

Baseline Evaluation of Georgia's Charter Schools Program: Summary Report

Prepared for the
Georgia Department of Education

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Summary Report

In February 2005, the Center for Evaluation and Education Policy (CEEP) was contracted by the Georgia Department of Education (GADOE) to conduct an evaluation of Georgia's Charter Schools Program to establish baseline academic and demographic information for Georgia's charter schools. This baseline evaluation is designed to serve as a foundation for future charter evaluations funded by the Georgia General Assembly. This brief report summarizes a more detailed Technical Report, which begins on page 11. Readers are referred to the longer report for technical details about the evaluation methods, findings, and recommendations.

History, Background, and Types of Charter Schools. Public charter school legislation was officially passed in Georgia on April 19, 1993. Since 1993, 65 charter schools of four types (conversion, start-up, LEA start-up, and state chartered special school) have been approved. During the 2004-2005 school year, 37 schools were in operation, including 11 conversion, 23 start-up, and 3 state chartered special schools. The original law has been amended five times. The most recent amendments to Georgia charter school law took place in 2004 as part of HB1190, and included additional waivers for charter schools, centering on portions of Title 20 that apply to local school districts only. Although not yet funded by the General Assembly, a per-pupil facility fund was created, qualifying Georgia's charter schools for federal charter school facility funding.

Admission. Students are required to submit a timely application for admittance to charter schools in Georgia. A random selection process or lottery takes place if more applications are received than there are places available, but preference is given to students who have siblings in the school and to students who reside in the enrollment district specified in the charter. All other students are given equal chances for admittance.

Funding. The Georgia Charter Schools Act of 1998 states that a charter school shall be included in the allotment of funds to the local school system, to be treated no less favorably than other local schools with respect to the provision of funding for basic services. Furthermore, the State Board of Education is directed to create a facilities fund for charter schools to establish a per-pupil, need-based facilities aid program.

The purpose of this report is to:

- Compile existing data previously released by the Georgia Department of Education,

- Analyze existing data provided by the Georgia Department of Education,
- Provide comparisons to other state and national studies when possible, and
- Provide recommendations for future charter school evaluations.

Methodology

Analysis of Extant Data. Researchers from CEEP first compiled extant data from several sources, including past charter school reports from the Georgia Department of Education, data from the Department of Education Web site, and national charter school research reports.

Statutory Analyses. Researchers employed multiple legal research techniques to review Georgia's charter school statutes. They photocopied the 2005 statutes for the 41 states with charter school legislation, analyzed the language of each state's statute, and color coded each state statute according to the strength of the language regarding revocation and nonrenewal.

Student Achievement Analyses. For student achievement to be examined, CEEP researchers compiled a list of comparison schools for the existing charter schools based on geographic proximity. Additionally, personnel from GADOE provided CEEP with a list of comparison schools based on demographics. Finally, a list of comprehensive school reform (CSR) schools in Georgia was formulated and these schools were matched to the nearest charter school. Through this process, each charter school was matched with up to three different comparison schools. By conducting the analyses separately for all three groups, CEEP staff expected that the pattern of results across all three sets of analyses would be generalizable to all Georgia charter schools.

For all charter and comparison school students, GADOE provided 2005 Criterion-Referenced Competency Tests (CRCT) and student demographic data. The CRCT is designed to measure how well students acquire the skills and knowledge described in the Quality Core Curriculum (QCC)¹ and is comprised of selected-response items only. Results are used to diagnose individual student strengths and weaknesses as related to the instruction of the QCC. No standardized norm-referenced test (NRT) data were available

¹ Testing information was obtained from <http://www.doe.k12.ga.us/curriculum/testing/programs.asp>

due to a decision made by the state of Georgia beginning in the spring of 2003 to no longer mandate NRT test administration or require reporting at the state level.

Results

School Characteristics

The number of Georgia charter schools has been relatively stable over the past few years, with 37 in operation during the 2004-2005 school year and 12 approved schools scheduled to begin operation in 2005-2006. However, the nature of charter schools has changed: The vast majority from 1995-2002 were conversion charter schools, but those schools have been declining in number since 2000-2001. In their place, Georgia has seen an increase in start-up charter schools, which are now the most numerous type of charter school. Georgia charters have experienced a closure rate higher than the national average (11% vs. 7%), and the percentage of conversion charters reverting to traditional school status (34%) is also probably higher than the national average. Student-teacher ratios within charter (20.7:1) and traditional public schools (20.8:1) are comparable.

Student Characteristics

The student characteristic data suggest that Georgia charter schools are slightly more diverse in terms of student racial composition than all Georgia public schools (56% minority enrollment in charter schools vs. 50% in all public schools), with minority enrollment increasing over the past three years. Determining economic diversity in charter schools is difficult: Charters may be slightly less economically diverse than other public schools (e.g., 41% of charter students qualify for free or reduced lunch vs. 46% in all public schools), but these data needed to be interpreted cautiously: Several charter schools do not offer lunch programs and therefore do not report any students receiving free or reduced price lunch. The percent of identified gifted students appears to be increasing very slowly – and is now higher than in all public schools (10% vs. 7% in 2002-2003) – but the percent of students receiving special education services has been stable and is comparable to the percent receiving these services in all public schools (i.e., 11-12% in both).

Teacher Characteristics

Charter school teachers are considerably less experienced than public school teachers statewide (8.8 vs. 12.5 years of teaching, respectively), and, probably as a result, charter teachers have advanced degrees at a slightly lower rate than other public school teachers. A higher percentage of charter teachers are male and non-Caucasian, although roughly 1 in 5 teachers are African American in both charters and traditional public schools. About 74% of charter school teachers and 84% of public school teachers statewide are Highly Qualified according to federal definitions.

Laws and Policies

A recent report by the pro-charter Center for Education Reform (CER) rated Georgia's charter school laws and policies 19th out of 41 states and Washington, D.C., that had charter schools at the time of the analysis. In addition, CER gave an overall rating of "C" to the laws governing Georgia's charter schools. Although the number of charter schools was lauded, the report noted that the range of potential sponsors is very limited and that charter schools face increasing regulation from the state. Recent changes to Georgia's charter laws may improve the state's standing in the CER analysis, which was based on 2002 legislative activity.

Due to the state's high closure/reversion rate, Georgia's statutes on revocation and nonrenewal of charter schools were reviewed, and several areas for potential improvement and revision were identified. Although the revocation statute addresses when the state board may terminate a charter and briefly discusses due process procedures,² Georgia's statute does not require detailed grounds for revocation nor does it provide specific guidelines regarding the notice and hearing. For example, the statute only requires "reasonable notice to the charter school and an opportunity for a hearing." Several other states have stronger statutes, and Georgia policymakers should consider revising the statutes based on the suggestions in the full technical report.³

² Ga. Code Ann. § 20-2-2068

³ After this report was submitted, Georgia Department of Education staff began a comprehensive review and revision of the state charter school rule, with specific attention paid to revocation and nonrenewal issues.

Governance, Funding, and Management

A recent report by the Fordham Foundation, a pro-charter think tank, concluded that Georgia's system for funding charter schools provided significantly less funding per student to charter schools than to traditional public schools (i.e., per-pupil revenue was 31% lower in charter schools). The report also identified areas in which Georgia policy on school funding could be made more equitable for charter schools, including access to all funding streams currently available to traditional public schools. The Fordham study has significant limitations, but the broader questions surrounding funding of charter schools should be considered.

Previous evaluations and reports, which included parent and educator concerns about governance and management and the observation that most charters close due to management and financial problems, suggest that governance and management issues are worthy of serious investigation. Other states have conducted these studies and found them to be useful in fostering sound governance and management practices. However, these issues have yet to be comprehensively examined in Georgia's charter schools.

Parent Satisfaction

Parent attitudes toward charter schools have been very positive over several administrations of various parent surveys. For example, in the most recent survey, 70% of parents graded their child's charter school an A or A+, and even parents who did not grade the school highly believed the charter school was the best available option for this child. Furthermore, 85% of parents indicated they would re-enroll their children in their charter school the following year. Parents noted that the potential for strong academic programs were the major attraction of charter schools, and they rated many aspects of their children's school highly. Although the parent survey results should be interpreted with caution due to several significant limitations (e.g., the response rate from parents in 19 schools was 35%, representing less than 20% of all charter parents), parent satisfaction with their children's charter schools – and the idea of charter schools in general – appears to be considerable and has probably remained relatively stable over the past four years.

Student Achievement

Analyses of 2002-2005 Adequate Yearly Progress designations and 2005 elementary and middle school testing data in the areas of reading, English/language arts, and mathematics provide evidence that students in Georgia charter schools are achieving at similar levels as their peers statewide and in comparison schools, with significant variation by subject area, grade, and length of time attending charter schools. Most differences between charter and comparison schools favor charter schools, but this was not universally the case. Evidence of the impact of length-of-attendance in charter schools on student achievement is most convincing in Grade 4, although there is some evidence of an effect in Grades 6, 7, and 8.

Recommendations

The full technical report includes extensive, detailed recommendations for future evaluation and research activities that should help foster the growth and success of Georgia's charter schools. The following bulleted points provide a summary of the recommendations:

- *Investigate Governance, Funding, and Management Issues.* Future evaluations should investigate governance and management issues. This work could include studies of the charter authorization process; the effectiveness of various management models; financial revenue, management, and expenditures; best practices in authorization and other aspects of management and governance; and case studies of schools that have closed. In other words, what management practices have worked in Georgia's charter schools? What practices appeared promising but did not live up to expectations? Studies of charter governance and management would be invaluable as the Georgia Department of Education works to strengthen these aspects of the charter school system.
- *Study How Student Characteristics Impact Decisions to Enroll and How Those Characteristics Impact Student Success.* Little is known nationally about how student characteristics influence decisions to enroll in charter schools. Given Georgia's unique situation (e.g., high minority, high gifted enrollment compared to all state schools), studying how enrollment decisions are made would provide

the Georgia Department of Education with guidance about how to disseminate information about charter schools most effectively. Similarly, given the high percentages of gifted and special education students in charter schools, studying how enrolled students with special needs receive services should help to identify best practices.

- *Address the Lack of Information About Teacher Characteristics and Behaviors.* Future evaluations should seek to fill the gap in knowledge about charter school teacher preparation and experience, behavior, and professional development.
- *Conduct Additional Legal and Policy Analyses.* Additional legal analysis, including comparison to model state statutes, should be considered.
- *Implement a Revised Parent Survey that Facilitates Analysis of Trends in Parent Perspectives.* Parent perceptions are important indicators of the health of Georgia’s charter school system. However, strategies for assessing parent perceptions could be improved. Possible improvements include using a core set of items to allow trends in parent responses to be tracked, improving the sampling design, survey administration, and data analyses, plus including comprehensive assessments of parent involvement.
- *Conduct Experimental Evaluations of Student Achievement with an Emphasis on Identification of Best Practices.* The best statistical test of charter school effectiveness is the use of experimental studies in which students randomly selected for charter school attendance are compared to students randomly assigned to a traditional public school. Because some Georgia charter schools use lottery-based admissions, the conditions exist for this type of experimental study, which would also facilitate the identification of best practices within specific schools.

Our recommendations for future evaluation work are based on the assumption that it is time for Georgia to move from a mindset in which the question of interest was, “Do our charter schools work?” to an approach that asks, “For whom do our charter schools work, and under what circumstances do these schools work best?” The development of the Georgia charter school system over the past decade has been impressive, and –

although more work needs to be done – evaluation evidence suggests that the schools are working in many ways. The next step in the evolution of these schools is to determine the factors that promote the highest levels of student success and parent satisfaction within Georgia charter schools.

Baseline Evaluation of Georgia's Charter Schools Program

Technical Report

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Table of Contents

Page	
1	Summary Report
9	Technical Report
13	Section I: Overview
	History and Background
	Types of Charter Schools
	Admission
	Funding
16	Section II: Report Methodology
18	Section III: Results
	Demographics
	Statutory Analyses
	Governance, Funding, and Management
	Parent Satisfaction
	Student Achievement
41	Section IV: Conclusions and Recommendations
	Summary
49	References
53	Appendix A: About CEEP
57	Appendix B: About the Evaluation Team
61	Appendix C: Statutory Data on Charter Revocation/Nonrenewal
69	Appendix D: Review of Charter School Achievement Literature

Section I: Overview

In February 2005, the Center for Evaluation and Education Policy (CEEP) was contracted by the Georgia Department of Education to conduct an evaluation of Georgia's Charter Schools Program to establish baseline academic and demographic information for Georgia's charter schools. This baseline evaluation is designed to serve as a foundation for future charter evaluations funded by the Georgia General Assembly. The report consists of five sections: An overview of the development of Georgia's charter schools; a review of methodology used in the report; a review of research on charter school achievement and evaluation strategies; data on Georgia charter school laws and policies, demographics, and performance; and conclusions and recommendations for studying Georgia charter schools in the future.

History and Background¹

Public charter school legislation was officially passed in Georgia on April 19, 1993. Since 1993, 65 charter schools have been approved. During the 2004-2005 school year, 37 schools were in operation, including 11 conversions, 23 start-ups, and 3 state-chartered special schools.

According to the initial law, only existing public schools could convert to charter schools. Additionally, their charter status could only last from one to three years. In order to convert, two-thirds of teachers and parents had to support the conversion, and approval of state and local boards was needed as well. The original 1993 law has been amended five times:

- In 1995, amendments allowed a school to convert to charter status with only a majority of teacher support. Additionally, the charter period was extended to five years, and the school's charter had to present a plan for improvement to meet America 2000 national and state educational goals.
- In 1998, the law changed to allow private individuals, private organizations, state entities, or local entities to operate charter schools. The schools were required to have a governing body consisting predominantly of parents and to present an improvement plan to meet the minimum state standards.

¹ Information for this section was obtained from www.doe.k12.ga.us/schools/charterschools/index.asp

- In 2000, the law was amended to allow charter petitioners to apply to the State Board of Education for approval if denied approval by their local boards of education. Another change required charter schools to participate in the State Accountability System established under HB1187.
- In 2002, changes to the law clarified funding and required the local board to provide written explanation for petition denial. Addendums also required the initial term of a charter to be three to five years and removed the requirement for having a majority of parents make up the governing board. Further, the “blanket exemption” provision was removed, thus requiring a petitioner to specifically identify state and local rules, regulations, policies, procedures, or provisions of state school law to be waived. The “blanket exemption” provision also requires the petition to designate how the waiver will improve student performance.
- In 2004, part of HB1190 included additional waivers for charter schools, centering on portions of Title 20 that apply to local school districts only. Also, a per-pupil facility fund was created, but this has not yet been funded by the General Assembly.

Types of Charter Schools

There are four types of charter schools in Georgia:

- A *Conversion Charter School* is one that existed as a public school before obtaining charter status. After conversion, it operates under a charter held jointly among the public school, local board of education, and State Board of Education. These charter schools are under management and control of the local board, with the State Board as a third party to the contract.
- A *Start-up Charter School* is one started by private individuals, private organizations, state entities, or local public entities. The charter school operates according to the terms of a charter contract held among the charter petitioner, local board of education, and State Board of Education. These charter schools are under management and control of the local board, with the State Board as a third party to the contract.
- An *LEA Start-up Charter School* is one created by the local education agency (LEA). The new school operates under the terms of a charter between the charter petitioner, local board of education, and State Board of Education. These charter schools are

under management and control of the local board, with the State Board as a third party to the contract.

- A *State Chartered Special School* is a public school that operates according to the terms of a charter that has been approved by the State Board of Education. A petitioner may apply to become a State Chartered Special School if they have been denied by the local board of education. A Conversion Charter School may not apply to become a State Chartered Special School.

Admission

Students are admitted to charter schools in Georgia based on a timely application. If more applications are received than there are places available, a random selection process or lottery takes place. Preference is given to students who have siblings in the school and to students who reside in the enrollment district specified in the charter. A charter school may not have admission criteria; as such, all other students will be given equal chances for admittance.

Funding

The Georgia Charter Schools Act of 1998 states that charter schools shall be included in the allotment of funds to the local school systems. The local school district and state board of education are legally required to treat a state charter school no less favorably than other local schools with respect to the provision of funding for basic services. The charter school will receive federal funds for special education and other categorical program services based on eligible pupils. Any further funds must come from independent sources.

The State Board of Education is directed to create a facilities fund for charter schools to establish a per-pupil, need-based facilities aid program.² These monies can be used to purchase real property or transport vehicles; to construct, purchase, or lease school facilities; and to renovate, repair, or maintain the school facilities. The Department of Education shall specify procedures for submitting and approving requests for funding. If the local board owns the charter school facility, they are required to renovate, repair, and maintain it to the same extent as other public schools in the district.

² In 2005, the General Assembly placed \$500,000 in the fund, with half of that amount going to the two oldest of the three state chartered special schools. The remaining funds will be distributed among the other charter schools, based on an evaluation of their needs assessments.

Section II: Report Methodology

In February, 2005, the Center for Evaluation and Education Policy (CEEP) was contracted by the Georgia Department of Education (GADOE) to conduct an evaluation of Georgia's Charter Schools Program in order to analyze baseline academic and demographic information on Georgia's charter schools. Descriptions of CEEP and of the Evaluation Team are included in Appendixes A and B. This evaluation is to serve as a foundation for future evaluations funding by Georgia's General Assembly to track the academic growth of students in charter schools as compared to the growth of students in traditional public schools.

CEEP staff used a variety of strategies to conduct the evaluation, including analysis of extant data, statutory analyses, and statistical analysis of student achievement data.

