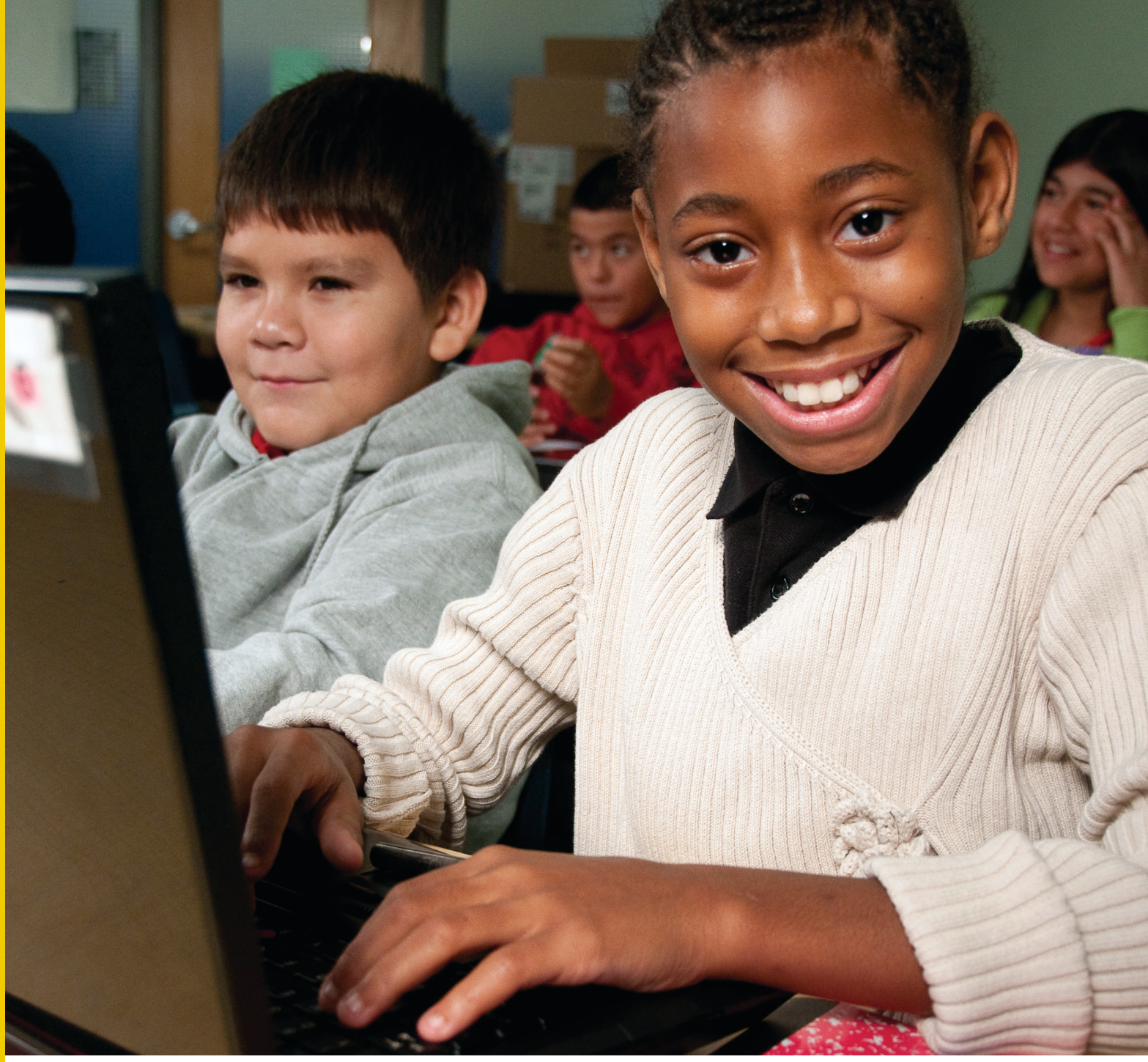

Measuring Charter Performance:

A Review of Public Charter School Achievement Studies

Sixth Edition

National Alliance for Public Charter Schools

The National Alliance for Public Charter Schools is the leading national nonprofit organization committed to advancing the charter school movement. Our mission is to lead public education to unprecedented levels of academic achievement for all students by fostering a strong charter sector.

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Contents

Introduction

The ultimate sign of any school's success and the indicator by which all others are measured is academic performance. There are many studies on charter school achievement, some of which seem to contradict each other. To provide a full and fair picture of how public charter schools are performing, the National Alliance for Public Charter Schools prepares an extensive review of the available research on charter school achievement. Now in its sixth edition, this report lists the charter achievement studies published since charters began in 1992. It categorizes each study according to its rigor and method. We hope that this review will continue to serve as a resource for navigating the quality and content of the numerous charter school studies.

The number of studies examining charter school achievement continues to grow. This year we added 63 studies to bring the total number of eligible studies to 203. However, only 14 of the new studies use longitudinal student-level data and rigorous research strategies to estimate the impact of attending a public charter school on student performance. In future years we would like to see a greater percentage of newly released studies on charter school achievement use longitudinal, student-level data.

The past year was also notable for three studies that examined charter schools at the national level, as well as a handful of studies that used the gold standard lottery research design method. From these seven studies we learned:

Three national studies, University of Stanford Center for Research on Education Outcomes's 16-state study (CREDO, 2009) and two studies by Mathematica looking at 22 KIPP schools in ten states (Tuttle et al, 2010) and 36 middle schools in 15 states (Gleason et al, 2010), showed that the impact of charter schools on student performance when aggregated to the national level is mixed.

- The CREDO study found negative but small effect sizes in math and reading.
- The Mathematica middle schools study found negative but statistically insignificant results in math and reading.
- The Mathematica KIPP study found positive and relatively large effect sizes in math and reading.

While each of the studies claimed to present a "national" impact of charter schools, each had sample limitations that should remind us that no study presents a definitive answer regarding charter school outcomes.

A National Bureau of Economic Research sponsored, lottery study of the New York City charter schools (Hoxby et al, 2010), found positive and large effect sizes for students who won the lottery to attend charter schools, when compared with students who lost the lottery and enrolled in the traditional public schools. The study circumvented the common criticism of lottery studies—that result implications cannot be generalized—because they are limited to oversubscribed schools because 93 percent of students enrolled in New York City charters were included in the study. However, the findings should not be generalized beyond the successes of charter schools in New York City.

Three additional lottery studies examined individual charter schools: KIPP Academy Lynn (Angrist et al,

1 Supovitz and Rikoon's study presents only one year of performance data, but the authors plan to update the study in future years with additional longitudinal student-level data.

2010), the Harlem Children's Zone Promise Academies (Dobbie & Fryer, 2009), and the Harlem Success Academy1 (Supovitz & Rikoon, 2010). Each of the three studies found positive and very large effect sizes for students who won lotteries and attended the charter schools compared with students who lost lotteries and attended traditional public schools. These studies provide empirical results to support the powerful anecdotes about each school's success. However, because each of the studies examine only one charter school, the findings should not be generalized to other charter schools, even charter schools that have the same mission and vision or instructional strategies.

The high-quality studies from this past year continue to illustrate no single study should be considered definitive for answering the question of how charter schools are performing in a district, state or at the national level. Each study contributes to the growing body of evidence about student achievement in charter schools. Given the limited number of high-quality studies on charter school achievement, the field needs even more studies using similar data and different research strategies at the district, state and national levels.

Studies Included in the Review

Of the 284 studies examining charter school achievement, 203 studies[2] are included in this review based on the following eligibility criteria: they compare charter school achievement with that of traditional public schools[3], they use serious research methods[4] and they examine a significant segment of the charter sector.

The eligible studies differ from one another in many ways, but probably the most important differences are based on the type of data and the way in which data are analyzed. In this review, we group the studies into the following three categories and sort by state:

Panel studies use longitudinally-linked student-level data to look at gains or growth in achievement. The studies follow individual students over time and typically control for prior achievement and other student characteristics, as well as school characteristics. These studies provide the best indicators of how public charter schools are performing compared with traditional public schools. There are 47 studies that use student panel data. For detailed descriptions of the panel studies, see Appendix A.

Cohort change studies look at performance changes over time, but through some method other than following individual students. For example, these studies may look at changes in average school-wide test scores from year to year. These studies are not as powerful as the panel studies for comparing public charter schools with traditional public schools because any change could be due to differences in student composition rather than how much learning the school produces. There are 78 studies that use cohort change data. For detailed descriptions of the cohort change studies, see Appendix B.

Snapshot studies look at school performance at one point in time. While some of these studies attempt to control for student or school characteristics, the snapshot studies are unable to gauge how much value public charter schools or traditional public schools add to student learning. There are 102 studies that use snapshot data. For detailed descriptions of the snapshot studies, see Appendix C.

2 The number of studies in each category adds up to more than 203 because several studies report findings based on more than one type of data (e.g., cohort and snapshot findings) and are included in more than one category.

3 The National Charter School Research Project's meta-analysis of charter school studies is still the most solid review to date of the empirical research on how public charter schools perform compared to traditional public schools: Betts, Julian R. and Y. Emily Tang. *Value added and experimental studies of the effect of charter schools on student achievement.* Seattle, WA: National Charter School Research Project, Center on Reinventing Public Education, University of Washington Bothell.

4 Research methodology is a highly complex field and this report does not attempt to touch on the intricacies of method that might arise in a study of charter achievement. The following report is an excellent resource for understanding how to judge the strengths and limitations of various research design strategies: Charter School Achievement Consensus Panel. (2006). *Key issues in studying charter schools and achievement: A review and suggestions for national guidelines.* Seattle, WA: National Charter School Research Project, Center on Reinventing Public Education, University of Washington.

Key Findings

Notable Evidence of Added Value. Of 203 studies in this review, 47 studies use longitudinally linked, student-level data to look at gains or growth in achievement while controlling for prior achievement as well as student and school characteristics. Table 1 presents a summary of research findings from the panel studies[5]. Seventy-eight of the remaining studies examine schools over time but lack linked student-level data, and 102 look only at a snapshot of performance at one point in time. While the studies that look at school performance over time are an improvement on the snapshot studies, neither provides definitive evidence to draw conclusions about the effectiveness of charter schools.

The findings presented in Table 1 suggest that more often than not charter school students are experiencing similar or greater achievement gains than students in traditional public schools. In mathematics, the high-quality research studies indicate that public charter school students experience similar or greater achievement gains in 64 instances compared with 44 instances of smaller gains. In reading, public charter school students have similar or higher achievement gains in 73 instances compared with 38 instances of smaller gains.

The findings in Table 1 are consistent with the National Charter School Research Project's meta-analysis of charter school studies. The meta-analysis indicated that studies that use the best data and the most sophisticated research techniques show charters outperforming comparable traditional public schools.

Fourteen of the 47 high-quality panel studies (30 percent) use a majority of data from the academic years prior to 2001-02. Moreover, the studies that use data from earlier years are concentrated in a handful of states (Ariz., Calif., Fla., N.C., Texas and Wis.), whereas the studies with newer data include a wider range of states. When the results are broken out by the years of academic data in the studies (see Tables 2 and 3), it becomes dramatically clear that studies examining public charter schools in more recent academic years show that charter schools produce more instances of larger achievement gains in both math and reading when compared to the traditional public schools.

Table 1: Summary of Charter School Achievement Findings

	Math				Reading			
	Larger Gains	Comparable Gains	Mixed Gains	Smaller Gains	Larger Gains	Comparable Gains	Mixed Gains	Smaller Gains
Elementary School	5	6	3	17	7	8	3	13
Middle School	11	8	3	7	11	10	1	7
High School	9	4	2	8	12	4	0	7
Overall	16	5	1	12	12	9	2	11
Total	**41**	**23**	**9**	**44**	**42**	**31**	**6**	**38**

5 Number of research findings adds up to more than the 47 panel studies because most studies report out more than one finding (e.g., math and reading, elementary and middle school, etc.).

Positive Findings Exist for Charter School Performance by Length of Time Students are Enrolled. Several studies examine the achievement of students who have stayed at a charter school for an extended period of time compared with traditional public school students. Of the 33 studies that look at this question, 21 find that charter school students show larger gains the longer they are enrolled in the charter, compared with traditional public school students. Eleven studies find similar or mixed results. Only one study of students in Ohio demonstrated smaller gains for students who stayed in charter schools for longer periods of time.

Table 2: Summary of Charter School Math Achievement, by Years of Data in Studies

	Pre 2001				Post 2001			
	Larger Gains	Comparable Gains	Mixed Gains	Smaller Gains	Larger Gains	Comparable Gains	Mixed Gains	Smaller Gains
Elementary School	0	2	1	12	5	4	2	5
Middle School	1	2	1	4	10	6	2	3
High School	2	0	1	4	7	4	1	4
Overall	1	0	1	2	15	5	0	10
Total	**4**	**4**	**4**	**22**	**37**	**19**	**5**	**22**

Table 3: Summary of Charter School Reading Achievement, by Years of Data in Studies

	Pre 2001				Post 2001			
	Larger Gains	Comparable Gains	Mixed Gains	Smaller Gains	Larger Gains	Comparable Gains	Mixed Gains	Smaller Gains
Elementary School	2	6	1	7	5	2	2	6
Middle School	2	4	0	3	9	6	1	4
High School	3	2	0	3	9	2	0	4
Overall	0	0	2	2	12	9	0	9
Total	**7**	**12**	**3**	**15**	**35**	**19**	**4**	**23**

Mixed Findings for Charter School Performance by Age of School. Eleven studies explicitly examine the question of whether charter schools get better as they age. The findings are mixed. Four studies show that charter schools perform better when they are farther along in their life cycle than newer schools, while three studies show mature schools perform worse, two find similar results and two have mixed findings.

Large Gaps in the Research Persist. Even though panel studies provide the best indicators of how public charter schools are performing, they represent the fewest number of charter school achievement studies published (23 percent of eligible studies in this review). While more and more school-level data are available to researchers due to No Child Left Behind, student-level data continues to be difficult and expensive to obtain, which is the primary reason for the dearth of panel studies. However, a host of questions still need to be answered about how different types of charter schools are performing, and researchers should pursue these research questions with state-wide, longitudinal, student-level data.

