State Policy Regimes and the Performance of Charter Schools

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Abstract

The policy diffusion framework is critical to understanding the spread of policy innovations such as charter schools in the United States. This framework, however, is less instructive in explaining the state-by-state configuration of these policies. What explains the wide variation in charter school policy among states? This study addresses this question by developing the concept of policy regimes. Policy regimes capture dominant approaches to policy innovations that are informed by common institutional environments among states. This paper applies this concept to charter schools by studying the policy outcomes and effects of state charter school policies. Factor analysis of different charter school policies identifies four unique policy regimes and links these regimes to state characteristics. This paper then examines the relationships between regime type and charter school performance using OLS regression models. The results show that regime types are statistically related to charter student achievement in ways that are consistent with each regime’s policy approach. These finding suggest that policy regimes may be important in disentangling the apparent discrepancies in charter school outcomes.

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Despite nearly two decades of charter schools in the educational milieu of the United States, the evidence of these schools in raising student performance across the nation is still obscure. Created in response to what many perceived as an intractable public education system, charter schools are given considerable independence from the traditional structures of K-12 schooling, and thus offer alternatives to public education. Originally adopted by Minnesota in 1991, state laws establishing charter schools have swept across the country and now can be found in 42 states and the District of Columbia. Despite their extensive use, scholarship on the academic progress of students in charter schools, both nationally and in specific states, has continued to produce mixed and inconclusive results (Nelson, Rosenberg, and Van Metter 2004; Center for Research on Education Outcomes 2009, 2013).¹

The challenge in understanding charter school outcomes lies in their individuality. These schools exercise substantial autonomy in curriculum, performance standards, disciplinary policies, and staffing decisions (Strizek, Pittsonberger, Riordan, Lyter, and Oflofsky 2006; Gawlick 2008). This autonomy can translate into separate models and unique incarnations of charters. The origins, management, and longevity of charter schools also widely range, which has a bearing on the academic performance of students in these schools (Henig, Holyoke, Brown, and Lacireno-Paquet, 2005; Renzulli 2005; Buddin and Zimmer 2005; Furgeson et al., 2012).²

Finally, while charter schools typically enroll more students of color than traditional public schools (Wells, Holme, Lopez and Cooper 2000; Rapp and Eckes 2007), the racial makeup of charter schools is a salient factor for parents choosing to enroll their children in these institutions (Weiher and Tedin 2002; Garcia 2008).³ Thus, student demographics may also vary from charter to charter. Given all of these areas of divergence among charter schools, it is easy to conclude
that it is impossible to develop “universal conclusions about charter schools nationally” (Buddin and Zimmer 2005, p. 365).

To address this research challenge, this paper studies charter schools by exploring the state policies governing these schools, and then linking these policies to the performance of students in charter schools. The striking feature of this policy innovation is the variety of states supporting this alternative to traditional public schools. Republican-dominated states, Democratic-dominated states, urban states, rural states, rich states, and poor states have all adopted charter school laws. What explains the existence of this new, ground-breaking policy among such a vast array of states? This paper develops a theory of policy regimes to account for the widespread diffusion of a policy innovation. A policy regime reflects a dominant approach to a policy innovation, which is informed and constrained by the common institutional environments among states. This concept describes how states have enacted charter school policies with different goals in mind. More broadly, it provides a clearer picture of state policies resulting from the diffusion process than existing theories of policy diffusion.

This study substantiates policy regimes by applying this concept to the configuration of state charter school policies in the U.S. First, I examine the outcomes associated with policy regimes by analyzing state charter school policies. Utilizing factor analysis, I identify four distinct regimes in this policy area and classify states with charter school laws into a regime. Then, I investigate the effects of policy regimes by testing the relationship between different regimes and the state-level academic performance of charter schools using OLS regression models. The results show regime type has a significant effect on charter school student achievement in expected ways, and sheds light on the apparent inconsistencies in charter school performance.
Policy Regimes in the Policy Diffusion Framework

The diffusion of policy innovations is a rich, well-established theoretical framework that accounts for the spread of many types of policies. While this theory has been related to many different policy areas in the U.S. (Berry and Berry 1990, 1992; Boehmke and Skinner 2011), a significant portion of this research examines education reform policies among states including the advancement of charter school (Mintrom 2000; McDermott 2003). In general, the focal point of this literature has been on appreciating the factors that shape the nature of policy transmission from one state to another and the broader social learning process. On this score, research over the past two decades has compiled an impressive list of variables stemming from both the external and internal dynamics of states.

Geographic neighbors are often the starting point for the diffusion process (Berry and Baybeck 2005). For example, Renzulli and Roscigno (2005) show a tendency among adjacent states to adopt charter school legislation. More recent studies have refined this notion by identifying states that are historically innovators such as California, New Jersey, and Oregon and states that are historically followers (Desmarais, Harden, and Boehmke 2013). Policies at other levels of government are also another important external factor (Allen, Pettus, and Haider-Markel 2004). Internal state characteristics including ideology (Grossback, Nicholson-Crotty, and Petterson 2004), interest groups (Balla 2001), and state institutions (Kousser 2005) have all been recognized as influential in the promotion of policy innovations. In the case of charter schools, competition between private and public school sectors, the weakness of teachers unions, and racial competition within public education have been linked to the adoption of this policy (Renzulli and Roscigno 2005). The attributes of the actual policy being circulated are also noteworthy in the diffusion process. A policy’s relative advantage over its predecessor,
compatibility with past practices, degree of complexity, and observability can determine the migration of any given policy (Rogers 2004; Makse and Volden 2010). Charter school policies fit many of the attributes conducive to the diffusion process.