Analysis of Extant Data

Extant data were gathered from several sources for this study. First, all past reports on charter schools from the Georgia Department of Education were gathered and read, with relevant data pulled from those reports. Second, additional data were gathered from the Department of Education Web site, including spreadsheets, press releases, and databases. Third, national charter school research reports were collected and reviewed if the reports contained specific analyses of Georgia's charter schools.

Statutory Analyses

Multiple legal research techniques were used in this evaluation, an approach that has been strongly supported by the education law community (e.g., Schimmel, 1996; Zirkel, 2003). A statutory analysis was conducted in the 41 states with charter school legislation. Specifically, researchers color coded each state statute according to its language regarding revocation and nonrenewal.

The researchers used the law school library and photocopied the 41 state charter school 2005 statutes. After this was accomplished, the Westlaw and Lexis-Nexis legal databases were used to ensure that there have been no recent changes to the laws. Once these data were collected, the researchers analyzed the language of each state's statute and coded these data according to the strength of the statute. Those states that do not mention revocation and nonrenewal were highlighted in blue, those that only mentioned

revocation and nonrenewal with little specificity were highlighted in green, and those statutes that discussed revocation and nonrenewal in great detail were highlighted in yellow. States that had strong and clear language contained explicit procedures for charter schools to follow.

Student Achievement Analyses

Researchers from CEEP first compiled a list of comparison schools for the existing charter schools based on geographic proximity. To form a second comparison group, personnel from GADOE provided CEEP with a list of comparison schools based on demographic characteristics. Finally, a list of comprehensive school reform (CSR) schools in Georgia was formulated and matched to the nearest charter school. Through this process, each charter school was matched with up to three different comparison schools. The first two comparison groups are often used in educational evaluations, especially those of charter schools, but both have limitations regarding generalizability of results. For that reason, the third comparison group was included in the analyses. By conducting the analyses separately for all three groups, CEEP staff expected that the pattern of results across all three sets of analyses would be generalizable to all Georgia charter schools.

The Criterion-Referenced Competency Tests (CRCT) is designed to measure how well students acquire the skills and knowledge described in the Quality Core Curriculum (QCC)³ and is comprised of selected-response items only. Georgia law requires that all students in Grades 1 – 8 take the CRCT in the content areas of reading, English/language arts, and mathematics. Students in Grades 3 – 8 are also assessed in science and social studies. The CRCT was implemented in the spring of 2000 and is currently administered each spring. For all students in the charter and comparison schools, GADOE provided 2005 student-level CRCT data in addition to data on students, ethnicity, special education status, and gender. No standardized norm-referenced test (NRT) data were available due to a decision made by the state of Georgia beginning in the spring of 2003 to no longer mandate NRT test administration or to require reporting at the state level.

³ Testing information was obtained from <http://www.doe.k12.ga.us/curriculum/testing/programs.asp>

Section III: Results

Demographics

School Characteristics

The number of charter schools in Georgia has risen from 3 in 1995 to the peak of 39 schools in 2001 and has declined slightly each year to 35 in the 2003-2004 academic year (Figure 1).

Figure 1. Georgia Charter Schools in Operation by Academic Year

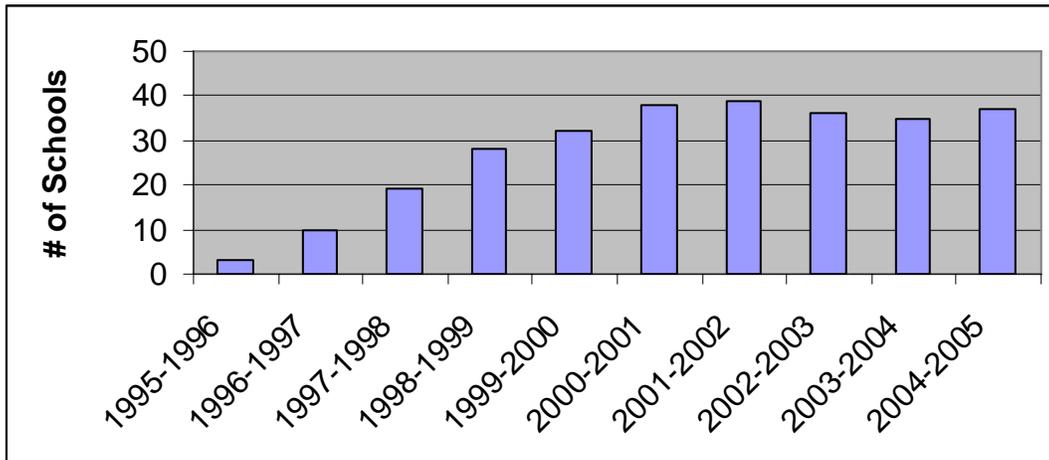
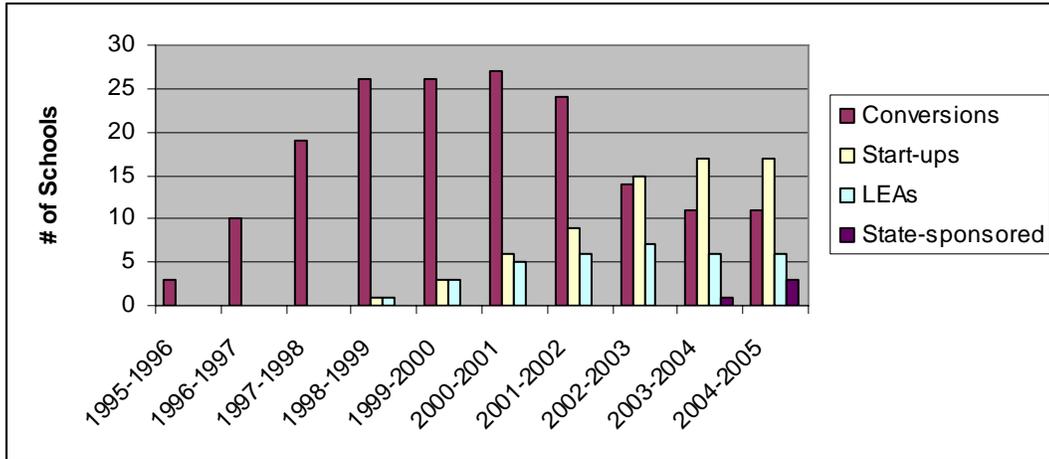


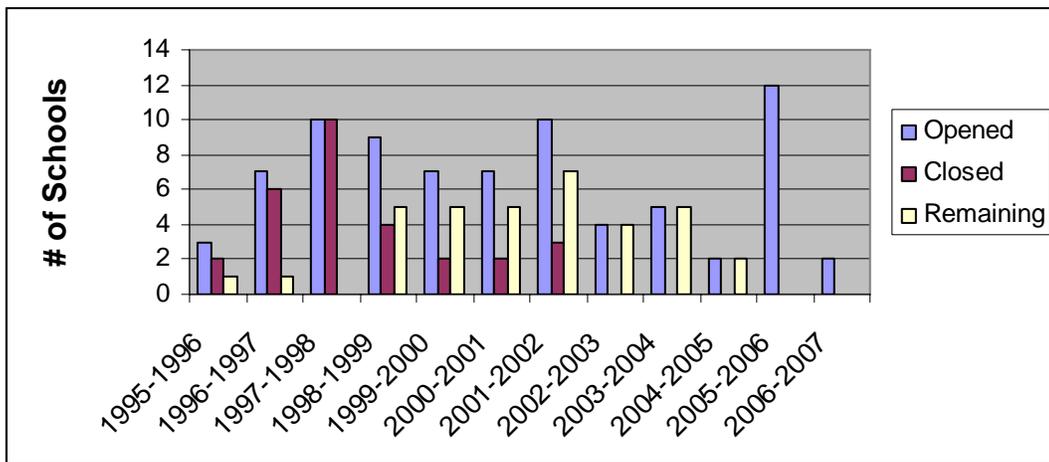
Figure 2 contains data on the number of each type of charter school by year. Two trends are noticeable: First, the vast majority of chartered schools were conversions from traditional public schools, although the number of conversion schools has steadily declined from a peak of 27 during the 2000-2001 academic year. Second, the number of start-ups has increased steadily from 1 in 1998-1999 to 17 in 2004-2005. As schools in improvement status begin to face mandatory corrective action (including conversion to charter schools), these trends may reverse.

Figure 2. Charter Schools in Operation Per Academic Year by Charter Type



As of summer 1995, 64 schools were chartered and had begun operations, but 29 of these schools subsequently closed ($n = 7$) or reverted from conversion back to traditional school status ($n = 22$). This 11% closure rate is higher than the national average of 6 – 7%; although reversion rates are not readily available, Georgia’s closure and reversion rate of 45% is almost certainly well above the national average. Closures by first year of operation are included in Figure 3.⁴

Figure 3. Charter Opening and Closures by First Year of Operation



⁴ These data are drawn from the Charter History document (cs_history.pdf) on the Georgia Department of Education Web site and does not include the large number of new charters that had been approved but had not yet begun operations as of summer 2005.

Student Characteristics

Based on results of the 2003-2004 Governor's Office of Student Achievement report card⁵ as presented in the 2003-2004 Annual Report on Georgia's Charter Schools,⁶ most charter schools in Georgia serve Grades K-8, and 63% are smaller than 500 students. Charter schools are composed of 44% Caucasian students, whereas other public schools in the state of Georgia enroll 50% Caucasian students. Finally, during the 2003-2004 school year, 30% of charter school students were eligible for the Free/Reduced Lunch Program (FRL), as compared to 46% of other public school students in Georgia.

Charter school students made up 2% of the market of the K-12 students in the U.S. in 2002-2003. During that same year, charter schools in the United States enrolled 59% minority students, and 49% of charter students were eligible for free and reduced lunch.⁷ In comparison, Georgia charter school students in 2002-2003 were comprised of 48% minority students⁸ and 41% free and reduced lunch-eligible students.⁹ The most recent data indicate that in 2003-2004, charter school students made up 1% of the market share of public school students in Georgia.¹⁰

According to the 2002-2003 Status Report on Georgia's Charter Schools, Georgia's charter schools experienced their highest rate of White student enrollment during the 1999-2000 school year and were at 52% during 2002-2003 and 50% during 2003-2004.¹¹

Additionally, charter schools are enrolling an increasing number of gifted and talented students (from 6% in 1997-1998 to 10% in 2002-2003), which is a slightly higher percentage than traditional public schools, which enrolled 7% gifted and talented students in 2002-2003. On the other hand, the percentage of special education

⁵ <http://reportcard.gaosa.org/yr2004/k12/Schools.asp?Action=ShowSchools&ID=ALL:ALL>

⁶ http://www.doe.k12.ga.us/schools/charterschools/report_2004.asp

⁷ <http://www.charterschoolleadershipcouncil.org/pdf/sotm2005.pdf>

⁸ http://www.doe.k12.ga.us/_documents/schools/charterschools/charter_report_2003.pdf

⁹ Determining economic diversity in charter schools is difficult: Charters may be slightly less economically diverse than other public schools (e.g., 41% of charter students qualify for free or reduced lunch vs. 46% in all public schools), but these data needed to be interpreted cautiously: Several charter schools do not offer lunch programs and therefore do not report any students receiving free or reduced price lunch.

¹⁰ Calculated by the researchers using data from <http://reportcard.gaosa.org/yr2004/k12/accountability.aspx?TestType=acct&ID=ALL:ALL> and <http://www.doe.k12.ga.us/schools/charterschools/Map/Charters.html>

¹¹ http://www.doe.k12.ga.us/_documents/schools/charterschools/charter_report_2004/charter_report_summary_2004.pdf

participants in charter and traditional public schools has remained fairly constant – around 11-12% in both types of schools.

Teacher Characteristics

CEEP researchers also compiled data on teacher characteristics available from the 2003-2004 Governor's Office of Student Achievement report card (Table 1). Charter schools employ an average of 37 full- and part-time teachers, ranging from 3 to 151 per school, lower than the statewide average of 51 teachers per school. Charter school teachers have less teaching experience than public school teachers statewide (8.8 vs. 12.5 years of experience), with a slightly higher percent of male teachers in charter schools than statewide (21% vs. 18%).

With regard to race and ethnicity, charter teachers are more racially diverse than public school teachers statewide (e.g., 68% of charter teachers are Caucasian vs. 78% statewide), although Black teachers comprise 21% of the teaching force in both types of schools. The majority (55%) of charter teachers has a four-year bachelor's degree as the highest degree, 37% have a master's degree, and 2% have earned doctorates. Charter school teachers have earned advanced degrees at a lower rate than all public school teachers (45% vs. 52%), which is not surprising given the lengthier experience of the statewide sample. Approximately 74% of Georgia's charter school teachers are Highly Qualified according to federal definitions from the No Child Left Behind Act, compared to 84% statewide. Charter and statewide student-teacher ratios are comparable (i.e., 20.74 students per teacher for charters vs. 20.77 students per teacher statewide).

Table 1. Georgia Teacher Characteristics

Characteristic	Charter Schools	All State Public Schools
Average number of full- and part-time teachers employed per school	37	51
Teachers' average teaching experience	8.8 years	12.5 years
Teacher gender	79% female 21% male	82% female 18% male
Teacher ethnicity/race	68% White 21% Black 3% Hispanic	78% White 21% Black <1% Other
Level of education	45% have education above a 4-year Bachelor's degree	52% have education above a 4-year Bachelor's degree
Highly qualified teachers	74%	84%
Student-teacher ratios	20.74	20.77

Note. Statewide statistics include charter schools.

Statutory Analyses

The Center for Education Reform (CER), a pro-charter school organization, rates state charter laws as strong or weak based on various factors such as number of charter schools allowed, variety of sponsoring agencies, formal evidence of local support, and operational autonomy.¹² In the 2004 report, which is the most recent, Georgia was rated “weak” (a grade of “C”) by CER based on analysis of 2002 legislative activity,, ranking 19th out of the 41 charter laws. According to CER, laws receiving a “C” allow for an adequate number of schools but pose challenges to sustaining a prolific charter environment. “Georgia gets a ‘C’ because despite having 36 charter schools, the law still limits authorization to school boards, and with recent legislation that removed the automatic waiver from state rules, charter schools in Georgia will now have to contend with more bureaucracy.”¹³ However, Georgia’s charter law has changed in significant ways since the CER analysis, which may result in improved rankings in the next CER report. At the same time, the sponsorship structure in Georgia has not changed significantly, suggesting that any change in the CER evaluation of Georgia’s regulatory and statutory environment for charter schools will be minor.

¹² http://www.edreform.com/_upload/charter_school_laws.pdf

¹³ <http://www.edreform.com/index.cfm?fuseAction=document&documentID=998§ionID=74&NEWSYEAR=2004>

Revocation and Nonrenewal

Based on the relatively high closure rate of Georgia charter schools, examination of Georgia law regarding charter revocation or nonrenewal is warranted. When a charter school fails to meet its educational objectives, the charter may be revoked or not renewed. As of the fall of 2002, 194 schools' charters had been revoked or nonrenewed, with these closures occurring in 26 of the 33 states and District of Columbia that had chartered schools up to that time.¹⁴ Although this is slightly less than 7% of the schools that have been granted charters, the number of schools is large enough to warrant careful consideration of charter revocation and nonrenewal processes, especially in light of the possibility of additional revocations and nonrenewals in the future.¹⁵ This is especially true in a state with high charter turnover, such as Georgia.

State charter laws and policies vary considerably regarding revocation and nonrenewal procedures, with some state laws and policies providing little guidance or specificity regarding school closures. This situation provides a context in which charter schools may be involved in unnecessary legal challenges. For example, recent court cases in Missouri, Washington, D.C., and Florida involving charter revocations or nonrenewals suggest that several legal issues should be considered when drafting such policies.

Some states that had strong and clear language on revocation contained explicit procedures for charter schools to follow. There were several states (New York, Oregon, and Pennsylvania) which were chosen for further emphasis in this report because of their clear language on revocation procedures. Excerpts from these statutes can be found in Appendix C.

These three states include a number of important factors that clarify the procedures of charter school revocations in their statutes. In all three of these states, the sponsor is required to cite specific and detailed grounds for the revocation. This helps to eliminate the possibility of sponsors simply revoking a charter for spurious reasons and gives the charter school spokespeople a guide for defending their school at the hearing. The second procedure that is included in all of these statutes is a very specific

¹⁴ Center for Education Reform, *Charter School Closures: The Opportunity for Accountability* 4-18 (2002).

¹⁵ Vergari, S. (2003). Charter schools: A significant precedent in public education. *New York University Annual Survey of American Law*, 59(1), 495-520.

hearing/appeals process. In New York and Oregon, the exact amount of days between the notice and the hearing are specified. This prevents spontaneous hearings where a charter school may not be given adequate time to prepare an argument against revocation. Many other states' statutes include information on what should be done with charter school assets and students after a charter revocation. These details ease the transition for the charter school, sponsor, and students and help to prevent misunderstandings at a very emotional time.

In addition to the aforementioned procedures necessary in the revocation statutes, several states have adopted strong language on nonrenewal procedures. A selection of the state statutes from Minnesota, Ohio, and Tennessee are included in Appendix C.