As stated earlier in this report, no single study should be considered definitive for answering the question of how charter schools are performing in a district, state or at the national level. Each study contributes to the growing body of evidence about student achievement in charter schools. For a clearer picture of the impact of charter schools to emerge, we need more studies in districts, states and at the national level to replicate previous studies or analyze similar data using different research methodologies. These are gold-standard practices in any research field.

Just as important as building the body of evidence about overall charter school achievement is the need for additional research that unpacks and explores the conditions that create successful charter schools. Charter schools tend to be lumped into a homogenous group, although they vary widely in terms of instructional strategies, instructional time in school, governance structures, use and type of management organizations, authorizer practices, facilities and legislative conditions and other factors. There are a handful of high-quality studies on the horizon, but in general the empirical research indicating the factors that lead to increased performance is thin.

Recommendations

A number of conclusions about the state of charter school research—and how to improve it—emerge from this review:

The limited number of high-quality, longitudinal, student-level studies continues to hold back our ability to determine the types of charter schools that have the greatest positive impact on student performance. We need more studies in more states using more recent longitudinal student-level data to empirically assess how well students in public charter schools are performing. Moreover, in the states where we have high-quality studies, we need researchers to replicate the results in order to confirm the findings using different research strategies and overlapping data.

Very few studies empirically examine the impact of instructional strategies or the policy and educational context of charter schools on student performance. We need more and better research to explain the conditions by which some public charter schools perform so much better than other charter and non-charter schools.

Charter schooling represents an increasingly effective part of public education—and transparency in the data will allow for refinement to improve quality further over time.

Anna Nicotera of the National Alliance for Public Charter Schools led the production of this edition of the report. Timothy Hartman provided research assistance.

Appendix A: Panel Studies

For a given charter school, what we really want to know is whether students are better off for having attended it. The best way to find out is to examine the learning of individual students over time, seeking to determine how much value schools are adding to student learning.

Panel studies use longitudinally linked, student-level data to look at gains or growth in achievement. The panel studies follow individual students over time and typically control for prior achievement and other student characteristics, as well as school characteristics. These studies provide the best indicators of how public charter schools are performing compared with traditional public schools.

The following tables in Appendix A describe the research design and key findings for each of the eligible panel studies.

Research Design	
Year	The span of academic years included in the study's analyses.
State	The state or city examined by the study. If a state abbreviation is indicated, the study included a majority of the state's charter schools. If a city is indicated, the study included charter schools in that city.
Lottery	The study examines students who participate in lotteries to enroll in charter schools. Students who win the lottery and attend public charter schools are compared with students who lose the lottery and attend traditional public schools. The lottery acts as a random assignment mechanism to minimize the differences between charter school attendees and non-attendees. This research design is considered the "gold standard" for evaluating the impact of charter schools.
Fixed-Effects	The study examines performance gains for students who have attended both traditional public schools and public charter schools. Because the same student is compared at different points in time, the research design significantly reduces the unobserved differences that may be introduced when comparisons are made between students without random assignment.
Multivariate	The study uses a regression model to estimate the difference in achievement between students who attend public charter schools and students who attend traditional public schools. The research design controls for student and/or school characteristics.
Pre-Post	The study calculates the average difference in achievement over time between students who attend public charter schools and students who attend traditional public schools.
Proficiency	The study uses data indicating that a student is proficient on state standards-based assessments. Proficiency includes a large span of test scores. If proficiency is not marked, the study uses scale scores.
Student-Level	The study uses student-level performance data.
School-Level	The study uses school-level performance data.
Student Controls	The study includes student-level control variables, such as prior achievement and student demographics.
School Controls	The study includes school-level control variables, such as school size and school demographics.

Key Findings	
Larger Gains (+)	Students who attend public charter schools have larger achievement gains than comparable students who attend traditional public schools.
Comparable Gains (↔)	Students who attend public charter schools experience similar achievement gains as comparable students who attend traditional public schools.
Mixed Gains (+/-)	Students who attend public charter schools have larger achievement gains than comparable students who attend traditional public schools in selected grades and/or subject areas and smaller achievement gains in other grades and/or subject areas.
Smaller Gains (-)	Students who attend public charter schools have smaller achievement gains than comparable students who attend traditional public schools.
Subject Area	Math: Study examines performance data from a math assessment. Reading: Study examines performance data from a reading or Language Arts assessment. Composite: Study examines performance data from combined math and reading assessments. Other (Graduation Rate): Study examines graduation rate data.
Grade Level	Elementary: Study examines performance data from elementary school grades. Middle: Study examines performance data from middle school grades. High School: Study examines performance data from high school grades. Overall: Study examines performance data using combined grade levels.

These studies provide the best indicators of how public charter schools are performing compared with traditional public schools

