The U.S. Charter School Landscape:
Extant Literature, Gaps in Research, and
Implications for the U.S. Educational System

Marytza A. Gawlik
Florida State University

Abstract

More than 20 years into the implementation of public charter schools, the U.S. experience can inform policymakers and others about how to achieve the best possible results through charter school policies. This paper describes the history and current state of the charter school movement, presents a conceptual model of the charter school system, and reviews the extant research on charter school outcomes. The paper concludes with a discussion of the implications of the findings, reviewed for policymakers and researchers, and a list of remaining research topics in the field of charter school research.

Keywords

charter schools, charter school policies, charter school movement, charter school outcomes

Introduction

Charter schools have been in existence in the United States for more than 20 years and the sector has experienced incredible growth over the past decade. This surge is partly due to families and children, particularly low-income families and children, seeking opportunities beyond their traditional public schools because of dissatisfaction with traditional public schools (Berends, 2015). Teachers, parents and/or community organizations (Wohlstetter et al., 2013) started the first generation of charter schools, which began in the 1990s and continued through most of the decade. The first generation charter schools were mostly targeted at students who had not been well served by traditional public schools (Wohlstetter, Smith & Farrell, 2013). Early charter schools established specialized curricula to appeal to at-risk students, to special education students, and to English-learner students. The second generation of charter schools, which is marked by the late 1990s and early twenty-first century, sought to address questions of accountability, autonomy, and the effects of charters on district reforms. It was also marked by the development of state technical assistance centers to assist in the expansion of charter schools. Finally, with the third generation of charter schools, post 2006, or so, questions about charter schools shifted from whether they would survive, to how to improve quality (because they will persist). It's important to note that the institutionalization of charter schools is a critical part of the educational landscape because it has

Corresponding Author:

Marytza Gawlik, Department of Educational Leadership and Policy Studies, Florida State University, 1114 W. Call Street, Tallahassee, FL 32306
Email: mgawlik@fsu.edu

attracted state and federal dollars for expansion and turning around of low-performing schools (Wohlstetter et al., 2013). While proponents claim charter schools represent an experiment in innovation, the charter school movement is not without critics. Some have argued vehemently against these schools because they have not lived up to their promise of improving student outcomes and the school system as a whole. In this review of the literature on charter schools, I examine the research that has been conducted over the last 20 years and highlight the issues that need further investigation.

The Charter School Movement

Charter schools are public schools that are granted more autonomy than public schools in exchange for meeting certain conditions outlined in a charter agreement; these schools have become a significant part of the American urban education landscape. In 1991, the state of Minnesota passed the first charter law in an effort to infuse choice, innovation, and improvement, to address parental dissatisfaction with traditional public schools. Minnesota's charter schools were the result of the state's long tradition of public school choice, which was welcomed by the state legislature and governors (Wohlstetter et al., 2013). Since that time, more than 40 state legislatures have adopted laws promoting the development of charter schools. These laws have resulted in more than two million students attending more than 6,000 charter schools throughout the United States (Kirst, 2007; Center for Education Reform, 2015). In several large cities such as New Orleans and Washington, DC, charter schools now represent more than one-quarter of all public schools.

Five states – California, Florida, Arizona, Ohio and Texas – host the vast majority of charter schools in the United States. Charter schools are concentrated in urban areas, which are home to approximately 53 percent of all charter schools (Gross et al., 2012). This concentration likely reflects both need and demand. Individuals are more likely to support the opening of charter schools in areas where student achievement is low and parents want more options. New Orleans, Louisiana and Washington, D.C. are the two U.S. districts with the highest charter school enrollment. More than 70 percent of students in New Orleans and almost 40 percent of students in Washington, D.C. are enrolled in charter schools and almost all the students enrolled in these charter schools are African American. (National Alliance of Public Charter Schools, 2014).

Charter schools appeal to a broad range of political and ideological groups including neoliberals, neoconservatives, the religious right, parents and teachers in urban areas, and the middle class (Wells, Grutzik, Carnochan, Slayton & Vasudeva, 1999); however, each of these factions supports charter schools for a different reason (Apple, 1996; 2001). Neoliberals view charter schools as a way to facilitate school choice and competition whereby their belief in competition is crystallized and choice is the focus irrespective of the consequences. Neoconservatives and the religious right are more interested in removing government restrictions via deregulation and decentralization in order to create schools that emphasize moral values and religious teachings. The urban faction, whose members have traditionally been plagued by under-funded and poor-performing schools, views the charter school movement as a way to create better schools for their children. Finally, the middle

class sees charter school reform as a way to augment returns on their investments in public schooling (Apple, 1996; 2001). The wide-ranging appeal of charter schools has, to a certain extent, ensured their survival during party changes in government (Wells et al., 1999).

The charter school movement is not without critics. Diane Ravitch has argued that charter schools have not lived up to their promise of improving student outcomes and the school system as a whole (Ravitch, 2010). She argued that charter schools have been usurped by privatization and that the charter school movement poses significant dangers to the public education system. "The development of the past two decades have brought about massive changes in the governance of public education, especially in urban districts. Some children have gained; most have not. And the public schools, an essential element in our democracy for many generations, have suffered damage that may be irreparable" (Ravitch, 2013 p. 179). According to her assessment, the evidence base for scaling up charter school reform through federal policy and programs is weak. Other critics such as Jeffrey Henig, a professor at Columbia University have commented that charter schools fall short in contributing to a more integrated public school system (Wohlstetter et al., 2013). As he points out, there was some hope that the choice model would lead to a more natural and sustainable integration at the school level and argues that this has not happened. He has also critiqued that there are significant gaps geographically where charters are located and another critic, Charles Payne of the University of Chicago, has supported this line of argument (Wohlstetter et al., 2013). Similarly to Ravitch, both Henig and

Payne point out that charter schools have fallen short of expectations when it comes to student outcomes.

The Charter Concept—A Conceptual Model of the Charter School Movement

In their review of the charter school movement in Michigan, Miron and Nelson (2002) outlined the essential components of the charter concept. Figure 1 presents their model. The left panel includes three policy changes—choice, accountability and deregulation—meant to increase school autonomy; these changes do not stipulate detailed charter school actions, but rather create an "opportunity space" in which charter schools can operate (Miron & Nelson, 2002, p. 4). In the first policy change, the charter school system allows parents a *choice* in their children's education, which supporters argue will improve education via competition (since funding moves with students), so charter and public schools that fail to attract and retain students will be closed. Choice also involves a sorting process whereby parents choose the best mix of educational services for their children, which allows each school to focus on a narrow set of educational preferences (Miron & Nelson, 2002). The second policy change is a new form of *accountability* in which charter schools must achieve certain outcomes as specified in their charters (Gawlik, 2012; Fuller 2000; Miron & Nelson 2002). The third policy change, *deregulation*, allows charter school leaders to choose which methods they will employ to meet these goals (Miron & Nelson 2002).

**Opportunity Space/
Intermediary Goals**

Structural Changes

**Outcomes/
Final Goals**

| Principal and Teacher autonomy |
| Innovative curricula/pedagogy |
| Privatization |
| Governance |
| Equity/Access to New Educational Opportunities |
| Customer Satisfaction |
| Parental and Community Involvement |

Family Choice

Accountability Deregulation
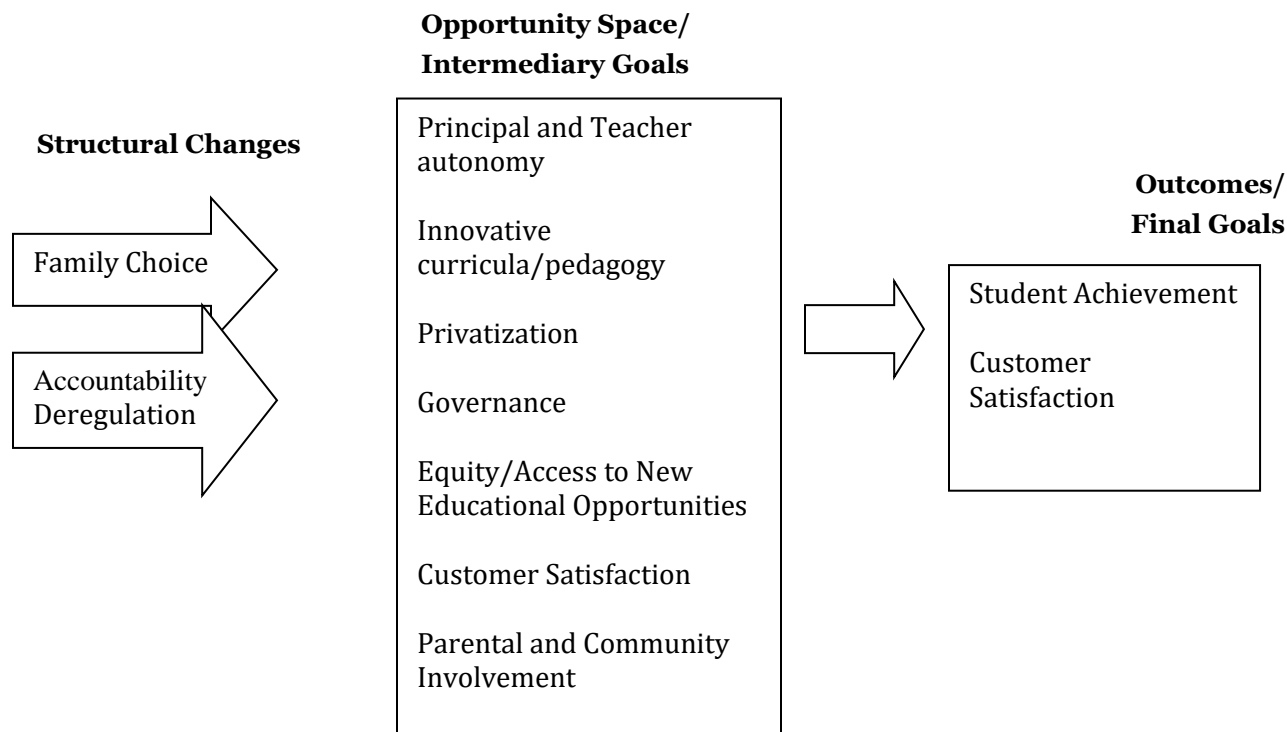
| Student Achievement |
| Customer Satisfaction |