Georgia's statutory language does not fall into the above categories (Appendix C). Rather, Georgia's charter statutes address revocation and nonrenewal but do not provide specific detail. The revocation statute addresses when the state board may terminate a charter and briefly discusses due process procedures.¹⁶ Unlike states with strong statutory language, Georgia's statute does not require detailed grounds nor does it provide specific guidelines regarding the notice and hearing. To illustrate, the statute only requires "reasonable notice to the charter school and an opportunity for a hearing." Some of the language of this statute could be considered problematic. Specifically, the "reasonable notice" requirement could certainly be construed in different ways. Georgia's statutory language on charter renewal is equally vague.

When state legislatures pass legislation or other authorities develop guidelines regarding the revocation of charters, they should be certain to conform to state constitutional standards.¹⁷ In order to do so, one commentator suggests that the contracting parties could set the terms of revocation and procedure in their contract. As noted earlier, Indiana has taken this approach. Alternatively, the legislature could grant authority to the state entity over education to set statewide procedure over the revocation process. Still another option would be to have the statute itself provide the procedure.¹⁸

¹⁶ Ga. Code Ann. § 20-2-2068.

¹⁷ Wall, J. (1998). The establishment of charter schools: A guide to legal issues for legislatures. *Brigham Young University Education & Law Journal*, 1998(1), 69-89.

¹⁸ *Id.*

A 1998 U.S. Department of Education publication urged that charter legislation should explicitly list grounds for revocation. Indeed, codifying these procedures would create uniformity across charter school sponsors that may benefit both future sponsors and school organizers, especially given that closure of underperforming charter schools is likely and, at least for some advocates, desired. Having only vague statutory guidance on revocation appears to guarantee expensive, time-consuming litigation (and, indeed, this litigation has already occurred in other states).

The same consistency is needed with nonrenewal procedures. Further, an appeals process should be available as part of the renewal and revocation process. As noted in both the statutory and case analysis, several states have incompletely dealt with such procedures. Without clear procedures, a charter school closure could have a devastating, drawn-out impact on students, parents, staff, and local education systems. Statutory safeguards are necessary to prevent these avoidable situations.¹⁹

Governance, Funding, and Management

The Fordham Foundation, a pro-charter think tank, recently published an evaluation of charter school funding issues in 16 states and the District of Columbia. The primary purpose of the report was to compare per-pupil revenue at the state level to that reported by charter schools. The 16 states included Arizona, California, Colorado, Florida, Georgia, Illinois, Michigan, Minnesota, Missouri, North Carolina, New Mexico, New York, Ohio, South Carolina, Texas, and Wisconsin. For a variety of reasons, Fordham researchers did not have access to state-level financial data in California, Georgia, Ohio, South Carolina, or Wisconsin. For Georgia, the authors of the report noted that “the state does not report charter and district revenue data separately.” In response to this limitation, the researchers extrapolated state data from the Atlanta and Fulton County school districts to calculate a comparison of per-pupil funds for charter and district schools for Georgia. Based on this extrapolation, significant financial disparity between the two was found. On average, charter school revenue was \$5,125 per pupil compared to

¹⁹ Since this report was submitted, the Georgia Department of Education has undertaken a comprehensive review and revision of the state’s statutory language related to revocation and nonrenewal.

\$7,406 for their district counterparts, a 31% difference in allocated per-pupil funding. Data for Georgia and comparison states are included in Table 2.²⁰

Table 2. 2002-2003 State District and Charter Per-Pupil Funding Estimates from Fordham Foundation Study

State	District Per-Pupil Funding	Charter Per-Pupil Funding	Difference
Minnesota	\$10,056	\$10,301	2%
New Mexico	9,020	8,589	-5%
North Carolina	7,465	7,051	-6%
Florida	7,831	6,936	-11%
Michigan	9,199	8,031	-13%
Texas	8,456	7,300	-14%
Colorado	10,270	8,363	-19%
Arizona	8,503	6,771	-20%
New York	13,291	10,548	-21%
DC	16,117	12,565	-22%
Illinois	8,801	6,779	-23%
Missouri	12,640	9,003	-29%
<i>Wisconsin</i>	10,283	7,250	-30%
Georgia	7,406	5,125	-31%
<i>Ohio</i>	8,193	5,629	-31%
<i>California</i>	7,058	4,835	-32%
<i>South Carolina</i>	8,743	5,289	-40%

Note. Italicized states are estimates based on per-pupil spending in specific, large districts within those states. Data from Speakman et al. (2005).

There are a number of issues that should be considered when interpreting the Georgia data in the Fordham study. First, and most importantly, the researchers had limited access to data, especially statewide revenue data. Given that estimates from the five states with the largest gaps in district-charter funding were all extrapolated from urban district data, further analysis is warranted to ensure that the large funding gaps are not an artifact of the research methodology. At the same time, some of the report's analyses did not include Georgia schools, often because of limited access to or

²⁰ The report's analysis of Georgia data can be viewed directly at http://www.edexcellence.net/doc/CharterFinance_GA_2005.pdf

unavailability of data. This “data vacuum” should be addressed to allow detailed financial analyses to occur.

Second, a specific breakdown of revenue sources (e.g., federal, state, local) was not conducted in this study, yet that information is critically important to helping Georgia policymakers understand and address charter funding issues. For example, if a significant portion of Georgia charter revenue is from federal start-up funds for charter schools, any district-charter funding gap is probably larger than it appears: As the significant funding from this federal program ends, the charter schools will face reduced revenue for the foreseeable future relative to the comparison school districts. Lack of information on how charter schools spend their funding relative to traditional public schools is also a concern: Funding levels alone give us little insight into how money is used within districts and schools.

Beyond these methodological concerns, the results should be interpreted cautiously due to the unique nature of Georgia’s charter schools. Georgia’s charter students, as noted earlier in this report, are slightly but significantly less likely to be on free or reduced lunch, suggesting that charters serving these students may be able to function adequately with less per-pupil funding. But a major limitation in most charter funding studies is that funding and performance are not examined collectively. For example, if charter students outperform traditional school students in states where charters receive less funding than traditional schools, then an argument can be made that any expenditure differences are evidence of greater efficiency within charter schools. If the opposite situation is observed (i.e., charters students underperform relative to their peers in traditional public schools), any differences in funding should be interpreted much more negatively. Georgia should consider conducting a study linking district/school expenditures to student performance to gain insight into how its charters are funded, how they use their funding, and the resulting impact on student performance.

Other Governance and Management Issues

Future evaluations could include examination of other governance and management issues. Group interviews with Georgia charter educators and parents reported in the 2002-2003 State Report on Charter Schools provided evidence that these issues were of concern, yet evaluation of these aspects of Georgia’s charter school system

has not occurred since that time. Potential questions are: How many Georgia charter schools are operated by educational management organizations (EMOs), and what are the effects of this and other management strategies on certain aspects of charter school performance (e.g., patterns of financial expenditures, frequency of financial audits, student performance, teacher quality)? If growth in the number of charters is desired, how would state public universities react to gaining the authority to authorize charter schools? In addition, we are not aware of any previous studies of the charter application and authorization process in Georgia. Such studies have proven useful in other states, and the Georgia Department of Education should consider conducting such a study.²¹

Parent Satisfaction

The Georgia Department of Education has interviewed and surveyed parents of charter school students on multiple occasions, but the most comprehensive survey was conducted in 2003-2004. This survey attempted to determine parents' satisfaction with their children's charter school experiences,²² with the hope that the results would be an indicator of success of the charter school movement, as well as a good proxy for student achievement, which – as noted above – is complicated and often difficult to assess.

The survey, which asked parents to grade and rank the importance of specific characteristics of their children's charter schools, was initiated in the spring of 2004, when letters inviting participation were sent to all 35 Georgia charter schools in operation at the time. Ultimately, 19 schools chose to participate by giving the names and addresses of all families in their school. Responses from 2,325 parents were received. The overall response rate within this sample of 19 schools was 35%, the response rate ranging from 15% to 54% among schools. However, these parents represented only 17% of all parents of students attending charter schools in Georgia.

The parents rated the charters quite highly: 70% of parents graded their child's charter school as an A or A+. In an effort to determine a ranking based on parent behavior, parents were asked, "Do you plan to enroll your child at this school again next year?" Overall, 85% of parents indicated they would re-enroll their children in their

²¹ For example, see Plucker, Eckes, Rapp, & Benton (2004); Plucker, Simmons, Eckes, Rapp, & Benton (2004).

²² http://www.doe.k12.ga.us/_documents/schools/charterschools/charter_survey_report_021405.pdf

charter school the following year. Even parents who did not grade the school highly still believed the charter school was the best available option.

Parent surveys in the 2001 Georgia Charter Schools Evaluation²³ found evidence of high parent satisfaction overall, with over 90% of parents in charter schools indicating that they planned to keep their child enrolled in their current school. Furthermore, over 90% of parents also said they would recommend their child's current school to other parents, as well as charter schools in general. The Status Report on Georgia's Charter Schools for 2002-2003²⁴ found that 95% of parents who responded to survey questions indicated they would recommend their charter school to other parents, and 94% said they would recommend charter schools in general. Although direct comparison of parent survey results across the three reports is difficult due to the lack of common questions, parent satisfaction with specific charter schools and the idea of charter schools appears to have remained high over the past four years. However, the possibility that support for charters is softening slightly (e.g., parents planning to re-enroll dropping slightly from 90% to 85% from 2001 to 2004) should be investigated and monitored in the future.

Parents were also asked about 12 factors that may have led to the selection of their children's charter school. The most frequently selected factor was "strong academics/curriculum," followed by "smaller class size." Other highly rated factors, in descending order of parental emphasis, included "better teachers at this school," "greater opportunities for parent involvement at this school," and "location more convenient." "I have another child attending this school," "child doing poorly in prior school," and "child has special needs previous school not meeting" were the least popular factors. The emphasis on "parental involvement" was also found in the two previous parent surveys, which is not surprising given that a major goal of many Georgia charter schools is to increase parent involvement through such strategies as providing opportunities for mentoring and tutoring, having increased parental representation on governance boards and other school-related organizations, and other volunteering opportunities.

In addition to determining which characteristics were important in school choice, the survey aimed to define the importance of characteristics once children were attending

²³ http://www.doe.k12.ga.us/_documents/schools/charterschools/evaluation_01.pdf

²⁴ http://www.doe.k12.ga.us/_documents/schools/charterschools/charter_report_2003.pdf

the schools. The highest rated factors included: “the overall education your child is receiving at this school,” “the amount your child has learned/is learning at this school,” and “the qualifications and performance of the teachers.” Parents were also asked to grade the 19 factors. The highest grades were given to “opportunities for parents to participate” and “the school’s mission.” When responses were subdivided by the child’s grade level, results indicated that elementary school parents gave higher grades than parents with middle or high school children. The lowest grade given by parents at all grade levels was for “the overall education your child received at the school he/she attended before enrolling here.”

In a different manner than the 2003-2004 parent survey exhibits, but still measuring similar components, the Status Report on Georgia’s Charter Schools for 2002-2003 School Year measured percentage of parents either satisfied or very satisfied on the following aspects of their school: “educational philosophy” (97%), “subjects taught” (96%), “standards for learning” (95%), “quality of teaching” (94%), “response to concerns” (93%), and “individual attention given” (92%). Educational philosophy/school’s mission was rated highly in both the 2002-2003 and 2003-2004 surveys, as was quality of teaching and performance of the teachers. The 2001 Charter Schools Evaluation included parent survey results in three categories: instructional environment, physical environment, and secondary environment; however, the results disaggregated levels of satisfaction between types of charter school (conversion, start-up, and LEA), which was not the focus of the most recent survey. Nonetheless, the average ratings over all charter types was a 3.3 (out of 4.0) rating on instructional environment, a 2.9 rating on physical environment (class/school size), and a 3.2 rating on secondary environment (building and grounds). The 2001 survey results reflect moderate to high levels of satisfaction with these aspects of the charter schools.

In the 2003-2004 survey, researchers correlated the number of years in operation and overall parent grade for each charter school to determine if school length of time in operation affected parent satisfaction, with a statistically significant, positive result. In contrast, parent grades were negatively (but barely) correlated with length of a child’s enrollment in charter schools. Finally, charter schools classified by the parent survey

researchers as “innovative/community” ($n = 10$) received the highest grades, followed by “academic” ($n = 5$) schools and “at-risk” ($n = 4$) schools.

The results of the parent survey must be interpreted with caution, as the respondents represent only 17% of all charter school parents. Furthermore, demographic characteristics of the parent respondents were not reported, although they were included on the survey (i.e., parent income, highest level of parent education). Parents were asked to indicate their child’s average grades, but these data were not reported. Therefore, respondents cannot be assumed to be a representative sample of parents, although the data exist to examine this issue.

The authors of the parent survey report state that, “It is often the case that the least satisfied parents are the ones to respond to surveys like ours” (p. 11). However, the researchers contradict themselves with the results of a correlational analysis which finds that “parents who did not like their schools were no more likely to respond than were parents who did” (p. 12). Because a parent survey in Arizona experienced an increase in participating parents and an increase in overall grades given to charter schools over four years, the authors of the Georgia parent survey conclude that “the most satisfied were not the first to participate” (p. 12). This conclusion is not supported by the available data, nor would these assumptions be made in most evaluation studies.

In an additional attempt to address the possibility of respondent bias, the researchers asked participants, “What grade do you think other parents at your school would give to the school?” Parents who graded their school highly believed others would, too. The survey authors conclude that “respondents’ opinions of the assessments of other parents are . . . reasonably accurate” (p. 13) and that “the grades we present in this report are at least as positive as would be grades from all parents, and perhaps if all parents had responded, the grades would have been higher” (p. 13). Both of these conclusions are questionable: Responding parents who are satisfied with the school may perceive that *all* parents are satisfied with the school, when this may not be the case. And survey researchers generally would not conclude that nonrespondents would report more positive attitudes about a survey topic than respondents: similar attitudes, perhaps, but not more positive attitudes.

Given the analyses presented in the parent survey report, readers should conclude that the survey results hint at broad support for charter schools as educational options, but that significant, additional analyses need to be conducted to determine if these results are generalizable to nonresponding parents within the surveyed schools and parents whose schools were not involved in the study.

Student Achievement

Adequate Yearly Progress

The most recent available data for both charter and traditional public schools in Georgia reveal that in the 2003-2004 school year, 26 out of 31 eligible charter schools (84%) made AYP, compared to 78% of traditional public schools.²⁵ Five schools (16%) did not make AYP, and two of these (6%) were placed in Needs Improvement status. In the previous academic year, 2002-2003, 24 out of 31 charter schools (77%) made AYP. Statewide, 64% of public schools made AYP in 2002-2003,²⁶ so charter schools outperformed other public schools in this respect. AYP data are summarized in Table 3.

Table 3. AYP Results for Charters and All Public Schools in Georgia, 2002-2005

Year	Eligible Charter Schools	Charters Making AYP		All Public Schools Making AYP	Charters Needing Improvement		All Public Schools Needing Improvement
		n	%		n	%	
2002-2003	31	24	77%	64%	n/a	n/a	22.7%
2003-2004	31	26	84%	78%	2	6%	20.3%

Note. 2004-2005 charter AYP data were not available at the time this report was prepared.

Nationally, although there are wide variations in how states define AYP status, many organizations and researchers have concluded from recent state-level studies that the nation’s charter schools are making AYP at roughly the same level as traditional public schools (“Variations Show,” 2005). For example, in Massachusetts, 45% of

²⁵ http://www.doe.k12.ga.us/schools/charterschools/report_2004.asp and http://www.doe.k12.ga.us/_reports/ayp_2004/stateoverview.asp

²⁶ http://www.doe.k12.ga.us/_documents/schools/charterschools/charter_report_2003.pdf

charter schools failed to make AYP during the 2002-2003 school year, compared to 48% of all schools in the state. The Progressive Policy Institute also suggests that Arizona charter schools were at the same level as or outperforming traditional public schools in making AYP for the 2003-2004 school year. In other states, however, charter schools are failing to make AYP at much higher rates compared to all schools in the state. During the 2002-2003 school year in Pennsylvania, for example, 92% of charters failed to make AYP, compared to 51% of all schools in that state. That same year in Ohio, 63% of charter schools failed to make AYP, while only 24.6% of all schools in Ohio failed to do the same (“Variations Show,” 2005). Given the data from other states, Georgia charter schools appear to be achieving greater success in making adequate yearly progress than charters in many other states.

Elementary and Middle School CRCT Results

Project staff constructed a database of Grade 3 – 8 2005 CRCT results for charter students and students in the three comparison groups mentioned above: Comparison Group 1: Physically closest schools, Comparison Group 2: Demographically similar schools, Comparison Group 3: Comprehensive School Reform schools. After removing students with missing or incorrect identification numbers, missing or incorrect data, and mislabeled schools (e.g., one comparison school was represented by three distinct school and district numbers, suggesting that the school consisted of data from three distinct schools), the final database consisted of 60,510 students’ scores (9,587 charter students and 50,923 comparison group students), in addition to student-level demographic data on student grade, ethnicity, gender, and years in a charter school.

For ease of interpretation, a series of analyses of covariance (ANCOVA) were conducted. Although multivariate analysis of covariance would have simplified the analyses, it also would have complicated the interpretation of results significantly. In addition, concerns about Type I statistical error were reduced given the large sample sizes in each analysis and the reliance on both statistical significance and effect size interpretation. In each ANCOVA, one CRCT subscale (i.e., reading, English/language arts, or mathematics) served as the dependent variable, with charter or comparison group status as an independent variable, controlling for student ethnicity and gender. Results were conducted by grade to simplify interpretation of the results, which are summarized

in Table 4. Effect size estimates were calculated using Hedges' unbiased standardized estimate of mean differences.