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
CREDO, 2009a (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MA, MN, MO, NC, NM, NYC, OH, TX)	2000-2001 to 2007-2008	National	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	 ✓ ✓ ✓ ✓	Math	✓	Elem Middle High Overall	↔ + - -
					Read	✓	Elem Middle High Overall	+ + - -
					Composite		Elem Middle High Overall	
					Other		Grad Rate	
Tuttle, Teh, Nichols-Barrer, Gill, & Gleason, 2010	2001-2002 to 2008-2009	National (KIPP)	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	 ✓ ✓ ✓ 	Math	✓	Elem Middle High Overall	 +
					Read	✓	Elem Middle High Overall	 +
					Composite		Elem Middle High Overall	
					Other		Grad Rate	
Gleason, Clark, Tuttle, & Dwoyer, 2010	2005-2006 to 2007-2008	National	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	✓ ✓ ✓ ✓ 	Math	✓	Elem Middle High Overall	 ↔
					Read	✓	Elem Middle High Overall	 ↔
					Composite		Elem Middle High Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
CREDO, 2009b (This report also analyzes data in AZ, CA, CO, DC, FL, GA, IL, LA, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2003-2004 to 2007-2008	AR	Lottery		Math	✔	Elem	
			Fixed-Effects				Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	+
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	+
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	
Solmon, Paark, & Garcia, 2001	1997-1998 to 1999-2000	AZ	Lottery		Math	✔	Elem	
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	+/-
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	+/-
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	
Solmon & Goldschmidt, 2004	1997-1998 to 1999-2000	AZ	Lottery		Math		Elem	
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	+
							Middle	↔
							High	-
			Student-Level	✔			Overall	
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls				High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Garcia, Barber, & Molnar, 2009	2000-2001 to 2002-2003	AZ	Lottery		Math	✓	Elem	+
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	↔
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
CREDO, 2009c (This report also analyzes data in AR, CA, CO, DC, FL, GA, IL, LA, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2004-2005 to 2007-2008	AZ	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	-
			Proficiency		Read	✓	Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	-
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other		Grad Rate	
CREDO, 2009d (This report also analyzes data in AR, AZ, CO, DC, FL, GA, IL, LA, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2005-2006 to 2007-2008	CA	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	-
			Proficiency		Read	✓	Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	-
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Zimmer, Buddin, Chau, Daley, Gill, Guarino, Hamilton, Krop, McCaffrey, Sandler, & Brewer, 2003	1997-1998 to 2001-2002	Chula Vista, CA	Lottery		Math	✔	Elem	-
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	-
							Middle	
			Student-Level	✔			High	
			School-Level				Overall	
			Student Controls	✔	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
		Fresno, CA	Lottery		Math	✔	Elem	-
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	-
							Middle	
			Student-Level	✔			High	
			School-Level				Overall	
			Student Controls	✔	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
		Los Angeles, CA	Lottery		Math	✔	Elem	↔
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	↔
							Middle	
			Student-Level	✔			High	
			School-Level				Overall	
			Student Controls	✔	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Zimmer, Buddin, Chau, Daley, Gill, Guarino, Hamilton, Krop, McCaffrey, Sandler, & Brewer, 2003	1997-1998 to 2001-2002	Napa, CA	Lottery		Math	✓	Elem	-
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	-
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
		San Diego, CA	Lottery		Math	✓	Elem	-
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	+
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
		West Covina, CA	Lottery		Math	✓	Elem	-
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	↔
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Zimmer & Buddin, 2006 Reports using data with same findings: Zimmer & Buddin, 2005	1997-1998 to 2001-2002	Los Angeles, CA	Lottery		Math	✔	Elem	-
			Fixed-Effects	✔			Middle	+
			Multivariate	✔			High	+
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	↔
							Middle	↔
			Student-Level	✔			High	↔
			School-Level				Overall	
			Student Controls	✔	Composite		Grad Rate	
			School Controls	✔			Middle	
							High	
							Overall	
					Other		Grad Rate	
		San Diego, CA	Lottery		Math	✔	Elem	-
			Fixed-Effects	✔			Middle	-
			Multivariate	✔			High	-
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	-
							Middle	+
			Student-Level	✔			High	+
			School-Level				Overall	
			Student Controls	✔	Composite		Elem	
			School Controls	✔			Middle	
							High	
							Overall	
					Other		Grad Rate	
Tang & Betts, 2006 Reports using data with same findings: Betts, Rice, Zau, Tang, & Koedel, 2006; Tang, 2008	1997-1998 to 2001-2002	San Diego, CA	Lottery		Math	✔	Elem	+/-
			Fixed-Effects	✔			Middle	+/-
			Multivariate	✔			High	+/-
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	+/-
							Middle	-
			Student-Level	✔			High	↔
			School-Level				Overall	
			Student Controls	✔	Composite		Elem	
			School Controls	✔			Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009 (This report also analyzes data in CO, FL, OH, PA, TX, WI)	1997-1998 to 2006-2007	San Diego, CA	Lottery		Math	✓	Elem	
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	↔
			Proficiency		Read	✓	Elem	
							Middle	
							High	
			Student-Level	✓			Overall	↔
			School-Level		Composite		Elem	
			Student Controls	✓			Middle	
			School Controls	✓			High	
							Overall	
					Other		Grad Rate	
Woodworth, David, Guha, Wang, & Lopez-Torkos, 2008	2003-2004 to 2006-2007	Bay Area, CA	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	+
			Multivariate	✓			High	
			Pre-Post	✓			Overall	
			Proficiency		Read	✓	Elem	
							Middle	+
							High	
			Student-Level	✓			Overall	
			School-Level		Composite		Elem	
			Student Controls	✓			Middle	
			School Controls				High	
							Overall	
					Other		Grad Rate	
CREDO, 2009e (This report also analyzes data in AR, AZ, CA, DC, FL, GA, IL, LA, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2003-2004 to 2007-2008	CO	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	+
			Proficiency		Read	✓	Elem	
							Middle	
							High	
			Student-Level	✓			Overall	+
			School-Level		Composite		Elem	
			Student Controls	✓			Middle	
			School Controls	✓			High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Carpenter & Kafer, 2009	2006-2007 to 2007-2008	CO	Lottery		Math	✔	Elem	-
			Fixed-Effects				Middle	+/-
			Multivariate	✔			High	+/-
			Pre-Post				Overall	
			Proficiency	✔	Read	✔	Elem	-
							Middle	+/-
							High	-
			Student-Level	✔			Overall	
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls				High	
							Overall	
					Other		Grad Rate	
Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009 (This report also analyzes data in CA, FL, OH, PA, TX, WI)	2001-2002 to 2005-2006	Denver, CO	Lottery		Math	✔	Elem	
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	+
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	↔
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	
CREDO, 2009f (This report also analyzes data in AR, AZ, CA, CO, FL, GA, IL, LA, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2005-2006 to 2007-2008	DC	Lottery		Math	✔	Elem	
			Fixed-Effects				Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	↔
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	↔
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Miron, Cullen, Applegate, Farrell, 2007	2002-2003 to 2005-2006	DE	Lottery		Math	✓	Elem	-
			Fixed-Effects				Middle	+
			Multivariate				High	+
			Pre-Post	✓			Overall	
			Proficiency		Read	✓	Elem	-
							Middle	+
			Student-Level	✓			High	+
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other		Grad Rate	
OPPAGA, 2005a Reports using data with same findings: OPPAGA, 2005b	1998-1999 to 2003-2004	FL	Lottery		Math	✓	Elem	-
			Fixed-Effects				Middle	↔
			Multivariate	✓			High	+
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	↔
							Middle	↔
			Student-Level	✓			High	+
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other		Grad Rate	
Florida Department of Education, 2006	2001-2002 to 2004-2005	FL	Lottery		Math	✓	Elem	-
			Fixed-Effects				Middle	↔
			Multivariate	✓			High	↔
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	-
							Middle	↔
			Student-Level	✓			High	↔
			School-Level				Overall	
			Student Controls	✓	Composite		0.25 pt	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Sass, 2006	1999-2000 to 2002-2003	FL	Lottery		Math	✔	Elem	-
			Fixed-Effects	✔			Middle	-
			Multivariate	✔			High	-
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	-
							Middle	-
			Student-Level	✔			High	-
			School-Level				Overall	
			Student Controls	✔	Composite		Elem	
			School Controls	✔			Middle	
							High	
							Overall	
					Other		Grad Rate	
Booker, Sass, Gill, & Zimmer, 2008 (This report also analyzes data for Chicago, IL) Reports using data with same findings: Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009	1997-1998 to 2004-2005	FL	Lottery		Math		Elem	
			Fixed-Effects				Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	
			Proficiency		Read		Elem	
							Middle	
			Student-Level	✔			High	
			School-Level				Overall	
			Student Controls	✔	Composite		Elem	
			School Controls	✔			Middle	
							High	
							Overall	
					Other	✔	Grad Rate	+
CREDO, 2009g (This report also analyzes data in AR, AZ, CA, CO, DC, GA, IL, LA, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2000-2001 to 2007-2008	FL	Lottery		Math	✔	Elem	
			Fixed-Effects				Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	-
			Proficiency		Read	✔	Elem	
							Middle	
			Student-Level	✔			High	
			School-Level				Overall	-
			Student Controls	✔	Composite		Elem	
			School Controls	✔			Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
CREDO, 2009h (This report also analyzes data in AR, AZ, CA, CO, DC, FL, IL, LA, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2003-2004 to 2007-2008	GA	Lottery		Math	✔	Elem	
			Fixed-Effects				Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	↔
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	-
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	
Ballou, Teasley, & Zeidner, 2008 Reports using data with same findings: Ballou, Teasley, & Zeidner, 2006	2002-2003 to 2004-2005	ID	Lottery		Math	✔	Elem	+
			Fixed-Effects	✔			Middle	-
			Multivariate	✔			High	-
			Pre-Post				Overall	
			Proficiency		Read		Elem	
							Middle	
							High	
			Student-Level	✔			Overall	
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	
Hoxby & Rockoff, 2004 Reports using data with same findings: Rockoff, 2004; Hoxby & Rockoff, 2005	2000-2001 to 2002-2003	Chicago, IL	Lottery	✔	Math	✔	Elem	+
			Fixed-Effects	✔			Middle	↔
			Multivariate	✔			High	
			Pre-Post				Overall	
			Proficiency		Read	✔	Elem	+
							Middle	↔
							High	
			Student-Level	✔			Overall	
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls				High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Booker, Gill, Zimmer, & Sass, 2007 Reports using data with same findings: Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009	1997-1998 to 2006-2007	Chicago, IL	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	 ✔ ✔ ✔ ✔	Math	✔	Elem Middle High Overall	↔ ↔ ↔
					Read	✔	Elem Middle High Overall	- - +
					Composite		Elem Middle High Overall	
					Other	✔	Grad Rate	+
Booker, Sass, Gill, & Zimmer, 2008 (This report also analyzes data for FL) Reports using data with same findings: Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009	1997-1998 to 2005-2006	Chicago, IL	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	 ✔ ✔ ✔ ✔	Math		Elem Middle High Overall	
					Read		Elem Middle High Overall	
					Composite		Elem Middle High Overall	
					Other	✔	Grad Rate	+
CREDO, 2009i (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, LA, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2004-2005 to 2007-2008	IL	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	 ✔ ✔ ✔ ✔	Math	✔	Elem Middle High Overall	 +
					Read	✔	Elem Middle High Overall	 ↔
					Composite		Elem Middle High Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Ball State University, 2004	2003-2004 (fall to spring)	IN	Lottery		Math	✓	Elem	+/-
			Fixed-Effects				Middle	+
			Multivariate				High	-
			Pre-Post	✓			Overall	
			Proficiency		Read	✓	Elem	-
							Middle	-
							High	+
			Student-Level	✓			Overall	
			School-Level		Composite		Elem	
			Student Controls				Middle	
			School Controls				High	
							Overall	
					Other		Grad Rate	
Ball State University, 2005	2003-2004 to 2004-2005	IN	Lottery		Math	✓	Elem	-
			Fixed-Effects				Middle	-
			Multivariate				High	-
			Pre-Post	✓			Overall	
			Proficiency		Read	✓	Elem	+/-
							Middle	-
							High	+
			Student-Level	✓			Overall	
			School-Level		Composite		Elem	
			Student Controls				Middle	
			School Controls				High	
							Overall	
					Other		Grad Rate	
Finch, Baker-Boudissa, & Cross, 2007	2003-2004 to 2005-2006	IN	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate				High	
			Pre-Post	✓			Overall	+
			Proficiency		Read		Elem	
							Middle	
							High	
			Student-Level	✓			Overall	
			School-Level		Composite	✓	Elem	
			Student Controls				Middle	
			School Controls				High	
							Overall	+
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Akey, Plucker, Hansen, Michael, Branon, Fagen, & Zhou, 2008	2005-2006 to 2006-2007	IN	Lottery		Math	✓	Elem	↔
			Fixed-Effects				Middle	↔
			Multivariate				High	↔
			Pre-Post	✓			Overall	
			Proficiency	✓	Read	✓	Elem	↔
							Middle	↔
			Student-Level	✓			High	↔
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other	✓	Grad Rate	-
Ratterman & Reid, 2009	2006-2007 to 2007-2008	IN	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate				High	
			Pre-Post	✓			Overall	+
			Proficiency		Read	✓	Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	+
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
Nicotera, Mendiburo, & Berends, 2009 Reports using data with same findings: Berends, Mendiburo, & Nicotera, 2008	2002-2003 to 2005-2006	Indy, IN	Lottery		Math	✓	Elem	
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	+
			Proficiency		Read	✓	Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	↔
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
City of Indianapolis, 2004	2003-2004 (fall to spring)	Indy, IN	Lottery		Math		Elem	
			Fixed-Effects				Middle	
			Multivariate				High	
			Pre-Post	✓			Overall	
			Proficiency		Read		Elem	
							Middle	
			Student-Level				High	
			School-Level	✓			Overall	
			Student Controls		Composite	✓	Elem	
			School Controls				Middle	
							High	
							Overall	+
					Other		Grad Rate	
City of Indianapolis, 2005	2004-2005 (fall to spring)	Indy, IN	Lottery		Math		Elem	
			Fixed-Effects				Middle	
			Multivariate				High	
			Pre-Post	✓			Overall	
			Proficiency		Read		Elem	
							Middle	
			Student-Level				High	
			School-Level	✓			Overall	
			Student Controls		Composite	✓	Elem	+/-
			School Controls				Middle	+/-
							High	+/-
							Overall	+
					Other		Grad Rate	
City of Indianapolis, 2006	2005-2006 (fall to spring)	Indy, IN	Lottery		Math		Elem	
			Fixed-Effects				Middle	
			Multivariate				High	
			Pre-Post	✓			Overall	
			Proficiency		Read		Elem	
							Middle	
			Student-Level				High	
			School-Level	✓			Overall	
			Student Controls		Composite	✓	Elem	+
			School Controls				Middle	+/-
							High	↔
							Overall	+
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
City of Indianapolis, 2007	2006-2007 (fall to spring)	Indy, IN	Lottery		Math		Elem	
			Fixed-Effects				Middle	
			Multivariate				High	
			Pre-Post	✔			Overall	
			Proficiency		Read		Elem	
							Middle	
			Student-Level				High	
			School-Level	✔			Overall	
			Student Controls		Composite	✔	Elem	↔
			School Controls				Middle	↔
							High	+/-
							Overall	+
					Other		Grad Rate	
City of Indianapolis, 2008	2007-2008 (fall to spring)	Indy, IN	Lottery		Math	✔	Elem	+
			Fixed-Effects				Middle	+
			Multivariate				High	+
			Pre-Post	✔			Overall	+
			Proficiency		Read	✔	Elem	+
							Middle	+
			Student-Level				High	+
			School-Level	✔			Overall	+
			Student Controls		Composite	✔	Elem	
			School Controls				Middle	
							High	
							Overall	+
					Other		Grad Rate	
City of Indianapolis, 2009	2008-2009 (fall to spring)	Indy, IN	Lottery		Math	✔	Elem	+/-
			Fixed-Effects				Middle	+/-
			Multivariate				High	↔
			Pre-Post	✔			Overall	↔
			Proficiency		Read	✔	Elem	+/-
							Middle	↔
			Student-Level				High	+
			School-Level	✔			Overall	+
			Student Controls		Composite	✔	Elem	
			School Controls				Middle	
							High	
							Overall	↔
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
CREDO, 2009j (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, MA, MN, MO, NC, NM, NYC, OH, TX, and National)	2000-2001 to 2007-2008	LA	Lottery		Math	✔	Elem	
			Fixed-Effects				Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	+
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	+
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	
CREDO, 2009k (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MN, MO, NC, NM, NYC, OH, TX, and National)	2004-2005 to 2006-2007	MA	Lottery		Math	✔	Elem	
			Fixed-Effects				Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	+
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	↔
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Abdulkadiroglu, Angrist, Cohodes, Dynarski, Fullerton, Kane, & Pathak, 2009 Reports using data with same findings: Abdulkadiroglu, Angrist, Dynarski, Kane, & Pathak, 2009	2001-2002 to 2006-2007	Boston, MA	Lottery	✓	Math	✓	Elem	
			Fixed-Effects				Middle	+
			Multivariate	✓			High	+
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	
							Middle	+
			Student-Level	✓			High	+
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
			Lottery		Math	✓	Elem	↔
			Fixed-Effects				Middle	+
			Multivariate	✓			High	+
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	+
							Middle	+
			Student-Level	✓			High	+
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
Angrist, Dynarski, Kane, Pathak, & Walters, 2010	2005-2006 to 2008-2009	Boston, MA (1 KIPP School)	Lottery	✓	Math	✓	Elem	
			Fixed-Effects				Middle	+
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	
							Middle	+
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
CREDO, 2009l (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MA, MO, NC, NM, NYC, OH, TX, and National)	2004-2005 to 2007-2008	MN	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	-
			Proficiency		Read	✓	Elem	
							Middle	
							High	
			Student-Level	✓			Overall	-
			School-Level		Composite		Elem	
			Student Controls	✓			Middle	
			School Controls	✓			High	
							Overall	
					Other		Grad Rate	
CREDO, 2009m (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MA, MN, NC, NM, NYC, OH, TX, and National)	2005-2006 to 2007-2008	MO	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	+
			Proficiency		Read	✓	Elem	
							Middle	
							High	
			Student-Level	✓			Overall	+
			School-Level		Composite		Elem	
			Student Controls	✓			Middle	
			School Controls	✓			High	
							Overall	
					Other		Grad Rate	
CREDO, 2009o (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MA, MN, MO, NC, NYC, OH, TX, and National)	2004-2005 to 2007-2008	NM	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	-
			Proficiency		Read	✓	Elem	
							Middle	
							High	
			Student-Level	✓			Overall	-
			School-Level		Composite		Elem	
			Student Controls	✓			Middle	
			School Controls	✓			High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Hoxby, Murarka, & Kang, 2009 Reports using data with same findings: Hoxby & Murarka, 2007a; Hoxby & Murarka, 2007b; Hoxby & Murarka, 2008	2000-2001 to 2007-2008	NYC, NY	Lottery	✓	Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	+
			Pre-Post				Overall	+
			Proficiency		Read	✓	Elem	
							Middle	
			Student-Level	✓			High	+
			School-Level				Overall	+
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other	✓	Grad Rate	+
CREDO, 2010 (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MA, MN, MO, NC, NM, OH, TX, and National)	2003-2004 to 2008-2009	NYC, NY	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	+
			Proficiency		Read	✓	Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	+
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other		Grad Rate	
Dobbie & Fryer, 2009	2003-2004 to 2007-2008	NYC, NY (HCZ)	Lottery	✓	Math		Elem	+
			Fixed-Effects				Middle	+
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read		Elem	+
							Middle	+
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Noblit & Dickson, 2001	1997-1998 to 2000-2001	NC	Lottery		Math	✓	Elem	↔
			Fixed-Effects				Middle	↔
			Multivariate				High	
			Pre-Post	✓			Overall	
			Proficiency		Read	✓	Elem	↔
							Middle	↔
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
Bifulco & Ladd, 2006 Reports using data with same findings: Bifulco & Ladd, 2004; Bifulco & Ladd, 2005; Bifulco & Ladd, 2007	1995-1996 to 2001-2002	NC	Lottery		Math	✓	Elem	-
			Fixed-Effects	✓			Middle	-
			Multivariate	✓			High	-
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	-
							Middle	-
			Student-Level	✓			High	-
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other		Grad Rate	
CREDO, 2009n (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MA, MN, MO, NM, NYC, OH, TX, and National)	2002-2003 to 2006-07	NC	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	-
			Proficiency		Read	✓	Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	+
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009 (This report also analyzes data in CA, CO, FL, PA, TX, WI)	2004-2005 to 2007-2008	OH	Lottery		Math	✔	Elem	
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	-
			Proficiency		Read	✔	Elem	
							Middle	
			Student-Level	✔			High	
			School-Level				Overall	-
			Student Controls	✔	Composite		Elem	
			School Controls	✔			Middle	
							High	
							Overall	
					Other		Grad Rate	
CREDO, 2009p (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MA, MN, MO, NC, NM, NYC, TX, and National)	2004-2005 to 2007-2008	OH	Lottery		Math	✔	Elem	
			Fixed-Effects				Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	-
			Proficiency		Read	✔	Elem	
							Middle	
			Student-Level	✔			High	
			School-Level				Overall	↔
			Student Controls	✔	Composite		Elem	
			School Controls	✔			Middle	
							High	
							Overall	
					Other		Grad Rate	
Zimmer, Blanc, Gill, & Christman, 2008 Reports using data with same findings: Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009	2000-2001 to 2006-2007	Philly, PA	Lottery		Math	✔	Elem	-
			Fixed-Effects	✔			Middle	-
			Multivariate	✔			High	+
			Pre-Post				Overall	↔
			Proficiency		Read	✔	Elem	-
							Middle	-
			Student-Level	✔			High	+
			School-Level				Overall	↔
			Student Controls	✔	Composite		Elem	
			School Controls	✔			Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Gronberg & Jansen, 2001	1997-1998 to 1999-2000	TX	Lottery		Math		Elem	
			Fixed-Effects				Middle	
			Multivariate				High	
			Pre-Post	✓			Overall	
			Proficiency		Read	✓	Elem	
				✓			Middle	
			Student-Level	✓			High	
			School-Level				Overall	-
			Student Controls		Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	
			Lottery		Math		Elem	
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read		Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite	✓	Elem	
			School Controls	✓			Middle	
							High	
							Overall	-
					Other		Grad Rate	
Booker, Gilpatric, Gronberg, & Jansen, 2007 Reports using data with same findings: Booker, Gilpatric, Gronberg, & Jansen, 2004	1995-1996 to 2001-2002	TX	Lottery		Math	✓	Elem	
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	-
			Proficiency		Read	✓	Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	-
			Student Controls	✓	Composite		Elem	
			School Controls	✓			Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Hanushek, Kain, Rivkin, & Branch, 2007 Reports using data with same findings: Hanushek, Kain, & Rivkin, 2002	1995-1996 to 2001-2002	TX	Lottery		Math		Elem	
			Fixed-Effects	✓			Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read		Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite	✓	Elem	
			School Controls	✓			Middle	
							High	
							Overall	-
					Other		Grad Rate	
Maloney, 2005b Reports using data with same findings: Maloney, 2005a	1998-1999 to 2001-2002	TX	Lottery		Math		Elem	
			Fixed-Effects				Middle	
			Multivariate	✓			High	
			Pre-Post				Overall	
			Proficiency		Read		Elem	
							Middle	
			Student-Level	✓			High	
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other	✓	Grad Rate	-
Gronberg & Jansen, 2005	2002-2003 to 2003-2004	TX	Lottery		Math	✓	Elem	
			Fixed-Effects				Middle	↔
			Multivariate	✓			High	-
			Pre-Post				Overall	
			Proficiency		Read	✓	Elem	
							Middle	↔
			Student-Level	✓			High	-
			School-Level				Overall	
			Student Controls	✓	Composite		Elem	
			School Controls				Middle	
							High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009 (This report also analyzes data in CA, CO, FL, OH, PA, WI)	9495 to 2003-2004	TX	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	 ✓ ✓ ✓ ✓ ✓	Math	✓	Elem Middle High Overall	 -
					Read	✓	Elem Middle High Overall	 -
					Composite		Elem Middle High Overall	
					Other		Grad Rate	
CREDO, 2009q (This report also analyzes data in AR, AZ, CA, CO, DC, FL, GA, IL, LA, MA, MN, MO, NC, NM, NYC, OH, and National)	2002-2003 to 2006-07	TX	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	 ✓ ✓ ✓ ✓	Math	✓	Elem Middle High Overall	 -
					Read	✓	Elem Middle High Overall	 -
					Composite		Elem Middle High Overall	
					Other		Grad Rate	
Witte, Weimer, Shober, & Schlomer, 2007	1998-1999 to 2001-2002	WI	Lottery Fixed-Effects Multivariate Pre-Post Proficiency Student-Level School-Level Student Controls School Controls	 ✓ ✓ ✓ ✓ 	Math	✓	Elem Middle High Overall	 +
					Read	✓	Elem Middle High Overall	 +/-
					Composite	✓	Elem Middle High Overall	 +
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	School Years	State	Research Design		Key Findings: Subject Area		Key Findings: Grade Level	
Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009 (This report also analyzes data in CA, CO, FL, OH, PA, TX) Reports using data with same findings: Lavertu & Witte, 2009	2000-2001 to 2006-2007	WI	Lottery		Math	✔	Elem	
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	+
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	↔
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	
Imberman, 2007b Reports using data with same findings: Imberman, 2007a	1998-1999 to 2004-2005	Anon. District	Lottery		Math	✔	Elem	
			Fixed-Effects	✔			Middle	
			Multivariate	✔			High	
			Pre-Post				Overall	+
			Proficiency		Read	✔	Elem	
							Middle	
							High	
			Student-Level	✔			Overall	-
			School-Level		Composite		Elem	
			Student Controls	✔			Middle	
			School Controls	✔			High	
							Overall	
					Other		Grad Rate	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

