293	7,766	6,956	6,575
	(61)	(63)	(60)	(57)	(46)
	Percent of Revenue from State Sources				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	92.8%	93.8%	90.9%	91.8%	93.3%
	(7)	(7)	(7)	(7)	(3)
Edison	93.0%	98.0%	97.6%	97.8%	0.0%
	(2)	(2)	(2)	(2)	(0)
Heritage	93.2%	90.7%	90.4%	95.9%	96.2%
	(23)	(23)	(22)	(19)	(13)
Mosaica	86.6%	83.7%	88.5%	95.4%	89.1%
	(5)	(5)	(4)	(4)	(1)
Other Charters	87.8%	88.0%	89.0%	92.2%	92.9%
	(61)	(63)	(60)	(57)	(46)
	Percent of Revenue from Federal Sources				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	5.7%	3.0%	7.7%	8.7%	2.5%
	(7)	(7)	(7)	(6)	(2)
Edison	6.9%	3.3%	2.3%	2.1%	-
	(2)	(1)	(2)	(2)	-
Heritage	3.7%	4.4%	3.3%	2.0%	2.3%
	(23)	(23)	(22)	(16)	(10)
Mosaica	9.7%	10.4%	10.1%	4.7%	1.7%
	(5)	(5)	(4)	(3)	(1)
Other Charters	9.9%	9.7%	8.6%	6.6%	6.6%
	(58)	(57)	(55)	(50)	(34)

TABLE NOTES: Data source: Michigan Department of Education, Bulletin 1014 database. The number (in parentheses) is the number of observations which went toward calculating the mean for a given measure in a given year. The N varies across measures due to fluctuations in reporting. See discussion in Section III of the paper for more details on data and methods.

Table 2. EXPENDITURES ON INSTRUCTION by Michigan Charter Schools run by large EMOs, as compared to other Public School Academies operating in Michigan, 1999-2003; Means and N reported

	Total PPE on Instruction				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	3,442	3,423	3,376	2,936	2,653
	(7)	(7)	(7)	(7)	(3)
Edison	3,628	3,353	3,473	3,061	-
	(2)	(2)	(2)	(2)	-
Heritage	3,161	3,389	2,905	2,766	2,605
	(23)	(23)	(22)	(19)	(13)
Mosaica	3,757	3,694	3,891	3,694	2,796
	(5)	(5)	(4)	(4)	(1)
Other Charters	3,745	3,749	3,543	3,130	3,009
	(61)	(63)	(60)	(57)	(46)
	PPE on Added Needs Instruction				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	569	496	132	162	160
	(7)	(6)	(4)	(2)	(1)
Edison	198	350	359	307	-
	(2)	(2)	(2)	(2)	-
Heritage	524	575	458	252	246
	(23)	(23)	(22)	(19)	(13)
Mosaica	1,133	542	221	177	226
	(5)	(5)	(3)	(3)	(1)
Other Charters	577	520	505	373	385
	(55)	(50)	(39)	(39)	(21)
	PPE on Basic Instruction				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	2,873	2,998	3,301	2,890	2,600
	(7)	(7)	(7)	(7)	(3)
Edison	3,430	3,003	3,115	2,755	0
	(2)	(2)	(2)	(2)	(0)
Heritage	2,637	2,814	2,447	2,514	2,359
	(23)	(23)	(22)	(19)	(13)
Mosaica	2,624	3,151	3,726	3,561	2,570
	(5)	(5)	(4)	(4)	(1)
Other Charters	3,225	3,335	3,214	2,875	2,833
	(61)	(63)	(60)	(57)	(46)

TABLE NOTES: Data source: Michigan Department of Education, Bulletin 1014 database. The number (in parentheses) is the number of observations which went toward calculating the mean for a given measure in a given year. The N varies across measures due to fluctuations in reporting. See discussion in Section III of the paper for more details on data and methods.

Table 3.1. ADDITIONAL EXPENDITURE MEASURES for Michigan Charter Schools run by large EMOs, as compared to other Public School Academies operating in Michigan, 1999-2003; Means and N reported

	PPE on Instructional Support				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	190	164	183	125	238
	(5)	(6)	(7)	(7)	(2)
Edison	417	213	174	249	-
	(2)	(2)	(2)	(2)	-
Heritage	566	483	225	68	80
	(23)	(23)	(22)	(19)	(13)
Mosaica	311	472	163	224	622
	(5)	(5)	(4)	(4)	(1)
Other Charters	453	395	298	357	401
	(56)	(56)	(50)	(41)	(28)