Table 4. Summary of ANCOVA on CRCT Scores by Treatment Group Controlling for Ethnicity and Gender

Grade	Test	Comparison Group 1: Closest Schools		Comparison Group 2: Demographically Similar Schools		Comparison Group 3: CSR Schools	
		ES	p	ES	p	ES	p
3	Reading	.11	<.001	-.14	.002	.33	<.0001
	Eng/Lang Arts	.06	.028	-.32	<.0001	.22	.0001
	Math	.06	<.009	-.17	<.0001	.27	<.0001
4	Reading	.07	<.005	-.23	<.0001	.14	<.006
	Eng/Lang Arts	.00	.47	-.33	<.0001	.09	.12
	Math	.08	<.003	-.22	<.0001	.08	.16
5	Reading	-.04	.48	-.25	<.0001	.05	.09
	Eng/Lang Arts	-.06	.89	-.35	<.0001	-.02	.83
	Math	-.07	.97	-.22	<.0001	.04	.19
6	Reading	.27	<.0001	.08	<.007	-.01	.10
	Eng/Lang Arts	.27	<.0001	.07	.01	-.06	.66
	Math	.22	<.0001	.04	.09	-.08	.48
7	Reading	.19	<.002	.08	.01	.04	.18
	Eng/Lang Arts	.19	<.001	.07	.04	.01	.58
	Math	.15	.05	.10	<.001	.02	.41
8	Reading	.23	<.0001	.17	<.0001	.10	<.007
	Eng/Lang Arts	.16	.01	.16	<.0001	.03	.41
	Math	.15	.17	.07	.04	-.04	.38

Given the reporting of multiple statistical tests, project staff interpreted any result of $p > .001$ as statistically significant. Statistically significant results with higher performance by charter school students are shaded green in Table 4, and significant results favoring comparison group students are shaded red. Effect size estimates from 0 to .2 should be considered small, from .2 to .5 moderate, and higher than .5 large. In these analyses, the differences between the charter and comparison school students ranged from small to moderate in all statistical comparisons.

Time in Charters and Achievement

A second set of statistical analyses was conducted to examine the relationship between length of attendance in charter schools and 2005 CRCT performance. Multivariate analyses of variance were conducted with 2005 scale scores in reading, English/language arts, and mathematics as dependent variables, and student demographics (i.e., gender, special education status, ethnicity) and length of time attending a charter school as independent variables. To heighten the contrasts due to any charter school attendance effects, that dependent variable was collapsed into two categories: students who had attended a charter for one year versus those attending for three years or more. Ethnicity was coded “1” for African American students and “0” for all other students. This coding was used due to the relatively small percent of students of other ethnicities in the sample, especially Hispanic Americans and Native Americans (e.g., 51% of students were coded “1”). Previous achievement test performance was not used as a covariate due to a desire to avoid collinearity with the dependent variables (i.e., the impact of the other dependent variables was possibly already accounted for in the 2004 test results).

The multivariate analysis of variance (MANOVA) results, which were conducted separately for Grade 4 through Grade 8, are summarized in Table 5. Statistically significant effects or interactions associated with practically significant effect sizes are shaded in green.

Table 5. MANOVA Results with 2005 Reading, Language Arts, and Math Scores as Dependent Variables

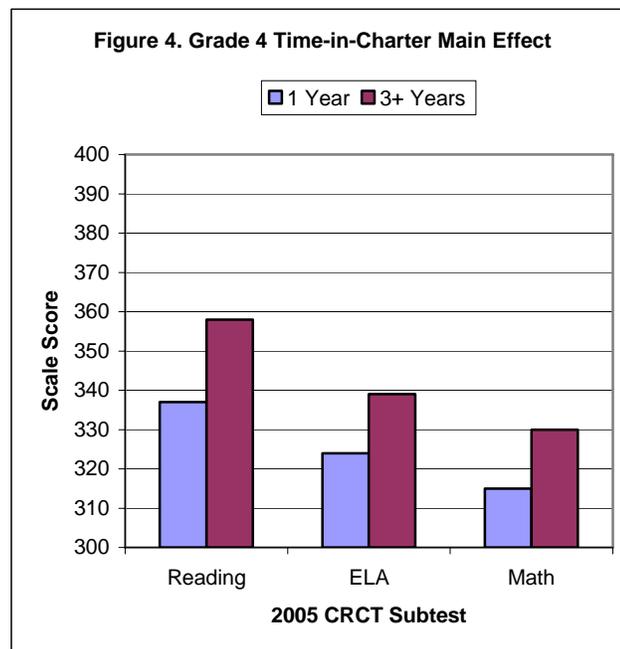
Grade	Effect/ Interaction	F	df	p	Partial Eta Squared
4	Time in charter	12.38	(3, 729)	<.001	.048
	Gender*Time	.36	(3, 729)	.785	.001
	Ethnicity*Time	2.83	(3, 729)	.038	.012
	Gen*Eth*Time	.86	(3, 729)	.461	.004
5	Time in charter	25.16	(3, 850)	<.001	.082
	Gender*Time	.52	(3, 850)	.670	.002
	Ethnicity*Time	12.74	(3, 850)	<.001	.043
	Gen*Eth*Time	2.46	(3, 850)	.062	.009
6	Time in charter	.78	(3, 1263)	.507	.002
	Gender*Time	.59	(3, 1263)	.625	.001
	Ethnicity*Time	1.67	(3, 1263)	.172	.004

	Gen*Eth*Time	1.62	(3, 1263)	.183	.004
7	Time in charter	4.63	(3, 465)	.003	.029
	Gender*Time	1.29	(3, 465)	.278	.008
	Ethnicity*Time	4.91	(3, 465)	.002	.031
	Gen*Eth*Time	2.83	(3, 465)	.038	.018
8	Time in charter	7.10	(3, 629)	<.001	.033
	Gender*Time	1.31	(3, 629)	.270	.006
	Ethnicity*Time	9.91	(3, 629)	<.001	.045
	Gen*Eth*Time	.41	(3, 629)	.749	.002

Based on the reasoning that statistically significant interactions are of primary concern when one or more of the related main effects is also statistically significant, four effects or interactions were identified for additional analysis: the Grade 4 Time-in-Charter main effect and the Grades 5, 7, and 8 Ethnicity X Time-in-Charter interactions.

Grade 4 Time-in-Charter Main Effect

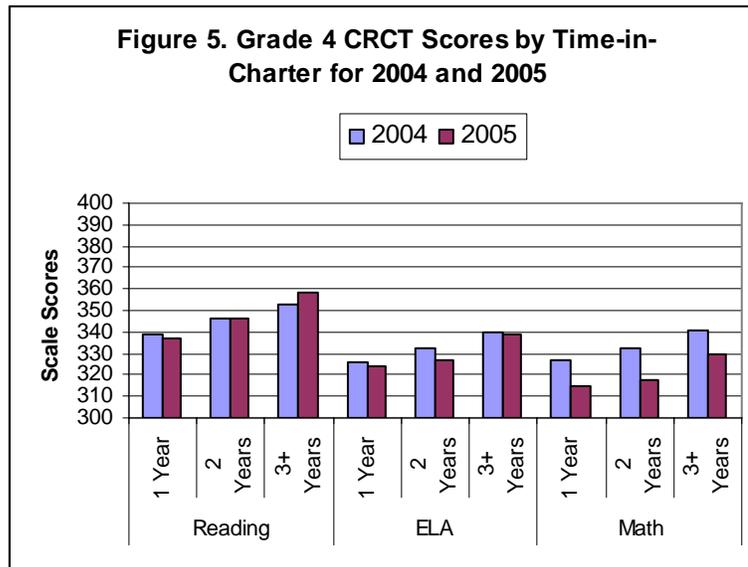
Means for Grade 4 students on the 2005 CRCT reading, English/language arts, and math subtests are presented in Figure 4. The data suggest that students who attended charter schools for three or more years scored significantly higher on all three tests than students who took the tests at the end of their first year in a charter school.



At first glance, these data appear to support the interpretation that attendance in charter schools is associated with higher levels of student achievement. But these differences could be related to cohort effects: Students who entered charters three or

more years ago may have had relatively higher test scores than students who enrolled in charters in the past year. Although, due to large amounts of missing data, CEEP staff were not able to examine change over time for these students.

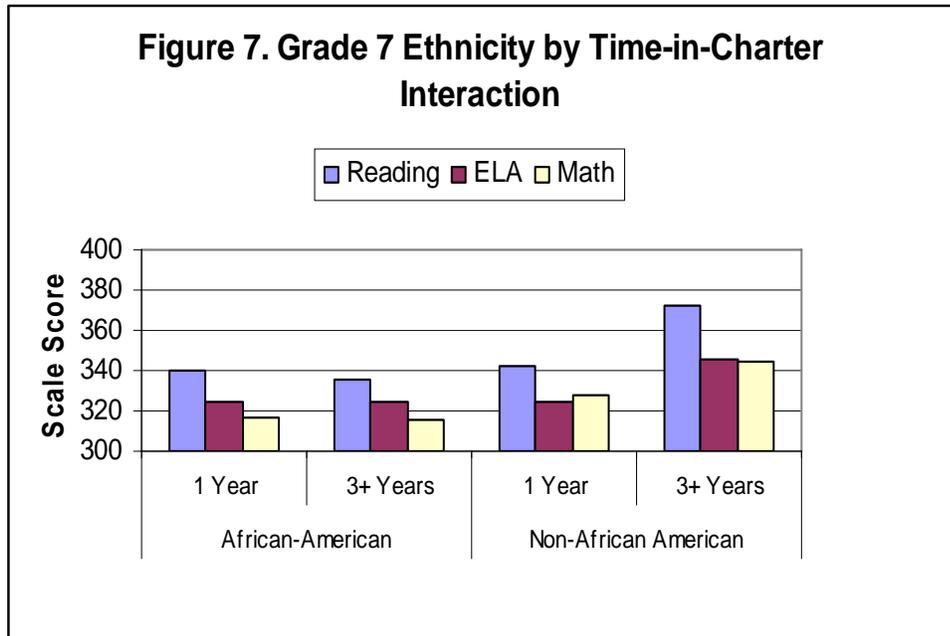
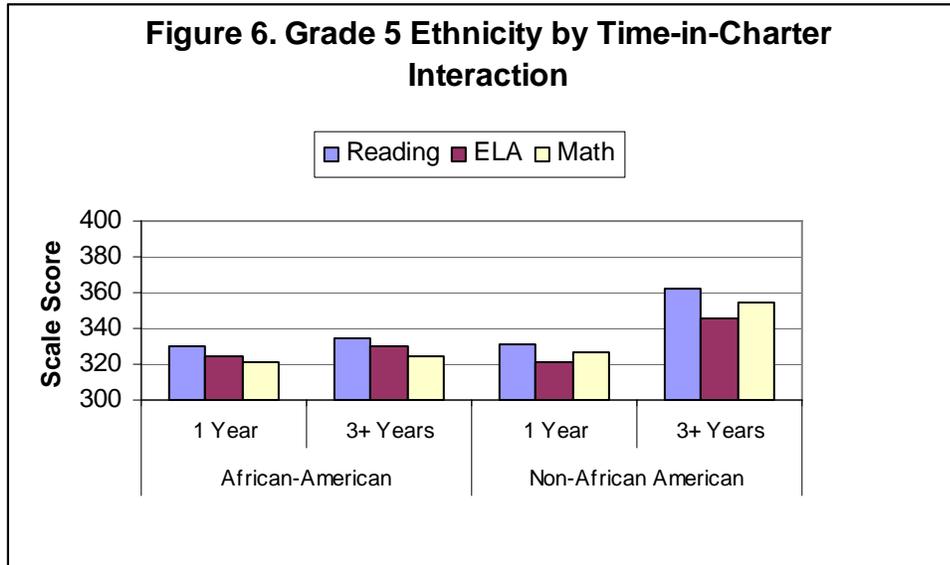
Figure 5 contains the difference in 2004 and 2005 CRCT scale scores between students with 1, 2, or 3 or more years of attendance in Georgia charter schools. These data provide evidence that the pattern of scores is very similar across both the 2004 and 2005 CRCT administrations, suggesting that the Grade 4 differences may not be related to a cohort effect. Another possible interpretation is that the academic abilities of charter students have steadily declined over each of the past three years. However, this interpretation appears to be unlikely given the lack of other evidence of declining ability in students entering charter schools over this period.

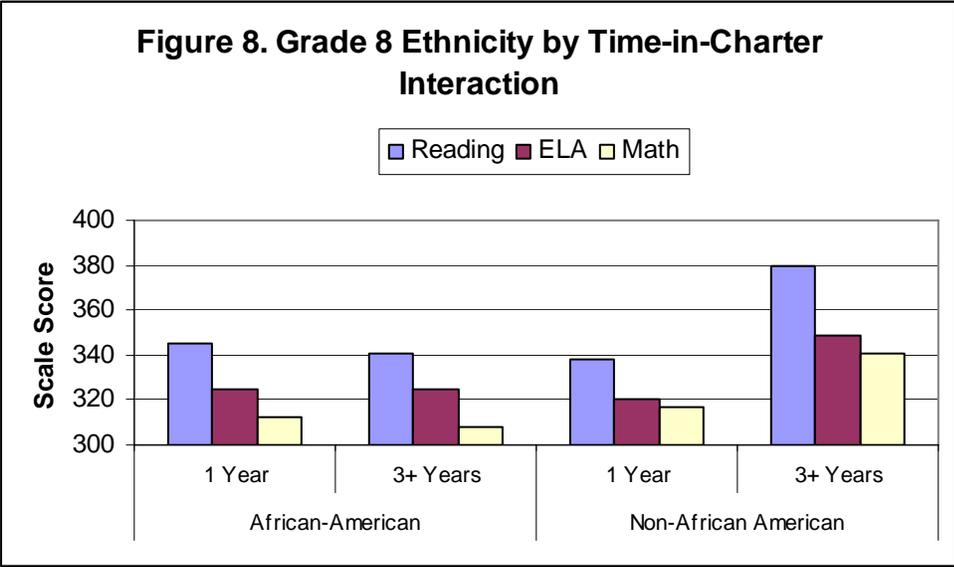


Grades 5, 7, and 8 Ethnicity X Time-in-Charter Interaction

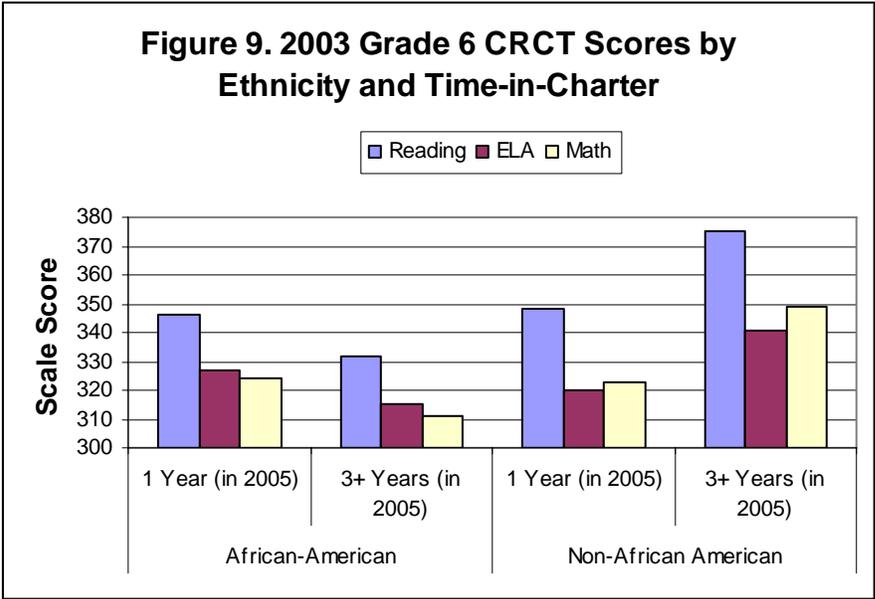
As can be seen in Figures 6 – 8, the ethnicity by time-in-charter interactions for the Grades 5, 7, and 8 CRCT MANOVA provide little evidence of significant differences between African American students based on length of charter attendance, although significant differences exist between non-African American students based on time-in-charter. At all three grade levels, 2005 CRCT scores were significantly higher for these students who had attended charter schools for three or more years. In most cases, these

differences appear to be at least a standard deviation in magnitude, which is evidence of a large effect.





Again, this may only be evidence of a cohort effect, with less qualified non-African-American students enrolling in greater numbers in recent years. To investigate this more closely, CEEP staff examined the 2003 CRCT scores for students in Grade 8 in 2005 (i.e., we examined the Grade 6 scores of the current Grade 8 students to see if similar patterns existed). This is hardly a perfect comparison, as there is a great deal of missing data, especially for students who spent the 2004-2005 year in a charter school for the first time. But if the same pattern apparent in 2005 (Figure 8) were present in 2003 (Figure 9), there would be convincing evidence of a cohort effect.



Interestingly, the data in Figure 9 suggest an almost opposite interpretation than those in Figure 8. These data suggest the presence of a cohort effect for non-African American students (i.e., the pattern of results between the two groups of students in 2003 is similar to that in 2005), but not for African American students. Indeed, if a cohort effect exists among African American students, it is biased against students who, in 2005, had attended charter schools for three or more years. Indeed, the data in Figure 9 suggest that African American students who entered charter schools in 2002-2003 or earlier exhibited lower achievement in reading, language arts, and math than their peers who entered charters in 2004-2005. Yet, despite this cohort effect, there are no significant differences in achievement for African American students across time-in-charters at the end of Grade 8. This suggests that time-in-charters had a negligible effect on Grade 8 non-African American students, but that time-in-charters had a significant effect on Grade 8 African American students. Again, significant limitations exist for these analyses, but the results point to important areas for future research.