> These studies are not as powerful as the panel studies for comparing public charter schools with traditional public schools because any change could be due to differences in student composition rather than how much learning the school produces.

Appendix B: Cohort Change Studies

The following set of studies look at performance changes over time, but through some method other than following individual students. For example, these studies may look at changes in average school-wide test scores from year to year. If the study uses student-level data, it does not have data that is linked, so cannot follow the same student from year to year. While these studies contain more information about the effects of public charter schools compared with traditional public schools than do studies that look at one point in time, they are not as powerful as the panel studies. Change over time in school-level averages could well be due to changes in student composition rather than how much learning the schools produce.

The following tables in Appendix B describe the research design and key findings for each of the eligible studies that look at change over time.

Research Design	
Year	The span of academic years included in the study's analyses.
State	The state or city examined by the study. If a state abbreviation is indicated, the study included a majority of the state's charter schools. If a city is indicated, the study included charter schools in that city.
Control Variables	Study includes control variables for student or school characteristics.
Key Findings	
Larger Gains (+)	Students who attend public charter schools have larger achievement gains than comparable students who attend traditional public schools.
Comparable Gains (↔)	Students who attend public charter schools experience similar achievement gains as comparable students who attend traditional public schools.
Mixed Gains (+/-)	Students who attend public charter schools have larger achievement gains than comparable students who attend traditional public schools in selected grades and/or subject areas and smaller achievement gains in other grades and/or subject areas.
Smaller Gains (-)	Students who attend public charter schools have smaller achievement gains than comparable students who attend traditional public schools.
Subject Area	Math: Study examines performance data from a math assessment. Reading: Study examines performance data from a reading or Language Arts assessment. Composite: Study examines performance data from combined math and reading assessments. Other (Graduation Rate): Study examines graduation rate data.
Grade Level	Elementary: Study examines performance data from elementary school grades. Middle: Study examines performance data from middle school grades. High School: Study examines performance data from high school grades. Overall: Study examines performance data using combined grade levels.

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Loveless, 2002*	1998-99 2000-01	National												-	
Loveless, 2003*	1999-00 2001-02	National												+	
Greene, Forster, & Winters, 2003*	2000-01 2001-02	National				+				+					
Mulholland, 1999	1996-97 1997-98	AZ	+/-	+/-	+/-		+/-	+/-	+/-						
Loveless, 2002*	1998-99 2000-01	AZ												↔	
Greene, Forster, & Winters, 2003*	2000-01 2001-02	AZ				↔				↔					
Loveless, 2002*	1998-99 2000-01	CA												↔	
Zimmer, Buddin, Chau, Daley, Gill, Guarino, Hamilton, Krop, McCaffrey, Sandler, & Brewer, 2003*	1997-98 2001-02	CA	-	-	-		↔	-	-						
Raymond, 2003*	1999-00 2001-02	CA									↔	↔	+		
Rogosa, 2002*	1999-00 2001-02	CA												-	
Slovacek, Kunnan, & Kim, 2002*	1999-00 2001-02	CA												+	
Rogosa, 2003*	1999-00 2002-03	CA												-	
Greene, Forster, & Winters, 2003*	2000-01 2001-02	CA				↔				↔					
CACS, 2008	2006-07 2007-08	CA										+			
Woodworth, David, Guha, Wang, & Lopez-Torkos, 2008	2002-03 2006-07	Bay Area, CA		+/-				+/-							

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
CACS, 2007	2005-06 2006-07	Fresno, CA												+	
CACS, 2008	2006-07 2007-08	Fresno, CA												+	
Toney & Murdock, 2008* Reports using data with same findings: CACS, 2007	2005-06 2006-07	Los Angeles, CA									+	+	+		
CACS, 2008	2006-07 2007-08	Los Angeles, CA												-	
CACS, 2007	2005-06 2006-07	Oakland, CA												+	
Toney, 2009*	2005-06 2007-08	Oakland, CA									+	+	+	+	
CACS, 2008	2006-07 2007-08	Oakland, CA												+	
CACS, 2008	2006-07 2007-08	San Bernardino, CA												-	
CACS, 2007	2005-06 2006-07	San Diego, CA												-	
CACS, 2008	2006-07 2007-08	San Diego, CA												-	
Ziebarth, 2005	1996-97 2003-04	CO									+	+	+		
Loveless, 2002*	1998-99 2000-01	CO												+	
Miron & Horn, 2002	1997-98 1999-00	CT	↔	+			+	+			↔	↔			
Miron & Horn, 2002	1997-98 2001-02	CT	+/-	+	↔		+/-	+/-	↔						
Miron & Horn, 2002	1998-99 2000-01	CT	↔	↔			+	+			+	↔			
Miron & Horn, 2002	1999-00 2001-02	CT	↔	-			+	↔			+	↔			

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Miron, 2005	2000-01 2003-04	CT	+	+	+		+	+	-						
ConnCAN, 2006	2004-05 2005-06	CT									+	+			
ConnCAN, 2007	2005-06 2006-07	CT									+	+			
ConnCAN, 2008	2006-07 2007-08	CT									-	-			
Henig, Holyoke, Lacireno-Paquet, & Moser, 2001*	1998-99 1999-00	DC				-				-					
D.C. Kids Count, 2007	2005-06 2006-07	DC				↔				↔					
D.C. Kids Count, 2008 Reports using data with same findings: D.C. Kids Count, 2009	2006-07 2007-08	DC				+				+					
Miron, 2004*	1999-00 2003-04	DE	↔	↔	+		-	↔	↔						
Miron, Wygant, Cullen, & Applegate, 2006*	1999-00 2004-05	DE	+	-	+		-	+	+						
Miron, Wygant, Cullen, & Applegate, 2006*	1999-00 2004-05	DE	-	↔	+		↔	+	+						
Loveless, 2002*	1998-99 2000-01	FL												↔	
Greene, Forster, & Winters, 2003*	2000-01 2001-02	FL				+				+					
FL Department of Education, 2004	2000-01 2002-03	FL				+				+					
FL Department of Education, 2006	2001-02 2005-06	FL	↔	↔	↔		↔	↔	↔						

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
FL Department of Education, 2009	2001-02 2007-08	FL	↔				+	+	+						
GA Department of Education, 2008	2005-06 2007-08	GA			+	+			+	+					
Miller, 2003	2000-01 2001-02	ID	-				-							+/-	
Wang, 2009	2002-03 2007-08	ID	+	+	+		+	+	+						
Miron, Coryn, & Mackety, 2007*	2001-02 2005-06	IL	+	+	+		+	+	+						
Wong & Shen, 2008*	1997-98 2004-05	Chicago, IL				↔				+					
Chicago Public Schools, 2008	2002-03 2007-08	Chicago, IL									+		↔		
Chicago Public Schools, 2009	2003-04 2008-09	Chicago, IL												+	
Chicago Catalyst, 2007	2004-05 2005-06	Chicago, IL												+	+
Brown & Gutstein, 2009	2005-06 2007-08	Chicago, IL											-		
Ball State University, 2004	2001-02 2003-04	IN				+/-				+/-					
Miron, Coryn, & Mackety, 2007*	2002-03 2006-07	IN	+	+	-		+	+	+						
Akey, Plucker, Hansen, Michael, Branon, Fagen, & Zhou, 2008*	2005-06 2006-07	IN													-
City of Indianapolis, 2007	2005-06 2006-07	Indy, IN												+	
City of Indianapolis, 2008	2006-07 2007-08	Indy, IN	+												
Scott S. Cowen Institute, 2009	2006-07 2007-08	New Orleans, LA												+	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Loveless, 2002*	1998-99 2000-01	MA												-	
MA Department of Education, 2006*	2000-01 2004-05	MA				+				+					
Horn & Miron, 2000 Reports using data with same findings: Miron & Nelson, 2002	1995-96 1998-99	MI	-	-			-	-							
Khouri, Kleine, White, & Cummings, 1999	1996-97 1997-98	MI				-				↔					
Bettinger, 2005* Reports using data with same findings: Bettinger, 1999; Bettinger, 2000	1996-97 1998-99	MI	↔				↔								
Eberts & Hollenbeck, 2002* Reports using data with same findings: Eberts & Hollenbeck, 2001	1996-97 2000-01	MI	-				-								
Loveless, 2002*	1998-99 2000-01	MI												-	
Miron, Coryn, & Mackety, 2007*	2002-03 2006-07	MI	+	+	-		+	+	+						
MAPSA, 2005	2004-05 2005-06	MI	+	+			+	+							
Central Michigan University, 2008*	2005-06 2006-07	MI	+	+			+	+							
Central Michigan University, 2009*	2007-08 2008-09	MI	+	+			+	+							

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
MAPSA, 2005	2004-05 2005-06	Detroit, MI	+	-			-	+							
MAPSA, 2005	2004-05 2005-06	Flint, MI	-	-			+	+							
MAPSA, 2005	2004-05 2005-06	Grand Rapids, MI	+	+			+	+							
MAPSA, 2005	2004-05 2005-06	Lansing, MI	+	-			-	+							
Metis, 2004	1999-00 2001-02	Kansas City, MO	-	-			-	-							
Loveless, 2002*	1998-99 2000-01	MN												-	
Miron, Coryn, & Mackety, 2007*	2001-02 2005-06	MN	+	+	+		+	-	+						
Noblit & Dickson, 2001	1997-98 2000-01	NC				-				-					
Greene, Forster, & Winters, 2003*	2000-01 2001-02	NC				↔				↔					
KPMG, 2001	1998-99 1999-00	NJ				+				+					
Barr, 2007*	1998-99 2005-06	NJ				-				-					
Barr, Sadovnik, & Visconti, 2006*	2002-03 2003-04	NJ	↔				-								
Public Impact, 2009	2001-02 2008-09	OH				↔				↔				↔	
Carr & Staley, 2005*	2001-02 2003-04	OH	+				+								
Miron, Coryn, & Mackety, 2007*	2001-02 2005-06	OH	+	+	-		+	+	+						
Hassel, 2007*	2001-02 2006-07	OH				–				+/–					
OAPCS, 2008	2005-06 2006-07	OH												+	
OAPCS, 2009	2006-07 2007-08	OH												+	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
OH Department of Education, 2009	2007-08 2008-09	OH				↔				↔				↔	
Loveless, 2002*	1998-99 2000-01	PA												↔	
Miron, Nelson, & Risley, 2002*	1997-98 2001-02	PA												-	
School District of Philadelphia, 2008	2001-02 2006-07	Phila., PA													
Zoblotsky, Qian, Ross, & McDonald, 2008*	2005-06 2006-07	TN	+/-				+								
Zoblotsky, Ross, Qian, & McDonald, 2008*	2001-02 2006-07	TN		+/-	+/-			+/-	+/-						
Ross, McDonald, Alberg, & McSparrin-Gallagher, 2007*	2001-02 2002-03	Memphis, TN		+				+							
McDonald, Ross, Bol, & McSparrin-Gallagher, 2007*	2002-03 2003-04	Memphis, TN	+	+	+		+	+	+						
Ross, McDonald, Layton, Zoblotsky, & Bol, 2008* Reports using data with same findings: Ross, McDonald, McSparrin-Gallagher, & Slawson, 2006	2002-03 2004-05	Memphis, TN	+/-	+	+		+	+	+						
Ross, McDonald, & McSparrin-Gallagher, 2005*	2002-03 2003-04	Memphis, TN				+				+					

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
McDonald, Ross, Abney, & Zoblotsky, 2008*	2002-03 2005-06	Memphis, TN		+/-				+/-							
Ross, McDonald, & McSparrin-Gallagher, 2005*	2002-03 2003-04	Nashville, TN								↔					
Loveless, 2002*	1998-99 2000-01	TX												-	
Greene, Forster, & Winters, 2003*	2000-01 2001-02	TX				+				+					
TCER, 2000*	1996-97 1998-99	TX				-				-				-	
TCER, 2001*	1997-98 1999-00	TX				-				-					
TCER, 2002*	1998-99 2000-01	TX				-				-					
TCER, 2002	1998-99 2000-01	TX				-				-					
TCER, 2003*	1999-00 2001-02	TX				-				-					
TCER, 2003	1999-00 2001-02	TX				+/-				+/-					
TCER, 2006*	2002-03 2004-05	TX				+/-				+/-					-
TCER, 2007*	2002-03 2005-06	TX				-				-					-
TCER, 2008*	2002-03 2006-07	TX				-				-					-
Loveless, 2002*	1998-99 2000-01	WI	-	+	-		+	+	+						↔
Miron, Coryn, & Mackety, 2007*	2000-01 2004-05	WI													

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	State	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
University of Wisconsin-Milwaukee, 2009* Reports using data with same findings: University of Wisconsin-Milwaukee, 2008*	2003-04 2007-08	Milwaukee, WI	↔	+			↔	+							
* Study controls for student-level or school-level characteristics															

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Charter schooling represents an increasingly effective part of public education – and transparency in the data will allow for refinement to improve quality further over time.