Figure 1. Structural changes, goals, and outcomes of the charter school concept (Miron & Nelson, 2002).

The central panel of Figure 1 lists intermediate goals that delimit the opportunity space in which charter schools can experiment; charter school laws often define such intermediate goals in an attempt to encourage charter schools to use their autonomy in certain ways (Miron and Nelson, 2002). These goals include greater autonomy for principals and teachers, innovative curriculum and pedagogy, increased privatization of services (e.g., food service, nursing care), innovation in school governance, and increased equity or access to new educational opportunities.

The right panel of Figure 1 includes the two most common outcomes that serve as final goals within the charter concept: student achievement and customer satisfaction (however, there is significant controversy about which outcomes charter schools should be required to meet) (Miron & Nelson, 2002). Many charter school state laws include a focus on raising student achievement, and authorizers[1]

often use test scores for accountability purposes (Wohlstetter et al., 2013). With regard to customer satisfaction, some school choice scholars have argued that in an open market system, the best indicator of a school's quality (and thus an important final goal of charter schools) is its ability to attract, satisfy, and retain customers (i.e., parents) (Miron & Nelson, 2002).

In this paper, I review the literature on charter schools using Miron and Nelson's conceptual framework of the charter school model. This purpose of this paper is to examine the state of charter schools against these various intermediary and final goals. I draw mostly on literature from education and several specific areas including segregation, innovation and autonomy. First, I outline the methods used to select articles for the review. Next, I review the research on charter school outcomes, focusing on student achievement. Finally, I discuss the

implications of the extant research for charter schools and the US education system.

Methods

To examine the literature on charter schools, I reviewed research and scholarly studies available that reported evidence on the goals of the reform as outlined by the charter school concept. Specifically, to understand where research had materialized across the intermediary and final goals of the conceptual framework, I focused on the seven intermediary goals and the two final outcome goals for my data analysis. Following Light and Pillemer (1984), this review of research attempted to draw from a wide net in accessing every study available on the topic dating from the inception of the reform.

In all, 85 published works were collected that dealt with the intermediary and final goals of the charter school concept. Published works were compiled through regular and exhaustive Web searches, ERIC searches, and comprehensive literature review of publications focusing on charter schools. Of those, a substantial number were not based on systematic observations of charter schools but instead took hardline positions either as advocates or critics; as such, they were not useful in understanding the goals of the reform and were set aside. Of those offering evidence on the goals of the charter school reform collected in any systematic manner, none were excluded. Consequently, this article analyzes the goals of the charter school reform in 40 studies. Together, this broad collection of studies represents the most comprehensive research available on the topic of charter schools and provides a rich set of data.

Of these reports, 38 have been published since 2000 and several focus on charter schools that have been in operation for several years. Studies analyzed used various methods of inquiry to gather data: interviews with teachers, principals, parents and employees, observations, quantitative analysis including survey data and randomized design. The studies were undertaken by a number of organizations, groups, and individuals with a range of interests in charter schools. Most studies and reports came primarily from economics and education. Please see Appendix A for a detailed summary of articles reviewed.

Final Goals or Outcomes of Charter School Reform
Student Achievement

While researchers have conducted many studies of student achievement in charter schools over the past 20 years, this research is of varying quality (Berends, 2015). Betts and Hill (2010) explained that this research has improved over the past decade for two reasons: the growing prevalence of value-added analyses of longitudinal student data, and an increase in the number of charter schools holding lotteries for student selection, which allows researchers to employ a randomized design.

The question remains, have charter schools increased student achievement? The results are mixed with some studies finding minor effects and others finding no effects. Only a handful of studies have found larger effects. According to Berends (2015), it depends on the data, location and methods employed. Some studies using lottery-based randomized designs have found that academic achievement gains are greater for students who attend charter schools than for those in traditional schools; however, these studies have largely used data from urban centers such as New York City and Boston (Abdulkadiroglu et al., 2009; 2011; Angrist et al., 2011; Dobbie & Fryer, 2011; Hoxby & Murarka, 2008; Hoxby et al., 2009). Hoxby et al. (2009), for example, conducted a longitudinal study of lottery-based charter schools in New York City

and found that, relative to students in traditional schools, charter school students' third grade scores for mathematics and English were .14 and .13 standard deviation units higher, respectively. The authors concluded that, with regard to gains in mathematics performance, students who attended charter schools in New York City for a longer period of time (e.g., kindergarten through eighth grade) matched their peers in more affluent suburban schools. These gains led to an 86 percent reduction in the mathematics achievement gap and a 66 percent reduction in the English gap. But the method used for measuring student achievement was criticized since it relied on a statistical model that made it impossible to pinpoint how much of the improvement on tests could be attributed to charter schools (Reardon, 2009). Reardon assumed that Hoxby et al. inappropriately extrapolated the effect of charter schools over time. Similarly, in an analysis of students who won and lost charter school lotteries in the Harlem Children's Zone in New York City, Dobbie and Fryer (2011) found that in both math and English, the effects of charter elementary schools were large enough to close the achievement gap. Charter school students gained approximately .2 standard deviations per year in each subject.

Abdulkadiroglu et al. (2011) found large positive effects of charter schools in Boston. Middle-school students who won a charter school lottery outscored lottery losers who attended traditional public schools by .4 standard deviations in mathematics and .25 standard deviations in English. This effect size was large enough to reduce the black-white reading gap in middle school by two-thirds and eliminate the black-white mathematics gap.

Other studies using a lottery-based randomized design to analyze broader samples of schools have found more mixed effects of charter school enrollment on student achievement (Furgeson et al., 2012; Gleason et al., 2010). Gleason et al. (2010) examined 36 charter schools in 15 states and found no significant effects on mathematics and reading achievement. Furgeson et al. (2012) employed lottery-based and quasi-experimental approaches to examine 22 charter management organizations (CMOs) and found no significant overall effects of charter school enrollment on student achievement in math. At the organizational level, 11 CMOs had significant positive effects, 7 had significant negative effects and 4 had no significant effects.

Researchers using quasi-experimental methods have found mixed results for the effect of charter schools on student achievement (Booker et al., 2007; Davis & Raymond, 2012; Hanushek et al., 2007; Bifulco & Ladd, 2006; Sass, 2006; Zimmer & Buddin, 2006; Zimmer et al., 2009, 2012). Studies of this type most commonly show that students in charter schools and those in traditional public schools perform at similar levels. For example, Zimmer et al. (2009, 2012) examined charter schools in seven states and found no statistically significant overall charter school effects.

The Center for Research on Educational Outcomes (CREDO) at Stanford University conducted two of the most important quasi-experimental charter school studies in 2009 and 2013. Each study compared the academic performance of students at charter schools and traditional public schools (CREDO, 2013). The results of the first study (published in 2009) were extremely controversial. The controversy centered on a number of aspects of the study including the methodology and the interpretation of the results.

The 2013 CREDO study included the 16 states that were part of the original study as well as 11 additional states (including Florida) (CREDO, 2013). The expansion of the sample states significantly improved the reliability of the

findings and strengthened the credibility of the research. The 2013 study included three separate analyses. The first analysis highlighted trends in charter school performance since the 2009 study (CREDO, 2013) by examining data from the original 16 states to determine whether achievement among charter school students had improved in these schools since 2009 (CREDO, 2013). The second analysis also focused on the schools in the first cohort but excluded data for schools that had closed since 2009, allowing researchers to measure the overall performance of the schools as compared to their earlier measures (CREDO, 2013). The third analysis examined newly opened or newly tested schools that were not part of the original study, and thus shed light on systemic advances in the charter school movement that produced stronger schools (CREDO, 2013).