Section IV: Conclusions and Recommendations

The purpose of this report was to satisfy the 2004-2005 Objective 4 (Goal IV) in the Georgia Strategic Plan for Charter Schools. Specifically, the desired outcomes of the report were a completed independent evaluation of the student population in Georgia's charter schools. In addition, the project team was asked to help the Georgia Department of Education plan for the next program evaluation (2005-2006 Strategic Plan Objective 5). In this section, conclusions drawn from the data in this report are followed by specific recommendations for subsequent evaluations of Georgia's charter schools.

School Characteristics

The number of Georgia charter schools has been relatively stable over the past six years, with 35 in operation during the 2004-2005 school year and 12 approved schools scheduled to begin operation in 2005-2006. However, the nature of charter schools has changed: The vast majority from 1995-2002 were conversion charter school, but those schools have been declining in number since 2000-2001. In their place, Georgia has seen an increase in start-up charter schools, which are now the most numerous type of charter school. Georgia charters have experienced a closure rate higher than the national average (11% vs. 7%), and the percentage of conversion charters reverting to traditional school status is also probably higher than the national average.

- Future evaluations should investigate the experiences of organizers within each type of charter school. The mix of school types has shifted considerably in recent years, and information on the chartering process and start-up experiences would prove valuable to potential organizers (Goals I-IV, Objective 2, Strategy 2; Objective 3).
- Similarly, research on the experiences of charter schools that have closed would be helpful as the Georgia Department of Education designs and implements interventions to improve management practices (Goal V, Objective 4, Strategy 2).

Student Characteristics

The data on student characteristics suggest that although Georgia charter schools are slightly more diverse in terms of student racial composition than all Georgia public

schools (56% minority enrollment in charter schools vs. 50% in all public schools), economic diversity in charters is similar to that of all public schools (e.g., 41% of charter students qualify for free or reduced lunch vs. 46% in all public schools). Minority enrollment appears to be increasing in charter schools, but free/reduced price lunch eligibility appears to be holding steady over the most recent three years. The percent of identified gifted students appears to be increasing very slowly – and is now higher than in all public schools – but the percent of students receiving special education services has remained steady and is comparable to the percent receiving these services in all public schools.

- Little is known nationally about how student race, socioeconomic status, and ability influence decisions to enroll in charter schools. Given Georgia’s unique situation (e.g., high minority, high gifted enrollment compared to all state schools), studying how enrollment decisions are made would provide the Georgia Department of Education with guidance about how to disseminate information about charter schools most effectively (Goals I, II, and IV, Objective 3).
- Similarly, given the high percentages of gifted and special education students in charter schools, studying how enrolled students with special needs receive services within charter schools should aid in efforts to disseminate information on the advantages of charter schools to potentially interested parents and students (Goals I, II, and IV, Objective 3) and identify best practices for use in charter schools (Goal V, Objective 4, Strategy 3).

Teacher Characteristics

Charter school teachers are considerably less experienced than public school teachers statewide (8.8 vs. 12.5 years of teaching, respectively), and, in a related vein, charter teachers have advanced degrees at a slightly lower rate than other public school teachers. A higher percentage of charter teachers are male and non-Caucasian, although roughly 1 in 5 teachers are African American in both charters and traditional public schools. About 74% of charter school teachers and 84% of public school teachers statewide are Highly Qualified according to the federal definition in the No Child Left Behind Act.

- Future evaluations should determine if teachers of similar levels of experience differ in their educational attainment and qualifications, and if disparities in experience impact teacher behaviors and student achievement (Goals II-IV, Objective 2, Strategy 3). Cost-effective methodologies exist for making these comparisons, and the resulting information would facilitate dissemination of information on effective instructional practices.
- Given the considerable difference in experience between charter and traditional school teachers, the frequency and type of professional development received by charter school teachers should be examined: If charter teachers lack access to high quality professional development, their personal development and effectiveness may be limited (Goal V, Objective 4 Strategy 3).

Laws and Policies

A recent report by the pro-charter Center for Education Reform (CER) rated Georgia's charter school laws and policies 19th out of 41 states and Washington, D.C. that had charter schools at the time of the analysis. Although the number of charter schools was lauded, the report noted that the range of potential sponsors is very limited and that charter schools face increasing regulation from the state. Recent changes to Georgia's charter laws may improve the state's standing in the CER analysis, which was based on 2002 legislative activity. Due to the state's high closure/reversion rate, Georgia's statutes on revocation and nonrenewal of charter schools were reviewed and found to be lacking in necessary levels of specificity in several areas (although GDOE has subsequently reviewed and revised applicable policies and rules in this area).

- Options for expanding the diversity and number of sponsors should be considered. University sponsorship is being used for this purpose in a handful of states, but other options exist. In other states, studies of effective sponsorship have proven useful to current and potential sponsors by providing information about best practices. Such evaluation information would guide the Georgia Department of Education's efforts to strengthen charter governance (Goal II-V, Objective 2; Objective 4, Strategy 1).

- Future evaluations should include comparisons of Georgia statutes and policies governing charter schools with similar documents from other states. For example, in this evaluation Georgia’s revocation and nonrenewal statutes were analyzed in light of model statutes from other states and recommendations from national charter school organizations, with the results suggesting that Georgia’s statutes should be examined and revised in several ways. Additional legal and policy analyses will strengthen Georgia’s charter schools and help avoid legal and governance issues (Goals I and III, Objective 1).

Governance, Funding, and Management

A recent report by the Fordham Foundation, a pro-charter think tank, concluded that Georgia’s system for funding charter schools provided significantly less funding per student to charter schools than to traditional public schools (i.e., per-pupil revenue was 31% lower in charter schools). The report also identified areas in which Georgia policy on school funding could be made more equitable for charter schools, including access to all funding streams currently available to traditional public schools. The Fordham study has significant limitations, but the broader questions surrounding funding of charter schools should be considered.

Previous evaluations and reports, which included parent and educator concerns about governance and management, and the observation that most charters close due to management and financial problems, suggest that governance and management issues are worthy of serious investigation. Other states have conducted these studies and found them to be useful in fostering sound governance and management practices. However, these issues have yet to be comprehensively examined in Georgia’s charter schools.

- The Fordham Foundation analyses were limited due to the lack of high quality, accessible school finance data at both the school and state levels. Providing the necessary data would allow analyses that provide insight into charter school revenues and expenditures. Analyses could also provide information on how successful charter schools managed their financial resources during the initial start-up phases, which would provide valuable information to organizers of new schools (Goals II-IV, Objective 2).

- Future collection of charter school demographics could include information on management and governance. For example, it would be valuable to know how many of Georgia’s charter schools are operated by educational management organizations (EMOs) and the effects of this and other management structures on certain aspects of charter school performance. In other words, what management practices have worked in Georgia’s charter schools? What practices appeared promising but did not live up to expectations? A comprehensive study of charter management would be invaluable as the Georgia Department of Education works to strengthen management practices in charter schools (Goal II-V, Objective 2; Objective 3, Strategy 2; Objective 4, Strategy 2).

Parent Satisfaction

Parent attitudes toward charter schools have been very positive over several administrations of various parent surveys. For example, in the most recent survey, 70% of parents graded their child’s charter school an A or A+, and even parents who did not grade the school highly believed the charter school was the best available option for this child. Although the parent survey results should be interpreted with caution due to several significant limitations, parent satisfaction with their children’s charter schools – and the idea of charter schools in general – appears to be considerable and has probably remained relatively stable over the past four years.

- The Georgia Department of Education should identify a core set of items to be used in all future parent surveys (Goal IV, Objective 5). This would allow the identification and analysis of trends in parent perceptions and attitudes, with other items added or removed to reflect questions of special importance for given points in time.
 - The technical limitations of the parent surveys should be addressed before the next study of parent perceptions. For example, when parents were asked if they planned to enroll their children in the same charter school the following year, parents were not given the option to indicate that their child was finishing the last grade level available at that school, and some charter schools were slated to close the following year. To correct for this,

the researchers “eliminate[ed] ‘no’ responses from parents whose children were in the highest grade offered by a charter school” (p. 10). A more widely accepted strategy would be to ask whether parents would enroll their children in the school, hypothetically, even if this were impossible.

- Parent perceptions have not been examined in light of student achievement, which may provide additional information on parent attitudes. For example, parent survey responses can be correlated with actual student achievement, with attention paid to race, family income, prior student achievement, and other variables (Goals II, III, and IV, Objective 2, Strategy 3; Objective 5).
- Methodologies for studying parent involvement have progressed rapidly since the first parent survey was administered in Georgia. For example, using the new national PTA standards for parent involvement, CEEP staff have developed a battery of survey questions that allow parent involvement to be assessed with much greater precision and validity than was previously possible. With positive parent perceptions somewhat established in Georgia, determining whether these positive perceptions are leading to increased parent involvement appears to be a logical next step in the identification of best practices (Goal V, Objective 4, Strategy 3).

Student Achievement

Analysis of 2002-2005 Adequate Yearly Progress designations and 2005 elementary and middle school testing data in the areas of reading, English/language arts, and mathematics provide evidence that students in Georgia charter schools are achieving at similar levels as their peers statewide and in comparison schools, with significant variation by subject area, grade, and length of time attending charter schools. Evidence of the impact of length-of-attendance in charter schools on student achievement is most convincing in Grade 4, although there is some evidence of an effect in Grades 6, 7, and 8.

- To measure the value added to a student’s education by attendance at a charter school, it is helpful to track his or her performance before and after enrollment in the charter school. Doing so will allow comparison among groups of attendance

patterns as done in Mulholland (1999) and Solmon et al. (2001). Currently, the Georgia Department of Education does not collect such matriculation information.

- Some student-level demographic data, such as free or reduced lunch eligibility, were not available for the analyses included in this report. Given that the free/reduced lunch rate is lower for charter students than for students in all public schools, the availability of this type of information would strengthen the analyses considerably and provide important information about the effect of charter schools on student achievement (Goals II, III, and IV, Objective 2, Strategy 3; Objective 5; Goal IV, Objective 5).
- The best statistical test of charter school effectiveness is the use of experimental designs in which students randomly selected for charter school attendance are compared to students randomly assigned to a traditional public school. Because some Georgia charter schools use lottery-based admissions, the conditions exist for this type of experimental study. Given this unique opportunity (many states do not have sufficient numbers of charter schools using lottery-based admissions), the Georgia Department of Education should consider the use of multi-year experimental studies in future evaluation work (Goals II, III, and IV, Objective 2, Strategy 3; Objective 5). Doing so would provide valuable information for the Department's planned dissemination efforts (Goals I, II, and IV, Objective 3). This type of study would also facilitate the identification of best practices within specific schools, allowing specific strategies to be shared with potential and current organizers (Goal II-V, Objective 2, Strategy 3; Objective 4, Strategy 2).

Summary

In general, our recommendations for future evaluation work are based on the assumption that it is time for Georgia to move from a mindset in which the question of interest was, "Do our charter schools work?" to an approach that asks, "For whom do our charter schools work, and under what circumstances do these schools work best?" The development of the Georgia charter school system over the past decade has been impressive, and – although more work needs to be done – evaluation evidence suggests that the schools are working in many ways. The next step in the evolution of these

schools is to determine the factors that promote the highest levels of student success and parent satisfaction within Georgia charter schools.

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APPENDIX A

About CEEP

Center for Evaluation and Education Policy (CEEP)

Mission and Vision Statements

The Center is a client-focused organization whose purpose is to deliver the highest quality service to its clients through the most cost efficient means possible. The purpose of the Center is to promote and support rigorous program evaluation and education policy research primarily but not exclusively for educational, human services, and non-profit organizations. Specifically, the mission of the Center is to:

- Improve education by providing nonpartisan information, research, and evaluation on education issues to policymakers and other education stakeholders.
- Encourage rigorous program evaluation across a variety of settings by providing evaluation expertise and services to diverse agencies, organizations, and businesses.
- Expand knowledge of effective evaluation and policy research strategies by developing, modeling, and disseminating innovative approaches to program evaluation and policy research.

Experience

The Center for Evaluation and Education Policy (CEEP) was formed in 2004 by the merger of the Indiana Center for Evaluation and the Indiana Education Policy Center. Collectively, the two centers bring nearly 40 years of program evaluation and policy research experience to the new Center.²⁷ The Center has over 40 researchers and support staff, with most senior personnel holding a doctoral degree and additional advanced training. The Center has a dynamic professional development program that provides staff with training in the latest conceptual, methodological, and organizational strategies and advances. Center staff frequently publish in major journals and present their work at major conferences.

Recent center projects include evaluations of large scale scientifically based literacy initiatives in several states, evaluations and technical assistance for charter schools, evaluations of various school reform and school choice initiatives, and

²⁷ For ease of discussion, the evaluation projects and experiences noted in this section reflect the collective work of each of the former centers. Given that the new Center combines the resources and experiences of both prior entities and that staff conducted similar activities across the two Centers, no differentiation is made in the text between research and evaluations conducted by the former Indiana Center for Evaluation and the former Indiana Education Policy Center.

evaluations of community-based and school-based programs to improve mathematics and science education. These activities have occurred at the local, state, and regional levels, with major projects ongoing or recently concluded in Indiana, Ohio, Michigan, Wisconsin, Minnesota, and Kentucky. Current clients include the Ohio Department of Education, the Indiana Department of Education, the Michigan Department of Education, the Kentucky Department of Education, the Indianapolis Public Schools, the Foellinger Foundation, Indiana Youth Institute, North Central Regional Education Laboratory (NCREL), and five community foundations in Indiana.

The Center draws from a diverse range of models and approaches, many of which have been pioneered by Center staff, to design and implement evaluations and policy analyses. Major models include the Holistic Model of Evaluation (Muller & Metcalf, 2001) and a model for classifying and studying diverse school reforms (St. John, Bardzell, & Associates, 1999). The Center's breadth of experience and resources allows development of the most efficient and effective evaluation or policy study for each client's unique goals. When necessary to meet client needs, the Center's resources are augmented through partnerships with highly qualified academics, consultants, and organizations.

APPENDIX B

About the Evaluation Team

Project Leadership

Dr. Jonathan Plucker, Director of the Center, is an associate professor of educational psychology and cognitive science at the Indiana University School of Education. His research interests include creativity and intelligence, school reform, and talent development. Dr. Plucker's vision of how CEEP services can support decision makers is evident in CEEP's many projects. Dr. Plucker holds degrees from the University of Connecticut (B.S. in chemistry education; M.A. in educational psychology) and the University of Virginia (Ph.D. in educational psychology with an emphasis in statistics and research methodology).

Dr. Suzanne Eckes is an assistant professor in educational leadership and policy studies at Indiana University and is a faculty associate of CEEP. Dr. Eckes' research interests include Title IX, affirmative action, and desegregation law.

Research Associates

Kelly Rapp is a Research Associate at the Center for Evaluation and Education Policy (CEEP) at Indiana University. She has an M.S. Ed. in educational psychology from the University of Kansas and is working toward her Ph.D. in educational psychology with an emphasis on inquiry methodology at Indiana University. Ms. Rapp and Dr. Plucker have collaborated on multiple research projects regarding school choice and alternate educational options.

Dr. Russell Ravert, a CEEP Research Associate, earned his Ph.D. in Educational Psychology from Indiana University Bloomington in 2004. At CEEP, Dr. Ravert has worked on a number of collaborative research projects focused on educational reform programs, teacher education programs, literacy services, and high school student engagement. Dr. Ravert is trained in both qualitative and quantitative research methodologies and has taught undergraduate and graduate courses at Indiana University and Indiana University – Purdue University Indianapolis. In the fall of 2005, Dr. Ravert began a position as Assistant Professor of Human Development & Family Studies at the University of Missouri-Columbia.

John Hansen is a CEEP Research Associate and doctoral student in inquiry methodology. Mr. Hansen specializes in database management and multivariate statistical analysis.

Anne Trotter, a Ph.D. candidate in school psychology, and Matt Makel, a Ph.D. candidate in educational psychology, are graduate Research Assistants at the Center.