Appendix C: Snapshot Studies

The following set of studies look at performance at a snapshot of one point in time. While some of these studies attempt to control for student or school characteristics, the snapshot studies are unable to gauge how much value public charter schools or traditional public schools are adding. The following tables in Appendix C describe the key findings for each of the eligible snapshot studies.

Research Design	
Year	The span of academic years included in the study's analyses.
State	The state or city examined by the study. If a state abbreviation is indicated, the study included a majority of the state's charter schools. If a city is indicated, the study included charter schools in that city.
Control Variables	Study includes control variables for student or school characteristics.
Key Findings	
Positive (+)	Students who attend public charter schools have higher test scores than comparable students who attend traditional public schools.
Comparable (↔)	Students who attend public charter schools have similar test scores as comparable students who attend traditional public schools.
Mixed (+/-)	Students who attend public charter schools have higher test scores than comparable students who attend traditional public schools in selected grades and/or subject areas and lower test scores in other grades and/or subject areas.
Negative (-)	Students who attend public charter schools have lower test scores than comparable students who attend traditional public schools.
Subject Area	Math: Study examines performance data from a math assessment. Reading: Study examines performance data from a reading or Language Arts assessment. Composite: Study examines performance data from combined math and reading assessments. Other (Graduation Rate): Study examines graduation rate data.
Grade Level	Elementary: Study examines performance data from elementary school grades. Middle: Study examines performance data from middle school grades. High School: Study examines performance data from high school grades. Overall: Study examines performance data using combined grade levels.

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Hoxby, 2004b	2002-03	National	+				+								
Roy, 2005*	2002-03	National	↔				↔								
KIPP, 2007	2006-07	National		+				+							
KIPP, 2008	2007-08	National		+	+			+	+						
Braun, Jenkins, Grigg, & Tirre, 2006*	2002-03	NAEP	-				-								
Lubienski & Lubienski, 2006*	2002-03	NAEP	-	↔											
Nelson, Rosenberg, & Van Meter, 2004*	2002-03	NAEP	-	↔			-	↔							
U.S. Department of Education, 2004*	2002-03	NAEP	-				↔								
Nelson & Van Meter, 2005*	2004-05	NAEP	-	-			↔	-							
Huron Mountain Research Services, 2006	2004-05	AR	-	+/-			-	+/-							
Hoxby, 2004b	2002-03	AK	+				+								
Hoxby, 2004b	2002-03	AZ	+				+								
Roy, 2005*	2002-03	AZ	↔				↔								
Hassel & Godard Terrell, 2004	2003-04	AZ												+	
Raymond, 2003*	1999-00	CA				-				-				-	
Zimmer & Buddin, 2007*	2001-02	CA	↔	-	-		+	-	-						
Hoxby, 2004b	2002-03	CA	+				+								
Roy, 2005*	2002-03	CA	↔				+								

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Watkins & Armor, 2004*	2002-03	CA		-				+/-							
EdSource, 2005	2003-04	CA	+	+			+	+	+		+	+	+		
Rhim, Faukner, & McLaughlin, 2006*	2003-04	CA				+				↔					
EdSource, 2006	2004-05	CA									+	+	↔		
EdSource, 2007	2005-06	CA	-	+	-		+	+	+		+	+	+		
EdSource, 2008	2006-07	CA	-	+	-		+	+	+						
David, Woodworth, Grant, Guha, Lopez-Torkos, & Young, 2006	2004-05	Bay Area, CA		↔				↔							
Woodworth, David, Guha, Wang, & Lopez-Torkos, 2008	2006-07	Bay Area, CA		+/-				+/-							
McClure & Morales, 2004	2002-03	San Diego, CA			↔				↔						
McClure, Strick, Jacob-Almeida, & Reicher, 2005	2004-05	San Diego, CA			+/-				+/-						
McClure & Reicher, 2007	2005-06	San Diego, CA			↔				↔						
Toney, 2009	2007-08	Oakland, CA									+	+	+	+	
CO Department of Education, 1997	1996-97	CO												+/-	
CO Department of Education, 1998	1997-98	CO												+/-	
CO Department of Education, 2002	2000-01	CO					+		-					+	

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
CO Department of Education, 2003	2001-02	CO		+	-		+	+	-						
Finnigan, Adelman, Anderson, Cotton, Donnelly, & Price, 2004*	2001-02	CO												↔	
Hoxby, 2004b	2002-03	CO	+				+								
Roy, 2005*	2002-03	CO	↔				↔								
CO Department of Education, 2006	2004-05	CO	↔	↔	-		+	↔	-						
Brodsky, Medler, & Schoals, 2006*	2004-05	CO												+	
Carpenter & Kafer, 2009	2007-08	CO	+	+	-		+	+	-						
Esposito & Cobb, 2008*	2005-06	CT	↔		↔										
Henig, Holyoke, Lacireno-Paquet, & Moser, 2001*	2002-03	DC				-									
Hoxby, 2004b	2002-03	DC	+				+								
D.C. Kids Count, 2006	2005-06	DC				+/-				+/-					
Crew & Anderson, 2003	1999-00	FL	-	-	-		-	-	-						
FL Department of Education, 2004	2002-03	FL	↔	↔	↔		↔	↔	↔					+	
Hoxby, 2004b	2002-03	FL	↔				+								
Roy, 2005*	2002-03	FL	↔				-								

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Hassel, Godard Terrell, & Kowal, 2006	2004-05	FL												+/-	
Shay, 2006	2004-05	FL	↔	↔	↔		↔	↔	+/-						
GA Department of Education, 2002	2001-02	GA	+	+	+		+	+	+						
GA Department of Education, 2004	2002-03	GA	↔	+	+		+	+	+						
Hoxby, 2004b	2002-03	GA	↔				+								
GA Department of Education, 2006b	2003-04	GA			-	↔			-	-					+
GA Department of Education, 2006a	2004-05	GA			+	↔			+	+					
Plucker, Eckes, Rapp, Ravert, Hansen, & Trotter, 2005*	2004-05	GA	-	+			-	+							
GA Department of Education, 2006b	2005-06	GA			+	+			+	+					+
GA Department of Education, 2007	2006-07	GA			+	+			+	+					+
Kana'iaupuni & Ishibashi, 2005	2002-03	HI	+	↔	+		↔	↔	+						
Hoxby, 2004b	2002-03	HI	+				+								
Roy, 2005*	2002-03	HI	↔				+								
Kamehameha Schools, 2005	2002-03	HI	↔	-	+		↔	-	+						
Geiger & Roccograndi, 2002	2001-02	ID	+	+			+								

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Gallant, 2004	2002-03	ID												+/-	
Roy, 2005*	2002-03	ID	↔				↔								
Nelson & Miron, 2002	2000-01	IL												↔	
Finnigan, Adelman, Anderson, Cotton, Donnelly, & Price, 2004*	2001-02	IL												+/-	
Hoxby, 2004b	2002-03	IL	+				+								
Miron, Coryn, & Mackety, 2007*	2005-06	IL													
Nelson & Miron, 2002	2000-01	Chicago, IL												+	
Chicago Public Schools, 2006*	2004-05	Chicago, IL												+	
Chicago Public Schools, 2007*	2005-06	Chicago, IL												+	
Chicago Public Schools, 2009	2008-09	Chicago, IL											+		+
Ball State University, 2005	2004-05	IN	-	-	-		-	-	-						
Ball State University, 2006	2002-03	IN	-	-	-		-	-	-						
Ball State University, 2006	2003-04	IN	-	-	-		-	-	-						
Ball State University, 2006	2004-05	IN	-	-	-		-	-	-						
Ball State University, 2006	2005-06	IN	-	-	-		-	-	-						

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Miron, Coryn, & Mackety, 2007*	2006-07	IN	-	-	-		-	-	-						
City of Indianapolis, 2003	2002-03	Indy, IN	-	-			-	-							
City of Indianapolis, 2007	2006-07	Indy, IN												-	
City of Indianapolis, 2008	2007-08	Indy, IN												-	
KS Deparment of Education, 2006	2004-05	KS			-	+			-	-					
Hoxby, 2004b	2002-03	LA	+				+								
Scott S. Cowen Institute, 2009	2006-07	New Orleans, LA	+	+			+	+							
Hatfield, 2009	2008-09	New Orleans, LA	+	+			+	+							
Finnigan, Adelman, Anderson, Cotton, Donnelly, & Price, 2004*	2001-02	MA												↔	
Hoxby, 2004b	2002-03	MA	+				+								
Roy, 2005*	2002-03	MA	↔				↔								
Hoxby, 2004b	2002-03	MI	↔				↔								
Roy, 2005*	2002-03	MI	↔				↔								
Mead, 2006*	2005-06	MI				+				+					
MI Department of Education, 2006*	2005-06	MI				+				+					

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
MI Department of Education, 2007*	2006-07	MI				+				+					
Miron, Coryn, & Mackety, 2007*	2006-07	MI	-	-	-		-	-	-						
MAPSA, 2007	2006-07	MI	+	+			+	+							
MI Department of Education, 2008*	2007-08	MI			-	+			-	+					
MAPSA, 2007	2006-07	Detroit, MI	+	+			+	+							
MAPSA, 2007	2006-07	Flint, MI	+	+/-			+/-	+/-							
MAPSA, 2007	2006-07	Grand Rapids, MI	+	+			+	+							
MAPSA, 2007	2006-07	Lansing, MI	+/-	-			+	+/-							
Gronberg & Jansen, 2009	2007-08	Kansas City, MO	+	+	-		+/-	+	-						
Gronberg & Jansen, 2009	2007-08	St. Louis, MO	-	-	-		-	-	-						
Roy, 2005*	2002-03	MN	-				-								
Miron, Coryn, & Mackety, 2007*	2005-06	MN	-	-	-		-	-	-						
Randall, 2008*	2006-07	MN				-				-					
Institute on Race & Poverty, 2008*	2007-08	Mpls / St. Paul, MN	-				-								
Finnigan, Adelman, Anderson, Cotton, Donnelly, & Price, 2004*	2001-02	NC												-	
Hoxby, 2004b	2002-03	NC	-				-								

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Roy, 2005*	2002-03	NC	↔				↔								
Watkins & Armor, 2004*	2002-03	NC		-				-							
Hoxby, 2004b	2002-03	NJ	↔				+								
Roy, 2005*	2002-03	NJ	↔				↔								
Baker, 2009	2007-08	NJ												+/-	
NYC Center for Charter School Excellence, 2007	2005-06	NYC, NY	+	+			+/-	+							
Meyer, 2009	2008-09	Albany, NY (Brighter Choice)									+	+			
Supovitz & Rikoon, 2010*	2008-09	NYC, NY (Harlem Success Academy)	+				+								
Andreson, 2004	2002-03	NM	+	↔	+		-	+	+						
Roy, 2005*	2002-03	NM	↔				↔								
Andreson, Casey, & Yelverton, 2005	2003-04	NM	-	+	+		+	+	+						
Roy, 2005*	2002-03	NY	↔				↔								
Stevens, 2006	2004-05	NY	+	+				+							
LEOE, 2003	2001-02	OH	-	+/-			-	-							
Jenkins, 2005	2002-03	OH	-	-			-	-							
Roy, 2005*	2002-03	OH	↔				↔								

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Miron, Coryn, & Mackety, 2007*	2005-06	OH	-	-	-		-	-	-						
Thomas B. Fordham Foundation, 2006	2005-06	OH	+	+		+	+	+		+					
Hassel, 2007	2006-07	OH				-				-					
Thomas B. Fordham Foundation, 2007	2006-07	OH	+/-	+		+	+/-	↔		-					
Thomas B. Fordham Foundation, 2008	2007-08	OH	+/-	+/-		+	+	+		+					
Thomas B. Fordham Foundation, 2009	2008-09	OH	+	+/-		+	+/-	+		+					
Public Impact, 2009	2008-09	OH				-				↔					
Public Impact, 2009	2008-09	Akron, OH				-				-					
Public Impact, 2009	2008-09	Canton, OH				-				-					
Porch, Phillips-Schwartz, & Ryan, 2005	2004-05	Cincinnati, OH	-	-			-	+/-							
Public Impact, 2009	2008-09	Cincinnati, OH				↔				↔					
Porch, Phillips-Schwartz, & Ryan, 2005	2004-05	Cleveland, OH	+/-	+/-			+/-	+/-							
Public Impact, 2009	2008-09	Cleveland, OH				+				+					
Porch, Phillips-Schwartz, & Ryan, 2005	2004-05	Columbus, OH	-	-			-	-							
Public Impact, 2009	2008-09	Columbus, OH				-				-					

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Porch, Phillips-Schwartz, & Ryan, 2005	2004-05	Dayton, OH	+/-	+/-			+/-	+/-							
Public Impact, 2009	2008-09	Dayton, OH				+				+					
Public Impact, 2009	2008-09	Toledo, OH				-				↔					
Public Impact, 2009	2008-09	Youngs-town, OH				-				-					
Hoxby, 2004b	2002-03	OR					+								
OR Department of Education, 2004	2003-04	OR												↔	
Bates & Guile, 2005	2004-05	OR	+	-	-		+	-	-					-	
Bates & Guile, 2006	2005-06	OR	+/-	↔	-		+/-	↔	↔					-	
Bates & Guile, 2007	2006-07	OR												-	
OR Department of Education, 2008	2007-08	OR												↔	
Hoxby, 2004b	2002-03	PA					+								
Roy, 2005*	2002-03	PA	↔				↔								
Enkishev, 2002	1999-00	Phily, PA			-				-						
Enkishev, 2002	2000-01	Phily, PA			-				-						
TCER, 1998	1997-98	TX									-	-	-		
TCER, 2000*	1998-99	TX												-	-

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

Report Authors	Year to Year	Year	Math				Read				Composite				Other Grad Rate
			Elem	Middle	High	Overall	Elem	Middle	High	Overall	Elem	Middle	High	Overall	
Finnigan, Adelman, Anderson, Cotton, Donnelly, & Price, 2004*	2001-02	TX												-	
Hoxby, 2004b	2002-03	TX	-												
Roy, 2005*	2002-03	TX	-				↔								
Watkins & Armor, 2004*	2002-03	TX		-				↔							
TCER, 2005	2003-04	TX	-	-	-	-	-	-	-	-	-	-	-	-	
TCER, 2007*	2005-06	TX				-				↔					
TCER, 2008*	2006-07	TX				↔				+					
Was & Kristjansson, 2006*	2003-04	UT	+	+	-		+	+	-						
Molnar et al, 2001	1998-99	WI		↔	↔		+	↔	↔						
Witte, Weimer, Shober, & Schlomer, 2007*	2000-01	WI	↔	-			+	↔							
Witte, Weimer, Shober, & Schlomer, 2007*	0102	WI	↔	+			+	+							
Roy, 2005*	2002-03	WI	+				+								
Miron, Coryn, & Mackety, 2007*	2005-06	WI	-	-	-		-	-	-						

* Study controls for student-level or school-level characteristics.