In general, findings from the 2013 study showed aggregate improvements in both math and reading results since 2009 in charter schools. Compared to traditional public schools, charter schools in the 27 focal states had slightly larger gains in reading (CREDO, 2013) and similar gains in math (CREDO, 2013). But these gains were so small they did not warrant any significance. In the schools included in both the 2009 and the 2013 studies, those in several subgroups—Blacks, Hispanics, low SES students, English language learners (ELL), and special education students—all improved in both reading and math. Hispanic students performed well in reading, low SES students performed well in math, and English language learners performed well in both reading and math. Because the new cohort of schools served a larger portion of students in poverty and Hispanic students (relative to the schools included in the 2009 study), these results were significant (CREDO, 2013). A clear limitation of the study (as noted in the report) was its focus on only one measure of a schools' effectiveness: state test scores.

In summary, the extant literature reveals a few key findings about the effects of charter schools on student achievement: First, some studies, especially those conducted in urban areas where the need for school reform is greatest, have found significant positive effects of charter schools albeit the methods employed are in question (Abdulkadiroglu et al., 2009; 2011; Angrist et al., 2011; Dobbie & Fryer, 2011; Hoxby & Murarka, 2008; Hoxby et al., 2009; Reardon, 2009). Charter schools have a wide range of effects on student achievement (Furgeson et al., 2012; Gleason et al., 2010; (Booker et al., 2007; Davis & Raymond, 2012; Hanushek et al., 2007; Bifulco & Ladd, 2006; Sass, 2006; Zimmer & Buddin, 2006; Zimmer et al., 2009, 2012). While some studies (such as the CREDO studies) find a positive but small effect of charter school achievement relative to traditional public schools, these are initial results and must be interpreted with caution (CREDO, 2013).

Customer Satisfaction

The charter school concept posits customer satisfaction as both an intermediary and final goal of the reform. Gauging customer or (really) parental satisfaction is critical at every juncture of the reform. While a few studies have examined parental satisfaction in charter school families, the research is sparse. Lacey et al. (2006) surveyed students, teachers, administrators and auxiliary personnel in five charter schools in Miami-Dade County and Broward County, Florida; the researchers concluded that parents were most satisfied with administrative leadership, high expectations for students and school climate and least satisfied with school resources.

Solomon (2003) surveyed 11,777 parents in Arizona charter schools, asking about

satisfaction with academic programs, teaching, facilities, discipline, and school mission. Parents were most satisfied with the school's academic program and teaching. The author also asked parents to grade their child's school using a traditional "A+" to "F" scale; 66.9 percent gave their child's school an "A+" or "A." Miron, Nelson and Risely (2002) found similar results in an evaluation of Pennsylvania's charter schools; most parents enrolled their children in a charter school because of the good teachers and high-quality instruction. Overall, parents were very satisfied with their school's education program, but less satisfied with the school's facilities and financial stability.

Finally, Wohlstetter, Nayfack and Mora-Flores (2008) reported the results of an initial survey of potential stakeholder satisfaction for charter schools in Southern California. The findings show that, overall, parents reported positive levels of satisfaction with charter schools. In addition the study showed that, parents, especially those whose children attended new charter schools, were only moderately satisfied with school facilities and the support services offered to students, but these concerns were addressed through school improvement efforts as charter schools aged.

Intermediary Goals of the Charter School System

Have Charter Schools Increased Principal and Teacher Autonomy?

Perhaps the most distinctive feature of charter schools compared to traditional public schools is the significant autonomy granted to principals and teachers. The assumption is that this increased autonomy will lead to improved student achievement by allowing principals and teachers to adapt instruction to the particular needs of their students. Recent research sheds light on how much autonomy principals and teachers in charter schools have relative to the

faculty in traditional schools, and whether this autonomy has improved the performance of faculty members.

Gawlik (2008) found that a range of variables can affect the level of autonomy granted to charter school principals. Through an analysis of the nationally representative Schools and Staffing Survey (NCES, 1999), Gawlik identified two significant barriers to perceived principal autonomy: state and district policies. In addition, the type of charter school—start-up versus conversion—affects principal autonomy. Principals in start-up charter schools, but not in conversion charter schools, had more autonomy than traditional public schools. Finally, principal autonomy is linked to state laws concerning unionization and whether principals have hiring and firing rights (Adamowski, Therriault & Cavanna, 2007).

A second goal related to autonomy in charter schools was that teachers would become more involved in school decision-making processes, which would lead to greater commitment on the part of teachers. Researchers have compared charter school teachers and their counterparts in traditional schools with respect to decision-making authority over staffing, curriculum and the budget, which are key components of increased autonomy. Malloy and Wohlstetter (2003), for example, interviewed 40 teachers in six urban charter elementary schools in California and found that in schools where the principal had created a "sense of team" (p. 235), teachers were more involved in decision making. This psychological belief translated into positive behavior because teachers frequently served on grade-level teams to create school-wide initiatives, such as developing a program to boost family engagement (Wohlstetter et al., 2013).

A case study of four charter schools in California (two start-ups and two conversion

schools) found that in the two start-up charter schools and in one of the conversion schools teachers reported that they experienced increased autonomy compared to previous employment experience in traditional public schools (Gawlik 2007). However, teachers still experienced constraints: Teachers from both of the conversion charter schools felt restricted by district oversight, especially with regard to accountability measures, and all of the teachers felt constrained by state-level accountability measures. In addition, several teachers commented that they felt restricted by their CMO. At times, increased autonomy could prove to be problematic. Some of the teachers who reported having an adequate level of autonomy had difficulty knowing how to handle this autonomy in the classroom. It was concluded that the charter school system expanded teacher input in the areas of instructional activities, curricular innovation, hiring and evaluating faculty, and budget decisions.

Crawford (2001) also examined teacher autonomy in charter schools using a survey of nearly 400 teachers working in charter and non-charter schools in Colorado and Michigan. The author found that the difference in teacher perceptions of autonomy was negligible between the two types of schools. Through interviews and observations at a charter school serving sixth to twelfth grade, Margolis (2005) found that while teachers enjoyed greater autonomy and had increased decision-making authority in charter schools, they felt this autonomy was a burden and they reported being overwhelmed with both administrative and instructional duties. Finally, Marshall, Gibbs and Greene (2001) examined autonomy from the other side—the perceptions of teachers in traditional schools; the authors found that, in general, teachers and administrators at four non-charter elementary schools (n=140) desired more

autonomy and believed that charter schools would allow teachers more independence than traditional schools.

Have Charter Schools Produced Innovation in Curricula and Administration?

Support for the charter concept is based on the argument that autonomy and accountability will produce innovations in curricula and administration that will improve student outcomes (Chubb & Moe, 1990; Walberg & Bast, 2003). Lubienski (2003) assessed three dimensions of innovation in charter schools: (1) whether the novel practice is an educational change (a change in curricular content or instructional strategies with an impact at the classroom level) or an administrative change (an organizational-level change that impacts the structural operations of the school but does not affect the classroom); (2) the extent to which the practice is established and familiar or original or unique; and (3) whether the practice appears at the local, state, and national levels.

Using 56 reports of innovation in charter schools including state-level evaluations and other research reports that provide evidence regarding innovative practices, Lubienski (2003) found that organizational, administrative, and structural changes, such as merit-pay for teachers and smaller class size, were prominent in charter schools. In contrast, while Lubienski observed a few innovative classroom-level practices (e.g., the use of technology in instruction, individualized instruction), in general, practices referred to as charter "innovations" such as hands-on learning, cooperative learning, or a "back-to-basics" approach, were all strategies that can and often do occur in traditional settings. Overall, Lubienski (2003, 2004) concluded that there is little evidence that charter schools have produced innovative instructional strategies,

and that "although some organizational innovations are evident, classroom strategies tend toward the familiar" (p. 416).   Even America's most highly regarded charter schools are not very innovative. For example, KIPP (the Knowledge is Power Program), which emphasizes strict discipline, a college prep curriculum, and high expectations for students and teachers, strives to meet these high expectations via intensified instruction rather than novel instructional practices.

The Growth of Privatization of Charter Schools

The most visible manifestation of privatization in charter schools is the increasingly visible role of private charter management organizations (CMOs) and education management organizations (EMOs) (Miron et al., 2010). CMOs (e.g., KIPP, YES Prep, Green Dot Schools and Aspire) are nonprofit organizations that operate like districts; these organizations typically manage multiple charter schools and establish new ones. EMOs are similar, but are for-profit organizations.