APPENDIX C

Statutory Data on Charter Revocation/Nonrenewal

Statutes with Strong Revocation Language

New York	<p>The information provided on the application shall be consistent with the provisions of this article and other applicable laws, rules and regulations. Such information shall include: ... (t) Procedures to be followed in the case of the closure or dissolution of the charter school, including provisions for the transfer of students and student records to the school district in which the charter school is located and for the disposition of the school's assets to the school district in which the charter school is located or another charter school located within the school district.²⁸</p> <p>Notice of intent to revoke a charter shall be provided to the board of trustees of a charter school at least thirty days prior to the effective date of the proposed revocation. Such notice shall include a statement of reasons for the proposed revocation. The charter school shall be allowed at least thirty days to correct the problems associated with the proposed revocation. Prior to revocation of the charter, a charter school shall be provided an opportunity to be heard, consistent with the requirements of due process. Upon the termination of a charter, the charter school shall proceed with dissolution pursuant to the procedures of the charter and direction of the charter entity and the board of regents.²⁹</p> <p>In addition to the provisions of subdivision two of this section, the charter entity or the board of regents may place a charter school falling within the provisions of subdivision one of this section on probationary status to allow the implementation of a remedial action plan. The failure of a charter school to comply with the terms and conditions of a remedial action plan may result in summary revocation of the school's charter.³⁰</p> <p>Any individual or group may bring a complaint to the board of trustees of a charter school alleging a violation of the provisions of this article, the charter, or any other provision of law relating to the management or operation of the charter school. If, after presentation of the complaint to the board of trustees of a charter school, the individual or group determines that such board has not adequately addressed the complaint, they may present that complaint to the charter entity, which shall investigate and respond. If, after presentation of the complaint to the charter entity, the individual or group determines that the charter entity has not adequately addressed the complaint, they may present that complaint to the board of regents, which shall investigate and respond. The charter entity and the board of regents shall have the power and the duty to issue appropriate remedial orders to charter schools under their jurisdiction to effectuate the provisions of this section.³¹</p>
Oregon	<p>If a charter is terminated under subsection (1) of this section, the sponsor shall notify the public charter school governing body at least 60 days prior to the proposed effective date of the termination. The notice shall state the grounds for the termination. The public charter school governing body may request a hearing by the sponsor.³²</p> <p>A public charter school governing body may appeal any decision of a sponsor that is: 1) A school district board of the State Board of Education. The State Board of Education shall adopt by rule procedures to ensure a timely appeals process to prevent disruption of students' education. 2) The State Board of Education to the circuit court pursuant to ORS 183.484.³³</p> <p>The public charter school governing body may request a hearing from the sponsor on the termination of the charter under this subsection [referring to closures due to the health and safety of students]. The sponsor shall hold a hearing within 10 days after receiving the request.³⁴</p> <p>The public charter school governing body may appeal a decision of a sponsor under this subsection [referring to closures due to the health and safety of students] to the State Board of Education. The State Board of Education shall hold a hearing within 10 days after receiving the appeal request³⁵</p> <p>Throughout the appeals process [referring to closures due to the health and safety of students], the public charter school shall remain closed at the discretion of the sponsor unless the State Board of Education orders the sponsor to open the public charter school and not terminate the charter³⁶</p> <p>Termination of a charter shall not abridge the public charter school's legal authority to operate as a private or nonchartered public school.³⁷</p> <p>If a charter is terminated or a public charter school is dissolved, the assets of the public charter school that were purchased with public funds shall be given to the State Board of Education. The State Board of Education may disburse the assets of the public charter school to school districts or other public charter schools.³⁸</p> <p>A public charter school governing body may only terminate a charter, dissolve or close a public charter school at the end of a semester. If a charter is terminated by the public charter school governing body or a public charter school is closed or dissolved, the public charter school governing body shall notify the sponsor at least 180 days prior to the proposed effective date of the termination, closure or dissolution.³⁹</p>

²⁸ N.Y. Stat. Ann. 56 § 2851(2)(t) (2004).

²⁹ N.Y. Stat. Ann. 56 § 2855(2) (2004).

³⁰ N.Y. Stat. Ann. 56 § 2855(3) (2004).

³¹ N.Y. Stat. Ann. 56 § 2855(4) (2004).

³² O.R.S. 30 § 338.105(2) (2004).

³³ O.R.S. 30 § 338.105(3) (2004).

<p>Pennsylvania</p>	<p>Any notice of revocation or nonrenewal of a charter given by the local board of school directors of a school district shall state the grounds for such action with reasonable specificity and give reasonable notice to the governing board of the charter school of the date on which a public hearing concerning the revocation or nonrenewal will be held. The local board of school directors shall conduct such hearing, present evidence in support of the grounds for revocation or nonrenewal stated in its notice and give the charter school reasonable opportunity to offer testimony before taking final action. Formal action revoking or not renewing a charter shall be taken by the local board of school directors at a public meeting pursuant to the act of July 3, 1986 (P.L. 388, No. 84), known as the “Sunshine Act,” after the public has had thirty (30) days to provide comments to the board. All proceedings of the local board pursuant to this subsection shall be subject to 2 Pa.C.S. Ch. 5 Subch. B (relating to practice and procedure of local agencies). Except as provided in subsection (d), the decision of the local board shall not be subject to 2 Pa.C.S. Ch. 7 Subch. B (relating to judicial review of local agency action).⁴⁰</p> <p>Following the appointment and confirmation of the appeal board, but not before July 1, 1999, the charter school may appeal the decision of the local board of school directors to revoke or not renew the charter to the appeal board. The appeal board shall have the exclusive review of a decision not to renew or revoke a charter. The appeal board shall review the record and shall have the discretion to supplement the record if the supplemental information was previously unavailable. The appeal board may consider the charter school plan, annual reports, student performance and employee and community support for the charter school in addition to the record. The appeal board shall give due consideration to the findings of the local board of directors and specifically articulate its reasons for agreeing or disagreeing with those findings in its written decision.⁴¹</p> <p>If the appeal board determines that the charter should not be revoked or should be renewed, the appeal board shall order the local board of directors to rescind its revocation or nonrenewal decision.⁴²</p> <p>Except as provided in subsection (g), the charter shall remain in effect until final disposition by the appeal board.⁴³</p> <p>In cases where the health or safety of the school’s pupils, staff or both is at serious risk, the local board of school directors may take immediate action to revoke a charter.⁴⁴</p> <p>All decisions of the charter school appeal board shall be subject to appellate review by the Commonwealth Court.⁴⁵</p> <p>When a charter is revoked or is not renewed, the charter school shall be dissolved. After the disposition of any liabilities and obligations of the charter school, any remaining assets of the charter school shall be distributed on a proportional basis to the school entities with students enrolled in the charter school for the last full or partial school year of the charter school.⁴⁶</p> <p>When a charter is revoked or is not renewed, a student who attended the charter school shall apply to another public school in the student’s school district of residence. Normal application deadlines will be disregarded under these circumstances. All student records maintained by the charter school shall be forwarded to the student’s district of residence.⁴⁷</p> <p>In the case of a review by the appeal board of an application that is revoked or is not renewed the appeal board shall make its decision based on the criteria established in subsection (e)(2). A decision by the appeal board under this subsection or subsection (g) to grant, to renew or not to revoke a charter shall serve as a requirement for the local board of directors of a school district or school districts, as appropriate, to sign the written charter of the charter school as provided for in section 1720-A. Should the local board of directors fail to grant the application and sign the charter within ten (10) days of notice of reversal of the decision of the local board of directors, the charter shall be deemed to be approved and shall be signed by the chairman of the appeal board.⁴⁸</p> <p>Powers and duties. The department shall: ... Revoke or deny renewal of a cyber charter school’s charter under the provisions of section 1729-A. 1) Notwithstanding the provisions of section 1729-A(i), when the department has revoked or denied renewal of a charter, the cyber charter school shall be dissolved. After the disposition of the liabilities and obligations of the</p>
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³⁴ O.R.S. 30 § 338.105(3)(b) (2004).

³⁵ O.R.S. 30 § 338.105(3)(c) (2004).

³⁶ O.R.S. 30 § 338.105(3)(d) (2004).

³⁷ O.R.S. 30 § 338.105(5) (2004).

³⁸ O.R.S. 30 § 338.105(6) (2004).

³⁹ O.R.S. 30 § 338.105(7) (2004).

⁴⁰ Penn. Stat. Ann. 24 § 17-1729(A)(6)(c) (2004).

⁴¹ Penn. Stat. Ann. 24 § 17-1729(A)(6)(l) (2004).

⁴² Penn. Stat. Ann. 24 § 17-1729(A)(6)(e) (2004).

⁴³ Penn. Stat. Ann. 24 § 17-1729(A)(6)(f) (2004).

⁴⁴ Penn. Stat. Ann. 24 § 17-1729(A)(6)(g) (2004).

⁴⁵ Penn. Stat. Ann. 24 § 17-1729(A)(6)(h) (2004).

⁴⁶ Penn. Stat. Ann. 24 § 17-1729(A)(6)(i) (2004).

⁴⁷ Penn. Stat. Ann. 24 § 17-1729(A)(6)(j) (2004).

⁴⁸ *Id.*

⁴⁹ Penn. Stat. Ann. 24 § 17-1729(A)(6)(c) (2004).

	<p>cyber charter school, any remaining assets of the cyber charter school shall be given over to the intermediate unit in which the cyber charter school's administrative office was located for distribution to the school districts in which the students enrolled in the cyber charter school reside at the time of dissolution. 2) Notwithstanding any laws to the contrary, the department may, after notice and hearing, take immediate action to revoke a charter if: A) a material component of the student's education as required under this subdivision is not being provided; or B) the cyber charter school has failed to maintain the financial ability to provide services as required under this subdivision.⁴⁹</p>
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Statutes with Strong Nonrenewal Language

Minnesota	<p>At least 60 days before not renewing or terminating a contract, the sponsor shall notify the board of directors of the charter school of the proposed action in writing. The notice shall state the grounds for the proposed action in reasonable detail and that the charter school's board of directors may request in writing an informal hearing before the sponsor within 14 days of receiving notice of nonrenewal or termination of the contract. Failure by the board of directors to make a written request for a hearing within the 14-day period shall be treated as acquiescence to the proposed action. Upon receiving a timely written request for a hearing, the sponsor shall give reasonable notice to the charter school's board of directors of the hearing date. The sponsor shall conduct an informal hearing before taking final action. The sponsor shall take final action to renew or not renew a contract by the last day of classes in the school year. If the sponsor is a local board, the school's board of directors may appeal the sponsor's decision to the commissioner.⁵⁰</p> <p>If a contract is terminated or not renewed, the school must be dissolved according to the applicable provisions of chapter 308A or 317A, except when the commissioner approves the decision of a different eligible sponsor to authorize the charter school.⁵¹</p> <p>The commissioner, after providing reasonable notice to the board of directors of a charter school and the existing sponsor, and after providing an opportunity for a public hearing, may terminate the existing sponsorship relationship if the charter school has a history of: 1) financial mismanagement or 2) repeated violations of the law.⁵²</p> <p>If a contract is not renewed or is terminated according to subdivision 23, a pupil who attended the school, siblings of the pupil, or another pupil who resides in the same place as the pupil may enroll in the resident district or may submit an application to a nonresident district according to section 124D.03 at any time. Applications and notices required by section 124D.03 must be processed and provided in a prompt manner. The application and notice deadlines in 124D.03 do not apply under these circumstances.⁵³</p>
Ohio	<p>At least ninety days prior to the termination or nonrenewal of a contract, the sponsor shall notify the school of the proposed action in writing. The notice shall include the reasons for the proposed action in detail, the effective date of the termination or nonrenewal, and a statement that the school may, within fourteen days of receiving the notice, request an informal hearing before the sponsor. Such request must be in writing. The informal hearing shall be held within seventy days of the receipt of a request for the hearing. Promptly following the informal hearing, the sponsor shall issue a written decision either affirming or rescinding the decision to terminate or not renew the contract.⁵⁴</p> <p>A decision by the sponsor to terminate a contract may be appealed to the state board of education. The decision by the state board pertaining to an appeal under this division is final. If the sponsor is the state board, its decision to terminate a contract under division (B)(3) of this section shall be final.⁵⁵</p> <p>The termination of a contract under this section shall be effective upon the occurrence of the later of the following events: 1) Ninety days following the date the sponsor notifies the school of its decision to terminate the contract as prescribed in division (B)(3) of this section; 2) If an informal hearing is requested under division (B)(3) of this section and as a result of that hearing the sponsor affirms its decision to terminate the contract, the effective date of the termination specified in the notice issued under division (B)(3) of this section, or if that decision is appealed to the state board under division (B)(4) of this section and the state board affirms that decision, the date established in the resolution of the state board affirming the sponsor's decision.⁵⁶</p> <p>Any community school whose contract is terminated under this division shall not enter into a contract with any other sponsor.</p> <p>A child attending a community school whose contract has been terminated, nonrenewed, or suspended or that closes for any reason shall be admitted to the schools of the district in which the child is entitled to attend under section 3313.64 or 3313.65 of the Revised Code. Any deadlines established for the purpose of admitting students under section 3313.97 or 3313.98 of the Revised Code shall be waived for students to whom this division pertains.⁵⁷</p> <p>If a community school does not intend to renew a contract with its sponsor, the community school shall notify its sponsor in writing of that fact at least one hundred eighty days prior to the expiration of the contract. Such a community school may enter into a contract with a new sponsor in accordance with section 3314.03 of the Revised Code upon the expiration of the previous contract.⁵⁸</p>

⁵⁰ MN St. Ann. § 124.D(10)(23) (2004).

⁵¹ MN St. Ann. § 124.D(10)(23)(b) (2004).

⁵² MN St. Ann. § 124.D(10)(24)© (2004).

⁵³ MN St. Ann. § 124.D(10)(24) (2004).

⁵⁴ OH R. C. Ann. § 3314.07(B)(3) (2004).

⁵⁵ OH R. C. Ann. § 3314.07(B)(4) (2004).

⁵⁶ OH R. C. Ann. § 3314.07(B)(5)(a-b) (2004).

⁵⁷ OH R. C. Ann. § 3314.07(C) (2004).

⁵⁸ OH R. C. Ann. § 3314.07(D) (2004).

Tennessee	<p>If the chartering authority revokes or does not renew a charter agreement, the chartering authority shall state its reasons for the revocation or nonrenewal.⁵⁹</p> <p>A decision not to renew or to revoke a charter agreement may be appealed to the state board of education within ten (10) days of the decision, except for revocations or failures to renew based on any of the violations specified in subsection (d). State board appeals shall be handled on the same basis as provided in § 49-13-108.⁶⁰</p> <p>Except in the case of fraud, misappropriation of funds, flagrant disregard of the charter agreement or the provisions of this chapter, or similar misconduct, or failure to make adequate yearly progress for two (2) consecutive years, a decision to revoke a charter shall become effective at the close of the academic year.⁶¹</p> <p>No later than November 15 of the year prior to the year in which the charter expires, the governing body of a public charter school shall submit a renewal application to the chartering authority. The chartering authority shall rule by resolution, at a regular or special called meeting, on whether to approve or deny the renewal application. The decision of the chartering authority shall be based on the report and evaluation provided for in § 49-13-120. If the original charter application was appealable to the state board of education, a decision by the chartering authority to deny renewal may be appealed by the governing body, within ten (10) days of the decision to deny, to the state board of education. If the state board of education directs the LEA to approve the renewal of the charter agreement, the public charter school shall continue to operate for the prescribed period of five (5) academic years. A decision by the state board of education to deny the renewal of a charter agreement shall be final. No appeal may be taken.⁶²</p> <p>Upon dissolution of a charter school for any reason or if a charter is not renewed, any unencumbered public funds from the charter school shall revert to the LEA. In the event that a charter school is dissolved or otherwise terminated, all LEA property and improvements, furnishings and equipment purchased with public funds shall automatically revert to full ownership by the LEA, subject to complete satisfaction of any lawful liens or encumbrances.⁶³</p> <p>If a charter school is dissolved for any reason or a charter is not renewed, the charter school is responsible for all debts of the charter school. The LEA may not assume the debt from any contract for services made between the governing body of the school and a third party, except for a debt that is previously detailed and agreed upon in writing by both the LEA and the governing body of the school and that may no reasonable be assumed to have been satisfied by the LEA.⁶⁴</p> <p>If a charter agreement is not renewed or is terminated in accordance with § 49-13-122, a pupil who attended the school, siblings of the pupil, or another pupil who resides in the same place as the pupil may enroll in the resident district or may submit an application to a nonresident district according to the provisions of § 49-6-3105, at any time. Applications and notices required by this section shall be processed and approved in a prompt manner.⁶⁵</p>
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⁵⁹ TN Stat. Ann. § 49-13-122(b) (2004).

⁶⁰ TN Stat. Ann. § 49-13-122(c) (2004).

⁶¹ TN Stat. Ann. § 49-13-122(d) (2004).

⁶² TN Stat. Ann. § 49-13-121(b) (2004).

⁶³ TN Stat. Ann. § 49-13-110(c)(1) (2004).

⁶⁴ TN Stat. Ann. § 49-13-110(c)(2) (2004).

⁶⁵ TN Stat. Ann. § 49-13-123 (2004).

Georgia's Statutory Language

Georgia	<p>The charter law in Georgia⁶⁶ provides that a charter may be revoked if it does not meet the performance standards set forth in its charter. Additionally,</p> <p>(1) A charter may be revoked if:</p> <ul style="list-style-type: none"> (A) a majority of the parents or guardians of students enrolled at the charter school vote to request the termination of its charter at a public meeting called with two weeks' advance notice and for the purpose of deciding whether to request the State Board to declare the charter null and void, or; (B) a majority of the faculty and instructional staff employed at the charter school vote by a majority vote to request the termination of its charter at a public meeting called with two weeks' advance notice and for the purpose of deciding whether to request the state board to declare the charter null and void; <p>(2) If, after providing reasonable notice to the charter school and an opportunity for a hearing, the state board finds:</p> <ul style="list-style-type: none"> (A) A failure to comply with any recommendation or direction of the state board with respect to Code Section 20-14-41; (B) A failure to adhere to any material term of the charter, including but not limited to the performance goals set forth in the charter; (C) A failure to meet generally accepted standards of fiscal management; (D) A violation of applicable federal, state, or local laws or court orders; (E) The existence of competent substantial evidence that the continued operation of the charter school would be contrary to the best interests of the students or the community; or (F) A failure to comply with any provision of Code Section 20-2-2065; or <p>(3) Upon the written request of a local board for termination of a charter for a local charter school located within its school system if, prior to making such request, the local board provided reasonable notice to the charter school and an opportunity for a hearing, and determined the existence of any of the grounds described in paragraph (2) of this Code section.</p> <p>The nonrenewal charter law in Georgia states:</p> <ul style="list-style-type: none"> (a) The terms of a charter for a local charter school may be amended during the term of the charter upon the approval of the local board, the state board, and the charter school. The terms of a charter for a state chartered special school may be amended during the term of the charter upon the approval of the state board and the charter school. (b) The initial term of a charter shall be for a minimum of three years, unless the petitioner shall request a shorter period of time, and shall not exceed five years. The state board may renew a charter, upon the request of the charter school, for the period of time specified in the request, not to exceed five years. For a local charter school approval of the local board shall also be required to renew a charter. (c) A charter school shall provide an annual report to parents or guardians, the community, and the state board which indicates that progress made by the charter school in the previous year in implementing its charter goals. A local charter school shall also provide an annual report to the local board.
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⁶⁶ Georgia Charter Schools Act of 1998, O.C.G.A. § 20-2-2060-2071.