Findings: Positive (+), Negative (-), Comparable (↔), Mixed (+/-)

References

Eligible Studies Included in this Research Synthesis

Abdulkadiroglu, Atila, Josh Angrist, Sarah Cohodes, Susan Dynarski, Jon Fullerton, Thomas Kane, and Parag Pathak. (2009). *Informing the debate: Comparing Boston's charter, pilot and traditional schools*. Boston, MA: The Boston Foundation.

Abdulkadiroglu, Atila, Joshua Angrist, Susan Dynarski, Thomas J. Kane, and Parag Pathak. (2009). *Accountability and flexibility in public schools: Evidence from Boston's charters and pilots* (Working Paper 15549). Cambridge, MA: National Bureau of Economic Research.

Akey, Terri, Jonathan A. Plucker, John A. Hansen, Robert Michael, Suzanne Branon, Rebbeca Fagen, and Gary Zhou. (2008). *Study of the effectiveness and efficiency of charter schools in Indiana*. Bloomington, IN: Center for Evaluation and Education Policy, Indiana University.

Andreson, Kathy. (2004). *Evaluation of New Mexico charter schools: 2003-2004*. Albuquerque, NM: New Mexico Public Education Department.

Andreson, Kathy, Jean Casey, and Barbara Yelverton. (2005). *2004-2005 Evaluation of New Mexico charter schools*. Albuquerque, NM: New Mexico Public Education Department.

Angrist, Joshua D., Susan M. Dynarski, Thomas J. Kane, Parag A. Pathak, and Christopher R. Walters. (2010). *Who benefits from KIPP?* (Working Paper, 15740). Cambridge, MA: National Bureau of Economic Research.

Baker, Bruce. (2009). *NJ charters: Worthy of the hype?* Newark, NJ: Eduation Law Center.

Ballou, Dale, Bettie Teasley, and Tim Zeidner. (2006). *Charter schools in Idaho*. Paper presented at the National Conference on Charter School Research at Vanderbilt University, Nashville, TN.

Ballou, Dale, Bettie Teasley, and Tim Zeidner. (2008). Charter schools in Idaho. In M. Berends, M.G. Springer, H.J. Walberg (Eds.), *Charter school outcomes* (pp. 221-241). New York, NY: Lawrence Erlbaum Associates.

Barr, Jason. (2007). *Charter school performance in New Jersey*. Unpublished manuscript, Rutgers University.

Barr, Jason, Alan Sadovnik, and Louisa Visconti. (2006). Charter schools and urban education improvement: A comparison of Newark's district and charter schools. *The Urban Review, 38*(4), 291-311.

Bates, Margaret and Dave Guile. (2005). *Oregon charter schools 2004-2005 evaluation report*. Salem, OR: Oregon Department of Education.

Bates, Margaret and Dave Guile. (2006). *Oregon charter schools 2005-2006 evaluation report*. Salem, OR: Oregon Department of Education.

Bates, Margaret and Dave Guile. (2007). *Oregon charter schools 2006-2007 evaluation report*. Salem, OR: Oregon Department of Education.

Berends, Mark, Maria Mendiburo, and Anna Nicotera. (2008). Charter schools effects in an urban school district: An analysis of student achievement growth. Paper presented at the 2008 AERA Conference.

Bettinger, Eric. (1999). *The effect of charter schools on charter students and public schools*. Occasional Paper No. 4, National Center for the Privatization in Education. NYC, NY: Teachers College, Columbia University.

Bettinger, Eric P. (2000). *The effects of charter schools and educational vouchers on students.* Unpublished doctoral dissertation, Massachusetts Institute of Technology.

Bettinger, Eric P. (2005). The effect of charter schools on charter students and public schools. *Economics of Education Review, 24*(2), pp. 133-147.

Betts, Julian R., Lorien A. Rice, Andrew C. Zau, Y. Emily Tang, and Cory R. Koedel. (2006). *Does school choice work? Effects on student integration and achievement*. San Francisco, CA: Public Policy Institute of California.

Bifulco, Robert and Helen F. Ladd. (2004). *The impacts of charter schools on student achievement: Evidence from North Carolina* (Working Papers Series SAN04-01). Chapel Hill, NC: Terry Sanford Institute of Policy.

Bifulco, Robert and Helen F. Ladd. (2005). Results from the Tarheel state. *Education Next, 4*, 60-66.

Bifulco, Robert and Helen F. Ladd. (2006). The impacts of charter schools on student achievement: Evidence from North Carolina. *Education Finance and Policy, 1*(1), pp. 50-90.

Bifulco, Robert and Helen F. Ladd. (2007). School choice, racial segregation and test-score gaps: Evidence from North Carolina's charter school program. *Journal of Policy Analysis and Management, 26*(1), 31-56.

Booker, Kevin, Brian Gill, Ron Zimmer, and Timothy R. Sass. (2007). *Achievement and attainment in Chicago charter schools*. Santa Monica, CA: RAND.

Booker, Kevin, Scott M. Gilpatric, Timothy Gronberg, and Dennis Jansen. (2004). *Charter school performance in Texas*. Unpublished manuscript, Texas A&M University.

Booker, Kevin, Scott M. Gilpatric, Timothy Gronberg, and Dennis Jansen. (2007). The impact of charter school attendance on student performance. *Journal of Public Economics, 91*(5-6), 849-876.

Booker, Kevin, Tim R. Sass, Brian Gill, & Ron Zimmer. (2008). *Going beyond test scores: Evaluating charter school impact on educational attainment in Chicago and Florida* (WR-610-BMG). Santa Monica, CA: RAND.

Braun, Henry, Frank Jenkins, Wendy Grigg, and William Tirre. (2006). *A closer look at charter schools using hierarchical linear modeling*. Washington, DC: U.S. Department of Education.

Brodsky, Andrew, Alex Medler, and Van Schoals. (2006). Apples to apples: Charter school performance in Colorado. *Prism, 6*(1), 6-8.

Brown, Liz and Eric Gutstein. (2009). *The charter difference: A comparison of Chicago charter and neighborhood high schools*. Chicago, IL: Collaborative for Equity and Justice in Education, University of Illinois-Chicago.

Ball State University. (2004). *Indiana charter schools: Annual report 2003-2004*. Muncie, IN: Ball State University, Office of Charter School Research.

Ball State University. (2005). *Indiana charter schools: Annual report 2004-2005*. Muncie, IN: Ball State University, Office of Charter School Research.

Ball State University. (2006). *Accountability report: 2005-2006*. Muncie, IN: Ball State University, Office of Charter School Research.

Buddin, Richard and Ron Zimmer. (2005). Student achievement in charter schools: A complex picture. *Journal of Policy Analysis and Management, 24*(2), 351-371.

California Charter Schools Association. (2007). *Charter trends*. Los Angeles, CA: Author.

California Charter Schools Association. (2008). *Charter trends*. Los Angeles, CA: Author.

Carpenter, Dick M., II, & Krista Kafer. (2009). *The state of charter schools in Colorado*. Denver, CO: Colorado Department of Education.

Carr, Michael and Samuel Staley. (2005). *Using the Ohio proficiency test to analyze the academic achievement of charter school students: 2002-2004*. Columbus, OH: The Buckeye Institute.

Catalyst Chicago. (2007). *School autonomy all over the map*. Chicago, IL: Author.

Center for Research on Education Outcomes. (2009b). *Charter school performance in Arkansas*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009c). *Charter school performance in Arizona*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009d). *Charter school performance in California*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009e). *Charter school performance in Colorado*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009f). *Charter school performance in the District of Columbia*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009g). *Charter school performance in Florida*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009h). *Charter school performance in Georgia*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009i). *Charter school performance in Illinois*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009j). *Charter school performance in Louisiana*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009k). *Charter school performance in Massachusetts*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009l). *Charter school performance in Minnesota*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009m). *Charter school performance in Missouri*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009n). *Charter school performance in North Carolina*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009o). *Charter school performance in New Mexico*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009p). *Charter school performance in Ohio*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009q). *Charter school performance in Texas*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2009a). *Multiple choice: Charter school performance in 16 states*. Stanford, CA: Author.

Center for Research on Education Outcomes. (2010). *Charter school performance in New York City*. Stanford, CA: Author.

Central Michigan University. (2009). *Transforming public education: The charter strategy in action*. Mount Pleasant, MI: The Center for Charter Schools.

Chicago Public Schools. (2006). *Charter schools performance report, 2004-05*. Chicago, IL: Author.

Chicago Public Schools. (2007). *Charter schools: 2005/2006 annual performance report*. Chicago, IL: Author.

Chicago Public Schools. (2008). *Charter schools performance report, 2006-2007*. Chicago, IL: Author.

Chicago Public Schools. (2009). *Charter schools performance report, 2007-2008*. Chicago, IL: Author.

City of Indianapolis. (2003). *Accountability report on mayor-sponsored charter schools, 2003*. Indianapolis, IN: Author.

City of Indianapolis. (2004). *Accountability report on mayor-sponsored charter schools, 2004*. Indianapolis, IN: Author.

City of Indianapolis. (2005). *Accountability report on mayor-sponsored charter schools, 2005*. Indianapolis, IN: Author.

City of Indianapolis. (2006). *Accountability report on mayor-sponsored charter schools, 2006*. Indianapolis, IN: Author.

City of Indianapolis. (2007). *Accountability report on mayor-sponsored charter schools, 2007*. Indianapolis, IN: Author.

City of Indianapolis. (2008). *Accountability report on mayor-sponsored charter schools, 2008*. Indianapolis, IN: Author.

City of Indianapolis. (2009). *Accountability report on mayor-sponsored charter schools, 2009*. Indianapolis, IN: Author.

Colorado Department of Education. (1997). *1997 Colorado charter schools evaluation study: The characteristics, status and student achievement data of Colorado charter schools*. Denver, CO: Author.

Colorado Department of Education. (1998). *1998 Colorado charter schools evaluation study: The characteristics, status and student achievement data of Colorado charter schools*. Denver, CO: Author.

Colorado Department of Education. (2002). *The state of charter schools in Colorado 2000-01: The characteristics, status and performance record of Colorado charter schools*. Denver, CO: Author.

Colorado Department of Education. (2003). *The state of charter schools in Colorado 2001-02: The characteristics, status and performance record of Colorado charter schools*. Denver, CO: Author.

Colorado Department of Education. (2006.) *The state of charter schools in Colorado 2004-05: The characteristics, status, and performance record of Colorado charter schools*. Denver, CO: Author.

Comey, Jennifer. (2008). *Performance of students attending District of Columbia Public Schools (DCPS), District of Columbia Public Charter School Board (PCSB) Schools, and District of Columbia Board of Education (BOE) Schools.* Washington, DC: Urban Institute.

ConnCAN. (2006). *The state of Connecticut public education: A 2006 report card for Connecticut elementary and middle schools*. New Haven, CT: Author.

ConnCAN. (2007). *The state of Connecticut public education: A 2007 report card for Connecticut elementary and middle schools*. New Haven, CT: Author.

ConnCAN. (2008). *The state of Connecticut public education: A 2008 report card for Connecticut public schools*. New Haven, CT: Author.

Crew, Robert E. Jr. and Mary Ruggiero Anderson. (2003). Accountability and performance in charter schools in Florida: A theory-based evaluation. *The American Journal of Evaluation, 24*(2), 189-212.

David, Jane L., Katrina Woodworth, Elizabeth Grant, Roneeta Guha, Alejandra Lopez-Torkos, and Viki M. Young. (2006). *Bay Area KIPP schools: A study of early implementation: First year report 2004-05.* Menlo Park, CA: SRI International.

D.C. Kids Count. (2006). *Every kid counts in the District of Columbia: 13th annual fact book*. Washington, DC: Author.

D.C. Kids Count. (2007). *Every kid counts in the District of Columbia: 14th annual fact book*. Washington, DC: Author

D.C. Kids Count. (2008). *Every kid counts in the District of Columbia: 15th annual fact book*. Washington, DC: Urban Institute.

D.C. Kids Count. (2009). *Every kid counts in the District of Columbia: 16th annual fact book*. Washington, DC: Author.

Dickman, Anneliese, Emily Van Dunk, John Witte, Paul Schlomer, and David Weimer. (2003). *Charter schools in Wisconsin: Assessing form and performance*. Paper presented at the meeting of the American Political Science Association, Philadelphia, PA.

Dobbie, Will, & Fryer, Roland, Jr. (2009). *Are high quality schools enough to close the achievement gap? Evidence from a social experiment in Harlem* (Working paper, 15473). Cambridge, MA: National Bureau of Economic Research.

Eberts, Randall W. and Kevin M. Hollenbeck. (2001). *An examination of student achievement in Michigan charter schools* (Working Paper No. 01-68). Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Eberts, Randall W. and Kevin M. Hollenbeck. (2002). *Impact of charter school attendance on student achievement in Michigan* (Working Paper. No. 02-080). Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

EdSource. (2005). *How are California's charter schools performing*? Mountainview, CA: Author.