The state policies resulting from the diffusion process have been given less theoretical consideration in this framework. For instance, within the charter school literature, some studies treat this policy innovation as one general outcome, namely the adoption of charter schools, across many states while other studies treat this policy innovation as the distinct outcome of a specific state. The latter provides too much detail to understand the underlying nature of this policy innovation and the former does not provide enough detail to distinguish the important permutations of these policy innovations. Studies in other policy areas follow a similar pattern by typically conceptualizing policy innovations one-dimensionally (Gray 1973; Boehmke and Skinner 2011). As a result, theories of policy diffusion fall short of explaining the variation in policy innovations, particularly across a wide spectrum of states. Why does the state of Michigan cap the number of charter schools, while the state of Wisconsin does not? The existing diffusion framework is not equipped to address these meaningful policy distinctions. What is needed is an additional concept to better account for the state-by-state constellation of policy innovations in the diffusion process.

A potential theoretical approach that may reveal the major strains of any given policy innovation is to assume that states share certain institutional environments that may guide how they pursue new policy ideas. Established research on diffusion has already pinpointed the significant dimensions of these state environments including demographic trends, urbanity, political leanings, and economic output (Walker 1969). Taken together, these characteristics are likely to shape how states with similar profiles and dispositions use political innovations to
attend to perceived problems within their respective borders. This paper contends that this commutuality among American states constitute separate policy regimes, and these regimes direct different adaptations of a particular policy innovation.

The term ‘regime’ has multiple applications in political science research. It is employed to describe international relations (Krasner 1983), American political development (Orren and Skowronek 1998-99; McGuinn 2006), comparative welfare policy (Esping-Andersen 1999), and U.S. Supreme Court decisions (Richards and Kritzer 2002). Yet, each of these application associate regime with an institutional type that outlines the formal rules, principles, and norms of decision-making. These institutional arrangements are a product of the social, political, and historical context of a polity. As such, it can be viewed as a pretext for policy actors whose decisions cannot merely be a reflection of their own interests. Rather, regimes tether these decisions to an institutional backdrop that imbues them with a broader sense of meaning, purpose, and direction (Orren and Skowronek 1998-98, 694).

Within the purview of policy innovations, I conceptualize a policy regime as a dominant approach to an emerging policy. Specifically, the political, economic, and social dimensions of states, which are channeled through various state institutions, are likely to direct a specific interpretation of a policy innovation. Thus, a policy regime not only includes states laws on policy innovations, but the implementation of these policies. While these state forces preclude policy makers from pursing their own version of a policy innovation, they also offer policy makers a roadmap for applying these new policies to their state. Furthermore, given that the underlying dimensions that shape these institutional environments are often common among states (Elazar 1972; Erikson, Wright, and McIver 1993; Whitney 2013), these prevailing approaches to policy innovations are also shared among states. This theory asserts that it is these
policy regimes that make up the patchwork of policies across the U.S. embracing the most popular policy innovations. Indeed, it also suggests that the diffusion process is not necessarily the dissemination of one policy innovation, but the dissemination of different interpretations of this policy innovation.

**State Charter School Policies**

This study applies policy regimes to state charter school policies to assess the validity of this concept and its usefulness in explaining the discrepancies in the academic performance of charter schools across the U.S. Specifically, the focus of this present research is to determine whether the policy outcomes on charter schools conform to a diffusion process with distinct policy regimes, and to examine the effects of these policy regimes on student achievement in charter schools.

Much like the literature on the performance of charter schools, scholarship on the policies governing charters has yielded few clues on the underlying logic of these state systems and their effect on the performance of these schools. Some scholars have concluded there are no discernable patterns in state policies over charter schools (Bulkley 2005; Kirst 2007). Those attempting to make sense of these policies follow different approaches. The initial line of inquiry evaluated the original archetype of charter schools, which feature policies that ushered free-market forces within the public education sector. This work demonstrates that greater independence in public schooling does not always lead to gains in student achievement (Nelson et a. 2004; Zimmer and Buddin 2005), but too much state regulation can stifle this educational marketplace (Wong and Shen 2006; Brinson and Rosch 2010). Researchers analyzing individual charter school policies have also produced contradictory results. For example, states with multiple charter school authorizers and states with only one charter school authorizer are both
associated with lower student achievement (Lacireno-Paquet 2006; Center for Research on Education Outcomes 2009).