The percentage of CMO-managed charter schools increased from 11.5 percent in 2007-08 to approximately 20 percent in 2010-11. In contrast, the percentage of EMO-managed charter schools remained relatively stable during the same time period, even though the number of EMO-managed charter schools increased from 441 in 2007-08 to 649 in 2010-11 as the charter school sector grew (National Alliance for Public Charter Schools, 2014).

The percentage of CMO charter schools making adequate yearly progress (AYP) increased from 62.3 percent in 2007-08 to 66.4 percent in 2009-10, whereas the percentages of EMO schools and freestanding charter schools making AYP decreased during the same years (from 53.4 percent to 50.8 percent for EMOs and from 62.2 percent to 58.9 percent for freestanding charters). Although EMOs claim

they raise students' academic achievement, outside researchers have not reached the same conclusion (Horn & Miron, 2000; Nelson & Van Meter, 2003).

Have Charter Schools Increased Equity/Access to New Educational Opportunities?

Proponents of charter schools argue that charters can help alleviate the racial and economic segregation prevalent in the public education system. However, while charter schools might allow poor and minority students to attend schools that were previously inaccessible to them (Finn, Manno & Vanourek, 2000), critics assert that charter schools actually reinforce segregation on the basis of income, race, ethnicity and other categories (Miron et al., 2010; Arsen, Plank & Sykes, 1999; Cobb & Glass, 1999; Horn & Miron, 2000) because charter schools tend to attract only one kind of student, usually defined racially or ethnically.

While all charter schools are obliged by federal law to offer enrollment to any student and to hold a lottery if the number of students seeking to enroll exceeds the number of spaces available (Wohlstetter et al., 2013), some studies have maintained that charter schools are able to replicate inequalities via selection methods. Ausbrooks (2002) found that more than half of the 36 states with charter school laws at the time were "silent on the issue of geographic boundaries, and those that include provisions include no guidance as to how boundaries may be established without discriminating against certain racial and socioeconomic groups." (p. 191) In addition, Ausbrooks found that almost half of state laws did not address the issue of student transportation, creating a disadvantage for students without their own means of transportation, and nearly three quarters did not address information dissemination, allowing charter schools to market to specific neighborhoods or types of families (Wohlstetter

et al., 2013). These legislative omissions—as well as charges that choice programs were shaped by the middle and upper-middle classes and marginalize low-income and minority families—have fueled claims that charter schools have led to increased segregation (Wohlstetter et al., 2013).

Using panel data for individual students, Bifulco and Ladd (2007) examined the effect of charter schools in North Carolina on racial segregation and black-white test score gaps. The authors found that North Carolina's system of charter schools has increased the racial isolation of both black and white students. The typical African American charter school student attended a school that was more than 70 percent African American, while his non-charter counterpart attended a school that was less than 50 percent African American. The analysis suggests that the asymmetric preferences of black and white charter school students (and their families) for schools of different racial compositions help to explain why there are so few racially balanced charter schools. In addition, Bifulco and Ladd (2007) found that in North Carolina, charter schools widened the black-white achievement gap; the relatively large negative effect of charter schools on the achievement of black students was driven by students who transferred into charter schools that were more racially isolated than the schools they left.

Renzulli (2006) examined how two factors—segregation at the school level within districts and charter school legislation—predicted black enrollment levels at local charter schools. Specifically, the study used the Schools and Staffing Survey Charter School Data 1999–2000 (NCES, 1999), Common Core of Data, and a unique data set of district test scores to estimate regression models of black enrollment in charter schools on district racial segregation and race provisions in charter school legislation. In addition, the presence of a racial clause in

state charter school laws was associated with a higher percent of black students enrolled in charter schools. For example, New Jersey's law states: "The evaluation shall include, but not limited to, consideration of the following elements:...(5) the comparative demographics of student enrollments in school districts of residence and the charter schools located within those districts" (http://www.state.nj.us/njded/chartsch/cspa95.html). Florida's clause, similar to the New Jersey clause, is another example: "Such students shall be subject to a random lottery and to the racial/ethnic balance provisions which require a school to achieve racial/ethnic balance reflective of the community it serves or within the racial/ethnic range of other public schools in the same school district (Fla. Stat. Ann. § 228.056). Findings suggest that the extent of racial segregation in a school district (in which white and black students are more unevenly distributed across schools) is positively correlated with the percentage of blacks enrolled in local charter schools. Segregation patterns also differed by region, with charter schools in the West, South, and Midwest enrolling higher percentages of white students than charter schools in the Northeast.

Garcia (2008) compared the racial composition of the district schools students left to the charter schools they entered. He found that elementary and middle school students entered charter schools that were more racially segregated than the district schools they left, while high school students entered charter schools with levels of racial segregation lower than or similar to the district schools they exited. Garcia also found that racial segregation patterns in charter schools were the result of white flight and black and Native American students self-segregating into charter schools that were more racially isolated than the district schools they left.   Several studies have found a link between parent preference and charter

school segregation (Tedin & Weiher, 2004; Eckes, 2006; Ausbrooks, Barrett & Daniel, 2005); these studies have found that given a choice, the majority of parents send their children to schools with children and families of the same race.

In sum, there is current evidence that charter schools systematically exacerbate patterns of racial segregation. The bulk of the research found greater segregation in charter schools than in other public schools and there is little evidence that charter schools are reducing students' isolation by race.

Other Aspects of the Charter School Movement

The Effect of Charter Schools on Teachers Unions

Most charter laws exempt charter schools from state and local collective bargaining provisions. Because this exemption threatens the union power base and leaves charter school teachers without representation, teachers' unions and district-level leaders typically oppose charter schools. Several states have made compromises in charter school guidelines to accommodate teachers unions including limiting the number of charter schools allowed, agreeing that charter school employees would be subject to state collective bargaining law, and stipulating that only local school boards could approve charter schools. In each state, after the passage of a charter school law, unions have made attempts to prevent charter schools from opening.

Charter School Closures

Of the approximately 6,700 charter schools that have opened across the United States, 1,036 have closed since 1992 (Center for Education Reform, 2015). Nationally, financial deficiencies are the most common cause of charter school closure, responsible for 42 percent of closures; these deficiencies are most often due to low student enrollment or inequitable funding.

Charter schools across the United States are funded at 64 percent of their district counterparts. On average, charter schools are funded at $7,131 per pupil compared to $11,184 per pupil at conventional district public schools (Center for Education Reform, 2014). Mismanagement is the second most common cause, leading to 24 percent of all closures. Nearly 20 percent of closures occur because a school failed to meet acceptable student performance levels.

Implications of Charter School Outcomes

In this article, I have examined the charter movement and charter schools across the dimensions outlined in the charter school concept. I draw on empirical research to determine whether the goals of the reform were met, were not met, or were mixed, based on study contexts and methods. Understanding the conditions under which charter schools are effective will help policymakers and scholars push policy debates forward and assess the strengths and weaknesses of the movement.

According to the charter school concept, which emphasizes fulfillment of educational goals, it appears that charter schools are doing well in some areas but not as well in others. This review has implications for addressing student achievement. Here the picture is a bit troubling. While there are some reports that produce impressive academic gains, there are several that are not producing gains across the board.

Charter school proponents contend that the charter schools' benefits will extend to students in non-charter schools. The belief is that charter schools will serve as public education's research and development sector, developing innovative practices that can be adopted by other schools, but, as the research demonstrated, innovation is relegated to administrative practices more than curricular practices. Despite the fact that charter schools are less innovative than anticipated, most

charter school parents, teachers, and students are quite satisfied with their choices.

Any claims made about charter schools must be considered in the context of two important facts about education in the United States. First, while charter school laws and the reform have set out a number of goals of charter schools, there remains much dispute about their relative importance with respect to traditional public schools. For most parents, student achievement is the overriding goal of all schools. The intermediary goals are stepping stones to achieving the final outcome. Others recognize the value of student achievement but place more emphasis on customer satisfaction or equity. One of the things that make this debate so difficult to resolve is disagreement over how much weight to give each of the many goals.

Perhaps the most unexpected development of the charter school movement is the emergence of charter school networks such as CMOS and EMOs as an integral part of the charter school landscape. If the academic success identified in early studies of CMO performance is supported by additional research, it will be important to determine what is unique about these models in terms of their organizational structure and education programs, why are they successful, and whether their innovations can be adapted to the district setting.

Conclusion and Remaining Gaps in the Literature on Charter Schools

While research on charter schools has produced many important findings over the past 20 years, there is still much to learn. From a policy perspective, questions remain about the relationship between authorizers and CMOs: Should authorizers treat CMOs with a record of strong performance differently in their chartering applications, oversight, or renewal

procedures? Given the variety of charter authorizing policies, what might be done to help CMOs replicate successful models across state lines? Should there be a role for federal, state and local policies in facilitating and regulating the scale-up of high-quality CMOs?