EdSource. (2006). *California's charter schools: How are they performing*? Mountainview, CA: Author.

EdSource. (2007). *California's charter schools: Measuring their performance*. Mountainview, CA: Author.

EdSource. (2008). *California's charter schools: 2008 performance update*. Mountainview, CA: Author.

Enkishev, Ilya. (2002). *Charter schools: A Philadelphia study*. Unpublished master's thesis, Haverford College.

Esposito, Craig L. and Casey D. Cobb. (2008). *Estimating the school-level effects of choice on academic achievement in Connecticut's magnet, technical, and charter schools*. Paper presented at the meeting of the American Educational Research Association, New York City, NY.

Finch, W. Holmes, Mary E. Baker-Boudissa, and Tracy L. Cross. (2007). *Student progress and achievement in Indiana charter schools: The impact of continued enrollment*. Muncie, IN: Ball State University, Office of Charter School Research.

Finnigan, Karen, Nancy Adelman, Lee Anderson, Lynyonne Cotton, Mary Beth Donnelly, and Tiffany Price. (2004). *Evaluation of the public charter schools program: Final report*. Prepared for U.S. Department of Education by SRI International, Washington, D.C.

Florida Department of Education. (2004). *Florida charter schools: 2002-2003 annual accountability report*. Tallahassee, FL: Author, Office of Independent Education and Parental Choice.

Florida Department of Education. (2006). *Student achievement in Florida's charter schools: A comparison with achievement in traditional public schools*. Tallahassee, FL: Author, Office of Independent Education and Parental Choice.

Florida Department of Education. (2006). *Florida's charter schools: A eecade of progress*. Tallahassee, FL, Office of Independent Education and Parental Choice.

Florida Department of Education. (2009). *Student achievement in Florida's charter schools: A comparison with achievement in traditional public schools*. Tallahassee, FL: Author.

Gallant, Frank. (2004). *Idaho's charter school students' achievement*. Unpublished manuscript.

Garcia, David R, Rebecca Barber, and Alex Molnar. (2009). Profiting from public education: Education management organizations and student achievement. *Teachers College Record, 111*(5), 1352-1379.

Geiger, Elke and Angela Roccograndi. (2002). Idaho charter schools: Program evaluation report: Year three. Portland, OR: Northwest Regional Educational Laboratory.

Georgia Department of Education. (2002). *Annual charter school report: 2001-2002 school year*. Atlanta, GA: Author.

Georgia Department of Education. (2004). *Status report on Georgia's charter schools: 2002-03 school year*. Atlanta, GA: Author.

Georgia Department of Education. (2006a). *2004-2005 annual report on Georgia's charter schools*. Atlanta, GA: Author.

Georgia Department of Education. (2006b). *2005-2006 annual report on Georgia's charter schools*. Atlanta, GA: Author.

Georgia Department of Education. (2007). *2006-2007 annual report on Georgia's charter schools*. Atlanta, GA: Author.

Georgia Department of Education. (2008). *2007-2008 annual report on Georgia's charter schools*. Atlanta, GA: Author.

Gleason, Philip, Melissa Clark, Christina Clark Tuttle, and Emily Dwoyer. (2010). *The evaluation of charter school impacts: Final report* (NCEE 2010-4029). Washington, D.C.: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

Greene, Jay P., Greg Forster, and Marcus A. Winters. (2003). *Apples to apples: An evaluation of charter schools serving general student populations* (Education Working Paper No. 1). New York City, NY: Manhattan Institute, Center for Civic Innovation.

Gronberg, Timothy J. and Dennis W. Jansen. (2001). *Navigating newly chartered waters: An analysis of Texas charter school performance*. Austin, TX: Texas Public Policy Foundation.

Gronberg, Timothy J. and Dennis W. Jansen. (2005). *Texas charter schools: An assessment in 2005*. Austin, TX: Texas Public Policy Foundation.

Gronberg, Timothy, and Dennis Jansen. (2009). *Charter schools: Rationale and research*. Saint Louis, MO: Show-Me Institute.

Hanushek, Eric A., John F. Kain, and Steven G. Rivkin. (2002). *The impact of charter schools on academic achievement*. Unpublished manuscript, University of Texas at Dallas.

Hanushek, Eric A., John F. Kain, Steven G. Rivkin, and Gregory .F. Branch. (2007). Charter school quality and parental decision making with school choice. *Journal of Public Economics, 91*, 823-848.

Hassel, Bryan. (2007). *Summary of district and charter school performance in the Ohio 8: 2006-07*. Washington, D.C.: Thomas B. Fordham Foundation.

Hassel, Bryan and Michelle Goddard Terrell. (2004). *The rugged frontier: A decade of public charter schools in Arizona*. Washington, DC: Progressive Policy Institute.

Hassel, Bryan, Michelle Goddard Terrell, and Julie Kowal. (2006). *Florida charter schools: Hot and humid with passing storms*. Washington, DC: Education Sector.

Hatfield, Charles J. (2009). *Spring 2009 LEAP status of RSD and NOPS schools: 2014 NCLB implications*. New Orleans, LA: Center for Action Research on School Reforms in New Orleans.

Henig, Jeffrey R., Thomas T. Holyoke, Natalie Lacireno-Paquet, and Michele Moser. (2001). *Growing pains: An evaluation of charter schools in the District of Columbia: 1999-2000*. Washington, DC: George Washington University, Center for Washington Area Studies.

Horn, Jerry and Gary Miron. (2000). *An evaluation of the Michigan charter school initiative: Performance, accountability, and impact*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Hoxby, Caroline M. (2004a). *A straightforward comparison of charter schools and regular public schools in the United States*. Unpublished manuscript, Harvard University and National Bureau of Economic Research.

Hoxby, Caroline M. (2004b). *Achievement in charter schools and regular public schools in the U.S.: Understanding the differences*. Unpublished manuscript, Harvard University and National Bureau of Economic Research.

Hoxby, Caroline M. and Jonah E. Rockoff. (2004). *The impact of charter schools on student achievement*. Unpublished manuscript, Harvard University and Columbia University.

Hoxby, Caroline M. and Jonah E. Rockoff. (2005). Findings from the City of Big Shoulders. *Education Next, 5*(4), 52-58.

Hoxby, Caroline M. and Sonali Murarka. (2007a). *New York City's charter schools overall report*. Cambridge, MA: New York City Charter Schools Evaluation Project.

Hoxby, Caroline, and Sonali Murarka. (2007b). *Charter schools in New York City: Who enrolls and how they affect their students' achievement*. Cambridge, MA: National Bureau of Economic Research.

Hoxby, Caroline M. and Sonali Murarka. (2008). New York City's charter schools: How well are they teaching their students. *Education Next, 8*(3), 54-61.

Hoxby, Caroline M., Sonali Murarka, and Jenny Kang. (2009). *How New York City's charter schools affect achievement*. Cambridge, MA: New York City Charter Schools Evaluation Project.

Huron Mountain Research Services. (2006). *Final evaluation report: Arkansas charter schools*. Marquette, MI: Author.

Imberman, Scott A. (2007a). *Achievement and behavior in charter schools: Drawing a more complete picture*. Unpublished manuscript, University of Maryland.

Imberman, Scott A. (2007b). *Essays on the economics of education*. Unpublished doctoral dissertation, University of Maryland, College Park.

Institute on Race and Poverty. (2008). *Failed promises: Assessing charter schools in Twin Cities*. Minneapolis, MN: Author.

Jenkins, Percy. (2005). *Effective or not: The plight of Ohio's charter schools*. Unpublished doctoral dissertation, Miami University.

Kamehameha Schools. (2005). *Ka huaka'i: Native Hawaiian education assessment*. Honolulu, HI: Pauahi Publications.

Kana'iaupuni, Shawn Malia and Koren Ishibashi. (2005). *Hawai'i charter schools: Initial trends and select outcomes for native Hawaiian students* (04-05:22). Honolulu, HI: Kamehameha Schools-PASE.

Kansas State Department of Education. (2006). *Literature review: Charter schools*. Topeka, KS: Author.

Khouri, Nicki, Robert Kleine, Richard White, and Laurie Cummings. (1999). *Michigan's charter school initiative: From theory to practice*. Lansing, MI: Public Sector Consultants, Inc.

KIPP. (2007). *KIPP: Report card 2007*. San Francisco, CA. Author.

KIPP. (2008). *KIPP: Report card 2008*. San Francisco, CA. Author.

KPMG. (2001). *Evaluation of the New Jersey charter program, September 2001: Executive highlights*. Trenton, NJ: New Jersey Department of Education.

Lavertu, Stephane, and John witte. (2009). The impact of Milwaukee charter schools on student achievement. Issues in Governance Studies, 23, 1-10.

Legislative Office of Education Oversight. (2003). *Community schools in Ohio: Final report on student performance, parent satisfaction, and accountability*. Columbus, OH: Author.

Lopez, Alejandra M., Haiwen Wang, and Katrina R. Woodworth. (2008). *A study of Bay Area KIPP schools: Findings from analyses of student achievement*. Paper presented at the meeting of the American Educational Research Association, New York City, NY.

Loveless, Tom. (2002a). *Charter school achievement and accountability*. Washington, D.C.: The Brookings Institution.

Loveless, Tom. (2002b). *The 2002 Brown Center report on American education: Charter schools*. Washington D.C.: The Brookings Institution.

Loveless, Tom. (2003). *The 2003 Brown Center report on American education: Charter schools: Achievement, accountability, and the role of expertise*. Washington D.C.: The Brookings Institution.

Lubienski, Sarah Theule & Christopher Lubienski. (2006). School sector and academic achievement: A multilevel analysis of NAEP mathematics data. *American Education Research Journal, 43*(4), 651-698.

Maloney, Catherine. (2005a). *The effect of Texas charter high schools on diploma graduation and GED attainment*. Unpublished doctoral dissertation, University of North Texas.

Maloney, Catherine. (2005b). *Evaluating the effect of charter schools on graduation outcomes using propensity score matching*. Austin, TX: Texas Center for Educational Research.

Massachusetts Department of Education. (2006). *Massachusetts charter school achievement comparison study: An analysis of 2001-2005 MCAS performance*. Boston, MA: Author.

McClure, Larry and J. Cesar Morales. (2004). *The Preuss school at UCSD: School characteristics and students' achievement*. La Jolla, CA: The Center for Research on Educational Equity, Assessment and Teaching Excellence, University of California, San Diego.

McClure, Larry and Christopher Reicher. (2007). *The Preuss school at UCSD: Academic performance of the class of 2006*. La Jolla, CA: The Center for Research on Educational Equity, Assessment and Teaching Excellence, University of California, San Diego.

McClure, Larry, Betsy Strick, Rachel Jacob-Almeida and Christopher Reicher. (2005). *The Preuss school at UCSD: School characteristics and students' achievement*. La Jolla, CA: The Center for Research on Educational Equity, Assessment and Teaching Excellence, University of California, San Diego.

McDonald, Aaron J., Steven M. Ross, Jane Abney, and Todd Zoblotsky. (2008). *Urban school reform: Year 4 outcomes for the Knowledge is Power Program in an urban middle school*. Paper presented at the meeting of the American Educational Research Association, New York City, NY.

McDonald, Aaron J., Steven M. Ross, Linda Bol, and Brenda McSparrin-Gallagher. (2007). Charter schools as a vehicle for education reform: Implementation and outcomes at three inner-city sites. *Journal of Education for Students Placed at Risk, 12*(3), 271-300.

Mead, Sara. (2006). *Maintenance required: Charter schooling in Michigan*. Washington, D.C.: Education Sector.

Metis Associates. (2004). *A study of the Kansas City, Missouri charter public schools: 2000-2003*. New York City, NY: Author.

Meyer, Peter. (2009). Brighter choices in Albany. *Education Next, 9*(4), 30-37.

Michigan Association of Public School Academies. (2005). *2005 MEAPs show charters continue to close achievement gap*. Lansing, MI: Author.

Michigan Association of Public School Academies. (2006). *2005-06 MEAP results confirm academic progress*. Lansing, MI: Author.

Michigan Association of Public School Academies. (2007). *2006-07 MEAPs show charters closing academic gap*. Lansing, MI: Author.

Michigan Department of Education. (2006). *Public school academies, 2005-06: Michigan Department of Education Report to the legislature.* Lansing, MI: Author.

Michigan Department of Education. (2007). *Public school academies, 2006-07: Michigan Department of Education Report to the legislature.* Lansing, MI: Author.

Michigan Department of Education. (2008). *2008 public school academy report to the legislature*. Lansing, MI: Author.

Miller, R.L. (2003). *A study of differences in achievement between Idaho charter schools and their constituent school districts: Exploring and controlling demographics*. Unpublished doctoral dissertation, University of Idaho.

Miron, Gary. (2004). *Evaluation of the Delaware charter school reform: Year 1 report*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Miron, Gary. (2005). *Evaluating the performance of charter schools in Connecticut*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Miron, Gary, Chris Coryn, and Dawn M. Mackety (2007). *Evaluating the impact of charter schools on student achievement: A longitudinal look at the Great Lakes states*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Miron, Gary, Anne Cullen, E. Brooks Applegate, and Patricia Farrell. (2007). *Evaluation of the Delaware charter school reform: Final report*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Miron, Gary and Jerry Horn. (2002). *Evaluation of Connecticut charter schools and the charter school initiative*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Miron, Gary and Christopher Nelson. (2000). *Autonomy in exchange for accountability: An initial study of Pennsylvania charter schools*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Miron, Gary and Christopher Nelson. (2002). *What's public about charter schools? Lessons learned about choice and accountability*. Thousand Oaks, CA: Corwin.

Miron, Gary, Christopher Nelson, and John Risley with Carolyn Sullins. (2002). *Strengthening Pennsylvania's charter school reform: Findings from the statewide evaluation and discussion of relevant policy issues*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Miron, Gary, Barbara Wygant, Anne Cullen, and Brooks Applegate. (2006). *Evaluation of the Delaware charter school reform: Year 2 report*. Kalamazoo, MI: The Evaluation Center Western Michigan University.

Molnar, A., Zahorik, J., Hoffman, L. M., Gobel, C., Walker, C. M., & Gosz, J. (2001). *Evaluation of the Wisconsin Charter School Program*. Milwaukee, WI: Center for Educational Research, Analysis, and Innovation, School of Education.