APPENDIX D

Review of Charter School Achievement Literature

Studies of charter school academic achievement face many methodological challenges, making it difficult to determine the performance of charter schools in relation to traditional public schools. Many charter schools are too new to have stable track records, and their enrollments are often fluctuating (Bulkley & Fisler, 2002a). Furthermore, charter schools may enroll students who have academic difficulty or are at risk for academic failure, and few charter laws require baseline achievement data on students, so it is difficult to determine if they are improving in charter schools (Bulkley & Fisler, 2002b). These factors may help explain why, to date, results of charter school achievement studies are mixed (Bulkley & Fisler, 2002a, 2002b; SRI International, 2004). In fact, the climate of charter school research is one of heated and often emotionally charged debate. Both sides of the issue point to research that appears to support their claims for or against the success of charter schools.

One of the most widely publicized clashes occurred in late 2004, when the American Federation of Teachers (AFT) put out an analysis of the nationwide performance of charter schools based on National Assessment of Educational Progress (NAEP) data (Nelson, Rosenberg, & Van Meter, 2004). In that report, AFT analyzed publicly available data that were simultaneously being analyzed by the U.S. Department of Education (DOE) through the National Center for Education Statistics (NCES). The AFT report (Nelson et al., 2004) pointed to lower overall test scores among charter schools than non-charter schools to conclude that charter school students were not performing as well as conventional public school students. However, their conclusions were not echoed by the DOE in their analysis of the same NAEP data, released soon after (NCES, 2004). The DOE concluded, "...for students from the same racial/ethnic backgrounds, reading and mathematics performance in charter schools did not differ from that in other public schools" (p. 10).

The AFT report received what have been called "scathing criticisms" (Zimmer & Gill, 2004) from various scholars, including Harvard economist Caroline Hoxby, who shortly thereafter quickly released her own analysis of U.S. charter schools which concluded that charter students were more proficient in both reading and math (Hoxby, 2004b). In the discussions that followed, neither side accused the other of reporting spurious data; rather, the adequacy of various research designs and methodologies was at the heart of debate. There is no one, simple way to assess the success of charter schools. And, as Miron and Nelson (2001) point out, poor studies do not necessarily reflect poor researchers, but there are often severe limitations of the data available for this type of research (p. 13).

Thus, the strength and validity of any conclusions regarding achievement outcomes of charter schools are nested within the research design, which, in turn, is dependent on competent and thoughtful planning on how to analyze the available data. In the current report, the researchers review the methodologies of over 50 charter school studies and reports. In doing so, we identify common issues and challenges facing researchers trying to uncover achievement outcomes of charter schools. Then, we establish a system to organize charter school achievement studies into a hierarchy based on important characteristics of designs frequently used in those studies. We limit ourselves to studies which attempt to compare charter and non-charter student achievement, although other approaches are possible (e.g., a 2003 Legislative Office of Education Oversight report assessed how well Ohio charter schools met the achievement

goals set out in their contracts). We describe four primary and two secondary categories of design, provide examples of studies fitting each category, and discuss merits and limitations of each. Recommendations are then made for maintaining an appropriate database for tracking and comparing traditional public schools' and charter schools' academic performance, based on the types of analyses and inferences that various data allow.

Issues and Challenges in Charter Achievement Research

Previous authors (Hassel, 2005; Miron & Nelson, 2001) have attempted to classify charter research based on methodologies, resulting in a variety of classification schemes. For example, Miron and Nelson (2001) ranked studies on three factors; a) strength of sample, b) strength of design, and c) number of years included in the study. Strength of sample referred to the number of charter schools and students included in the study, with higher response rates receiving higher ratings. Strength of design was dependent on selection and use of comparison groups in the studies. The authors explain, "Estimating the impact of charter school attendance requires information or informed speculation about what student achievement would have looked like in the absence of charter schools. Since we cannot directly observe the counterfactual, evaluators usually do this by comparing charter school performance with that of a control or comparison group of similar students. Ideally, such groups are created through random assignment. For a variety of reasons, this is difficult to do with charter schools. More often, evaluators and researchers seek out 'naturally occurring' comparison groups of similar students" (p. 14).

Miron and Nelson (2001) also gave more weight to studies that examine changes in student achievement over time. The best were considered those designs comparing achievement of individual students or cohorts over time, where students serve as their own comparison group. The authors also weighted studies according to the number of years included, considering time series methods to be of higher quality than cross-sectional studies of one point in time.

Additionally, Hassel (2005) reviewed 38 recent (completed after the year 2000) comparative analyses of charter and traditional public school performance and reported on their central findings and methodological strengths and weaknesses. Hassel concluded that stronger studies provide information on how much value charter schools are adding to their students' educations. Quality studies must also include an adequate number of students and schools, sound comparisons of traditional public and charter schools, and a disaggregation of the data which examines how different subgroups of students are performing (Hassel, 2005). Based on these criteria, Hassel categorized the 38 evaluations into two broad groups: snapshots and change-over-time studies. Snapshots only look at one point in time and are therefore "of limited use in drawing conclusions about the effectiveness of charter schools" (p. i). Others examine changes in school performance, and the most sophisticated studies follow individual students over time (Hassel refers to these as panel, value-added studies).

Drawing from prior work and a review of primary research articles, the following section briefly provides an overview of a number of important issues related to charter research methods. Some of these issues are resolved by researchers when conducting the studies, but just as frequently the research methods are dictated by data that are available

to the researcher during the study. Issues discussed in the current paper include measure of achievement, timeframe, sampling and comparison methods, level of data, selection bias, and statistical analysis. The result is the presentation of a rubric designed to allow for categorization of studies based on some of these important research design and methodology distinctions.

Measure of Achievement

When measuring academic achievement, studies typically compare either norm-referenced tests (NRT), such as the Stanford Achievement Test-Ninth Edition (SAT-9), or criterion-referenced tests (CRT), such as state assessments of learning standards. A few studies (Holmes, DeSimone, & Rupp, 2003; RAND Education, 2003; SRI International, 2004) have examined state-defined, school-level performance indices which could include anything from test scores to dropout rates.

CRT scores are usually categorized by states as falling into different proficiency levels. Therefore, the percentage of students meeting certain levels of proficiency in charter and traditional public schools in a state is often compared (Colorado Department of Education [CDE], 2002; Miron, 2005; Miron & Horn, 2002). In order to compare results of CRTs across states, The Brown Center (2002) computed a weighted average CRT score, adjusted for race and socioeconomic status, and converted the scores of all schools into standardized z -scores.

Standardized NRT scores are typically used for growth over time studies because they more accurately match underlying achievement. Additionally, the normal curve equivalent (NCE) is preferred over a percentile rank because the distance between levels is kept constant (Mulholland, 1999). Studies using the SAT-9 include Miron (2004), Mulholland (1999), RAND Education (2003), and Solmon, Paark, and Garcia (2001).

Timeframe

In Hassel's (2005) analysis of the 38 studies of charter and traditional public school performance, he characterized them in two main categories: snapshot studies of one point in time and longer-term measures of change. Snapshot studies are of limited use because they cannot examine how much progress students and schools are making over time and therefore cannot make conclusions regarding the effectiveness of charter schools. These studies can, however, provide valuable baseline data (Hassel, 2005). Examples of such studies are CDE (2002), Hoxby (2004a, 2004b), Hoxby and Rockoff (2004), Nelson et al. (2004), RAND Education (2003), and SRI International (2004).

The most effective way of determining change in achievement, according to Hassel (2005), is through panel studies which follow individual students over time. Studies that examine changes in school-wide scores provide more information than do snapshot studies, but these change studies do not isolate the effects of the school on achievement gains. Miron (2004, 2005), Miron and Horn (2002), Mulholland (1999), Office of Program Policy Analysis & Government Accountability (2005), RAND Education (2003), and Solmon et al. (2001) all conducted longitudinal studies of charter school achievement.

Sampling and Comparison Methods

Many studies compared the performance of all charter schools in a state to all traditional public schools in a state, provided that there were enough charter schools in operation and sufficient charter school data to do so (The Brown Center, 2002, 2003; RAND Education, 2003; SRI International, 2004). The American Federation of Teachers (AFT) compared a nation-wide aggregate of charter school data to traditional public school data (Nelson et al., 2004). The Brown Center (2003) additionally compared conversion to start-up charters, and EMO-managed to non-EMO-managed charters.

In Colorado (CDE, 2002), charter school and public school samples were matched on minority and socioeconomic status. Mulholland (1999) analyzed student scores from a stratified sample of geographically representative charter schools but also included all district-sponsored and tribal charter schools due to the low numbers of each. Solmon and Goldschmidt (2004), Solmon et al. (2001), and Miron (2004) compared all charter school students with samples of traditional public school students matched on test scores, grade level, or demographic data. Holmes et al. (2003) compared gains in the school-level “performance composites” of traditional public schools in North Carolina with gains of the geographically closest charter school.

The ability to compare large numbers of matched charter and comparison students is dependent on the outcome measure of achievement being used, since results on that outcome must be available for all students used in the comparison analysis. Hoxby (2004a) criticized the 2004 AFT study on the basis that utilizing results from national NAEP tests does not allow for sufficient representation of charter students. Hoxby notes that since charter schools enroll 1.5 percent of students and NAEP is administered to 3 percent of students, the NAEP sample included less than 0.05 percent of charter students (p. 6). Ideally, achievement scores would be available for the largest number of students, and across grade levels, when establishing a strong comparison study.

Level of Data

Charter school achievement analysis is primarily made using statewide, school, or student-level data. For example, The Brown Center (2002, 2003) computed a weighted average CRT score for each of ten states and compared achievement-level and gain z -scores for the aggregate of all traditional public schools and all charter schools in the state. Other studies have focused on school-level data, primarily by comparing percentages of students in a charter or traditional public school who meet state proficiency standards (Holmes et al, 2003; Miron, 2005; Miron & Horn, 2002; RAND Education, 2003). In a study of California charter schools, researchers at RAND Education statistically adjusted for changes in the student composition of each school, specifically regarding minority and low-SES students.

Many recent studies of charter school achievement have analyzed student-level data, either linked or non-linked from year to year. When individual student achievement can be traced over time, more sophisticated analyses can be done. For example, in Mulholland (1999), Office of Program Policy Analysis (2005), and Solmon and Goldschmidt (2004), attendance patterns and achievement data of students before and after they entered charter schools were able to be traced and compared to more accurately measure the effects of charter school attendance.

Selection Bias

Selection bias is a factor in charter school achievement research as well. In order to determine whether achievement of students in charter schools is due to the quality of education in the schools, students in traditional public schools and charter schools must be demographically similar (The Brown Center, 2002; Solmon & Goldschmidt, 2004). To control for the selection of superiorly achieving students into either type of school, ideally students would be randomly assigned to schools to balance out differences (The Brown Center, 2002; Solmon & Goldschmidt, 2004). Since this is not possible, longitudinal studies help to account for the relationship between initial achievement and individual growth and for differences in demographics (Solmon & Goldschmidt, 2004). Longitudinal data allow the use of a difference in differences method in which the impact of charter schools is the “value added” as measured by increase in students’ test scores, after controlling for initial achievement (Solmon & Goldschmidt, 2004; Solmon et al., 2001). Finally, longitudinal data are valuable because achievement does not improve immediately and can be confounded by the effects of student mobility (Bulkley & Fisler, 2002a, 2002b; Solmon et al., 2001).

Another methodological approach to addressing selection bias is made possible in instances where more students applied for admission in charter schools than there were available spots, and random lotteries were used to make admission decisions. In those cases, students who were not selected have sometimes been used as a control group, based on the premise that they should be similar to the charter students on all variables excepting their admission status (Hoxby & Rockoff, 2004).

Statistical Analysis

Depending on the level and type of data available, there are various statistical procedures commonly used in charter school achievement studies. For example, the SRI International (2004) study of the Public Charter Schools Program used logistic regression on school-level data to examine the relationship between school type and performance while controlling for background variables of a school such as income, minority status, mobility, and enrollment. As previously mentioned, The Brown Center (2002, 2003) looked at z -scores of charter and traditional public schools in a state relative to the average CRT performance. Miron (2005) and Miron and Horn (2002) used a weighted average scale score on a CRT to conduct cohort and trend analyses in which scores are compared between test points (4th grade reading in 1998 and 6th grade reading in 2000) or between grade levels (4th grade reading in 1998, 1999, 2000, etc.).

When student-level data can be grouped according to attendance patterns, analysis of variance (ANOVA) or analysis of covariance (ANCOVA) can be performed. ANCOVAs can control for variables such as race, students’ years in district, attendance rate, prior test scores, gender, Title I status, or free and reduced lunch (FRL) counts (Miron, 2004; Solmon et al., 2001). However, Solmon et al. claim that controlling for a large number of variables in ANCOVA does not necessarily account for all of the errors, and ordinary least squares (OLS) regression only works if the choice model predicts perfectly or if there is random assignment. To answer these concerns, Solmon et al. measured the “value added” by charter school attendance by the increase in a student’s test scores, and analyzed longitudinal student data with a 3-level hierarchical linear

model (HLM), statistically adjusting for differences in the student populations including transfer status, socioeconomic status (SES), and limited English proficiency (LEP) status.

Additionally, the Office of Program Policy Analysis & Government Accountability (2005) in Florida used a 3-level HLM to analyze 6 years of longitudinal data with scaled CRT scores as the dependent variable. The first level of the HLM was time; level two was student characteristics such as LEP status, special education classification, giftedness, FRL status, ethnicity, and prior performance level; and the third level was school category (charter vs. traditional public).

A Hierarchical Organization of Charter Achievement Study Methodologies

Fifty-four studies and reports addressing charter school achievement were reviewed with the goal of establishing a system of organization based on methodology types. While not all characteristics discussed in the section above could be built into the category system, and no simple scheme was identified to clearly rank study types in order of validity, we were able to establish a hierarchy of design that reflects a move from the most general and simplistic research designs to more sophisticated and refined methods of analysis.

The overarching theme within the hierarchy is a progression from descriptive comparisons of outcomes from large groups of charter vs. non-charter students to comparisons of outcomes from individual students over time. It should be no surprise that along with the benefit of producing sound results, the more sophisticated analyses provide an added challenge of data availability. That is, comparing scores for all charter schools with those of non-charter schools is a much easier task than compiling data of change within individual students over time, but the former method also leads to vastly reduced interpretation and validity regarding actual achievement changes that might be attributed to attendance in a charter school.

Table D-1 below presents the organization structure of the schematic described in this section. Four levels of design are presented, with single or multiple points in time approaches included as subsections within each.

Table D-1: A Category System for Charter Study Designs

<p><u>Category 1</u> Studies comparing charter and non-charter school scores without controls/matching</p> <ul style="list-style-type: none"> • One point-in-time data • Multiple points-in-time data
<p><u>Category 2</u> Studies comparing charter and non-charter school scores with controls/matching</p> <ul style="list-style-type: none"> • One point-in-time data • Multiple points-in-time data
<p><u>Category 3</u> Studies comparing unlinked individual student scores with controls/matching</p> <ul style="list-style-type: none"> • One point-in-time data • Multiple points-in-time data
<p><u>Category 4</u> Studies comparing linked scores of individual students over time with or without controls</p> <ul style="list-style-type: none"> • Multiple points-in-time data

Category 1: Studies comparing charter and non-charter school scores without controls/matching

At first glance, a way to assess achievement in charter vs. traditional schools may be to simply average test scores of both charter and non-charter students and determine which is highest. Studies often report this kind of descriptive data in their reports, before continuing on to more sophisticated analyses. For example, Miron and Nelson (2000) take this approach in their evaluation of Pennsylvania charter schools, first presenting simple group differences that exist, then presenting results using regression controlling for certain variables. In their 2001 review of charter literature (Miron & Nelson, 2001), those same authors note that many studies include several approaches. What is problematic, however, is when inferences as to charter performance are based solely on this type of approach, as was the case in a 2003 AFT report comparing achievement in schools managed by a leading charter school management company (Nelson & Van Meter, 2003), as well as the 2004 AFT report discussed in the introduction. In their 2004 study (Nelson et al.), the AFT researchers reported lower overall means of charter students as evidence of poorer performance of those schools, with limited acknowledgement of the problems with potential differences between charter and non-charter students.