With regard to autonomy, future studies should examine whether charters are actually utilizing autonomy to bring about increased academic performance, or whether the autonomy granted to charters remains unused. Exactly how does school-level autonomy—or the perception of autonomy—influence student achievement? In addition, the relationship between autonomy and the growth of charter districts needs further exploration.

Finally, future studies should address the "black box" of charter schooling to untangle the effectiveness of different instructional approaches—including project-based learning, bilingual education, team teaching, and theme-based approaches—on student achievement. Moreover, studies should tackle the issues of principal and teacher turnover in charter schools and work to identify effective practices among the leadership.

Notes

1. The role of the charter school authorizer is to first approve charter applications and then monitor the schools to ensure success. The more organized and active an authorizer is, the more likely problems within individual charter schools will be uncovered and fixed early. Authorizers are ultimately responsible for the operational and educational integrity of each charter school they sponsor and for closing any that fail to function responsibly. Depending on the state charter school law, authorizers can be local school boards, state boards of education, state universities, state departments of education, or separate independent entities created by law that have as their sole duty sponsoring and overseeing charter schools in the state.

References

Abdulkadiroğlu, A., Angrist, J. D., Dynarski, S. M., Kane, T. J., & Pathak, P. A. (2011). Accountability and flexibility in public schools: Evidence from Boston's charters and pilots. *The Quarterly Journal of Economics*, *126*(2), 699-748.

Abdulkadiroglu, A., Pathak, P. A., & Roth, A. E. (2009). *Strategy-proofness versus efficiency in matching with indifferences: redesigning the New York City high school match* (No. w14864). National Bureau of Economic Research.

Adamowski, S., Therriault, S. B., & Cavana, A. P. (2007). *The autonomy gap: Barriers to effective school leadership,* Washington, DC: American Institutes for Research and Thomas Fordham Foundation.

Angrist, J. D., Pathak, P. A., & Walters, C. R. (2011). *Explaining charter school effectiveness* (No. w17332). National Bureau of Economic Research.

Apple, M. (1996). *Cultural Politics and Education*. New York: Teachers College Press.

Apple, M. (2001). *Educating the "right" way: Markets, standards, God and inequality*. New York: Routledge Falmer.

Arsen, D., Plank, D., & Sykes, G. (1999). School Choice Policies in Michigan: The Rules Matter. For full text: http://edtech. connect. msu. edu/choice/conference/default. asp..

Ausbrooks, C. Y. B., Barrett, E. J., & Daniel, T. (2005). Texas charter school legislation and the evolution of open-enrollment charter schools. *Education policy analysis archives*, *13*(21), n21.

Ausbrooks, C. (2002). Ensuring That Underrepresented Student Groups Have Access to Charter Schools: What States Are Doing. *Planning and Changing*, *33*(n3&4), 185-96.

Betts, J. R., & Hill, P. T. (2010). School Policy and Research. *Taking Measure of Charter Schools: Better Assessments, Better Policymaking, Better Schools*, 203.

Bifulco, R., & Ladd, H. F. (2007). School choice, racial segregation, and test-score gaps: Evidence from North Carolinas charter school program*. *Journal of Policy Analysis and Management*, *26*(1), 31.

Bifulco, R., & Ladd, H. F. (2006). The impacts of charter schools on student achievement: Evidence from North Carolina. *Education*, *1*(1), 50-90.

Booker, K., Gilpatric, S. M., Gronberg, T., & Jansen, D. (2007). The impact of charter school attendance on student performance. *Journal of Public Economics*, *91*(5), 849-876.

Center for Education Reform, (2014). *Charter School Facts,* Retrieved from

https://www.edreform.com/issues/choice-charter-schools/facts on March 16, 2015.

Center for Education Reform (2015). *The State of Charter Schools: What we know and what we do not about performance and accountability.* Retrieved from https://www.edreform.com on June11, 2015.

Center for Research on Education Outcomes, (2013). *National Charter School Study*. Stanford, CA: CREDO, Stanford University.

Center for Research on Education Outcomes, (2009). *National Charter School Study*. Stanford, CA: CREDO, Stanford University.

Center for Research on Education Outcomes, (2009), *Multiple Choices: Charter school Performance in 16 states,* Stanford, CA: CREDO, Stanford University.

Chubb, J. E., & Moe, T. M. (1990). Politics, markets, and America's schools. Washington, D.C.: Brookings Institution.

Cobb, C. D., & Glass, G. V. (1999). Ethnic segregation in Arizona charter schools. *Education policy analysis archives*, *7*, 1.

Crawford, J.R. (2001). Teacher autonomy and accountability in charter schools. *Education and Urban Society, 33*(2), 186-200.

Davis, D. H., & Raymond, M. E. (2012). Choices for studying choice: Assessing charter school effectiveness using two quasi-experimental methods. *Economics of Education Review*, *31*(2), 225-236.

Dobbie, W., & Fryer Jr, R. G. (2011). Are high-quality schools enough to increase achievement among the poor? Evidence from the Harlem Children's Zone. *American Economic Journal: Applied Economics*, 158-187.

Eckes, S. E. (2006). Barriers to integration in the mississippi delta: Could charter schools be the new vehicle for desegregation?. *Analyses of social issues and public policy*, *6*(1), 15-30.

Furgeson, J., Gill, B., Haimson, J., Killewald, A., McCullough, M., Nichols-Barrer, I. & Hill, P. (2012). Charter-school management organizations: Diverse strategies and diverse student impacts. *Mathematica Policy Research, Inc*.

Fuller, B. (2000). *Inside Charter Schools: The Paradox of Radical Decentralization*. Cambridge, MA: Harvard University Press.

Garcia, D. R. (2008). Academic and Racial Segregation in Charter Schools Do Parents Sort Students Into Specialized Charter Schools?. *Education and Urban Society*, *40*(5), 590-612.

Gawlik, M. A. (2012). Moving Beyond the Rhetoric: Charter School Reform and Accountability. *The Journal of Educational Research*, *105(3)*, 210-219.

Gawlik, M. A. (2008). Breaking Loose: Principal Autonomy in Charter and Public Schools. *Educational Policy*, *22 (6)*, 783-804.

Gawlik, M. A. (2007). Beyond the Charter School House Door: Teacher Perceived Autonomy. *Education and Urban Society*, *39 (4)*, 524-553.

Gleason, P., Clark, M., Tuttle, C. C., & Dwoyer, E. (2010). The Evaluation of Charter School Impacts: Final Report. NCEE 2010-4029. *National Center for Education Evaluation and Regional Assistance*.

Gross, B., Bowen, M., & Martin, K., (2012). Assessing the Charter School Landscape in *Hopes, Fears & Reality: A Balanced Look at American Charter Schools in 2011,* Eds. R.J. Lake and B. Gross, Seattle, WA: Center for Reinventing Public Education.

Hanushek, E. A., Kain, J. F., Rivkin, S. G., & Branch, G. F. (2007). Charter school quality and parental decision making with school choice. *Journal of public economics*, *91*(5), 823-848.

Horn, J., & Miron, G. (2000). An evaluation of Michigan's charter school initiative: Performance, accountability, and impact. Kalamazoo, MI: Western Michigan University. *Evaluation Center*.

Hoxby, C. M., Murarka, S., & Kang, J. (2009). How New York City's charter schools affect achievement. *Cambridge, MA: New York City Charter Schools Evaluation Project*, 1-85.

Hoxby, C. M., & Murarka, S. (2008). New York City charter schools. *Education next*, *8*(3).

Kirst, M. W. (2007). Politics of Charter Schools: Competing National Advocacy Coalitions Meet Local Politics. *Peabody Journal of Education*. 82(3), 184-203.

Lacey, C. H., Enger, J. M., Maldonado, N., & Thompson, S. (2006). Charter school accountability: Listening to our stakeholders. *Journal of School Choice*, *1*(2), 83-100.

Ladd, H. F. (2002). Market-based reforms in urban education. Washington, DC: Economic Policy Institute.

Light, R. J., & Pillemer, D. B. (1984). The science of reviewing research. Cambridge, MA: Harvard University Press.

Lubienski, C. (2003). Innovation in education markets: Theory and evidence on the impact of competition and choice in charter schools. *American Educational Research Journal, (40)*2, 396-443.

Lubienski, C. (2004). Charter school innovation in theory and practice: Autonomy, R & D, and curricular conformity. In K. Bulkley & P. Wohlstetter (Eds.), Taking account of charter schools: What's happened and what's next? (pp. 72-92). New York: Teachers' College Press.

Malloy, C. L., & Wohlstetter, P. (2003). Working Conditions In Charter Schools What's the Appeal for Teachers?. *Education and urban society*, *35*(2), 219-241.

Manno, B. V., Finn, C. E., & Vanourek, G. (2000). Charter school accountability: Problems and prospects. *Educational Policy*, *14*(4), 473-493.

Margolis, J. (2005). " Every Day I Spin These Plates": A Case Study of Teachers Amidst the Charter Phenomenon. *Educational Foundations*, *19*, 87-109.