Mulholland, Lori A. (1999). *Arizona charter school progress evaluation*. Tempe, AZ: Arizona State University, Morrison Institute for Public Policy.

Nelson, Christopher and Gary Miron. (2002). *The evaluation of the Illinois charter school reform: Final report*. Springfield, IL: Illinois State Board of Education.

Nelson, Howard F., Bella Rosenberg, and Nancy Van Meter. (2004). *Charter school achievement on the 2003 National Assessment of Educational*. Washington, D.C.: American Federation of Teachers, AFL-CIO.

Nelson, Howard F. and Nancy Van Meter. (2005). *Charter school achievement on the 2005 National Assessment of Educational Progress*. Washington, D.C.: American Federation of Teachers, AFL-CIO.

New York City Center for Charter School Excellence. (2007). *2005-2006 annual report*. New York, NY: Author.

Nicotera, Anna, Maria Mendiburo, & Mark Berends. (2009). *Charter school effects in an urban school district: An analysis of student achievement gains in Indianapolis*. Paper presented at the National Conference on Charter School Research at Vanderbilt University, Nashville, TN.

Noblit, George W. and Corbett Dickson. (2001). *North Carolina charter school evaluation report*. Raleigh, NC: North Carolina State Board of Education.

Ohio Alliance for Public Charter Schools. (2008). *Ohio community charter schools: Value-added data analysis*. Columbus, OH: Author.

Ohio Alliance for Public Charter Schools. (2009). *E-schools show superior results: Analysis of state value-added data confirms e-schools students' progress*. Columbus, OH: Author.

Ohio Department of Education. (2009). *2008-2009 annual report: Ohio community schools*. Columbus, OH: Author.

Office of Program Policy Analysis and Government Accountability. (2005a). *Charter school performance comparable to other public schools: Stronger accountability needed* (Report No. 05-21). Tallahassee, FL: Florida Legislature, Author.

Office of Program Policy Analysis and Government Accountability. (2005b). *Charter school review technical report* (Report No. 05-22). Tallahassee, FL: Florida Legislature, Author.

Oregon Department of Education. (2004). *Oregon charter schools 2003-2004 evaluation report*. Salem, OR: Author.

Oregon Department of Education. (2008). *Oregon charter schools 2007-2008 evaluation report*. Salem, OR: Author.

Plucker, Jonathan, Suzanne Eckes, Kelly Rapp, Russ Ravert, John Hansen, and Anne Trotter. (2005). *Baseline evaluation of Georgia's charter schools program: Summary report*. Atlanta, GA: Georgia Department of Education.

Porch, Allison, Kristina Phillips-Schwartz, and Terry Ryan. (2005). *School performance in Ohio's inner cities: Comparing charter and district school results in 2005*. Washington, D.C.: The Thomas B. Fordham Foundation.

Public Impact. (2009). *Urban school performance report: An analysis of Ohio big eight charter and district school performance with a special analysis of e-schools, 2008-2009*. Washington, DC: Thomas B. Fordham Institute.

Randall, Judy. (2008). *Evaluation report: Charter schools.* St. Paul, MN: State of Minnesota, Office of the Legislative Auditor.

Ratterman, Mary Jo and Brian Reid. (2009). *A comparison of student academic growth between Indiana charter schools and traditional public schools*. Indianapolis, IN: Center of Excellence in Leadership of Learning, University of Indianapolis.

Raymond, Margaret E. (2003). *The performance of California charter schools*. Stanford, CA: Stanford University, Hoover Institution, CREDO.

Rhim, Lauren Morando, Jennifer Faukner, and Margaret McLaughlin. (2006). *Access and accountability for students with disabilities in California charter schools*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.

Rockoff, Jonah E. (2004). *Essays on the finance and production of public education*. Unpublished doctoral dissertation, Harvard University.

Rogosa, David. (2002). *A further examination of student progress in charter schools using the California API*. Unpublished manuscript, Stanford University.

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

Ross, Steven M., Aaron J. McDonald, Marty Alberg, and Brenda McSparrin-Gallagher. (2007). Achievement and climate outcomes for the Knowledge is Power Program in an inner-city middle school. *Journal of Education for Students Placed at Risk, 12*(2), 137-165.

Ross, Steven M., Aaron J. McDonald, and Brenda McSparrin Gallagher. (2005). *Student-level analysis of year 1 (2003-2004) achievement outcomes for Tennessee charter schools*. Memphis, TN: The University of Memphis, Center for Research in Educational Policy.

Ross, Steven M., Aaron J. McDonald, Brenda McSparrin-Gallagher, and Linda Bol. (2006). *Educational reform in "choice" contexts: Achievement and implementation outcomes for three inner-city charter schools*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.

Ross, Steven, Aaron J. McDonald, Brenda McSparrin-Gallagher, & Deborah L. Slawson. (2006). Student level analysis of year 2 (2004-2005) achievement outcomes for Tennessee charter schools. Memphis, TN: University of Memphis, Center for Research in Educational Policy.

Roy, Joydeep and Lawrence Mishel. (2005). *Advantage none: Re-examining Hoxby's finding of charter school benefits*. Washington, D.C.: Economic Policy Institute.

Ryan, Terry. (2004). *How are Dayton's charter schools doing?* Dayton, OH: Thomas B. Fordham Foundation.

Sass, Tim R. (2006). Charter schools and student achievement in Florida. *Education Finance and Policy, 1*(1), 91-122.

School District of Philadelphia. (2008). *The status of 2006-07 academic performance in the school district of Philadelphia: Report to the School Reform Commission*. Philadelphia, PA: Author.

Scott S. Cowen Institute for Public Initiative at Tulane University. (2008). *The state of public education in New Orleans: 2008 report*. New Orleans, LA: Author.

Scott S. Cowen Institute for Public Initiative at Tulane University. (2009). *Public school performance in New Orleans: A supplement to the 2008 state of public education in New Orleans report*. New Orleans, LA: Author.

Shapley, Kelly S., Aprile D. Benner, and Amy M. Pieper. (2002). *Texas open-enrollment charter schools: Linking conditions and practices to student achievement*. Austin, TX: Texas Center for Educational Research.

Shay, Sally A. (2006). *Review of charter schools: 2004-05*. Miami, FL: Miami-Dade County Public Schools, Office of Program Evaluation.

Slovacek, Simeon P., Antony J. Kunnan, and Hae-Jin Kim. (2002). *California charter schools serving low-SES students: An analysis of the academic performance index*. Los Angeles, CA: California State University, Los Angeles.

Solmon, Lewis C. and Pete Goldschmidt. (2004). *Comparison of traditional public schools and charter schools on retention, school switching, and achievement growth* (Policy Report: No. 192). Phoenix, AZ: Goldwater Institute.

Solmon, Lewis C., Kern Paark, and David Garcia. (2001). *Does charter school attendance improve test scores? The Arizona results*. Phoenix, AZ: Goldwater Institute, Center for Market Based Education.

Stevens, Jean. (2006). *Annual report on the status of charter schools in New York State.* Albany, NY: New York State Board of Regents.

Supovitz, Jonathan and Sam Rikoon. (2010). *Early achievement impacts of the Harlem Success Academy Charter School in New York City*. Unpublished manuscript. Philadelphia, PA: University of Pennsylvania.

Tang, Yuan Emily. (2008). *Essays in empirical microeconomics.* Unpublished doctoral dissertation, University of California, San Diego.

Tang, Yuan Emily and Julian R. Betts. (2006). *Student achievement in charter schools in San Diego*. Unpublished manuscript, University of California, San Diego.

Texas Center for Educational Research. (1998). *Texas open-enrollment charter schools: Second year evaluation*.

Texas Center for Educational Research. (2000). *Texas open-enrollment charter schools: Third year evaluation*.

Texas Center for Educational Research. (2001). *Texas open-enrollment charter schools: Fourth-year evaluation*.

Texas Center for Educational Research. (2002). *Texas open-enrollment charter schools: Fifth-year evaluation*.

Texas Center for Educational Research. (2003). *Texas open-enrollment charter schools: Sixth-Year Evaluation*. Austin, TX: Author.

Texas Center for Educational Research. (2005). *Texas open-enrollment charter schools: 2003-04 Evaluation.* Austin, TX: Author.

Texas Center for Educational Research. (2006). *Texas open-enrollment charter schools: 2004-05 Evaluation.* Austin, TX: Author.

Texas Center for Educational Research. (2007). *Texas open-enrollment charter schools: 2005-06 Evaluation.* Austin, TX: Author.

Texas Center for Educational Research. (2008). *Texas charter school evaluation: 2006-07.* Austin, TX: Author.

Thomas B. Fordham Foundation. (2006). *Sponsorship accountability report: 2005-2006*. Dayton, OH: Author.

Thomas B. Fordham Foundation. (2007). *Sponsorship accountability report: 2006-2007*. Dayton, OH: Author.

Thomas B. Fordham Foundation. (2008). *Climbing to quality: 2007-08 Fordham sponsorship accountability report*. Dayton, OH: Author.

Thomas B. Fordham Foundation. (2009). *Seeking quality in the face of adversity: 2008-09 Fordham sponsorship accountability report*. Dayton, OH: Author.

Thomas Fordham Institute. (2008). *Ohio charter performance report: 2007-08*. Washington, D.C.: Author.

Toney, Aisha N. and Danessa Murdock. (2008). *Charter school performance in Los Angeles Unified School District: A district and neighborhood matched comparison analysis*. Los Angeles, CA: California Charter Schools Association.

Toney, Aisha N. (2009). *A longitudinal analysis of charter school performance in Oakland Unified School District: A district and neighborhood matched comparison analysis*. Los Angeles, CA: California Charter Schools Association.

Tuttle, Christina Clark, Bing-ru Teh, Ira Nichols-Barrer, Brian P. Gill, and Philip Gleason. (2010). *Student characteristics and achievement in 22 KIPP middle schools*. Washington, D.C.: Mathematica Policy Research.

U.S. Department of Education, National Center for Education Statistics, Institute for Education Sciences. *The Nation's report card: America's charter school report* (NCES 2005-456). Washington, DC: Author.

University of Wisconsin-Milwaukee. (2008). *Annual report 2006-2007*. Milwaukee, WI: Office of Charter Schools.

University of Wisconsin-Milwaukee. (2009). *Annual report 2007-2008*. Milwaukee, WI: Office of Charter Schools.

Wang, Changhua. (2009). *A statewide study of "brick and mortar" public charter schools in Idaho*. Portland, OR: Northwest Regional Educational Laboratory.

Was, Christopher and Sean Kristjansson. (2006). An analysis of charter vs. traditional public schools in Utah. Salt Lake City, UT: Utah State Charter School Board.

Watkins, Shanea J. and David J. Armor. (2004). *School type and the black-white achievement gap: Do charter schools really make a difference?* Paper presented at the meeting of the Association for Public Policy Analysis and Management, Atlanta, GA

Witte, John F., David L. Weimer, Paul A. Schlomer, and Arnold F. Shober. (2004). *The performance of charter schools in Wisconsin*. Unpublished manuscript, University of Wisconsin—Madison, Wisconsin Charter Schools Study.

Witte, John F., David L. Weimer, Arnold Shober, and Paul Schlomer. (2007). The performance of charter schools in Wisconsin. *Journal of Policy Analysis and Management, 26*(3), 557-573.

Wong, Kenneth K. and Francis X. Shen. (2008). *Student-centered spending? Charter school spending decisions and student achievement*. Paper presented at the meeting of the American Educational Research Association, New York City, NY.

Woodworth, Katrina R., Jane L. David, Roneeta Guha, Haiwen Wang, and Alejandra Lopez-Torkos. (2008). *San Francisco Bay Area KIPP schools: A study of early implementation and achievement: Final report*. Menlo Park, CA: SRI International.

Ziebarth, Todd. (2005). *Peaks & valleys: Colorado's charter school landscape*. Washington, DC: Progressive Policy Institute.

Zimmer, Ron, Suzanne Blanc, Brian Gill, and Jolley Christman. (2008). *Evaluating the performance of Philadelphia's charter schools* (WR-550-WPF). Santa Monica, CA: RAND.

Zimmer, Ron and Richard Buddin. (2005). *Charter school performance in urban districts: Are they closing the achievement gap?* Santa Monica, CA: RAND.

Zimmer, Ron and Richard Buddin. (2006). Charter school performance in two large urban districts. *Journal of Urban Economics, 60*(2), 307-326.

Zimmer, Ron and Richard Buddin. (2007). Getting inside the black box: Examining how the operation of charter schools affect performance. *Peabody Journal of Education, 28*(2-3), 231-273.

Zimmer, Ron, Richard Buddin, Derrick Chau, Glenn Daley, Brian Gill, Cassandra Guarino, Laura Hamilton, Cathy Krop, Dan McCaffrey, Melinda Sandler, and Dominic Brewer. (2003). *Charter school operations and performance: Evidence from California*. Santa Monica: RAND.

Zimmer, Ron, Brian Gill, Kevin Booker, Stephane Lavertu, Tim R. Sass, and John Witte. (2009). *Charter schools in eight states: Effects on achievement, attainment, integration, and competition*. Santa Monica, CA: RAND.

Zoblotsky, Todd A., Haixia Qian, Steven M. Ross, and Aaron J. McDonald. (2008). *Analysis of year 4 (2006-07) achievement outcomes for TN elementary charter schools*. Memphis, TN: The University of Memphis, Center for Research in Educational Policy.

Zoblotsky, Todd A., Steven M. Ross, Haixia Qian, and Aaron J. McDonald. (2008). *Student-level analysis of year 4 (2006-07) achievement outcomes for Tennessee secondary charter schools*. Memphis, TN: The University of Memphis, Center for Research in Educational Policy.

The National Alliance for Public Charter Schools (Alliance) is the national nonprofit organization committed to advancing the charter school movement. The Alliance works to increase the number of high-performing charter schools available to all families, particularly low-income families who currently do not have access to quality public schools. The Alliance provides assistance to state charter school associations and resource centers, develops and advocates for improved public policies, and serves as the united voice for this large and diverse movement. More than 1.6 million students attend nearly 5,000 charter schools in 40 states and the District of Columbia.

National Alliance for Public Charter Schools

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