A similar method was used in a report by U.S. Department of Education researchers in their analysis of that same NAEP data (National Center for Education Statistics, 2004), but the authors were careful to temper interpretation of what appeared to be higher scores among non-charter schools. For example, they note, "Further, NAEP does not collect information about students' prior educational experience, which contributes to present performance" (p. 1). In that study, in addition to presenting average reading and math NAEP scores for all charter students compared with non-charter students, the authors presented results by demographics including gender, race, free/reduced lunch status, and central- vs. non-central city in order to demonstrate "how important it is to look beyond simple comparisons of the two school types" (p. 10). Legislative Office of Education Oversight (LOEO) researchers (2003) determined pass rates for each school then averaged the pass rate for "community" charter schools and traditional ones. They concluded that neither group of schools met the state's 75% passing standard and found that traditional schools did better in general.

The problem with relying on a simple comparison approach is that it ignores the possibility that charter students came into the charter school at lower levels, meaning that the comparison is not a fair one. A number of authors have pointed out the flaw with this type of approach. As Miron, Nelson, and Risley (2002) explain, "Knowing charter schools' achievement levels, however, tells us very little about their value as levers for improvement in student achievement. It is well known that student achievement scores reflect, in large measure, the 'background' characteristics that students bring to the school. These include family income, race, special education status, urbanicity, and so on" (p. 148). They go on to note that in their study, these background factors typically accounted for around three-fourths of the school-to-school variation in test scores.

Miron and Nelson (2000) write that assessing charter school's impact on student achievement is difficult because it requires us to estimate what students' outcomes would have been without the impact of charter schools. "This task is severely complicated by the fact that scores on achievement tests reflect two sets of influences. First, the fact that

students and families tend to sort themselves into school districts according to income and other factors means that achievement scores reflect students' economic and social endowments" (p. 147). This "makes it difficult to isolate the second major influence on achievement scores, the educational value added by schools' inputs and processes" (p. 148). In their evaluation of Michigan charter schools, Horn and Miron (1999) go so far as to avoid presenting quantitative achievement group comparisons, stating "We simply don't have the data to indicate one way or another, and it is doubtful that any study will be able to identify the true or actual impact of differential levels of funding on schools or on the educational progress of students" (p. 82). In another study, those authors (Miron & Horn, 2000), consistent with many other education researchers, consider experimental methodology as the "gold standard" but note that this design is very rarely available in educational research (p. 51).

Again, the problematic nature of simply grouping and comparing scores of charter and non-charter students is reflected in Miron and Nelson's decision to exclude these types of studies (termed "cross-sectional analysis without a comparison group") altogether in their 2001 meta-analysis (Miron & Nelson, 2001).

One step researchers have used to address the great limitations due to not knowing how comparable charter and non-charter students are is to utilize more than one year's data in the analysis. However, charter studies typically must rely on achievement data from assessments that are only given to select grade levels. Horn and Miron (2000) discuss the implications of this challenge, explaining that "we cannot, for instance, know whether a given cohort of charter school students made larger (smaller) gains from the 4th to 5th grade than students in host districts. Instead of following cohorts of students, we can, at best, follow cohorts of schools. That is, we observe the performance of 4th, 5th, 7th, 8th, and 11th graders in those schools from one year to the next," but we are limited "inasmuch as today's 5th graders may be different in educationally significant, but unmeasured, ways from tomorrow's 4th graders" (p. 52). Those authors' approach was to focus on whether charter and comparison groups made progress over a five-year period, comparing each charter to the host district. They sought to assess whether each charter school had achievement gains higher or lower than their host district.

Bettinger (1999) was also among researchers noting the problem with simple charter-non-charter group comparisons. He found that charter school test averages were lower for each year than those of public schools, but noted that "this is indicative of the students they attract. Consequently, the gain in relative test scores rather than the actual levels may be a better way to measure the effects of charter schools" (p. 8). In that comparison, Bettinger found that pass rates increased at a higher rate in the first few years charter schools were established, compared with other schools.

Other authors have taken a similar approach, examining achievement gains within charter schools over time in rather simplistic ways. Illinois charter schools (Illinois State Board of Education, 2003) were examined by comparing the number of charter schools above and below their district average, compared with the previous year. KPMG researchers (KPMG, 2001) determined partially proficient, proficient, advanced proficient status for all students in New Jersey then looked at aggregate change across all charter schools during a two-year period. Those researchers found a 12% increase in the proportion of students at or above proficient math level.

Another approach is made possible if the assessment tool allows for derived scores that can be compared across grade levels. Gronberg and Jansen (2001) used this approach in a study of Texas charter school performance for continuing and “at-risk” students. They utilized scores from the statewide TAAS test, for which data are available for every charter and public school in the state, and which includes an indexed score that allows a given student’s achievement level to be compared with his or her own level the following year.

Miron and Horn (2002) used school-level data from 1997 through 2001 to compare trends in charter schools’ average annual change index, or scale, scores on the Connecticut’s CRT with those of their host districts. The average annual change scores were calculated to account for possible differences in student achievement due to length of time a school has been open, and these scores were weighted by size of school. Miron and Horn examined through trend analysis the performance of consecutive groups of different students at the same grade level for charter schools, host districts, and the state. Additionally, the researchers examined test score data for approximately the same cohort of students at two points over time. In 2005, Miron used only a cohort design to evaluate Connecticut’s charter school performance because the cohort analysis is “stronger than the trend design” (p. 6).

Holmes et al. (2003) used an econometrics model to compare the performance of traditional public schools with the closest charter school as measured by gains in “performance composite,” or the percentage of CRT tests taken in North Carolina that meet a defined achievement method. Because “test scores proxy school quality relatively well in earlier grades” (p. 7), only scores from elementary and middle schools were examined. Using cross-section regressions, panel IV models, and maximum likelihood models, the researchers found that as the distance from a charter school to a traditional school decreases, this increased competition results in greater achievement gains by the traditional public school.

Category 2: Studies comparing charter and non-charter school scores with controls/matching

One way to improve on the inadequacy of comparing scores of large groups of charter and non-charter students is to set controls at the school level. In doing so, one matches each charter school with a similar comparison school in order to allow for more comparison. While methodological variation is possible, the main idea is that a composite score for the entire school is compared with another, controlling for certain school variables or matching on school characteristics. A number of studies were found that use this approach.

Miron and Nelson (2000), for example, used regression modeling to predict test scores for each level of income. That model was then applied to schools, and residuals were examined to determine whether the actual score for each school was below or above the predicted one.

Hoxby has taken this approach in several studies. In a September 2004 study (Hoxby, 2004b), and a December 2004 follow up (Hoxby, 2004a), each charter school was matched with a traditional school based on geographic proximity. In some exceptions, race was also used to find the nearest comparable school. Then the percent of students reaching proficiency in comparison schools was subtracted from the percent

reaching proficiency in the comparison charter school. These data points were then weighted by the number of students in each school. Hoxby also controlled for schools that were found to target at-risk or gifted students, using multivariate regression.

The Brown Center (2002) combined reading and math CRT scores from 1999 through 2001 into a composite score for each of ten states. Standard *z*-scores for each state were then computed and weighted for enrollment. In order to allow for comparison of charter schools to regular public schools with similar background characteristics, the *z*-scores were statistically adjusted for socioeconomic status and racial composition.

In their evaluation of the Public Charter Schools Program, researchers at SRI International (2004) compared the percentage of charter and traditional public schools meeting state performance standards in five states during the 2001-2002 school year. All types of charter schools (e.g., conversion, targeted) were included in the analysis of the performance standards which included variables such as achievement test scores and dropout and attendance rates. Logistic regression was used to examine the relationship between school type and performance in two states while controlling for the “percent of the student body that is low-income, percent of the student body that is minority..., student mobility..., and student enrollment” (p. 55).

A similar approach which matches at the school level can be used in conjunction with multiple data points. The 2003 Brown Center Report on American Education employed many of the same methodologies as their 2002 report in which they computed *z*-scores – adjusted for poverty and racial composition – for each charter and traditional school in ten states to examine CRT performance levels. In 2003, however, The Brown Center also analyzed the change scores from test administrations in 2000 through 2002. Additionally, RAND Education (2003) in California compared year-to-year changes in a composite accountability measure of academic performance for all charter and traditional public schools, “accounting for changes in the characteristics of students attending each school” (p. xxii). To adjust for factors that affect student performance in order to fairly compare different types of schools, demographic and SES status of the schools was controlled for.

Table D-2: School-Level Controls Used in Charter School Achievement Studies

Study	Controls at school level
Bettinger (1999)	Whether the charter school has existed for an entire year
Bifulco & Ladd (2004)	Distance from nearest charter school, # of charter schools w/in various radius of school
The Brown Center (2002, 2003)	SES and racial composition
Eberts & Hollenbeck (2001)	Pupil/teacher ratio, enrollment, average teacher salary, expenditure per student
Hoxby (2004a, b)	Distance from nearest charter school, unless racial composition isn't same, then use nearest racially similar
RAND Education (2003)	Demographics, SES
SRI International (2004)	SES, racial composition, student mobility, enrollment (school size)

Category 3: Studies comparing unlinked individual student scores with controls/matching

“Unlinked scores” refers to situations where individual student scores are compared or analyzed (as opposed to school-level data, for example), but those scores are not multiple data points from the same student. Therefore, controlling or matching at the student level is required to adjust for any differences that might exist.

Hoxby (2003, 2004a, 2004b) and Hoxby and Rockoff (2004) have argued that that the nearest one can come to an experimental design is to utilize results from lotteries used to determine charter school placement. In a 2003 study, Hoxby explains that “students who apply to choice may be different in ways that are unobservable: their parents may be more motivated, they may be getting into a bad pattern in their current school, and so on. . . . Because of this challenge, the most credible research is that in which choice students are compared to students who applied to the same choice program but who were randomly not assigned to a voucher or charter school” (p. 44). In Hoxby and Rockoff’s 2004 lottery-based study, students who had been selected by lottery for enrollment in three Illinois charter schools were considered the treatment group, and the group of students who had also applied but were lotteried out served as the control group. Achievement scores were regressed on charter school status, grade applied, free lunch, special education, bilingual, repeated a grade, race, gender, and recent test score.

This approach, using lottery results as a proxy for randomization, is not without criticism, however. Miron and Nelson (2001) point out limitations and challenges of using lottery lists, including: a) there is often attrition on control groups constructed from wait lists, b) sometimes the lists are out of date or include names accumulated over a number of years, c) the lists are not always actually available, and d) “it is nearly impossible to assess whether students on the lists had subsequently enrolled in other charter schools or had been exposed to other educational reforms” (see Footnote, p. 14).

An evaluation of charter schools in Colorado (CDE, 2002) compared the performance of charter and traditional public school students on the state CRT. Attached to the student-level data was information about the characteristics of each student’s school, such as the percentage of students who were racial/ethnic minorities and the percentage eligible for free or reduced-price lunch. In this way the researchers were able to match samples of students from both types of schools and conduct χ^2 analyses with school type (charter vs. non-charter) and CRT performance level (proficient/advanced vs. unsatisfactory/partially proficient) as the categorical variables.

Comparisons of unlinked student-level data may be conducted for multiple points in time as well. For example, the California Department of Education analyzed student-level SAT-9 test scores (NCE) and demographic data (student ethnicity, LEP status, school lunch eligibility, student mobility, and a measure of parental education) for all tested students in the state for the school years 1997–98 through 2001–02. Although the data were nonlongitudinally linked, it did allow for the examination of gains of cohorts over time while controlling for the characteristics of individual students. By linking a student’s test score with his/her demographic information, researchers were able to provide a more accurate assessment of how well charter schools are performing relative to traditional public schools after adjusting for the observed characteristics of students who attend each type of school.

Table D-3: Individual-Level Controls Used in Charter School Achievement Studies

Study	Controls at individual level
Bifulco & Ladd (2004)	Math and reading scores, school, is school charter, grade, gender, ethnicity, highest level of parent education, did student change schools in current year? Did student move to a higher school (i.e., junior high)?
Colorado Department of Education (2002)	School-level controls were used: percentage of students who were racial/ethnic minorities; percentage eligible for free or reduced-price lunch
Eberts & Hollenbeck (2001)	Sex, race, % students in their school eligible for free or reduced-price lunch
Gronberg & Jansen (2001)	Prior reading and math scores, special education status, race, “disadvantaged,” limited English proficiency
Hoxby & Rockoff (2004)	Grade applied, free lunch, special education, bilingual, repeated a grade, race, gender, recent test score
RAND Education (2003)	Student ethnicity, LEP status, school lunch eligibility, student mobility, measure of parental education

Category 4: Studies comparing linked scores of individual students over time with or without controls

Rather than comparing one-year achievement results from one student to another (either across groups or across years within the same group), researchers are sometimes able to compare achievement gains within individual students. In cases where multiple years of data for individual students with adequate markers is available, the *trajectory* of achievement can be calculated and compared among charter and traditional student populations.

Miron et al. (2002) discuss these studies, where the student serves as his or her own comparison group, as the strongest designs, writing “the most straightforward way to assess value added is to observe achievement growth in individual students. Since achievement gains are much less correlated with student background factors than student achievement levels, they provide a good indicator of school effectiveness” (p. 148). But, they have also noted that few states’ testing systems allow for this type of longitudinal approach (Miron & Nelson, 2001).

In California, researchers at RAND Education (2003) examined longitudinally linked charter and non-charter student data for six school districts. These linked data were able to adjust for unmeasured student factors that may affect student performance and to provide a value-added estimate of the effect of charter schools on student achievement. Researchers used a fixed-effects regression model as well as a random-growth model to assess whether students in charter schools were performing better or worse than students in traditional public schools with comparable background characteristics.

Miron (2004) in Delaware analyzed state CRT scores as well as NCE scores on the SAT-9 for two test points. Using a random sample of traditional public school students matched on gender, ethnicity, Title 1, and FRL status with charter school students, Miron performed an ANCOVA on the latest test point with the previous test score as a covariate.

Mulholland (1999) pulled a geographically representative stratified sample of 82 charter schools in the state of Arizona and analyzed student SAT-9 test scores. Students were compared to themselves on their 1997 and 1998 NCE scores. The student-level data from Arizona tracked student enrollment over time, so Mulholland was able to form four groups of attendance patterns for the two years of the study: traditional-traditional, traditional-charter, charter-charter, and charter-traditional. She performed ANOVAs on the mean scores at each administration and also on the gain scores, but because she did not control for any variable, her analysis is descriptive and not causal (Mulholland, 1999).

Another study of charter school performance in Arizona (Solmon et al., 2001) analyzed SAT-9 scores from three years of test administrations. The researchers used a difference in differences method to control for selection bias and for initial achievement level, and to determine the value added by attendance at a charter school. As in Mulholland's (1999) study, Solmon et al. grouped student scores by attendance patterns and examined scores of the traditional-traditional and traditional-charter groups to approximate a quasi-experimental design. An ANCOVA was performed with type of school as a dummy variable and race, years in district, days absent, and prior test scores as covariates.

Finally, researchers at the Florida Legislature's Office of Program Policy Analysis and Government Accountability (OPPAGA) (2005) used six years of linked student data to measure performance based on state CRT scale scores. To correct for past performance and other nesting effects, the researchers used a 3-level HLM with scale scores as the dependent variable in order to "analyze whether the annual learning gains of charter school students were different from traditional public school students" (p. 2). The first level of the HLM depicts students' scale scores as a function of time; the second level incorporates student characteristics such as English proficiency, special education status, giftedness, eligibility for free or reduced-price lunch, and ethnicity (either African American or White); and the third level includes school type, charter or traditional. Because learning gains differ by grade level, separate HLMs were performed for elementary, middle, and high school students (Office of Program Policy Analysis, 2005).

Section Conclusions

Research findings regarding charter school achievement are mixed. Examining the limitations and strengths of various research designs, it is easier to understand how seemingly contradictory findings can occur. It is particularly important to recognize that achievement levels of charter students, as a group, do not necessarily mirror those of traditional students; therefore, adjustments must be made to allow for valid comparisons. Even within the same dataset, more than one interpretation could result depending on whether/how matching considerations are approached. This point is well-demonstrated by Miron et al. (2002) in their discussion of Pennsylvania charter data, "The key finding of this chapter is that Pennsylvania charter schools appear to be having modestly positive influence on student achievement. Yet, a simple examination of scores ... suggests that most charter schools score well below the state average" (p. 147). They go on to explain "how both statements can be true. The answer lies in the distinction between score levels and score gains or value added. ... *In short, Pennsylvania charter schools appear to be attracting students with lower-than-average achievement levels and producing small*

relative gains (15 points per year, on average) in their achievement levels” (p. 147, italics in original).

Based on existing literature and charter school achievement studies, the most accurate portrayal of charter school achievement can be gained from using linked, longitudinal student-level data (The Brown Center, 2002, 2003; Hassel, 2005; SRI International, 2004). To control for selection bias, random assignment to schools is ideal (The Brown Center, 2002, 2003; RAND Education, 2003; SRI International, 2004); however, to approximate this unrealistic expectation, data from states which use a lottery to admit students into charter schools can be studied (The Brown Center, 2002, 2003; Hoxby, 2003, 2004a, 2004b; Hoxby & Rockoff, 2004; SRI International, 2004).

In addition to comparing the performance of all charter schools in a state to that of all traditional public schools, more accurate comparisons can be made by comparing charter schools to the geographically closest traditional public school (Hoxby, 2004a, 2004b). Additionally, charter schools can be viewed as a type of school reform; therefore, comparisons can be made between charter schools and traditional public schools undergoing other types of school reform, such as Comprehensive School Reform (CSR).