	PPE on Administration				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	2,555	2,366	2,565	2,677	2,497
	(7)	(7)	(7)	(7)	(3)
Edison	1,985	2,525	2,154	2,804	-
	(2)	(2)	(2)	(2)	-
Heritage	1,903	1,741	1,816	1,594	1,815
	(23)	(23)	(22)	(19)	(13)
Mosaica	1,898	2,644	2,112	2,878	3,044
	(5)	(5)	(4)	(4)	(1)
Other Charters	2,064	2,265	2,417	2,356	1,812
	(61)	(63)	(60)	(56)	(45)

	PPE on Operations & Maintenance				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	411	407	413	444	610
	(7)	(7)	(7)	(7)	(3)
Edison	1,139	750	959	666	-
	(2)	(2)	(2)	(1)	-
Heritage	1,809	1,882	2,207	1,918	1,717
	(23)	(23)	(22)	(19)	(13)
Mosaica	1,092	553	745	829	411
	(5)	(5)	(4)	(4)	(1)
Other Charters	1,083	762	730	699	918
	(61)	(63)	(58)	(44)	(41)

TABLE NOTES: Data source: Michigan Department of Education, Bulletin 1014 database. The number (in parentheses) is the number of observations which went toward calculating the mean for a given measure in a given year. The N varies across measures due to fluctuations in reporting. See discussion in Section III of the paper for more details on data and methods.

Table 3.2. ADDITIONAL EXPENDITURE MEASURES for Michigan Charter Schools run by large EMOs, as compared to other Public School Academies operating in Michigan, 1999-2003; Means and N reported

	PPE on Support Services				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	3,110	2,914	3,163	3,269	3,267
	(7)	(7)	(7)	(7)	(3)
Edison	3,540	3,487	3,286	3,386	-
	(2)	(2)	(2)	(2)	-
Heritage	4,278	4,106	4,248	3,580	3,612
	(23)	(23)	(22)	(19)	(13)
Mosaica	3,452	3,928	3,165	4,154	5,071
	(5)	(5)	(4)	(4)	(1)
Other Charters	3,645	3,457	3,438	3,186	2,982
	(61)	(63)	(60)	(57)	(45)
	Current Operating PPE				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	6,552	6,337	6,539	6,205	5,920
	(7)	(7)	(7)	(7)	(3)
Edison	7,168	6,840	6,759	6,447	-
	(2)	(2)	(2)	(2)	-
Heritage	7,439	7,495	7,153	6,346	6,217
	(23)	(23)	(22)	(19)	(13)
Mosaica	7,209	7,621	7,056	7,847	7,866
	(5)	(5)	(4)	(4)	(1)
Other Charters	7,390	7,206	6,980	6,317	5,926
	(61)	(63)	(60)	(57)	(46)
	Total General Fund PPE				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	6,975	7,459	8,175	7,641	6,096
	(7)	(7)	(7)	(7)	(3)
Edison	7,283	6,924	6,759	6,447	-
	(2)	(2)	(2)	(2)	-
Heritage	7,439	7,495	7,173	6,406	6,217
	(23)	(23)	(22)	(19)	(13)
Mosaica	7,428	8,106	7,260	10,021	8,184
	(5)	(5)	(4)	(4)	(1)
Other Charters	7,943	7,802	7,352	6,854	6,363
	(61)	(63)	(60)	(57)	(46)

TABLE NOTES: Data source: Michigan Department of Education, Bulletin 1014 database. The number (in parentheses) is the number of observations which went toward calculating the mean for a given measure in a given year. The N varies across measures due to fluctuations in reporting. See discussion in Section III of the paper for more details on data and methods.

Table 4. SALARY MEASURES for Michigan Charter Schools run by large EMOs, as compared to other Public School Academies operating in Michigan, 1999-2003; Means and N reported

	Average Teacher Salaries				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	-	-	-	-	-
	-	-	-	-	-
Edison	47,826	42,771	40,208	50,590	-
	(2)	(2)	(2)	(2)	-
Heritage	-	-	-	33,151	29,901
	-	-	-	(20)	(13)
Mosaica	39,009	38,780	35,733	31,775	52,368
	(3)	(3)	(3)	(3)	(1)
Other Charters	35,274	34,086	34,330	32,966	29,294
	(22)	(20)	(20)	(21)	(22)

	Per-Pupil Instructional Salary				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	-	-	-	-	-
	-	-	-	-	-
Edison	3,370	2,951	3,089	2,865	-
	(2)	(2)	(2)	(2)	-
Heritage	-	-	-	2,308	2,155
	-	-	-	(19)	(13)
Mosaica	2,583	3,273	3,472	2,840	2,612
	(4)	(3)	(4)	(3)	(1)
Other Charters	3,474	3,009	2,778	2,436	2,361
	(24)	(22)	(24)	(25)	(24)