Marshall, P. L., Gibbs, D. C., Greene, T. M., Nelson, W. C., & Schofield, J. R. (2001). Research Reports: Teachers Reflect on Charter Schools. *Kappa Delta Pi Record*, *37*(3), 129-132.

Mead, S., & Rotherham, A.J., (2007). *A Sum Greater than Its Parts: What States Can Teach Each Other About Charter Schooling,* Washington, D.C.: Education Sector. http://www.educationsector.org/sites/default/files/publications/CharterSchoolSummary.pdf.

Miron, G., Urschel, J. L., Mathis, W, J., & Tornquist, E. (2010). Schools without Diversity: Education Management Organizations, Charter Schools and the Demographic Stratification of the American School System. Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. Retrieved September 13, 2015 from http://epicpolicy.org/publication/schools-without-diversity

Miron, G., Nelson, C., & Risley, J. (2002). Strengthening Pennsylvania's Charter School Reform: Findings From the Statewide Evaluation and Discussion of Relevant Policy Issues. Year Five Report.

Miron, G., & Nelson, C. (2002). What's public about charter schools? Lessons learned about choice and accountability. Thousand Oaks, CA: Corwin Press.

National Alliance of Public Charter Schools, (2014). *Dashboard,* Retrieved from http://www.publiccharters.org/dashboard/home on May 6, 2014.

National Center for Educational Statistics. (1999). Public Charter School Principal Questionnaire: Schools and staffing survey 1999-2000 school year. Washington, DC: United States Department of Education.

Nelson, F. H., & Van Meter, N. (2003). Update on student achievement for Edison Schools Inc. Washington, DC: American Federation of Teachers.

Ravitch, D. (2013). *Reign of error: The hoax of the privatization movement and the danger to America's public schools*. Vintage.

Ravitch, D. (2010). The death and life ofthe great American school system. *New York: Basic Books*, *101*, 21-30.

Reardon, S.F. (2009) *Review of "How New York City's Charter Schools Affect Achievement."* Boulder and Tempe: Education and the Public Interest Center &

Education Policy Re- search Unit. Retrieved February 9, 2016 from http://epicpolicy.org/thinktank/review-How-New-York- City-Charter

Renzulli, L. A. (2006). District Segregation, Race Legislation, and Black Enrollment in Charter Schools*. *Social Science Quarterly*, *87*(3), 618-637.

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

Solomon, L. C. (2003). *Findings from the 2002 survey of parents with children in Arizona charter schools: How parents grade their charter schools*. Santa Monica, CA: Human Resources Policy Corporation.

Tedin, K. L., & Weiher, G. R. (2004). Racial/ethnic diversity and academic quality as components of school choice. *Journal of Politics*, *66*(4), 1109-1133.

Walberg, H. J., & Bast, J. L. (2003). *Education and Capitalism: How Overcoming Our Fear of Markets and Economics Can Improve* (Vol. 521). Hoover Institution Press.

Wells, A. S. Grutzik, C. Carnochan, S. Slayton, J., and Vasudeva, A. (1999). Underlying Policy Assumptions of Charter School Reform: The Multiple Meanings of a Movement. *Teachers College Record, 100* (3): 513-535.

Witte, J.F. (2000). *The market approach to education: An analysis of America's first voucher program*. Princeton, NJ: Princeton University Press.

Wohlstetter, P., Nayfack, M. B., & Mora-Flores, E. (2008). Charter schools and "customer" satisfaction: Lessons from field testing a parent survey. *Journal of School Choice*, *2*(1), 66-84.

Wohlstetter, P., Smith, J., & Farrell, C. (2013). Choices and Challenges: Charter school performance in perspective. Cambridge, MA: Harvard Education Press.

Zimmer, R., Gill, B., Booker, K., Lavertu, S., & Witte, J. (2012). Examining charter student achievement effects across seven states. *Economics of Education Review*, *31*(2), 213-224.

Zimmer, R., Gill, B., Booker, K., Lavertu, S., Sass, T. R., & Witte, J. (2009). *Charter schools in eight states: Effects on achievement, attainment, integration, and competition* (Vol. 869). Rand Corporation.

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

About the Author

Marytza A. Gawlik, Phd is an assistant professor in the educational leadership and policy studies department at Florida State University. Her research focuses on charter school leaders and teachers and highlights issues of autonomy, accountability and succession.

Appendix A
Summary of Articles Reviewed

Study	Research Tradition	Intermediary goal focus	Final goal focus
Author, Date, Title	**Economics or Education**		
Abdulkadiroğlu, A., Angrist, J. D., Dynarski, S. M., Kane, T. J., & Pathak, P. A. (2011). Accountability and flexibility in public schools: Evidence from Boston's charters and pilots.	Economics		Student Achievement: Lottery estimates show large and significant score gains for charter students in middle and high school. In contrast, lottery estimates for pilot school students are mostly small and insignificant, with some significant negative effects. Charter schools with binding assignment lotteries appear to generate larger gains than other charters.

Abdulkadiroglu, A., Pathak, P. A., & Roth, A. E. (2009). *Strategy-proofness versus efficiency in matching with indifferences: redesigning the New York City high school match*	Economics		Student Achievement: The authors analyze a model with indifferences–ties–in school preferences. Simulations with field data and the theory favor breaking indifferences the same way at every school –single tie breaking– in a student-proposing deferred acceptance mechanism. Finally, they empirically document the extent of potential efficiency loss associated with strategy-proofness and stability, and direct attention to some open questions.
Adamowski, S., Therriault, S. B., & Cavana, A. P. (2007). *The autonomy gap: Barriers to effective school leadership,*	Education	Principal and Teacher Autonomy: Principal autonomy is linked to state laws concerning unionization and whether principals have hiring and firing rights	
Angrist, J. D., Pathak, P. A., & Walters, C. R. (2011). *Explaining charter school effectiveness*	Economics		Student Achievement: Estimates using admissions lotteries suggest that urban charter schools boost student achievement, while charter schools in other settings do not. Using the largest available sample of lotteried applicants to charter schools, the authors explore student-

			level and school-level explanations for this difference in Massachusetts.
Arsen, D., Plank, D., & Sykes, G. (1999). School Choice Policies in Michigan: The Rules Matter	Education	Equity/Access to New Educational Opportunities: The report examines geographical patterns of school choice participation among Michigan's state districts, and investigates how schools and districts have responded to the challenges and opportunities posed by choice policies.	
Ausbrooks, C. Y. B., Barrett, E. J., & Daniel, T. (2005). Texas charter school legislation and the evolution of open-enrollment charter schools.	Education	Equity/Access to New Educational Opportunities: This article chronicles the evolution of legislation for Texas open-enrollment charter schools to their implementation by demonstrating how these schools have (or have not) used their freedom from state-mandated requirements to develop innovative learning environments as well as to bring innovative curricula into the classroom.	
Ausbrooks, C. (2002). Ensuring That Underrepresented Student Groups Have Access to Charter Schools: What States Are Doing	Education	Equity/Access to New Educational Opportunities: Describes various provisions in state statutes that ensure underrepresented student groups have equal access to charter schools. Includes facilitating student access, student admission, geographic boundary restrictions, and student transportation. Provides summary of student transportation provisions in seven state charter-school statutes. Also describes what some charter schools are doing to ensure equal student access.	
Gawlik, M.A. (2012). Moving Beyond the Rhetoric: Charter School Reform and Accountability	Education	Policy Lever: The author examined how local charter school educators respond to the accountability measures being imposed on them. In an effort to understand teachers' and administrators' experiences with public school accountability, the author explores how educators in 4 charter schools in Michigan	

		understand recent accountability mandates withrespect to school reform.	
Gawlik, M.A. (2008). Breaking Loose: Principal Autonomy in Charter and Public Schools	Education	Principal and Teacher Autonomy: Because various aspects of the school organization matter, this study was designed to determine to what degree principals in both charter and traditional public schools experience autonomy. This quantitative study draws on the 1999-2000 School and Staffing Survey, and the analyses suggest that there are variations in the degree and amount of principal autonomy experienced across charter and traditional public schools.	
Gawlik, M.A. (2007). Beyond the Charter Schoolhouse Door: Teacher-Perceived Autonomy	Education	Principal and Teacher Autonomy: This article presents a study that explores the relationship between charter schools and teacher autonomy. The theoretical framework is based on the charter school concept, whereby three policy levers—choice, deregulation, and accountability—lead to various goals for the charter school.	
Bifulco, R., & Ladd, H. F. (2007). School choice, racial segregation, and test-score gaps: Evidence from North Carolinas charter school program	Education	Equity/Access to New Educational Opportunities: In this paper the authors use the experience of charter school students in North Carolina to examine how one popular approach to expanding school choice – charter schools -- has affected students of different races and socioeconomic backgrounds. In particular, we examine whether and the extent to which black families in North Carolina have used the state's charter school program to attend more integrated schools and how the student sorting induced by the program has affected the racial achievement gap.	
Booker, K., Gilpatric, S. M., Gronberg, T., & Jansen, D. (2007). The impact of charter school attendance on	Economics		Student Achievement: The authors employ a panel of individual student data on math and reading test performance for five cohorts of students in Texas to