	Per-Pupil Support Services Salary				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	-	34	50	-	-
	-	(7)	(5)	-	-
Edison	957	1,265	968	1,025	-
	(2)	(2)	(2)	(2)	-
Heritage	-	-	-	514	574
	-	-	-	(19)	(13)
Mosaica	704	926	778	716	757
	(4)	(3)	(4)	(3)	(1)
Other Charters	1,283	984	836	742	888
	(25)	(29)	(31)	(30)	(24)

TABLE NOTES: Data source: Michigan Department of Education, Bulletin 1014 database. The number (in parentheses) is the number of observations which went toward calculating the mean for a given measure in a given year. The N varies across measures due to fluctuations in reporting. See discussion in Section III of the paper for more details on data and methods.

Table 5. STUDENT / TEACHER RATIOS for Michigan Charter Schools run by large EMOs, as compared to other Public School Academies operating in Michigan, 1999-2003; Means and N reported

	Average Student Teacher Ratio				
	2003	*2002*	*2001*	*2000*	*1999*
Beacon	16.7	18.0	18.6	16.4	19.7
	(7)	(7)	(7)	(7)	(3)
Edison	20.0	23.5	23.0	28.5	-
	(2)	(2)	(2)	(2)	-
Heritage	19.6	29.3	20.5	18.7	17.7
	(22)	(23)	(20)	(19)	(13)
Mosaica	21.0	19.0	19.0	19.0	26.0
	(5)	(5)	(3)	(4)	(1)
Other Charters	17.7	18.6	18.3	18.8	18.5
	(59)	(63)	(58)	(57)	(46)

TABLE NOTES: Data source: Michigan Department of Education, Bulletin 1014 database. The number (in parentheses) is the number of observations which went toward calculating the mean for a given measure in a given year. The N varies across measures due to fluctuations in reporting. See discussion in Section III of the paper for more details on data and methods.

Table 6. INTRA-EMO DIFFERENCES for Michigan Charter Schools run by large EMOs, 2003 data reported

	National Heritage Academies				
	Obs	*Mean*	*Std. Dev.*	*Min*	*Max*
Total Revenue Per Pupil	23	7,460	393	7,024	8,497
% of Rev. From State	23	93.2%	3.1%	85.2%	98.2%
% of Rev. From Feds	23	3.7%	2.7%	1.0%	11.1%
PPE on Basic Instruction	23	2,637	225	2,208	3,149
PPE on Added Needs Instr.	23	524	276	133	1,187
PPE on Administration	23	1,903	292	1,436	2,492
PPE on Operations & Maint.	23	1,809	203	1,448	2,179
PPE on Support Services	23	4,278	241	3,864	4,782
PPE Current Op. Expenses	23	7,439	373	6,993	8,399
Student-Teacher Ratio	22	19.6	2.0	16.0	23.0

	Mosaica				
	Obs	*Mean*	*Std. Dev.*	*Min*	*Max*
Total Revenue Per Pupil	5	8,552	874	7,407	9,488
% of Rev. From State	5	86.6%	5.2%	82.3%	95.3%
% of Rev. From Feds	5	9.7%	3.9%	4.1%	14.6%
PPE on Basic Instruction	5	2,624	106	2,529	2,775
PPE on Added Needs Instr.	5	1,133	683	431	2,074
PPE on Administration	5	1,898	240	1,683	2,235
PPE on Operations & Maint.	5	1,092	692	446	2,089
PPE on Support Services	5	3,452	807	2,473	4,658
PPE Current Op. Expenses	5	7,209	1,322	5,470	9,042
Student-Teacher Ratio	5	21.0	2.4	18.0	24.0

	Chancellor Beacon Academies				
	Obs	*Mean*	*Std. Dev.*	*Min*	*Max*
Total Revenue Per Pupil	7	7,458	241	7,232	7,928
% of Rev. From State	7	92.8%	2.5%	89.6%	95.7%
% of Rev. From Feds	7	5.7%	3.1%	0.7%	9.3%
PPE on Basic Instruction	7	2,873	390	2,403	3,677
PPE on Added Needs Instr.	7	569	441	26	1,159
PPE on Administration	7	2,555	375	1,978	3,074
PPE on Operations & Maint.	7	411	94	300	545
PPE on Support Services	7	3,110	323	2,717	3,648
PPE Current Op. Expenses	7	6,552	553	5,575	7,119
Student-Teacher Ratio	7	16.7	2.3	14.0	21.0

TABLE NOTES: Data source: Michigan Department of Education, Bulletin 1014 database.