student performance			study the impact of charter school attendance. They control for school mobility effects and distinguish movement to a charter school from movement within and between traditional public school districts. They find students experience poor test score growth in their initial year in a charter school, but that this is followed by recovery in the subsequent years.
Cobb, C. D., & Glass, G. V. (1999). Ethnic segregation in Arizona charter schools	Education	Equity/Access to New Educational Opportunities: This study addressed whether Arizona charter schools are more ethnically segregated than traditional public schools. Nearly half of the charter schools exhibited evidence of substantial ethnic separation. Arizona charter schools not only contained a greater proportion of White students, but when comparable nearby traditional public schools were used forcomparison, the charters were typically 20 percentage points higher in White enrollment than the other publics.	
Crawford, J.R. (2001). Teacher autonomy and accountability in charter schools.	Education	Principal and Teacher Autonomy: A study was conducted to examine the differences between charter school and traditional public school teachers' perceptions of empowerment, and specifically of decision making and autonomy. The findings indicate that traditional public school teachers in Colorado have the perception that they have more decision making opportunities and more autonomy than their counterparts in charter schools, whereas there is little or no difference between the perceptions of charter and traditional public school teachers in Michigan.	
Davis, D. H., & Raymond, M. E. (2012). Choices for	Economics		Student Achievement: Two quasi-experimental methods – fixed effects

studying choice: Assessing charter school effectiveness using two quasi-experimental methods.			(FE) and virtual control records (VCR) – were used to measure charter schooling in 14 states and two districts. A head-to-head comparison of the FE and VCR methods used the same charter students to test the FE control (e.g., the charter student's own traditional public school experience) and the VCR for equivalence. The comparison produced highly similar estimates; charter coefficients were identical in sign and significance and of the same general magnitudes. In an analysis of the sampling fractions included in each method using all available tested charter students, the VCR method was found to produce more generalizable results. In the policy analysis, charter school quality was found to be demographically and geographically uneven with only 19 percent of charter schools outperforming their local markets.
Dobbie, W., & Fryer Jr, R. G. (2011). Are high-quality schools enough to increase achievement among the poor? Evidence from the Harlem Children's Zone.	Economics		Student Achievement: The authors provide the first empirical test of the causal impact of Harlem Children's Zone (HCZ) charters on educational outcomes. Both lottery and instrumental variables identification strategies suggest that the effects of attending an HCZ middle school are enough to close the black-white achievement gap in mathematics. The effects in elementary school are large enough to close the racial

			achievement gap in both mathematics and ELA. They conclude with evidence that suggests high-quality schools are enough to significantly increase academic achievement among the poor.
Eckes, S. E. (2006). Barriers to integration in the Mississippi delta: Could charter schools be the new vehicle for desegregation?		Equity/Access to New Educational Opportunities: This study explored the barriers to educational integration in the rural Mississippi Delta region. In Delta County,[1] students have generally been divided between a black public school and an all white private academy. In this current case study, the researcher sought to learn whether a new high-performing charter school, where the three barriers were not present, would encourage racial integration in Delta County. Through interviews and observations, the current case study explored whether the barriers articulated by white parents in the earlier study were simply rhetoric. The current study found that white parents were still not choosing the charter school, even though no barriers were present.	
Furgeson, J., Gill, B., Haimson, J., Killewald, A., McCullough, M., Nichols-Barrer, I., ... & Hill, P. (2012).	Education	Governance: The National Study of CMO Effectiveness aims to fill the gap in systematic evidence about CMOs, providing the first rigorous nationwide examination of CMOs' effects on students' achievement and attainment. The study includes an examination of the relationships between the practices of individual CMOs and their effects on student achievement, with the aim of providing useful guidance to the field.	
Garcia, D. R. (2008). Academic and Racial Segregation in Charter Schools Do Parents Sort Students Into	Education	Equity/Access to New Educational Opportunities: This article focuses on how parental school choices affect the degree of racial and academic segregation in charter schools. The research design allows	

Specialized Charter Schools?		for a direct comparison of the racial and academic conditions of the district schools students exited to the charter schools they entered. Parents choose to leave more racially integrated district schools to attend more racially segregated charter schools. Simultaneously, parents enroll their students into charter schools with at least the same degree of academic integration as the district schools that students exited. The academic and racial segregation results are then used to test the extent to which students congregate into specialized char-ter schools according to hypothesized patterns. The findings call into question the assertion of charter school advocates that segregated conditions in charter schools are the result of students self-selecting into specialized charter schools.	
Gleason, P., Clark, M., Tuttle, C. C., & Dwoyer, E. (2010). The Evaluation of Charter School Impacts: Final Report.	Education		Student Achievement: The evaluation, which the authors conducted in 36 charter middle schools across 15 states, compares outcomes of students who applied and were admitted to these schools through randomized admissions lotteries (lottery winners) with the outcomes of students who also applied to these schools and participated in the lotteries but were not admitted (lottery losers). This analytic approach produces the most reliable impact estimates. But because the study could only include charter middle schools that held lotteries, the results do not necessarily apply to the full set of charter middle schools in the

			U.S.
Hanushek, E. A., Kain, J. F., Rivkin, S. G., & Branch, G. F. (2007). Charter school quality and parental decision making with school choice	Economics		Student Achievement: This paper uses panel data for the state of Texas to overcome impediments to the evaluation of charter school performance and to investigate the quality of charter schools relative to traditional public schools. Additionally, it provides a first glimpse at how the availability of charter schools affects the ways in which parents respond to school quality differences. By eliminating the need to move residences in order to switch schools, charter schools would be expected to lead to an increase in the sensitivity of parents to school quality and amplify the competitive pressure on public schools.
Horn, J., & Miron, G. (2000). An evaluation of Michigan's charter school initiative: Performance, accountability, and impact.	Education		
Hoxby, C. M., Murarka, S., & Kang, J. (2009). How New York City's charter schools affect achievement.	Economics		Student Achievement: This *report* analyzes the achievement of 93 percent of the New York City charter school students who were enrolled in test-taking grades (grades 3 through 12) in 2000-01 through 2007-08. The remaining students are not covered by this report for one of two reasons. 5 percent of charter school students in test-taking grades were enrolled in schools

			that opened from 2006-07 onwards. Their achievement will be covered by the next report of the New York City Charter Schools Evaluation Project. 2 percent of charter school students in test-taking grades were enrolled in schools that declined to participate in the study. The most distinctive feature of the study is that charter schools' effects on achievement are estimated by the best available, "gold standard" method: lotteries.
Hoxby, C. M., & Murarka, S. (2008). New York City charter schools.	Economics		Student Achievement: This study addresses two main questions about charter schools in the city. First, who enrolls in New York City's charter schools? And, second, how well are the schools educating students? What we found is that, compared with other students in the traditional public schools, charter school applicants are more likely to be black and poor but are otherwise fairly similar. We also found that charter school students benefit academically from their charter school education. Charter school students in grades 3 through 8 perform better than we would expect, based on the performance of comparable students in traditional public schools, on both the math and reading portions of New York's statewide achievement tests. There is not yet a

			sufficient number of charter school students in grades 9 through 12 for us to report achievement effects for this group.
Lacey, C. H., Enger, J. M., Maldonado, N., & Thompson, S. (2006). Charter school accountability: Listening to our stakeholders			Customer Satisfaction: Stakeholder surveys conducted as part of the development of an accountability and assessment system for five charter schools in Miami-Dade County and Broward County, Florida, revealed high positive response regarding high expectations, school climate, basic skills instruction, and monitoring student progress. The lowest overall rating revealed dissatisfaction with charter school resources. Five researchers distributed questionnaires to stakeholders, defined as parents, pupils, teachers, administrators, special program teachers, and auxiliary personnel. Survey results were generally positive in assessing the schools, programs, teachers, administrators, and relationships between the various stakeholder groups. This study provided the quantitative data needed to form the framework for the development and implementation of an accountability system.
Lubienski, C. (2003). Innovation in education markets: Theory and evidence on the	Education	Innovation: Drawing on organizational and economic theory, this article considers the forces shaping educational innovation in market-oriented reforms. Although	

impact of competition and choice in charter schools.		reformers assume that competition and choice necessarily lead to innovations within schools, a more complex examination of competitive institutional environments suggests that mechanisms employed by reformers may actually undercut their intended purposes. The discussion highlights the potential for choice and competition to constrain opportunities for educational innovation and to impose pedagogical and curricular conformity.	
Lubienski, C. (2004). Charter school innovation in theory and practice: Autonomy, R & D, and curricular conformity.	Education		
Malloy, C. L., & Wohlstetter, P. (2003). Working Conditions In Charter Schools What's the Appeal for Teachers?.	Education	Principal and Teacher Autonomy: This article synthesizes past research findings on the work of charter school teachers and juxtaposes this research with case studies of forty charter school teachers in six urban charter elementary schools. Charter schools, with increased autonomy over personnel and budget, are given the freedom to make many decisions related to hiring, salary, and working conditions. In general, charter school teachers work longer hours and receive less job security than colleagues in traditional public schools. In some states, charter school teachers earn significantly less than other public school colleagues. The evidence also suggests, however, that teachers generally enjoy their professional lives in charter schools—their colleagues and the school's education program. The authors argue that in order to continue to attract and retain teachers, charter schools may need to extend their use of autonomy to improve the working conditions of teachers and ultimately, to extend the life of the	

		school.	
Margolis, J. (2005). " Every Day I Spin These Plates": A Case Study of Teachers Amidst the Charter Phenomenon	Education	Principal and Teacher Autonomy: This study, in contrast, seeks to provide a detailed, insider account of a charter school. Further, by focusing on charter teachers, the research seeks to understand how charter policy is actually lived by those who work closest with charter school students. However, because "charter school laws vary considerably from state-to- state" -- and within states run under a wide range of educational philosophies— it is impossible to speak of "charter policy" as a single entity to be experienced by teachers. Therefore, this study took a phenomenological stance, focusing first on the original and concrete experiences of teachers in a single charter school, and then later examining these experiences in light of how the school's charter status impacted teacher meaning-making.	
Miron, G., Urschel, J. L., Mathis, W, J., & Tornquist, E. (2010). Schools without Diversity: Education Management Organizations, Charter Schools and the Demographic Stratification of the American School System.	Education	Governance and Equity/Access to New Educational Opportunities: The primary purpose of this study is to examine how EMOs appear to affect the segregation or integration of schools by race, economic class, special education status, and language. This is accomplished through examining differences in enrollment patterns between schools operated by EMOs and schools run by their neighboring local districts. The shifts in segregative/integrative patterns over time are also examined. In addition, this study explores whether for-profit and nonprofit status, the number of schools operated by an EMO, the instructional levels of schools (ele- mentary, middle, and high), and the number of years in operation are associated with these patterns of segregative/integrative balances.	
Miron, G., Nelson,	Education		Customer Satisfaction:

C., & Risley, J. (2002). Strengthening Pennsylvania's Charter School Reform: Findings From the Statewide Evaluation and Discussion of Relevant Policy Issues			In 2001, the Pennsylvania Department of Education contracted with Western Michigan University to evaluate Pennsylvania's charter schools and charter school initiative over two years. The study used site visits, work sample review, document review, focus groups, portfolios and surveys to gather data regarding the movement's effectiveness, progress, and impact. The report focuses on methods, descriptions of the reform, charter school startup challenges, finances, student and family characteristics, teacher and staff characteristics, working conditions, professional development, satisfaction levels, innovation, equity, accountability, student achievement, and alternative indicators of charter school quality. Overall, charter schools were making modest achievement gains against demographically and geographically similar schools, although the gains were not uniform. Charter school customers were generally satisfied with the curriculum and instruction, though less so with facilities and resources.
Nelson, F. H., & Van Meter, N. (2003). Update on student achievement for Edison Schools Inc.	Education		Student Achievement: The American Federation of Teachers compares student performance on state assessments in2000-01in Edison-run schools with other comparable school

			sin the state. The methods used to assess student achievement in Edison-run schools are the same methods used to evaluate achievement in other public schools. Following are some of the AFT's findings: Averaged across all states, the typical Edison school performed below average. The typical Edison school improved modestly after poor first-year student achievement but not enough tor each average in its comparison group. Predominantly African-American schools managed by Edison ranked well below average compared with other public schools in their comparison groups. There port states that the outlook for Edison' s prospects appears mixed
Renzulli, L. A. (2006). District Segregation, Race Legislation, and Black Enrollment in Charter Schools	Education	Equity/Access to New Educational Opportunities: This article examines how segregation at the school level within districts and carter school legislation predict black enrollment levels at local charter schools. Findings suggest that segregated school districts, those districts where whites and blacks are more unevenly distributed among schools, have a larger percentage of blacks enrolled in local charter schools than districts where schools are integrated.	
Sass, T. R. (2006). Charter schools and student achievement in Florida.			Student Achievement: In this paper the author utilizes a new longitudinal data base from Florida to address three key issues relating to charter schools and student achievement. First, how does the impact of charter schools

			on student achievement compare with traditional public schools? Second, to the extent that student performance varies among charter schools, what factors contribute to the difference in performance? Third, what competitive impact, if any, do charter schools have on traditional public schools? To empirically analyze these issues the author focuses on student achievement in traditional public schools and charters in Florida.
Solomon, L. C. (2003). Findings from the 2002 survey of parents with children in Arizona charter schools: How parents grade their charter schools.			Customer Satisfaction: The author surveyed 11,777 parents in Arizona charter schools, asking about satisfaction with academic programs, teaching, facilities, discipline, and school mission. Parents were most satisfied with the school's academic program and teaching. The author also asked parents to grade their child's school using a traditional "A+" to "F" scale; 66.9 percent gave their child's school an "A+" or "A."
Tedin, K. L., & Weiher, G. R. (2004). Racial/ethnic diversity and academic quality as components of school choice.	Education	Equity/Access to New Educational Opportunities: In this paper, the authors use an experimental design embedded in a survey to obtain an alternative measure of educational quality and racial diversity as considerations for household school choice. While both academic quality and race/ethnic diversity had an effect on preferences, academic quality was a more important predictor. They then examined the relationship between preference and actual choice outcomes. Race-related opinions were nonpredictive	

		of outcomes, but a stress on high test scores by parents predicted school choice among students who are not "at risk."	
Wohlstetter, P., Nayfack, M. B., & Mora-Flores, E. (2008). Charter schools and "customer" satisfaction: Lessons from field testing a parent survey.	Education	Parent and Community Involvement: This article reports on both the process of development and the information gained from a field test of a parent stakeholder satisfaction survey for charter schools and other schools of choice. The survey has been designed to assist schools with recruiting and retaining educational consumers by providing information both for external accountability and internal accountability. Preliminary findings from the first stakeholder group surveyed—parents—suggest positive levels of satisfaction with charter schools overall. The findings also reveal that parents, especially those whose children attend new charter schools, are only moderately satisfied with the school facilities and support services offered to students. However, as the charter schools age, these concerns appear to be addressed through school improvement efforts. The authors conclude with a series of lessons for developing stakeholder satisfaction surveys for charter schools and other schools of choice.	Customer Satisfaction: This article reports on both the process of development and the information gained from a field test of a parent stakeholder satisfaction survey for charter schools and other schools of choice. The survey has been designed to assist schools with recruiting and retaining educational consumers by providing information both for external accountability and internal accountability. Preliminary findings from the first stakeholder group surveyed—parents—suggest positive levels of satisfaction with charter schools overall. The findings also reveal that parents, especially those whose children attend new charter schools, are only moderately satisfied with the school facilities and support services offered to students. However, as the charter schools age, these concerns appear to be addressed through school improvement efforts. The authors conclude with a series of lessons for developing stakeholder satisfaction surveys for charter schools and other schools of choice.
Zimmer, R., Gill, B., Booker, K., Lavertu, S., & Witte, J.	Economics		Student Achievement: In this paper, the authors examine charter schools

(2012). Examining charter student achievement effects across seven states.			in seven states taking two major steps to provide insights into this debate. First, they use a consistent research approach to examine charter schools in each of the locations. Second, they articulate and test the assumptions of our analytical strategy. They suggest that some of the current confusion surrounding the previous research is that researchers have not always clearly articulated the strengths and weaknesses of their research designs. In sum, while the authors do not claim that our study is definitive, they do argue that readers will have greater confidence that any differences in achievement effects across locations are not the result of methodological differences and believe readers will clearly understand the assumptions made in their model.
Zimmer, R., Gill, B., Booker, K., Lavertu, S., Sass, T. R., & Witte, J. (2009). *Charter schools in eight states: Effects on achievement, attainment, integration, and competition*	Economics		Student Achievement: The authors set out to grow evidence and inform the debate on charter schools by examining four research questions: 1. What are the characteristics of students transferring to charter schools; 2. What effect do charter schools have on test-score gains for students who transfer between TPS and charter schools; 3. What is the effect of attending a charter high school on the probability of graduating and entering college? 4. What effect does the introduction of

			charter schools have on test scores of students in nearby TPSs? They examine these questions using longitudinal, student-level achievement data from Chicago, San Diego, Philadelphia, Denver, Milwaukee, and the states of Ohio, Texas and Florida.