Few have examined all of the numerous charter school policies in a comprehensive manner. These studies often take the form of a ranking system that grades each state’s charter school policies on a single scale. Organizations such as the Center for Education Reform and the National Alliance for Public Charter Schools release their rankings of charter school laws every year. However, these ranking systems are based on these organization’s own commitments, which may derive from a particular ideological perspective (Chi and Welner 2008). Wong (2014) pursues a more objective and innovative approach by categorizing charter school policies into three legal dimensions—permissibility, autonomy, and accountability. She finds two of these three dimensions related to the number of charter schools in a state as well as charter school NAEP performance in a state with the addition of certain covariates.5

Despite this growing body of literature on charter school policies, research has yet to contemplate the origins and basis of these various state policies. Therefore, it is difficult to comprehend the state-by-state configuration of these policies. A theoretical perspective that ties all of these state policies together in one framework is necessary to advance our understanding of this policy universe. Moreover, scholarship on charter school policies has not fully appreciated the role these state policies play in the performance of charter schools. These different state policies constitute a critical context for charter school outcomes within each state with charter schools. As such, they are an important overlooked piece in the puzzle over the uneven performance of charter schools nationwide.

This study addresses these shortcomings by considering charter school policies through the lens of policy regimes, which holds that these policies reflect how states perceive problems in
their own public education system. This perception is informed by and entangled in a complex political, social, and historical institutional environment on public education, and will vary among states. All of this suggests that states will use charter schools for distinctive purposes. For instance, states may employ charter schools to challenge the traditional public school infrastructure, to improve the educational achievement of specific student groups, or to ameliorate educational deficiencies in a particular part of the state. Researchers have already observed that states attach a series of unique objectives to their charter school laws (Smarick 2005; Kirst 2007; Barghaus and Boe 2011). This study attempts to make more sense of these varied objectives by placing them within the larger theoretical framework of policy regimes, which provides the background behind these objectives.

**Data and Methods**

This study is accomplished in two discrete steps. The first step is to analyze state charter school policies in order to identify the policy regimes in this area of public policy. I compile state charter school policies beginning in 2005 from the National Alliance for Public Charter Schools (NAPCS) and the Education Commission of the States (ECS). Sixteen policies governing different aspects of charter schools are collected from these two sources. Principal components factor analysis is used to test the relationship between these state policies and construct policy regimes. The factor scores from this analysis are subsequently used to categorize states into a specific policy regime. I also reference a host of data from the U.S. Department of Education’s Common Core of Data (CCD), the National Center for Education Statistics, and the Federal Reserve Economic Data to delineate the institutional environment of each policy regime.

I then relate these observed regimes to the educational performance of charter schools. A series of OLS regression models predict the state performance of charter schools from 2005 to
2010 using policy regime type. The dependent variable in each of these models is a state-level measure of student academic performance. The percentage of charter schools meeting adequate yearly progress (AYP) under No Child Left Behind in comparison to the percentage of all public schools meeting AYP is the first dependent variable. While states regularly publish these data, I use NAPCS’s data to assemble this variable. A second, more stringent measure of academic performance compares the proficiency levels of charter schools on the National Assessment of Education Progress (NAEP) to the proficiency levels of all public schools on the NAEP. Reading and math assessments for fourth grade and eighth grade constitute separate dependent variables. NAEP data are obtained from the National Center for Education Statistics.

The primary independent variables in these models are policy regime type. Each policy regime is measured by converting their factor scores from the principal components factor analysis above into quartiles based on the distribution of states in each regime. In each regime variable, one represents the lowest factor score while four represents the highest factor score. These regression models also include independent variables that control for important areas of variation among charter schools. The percent of minority students in charter schools in a state, the percent of students eligible for reduced lunch in charter schools in a state, and the number of students per charter school in a state measure salient student characteristics. These data come from the CCD. The average number of years charter schools in a state are open and the percentage of charter schools that are free-standing in a state as opposed to being managed by an educational management organization (EMO) or a charter management organization (CMO) measure salient charter school characteristics. The data for these two variables are obtained from the NAPCS. This study begins with an analysis of state charter school policies.

Seventeen charter school policies are compiled and measured through a series of dichotomous variables. An initial classification of the policies by functionality suggests four distinct approaches to charter schools.\(^\text{12}\) For example, some policies grant charter schools independence, other policies offer support to charter schools, while still other policies require charter schools to fulfill certain obligations. To confirm each set of policies represents a coherent and independent policy outlook, I conduct principal components factor analysis for each set of policies. These analyses verify that each group of state policies loads on one factor with an eigenvalue over one.\(^\text{13}\) The predictive coefficients of the individual policies within each group are also comparable. Additional analysis indicates these four policy approaches are not statistically correlated with each other. All of these statistical procedures provide strong support for four policy perspectives on charter schools. Table 1 displays these policy groupings, which I identify as policy regimes.

(Table 1 about here)

The first policy regime listed on Table 1 is the *independence* regime. This orientation to charter schools consists of four policies that confer considerable autonomy to these schools. This regime seeks to involve more independent organizations in public education and to allow charter schools to operate with minimal state intervention. In contrast, the underlying goal of the *support* policy regime is to promote the spread of charter schools.\(^\text{14}\) Under this approach, funding and policy allowances are made available to enable charter schools to open and prosper. The *accountability* policy regime is concerned with providing proper oversight of charter schools.
This regime exercises accountability by limiting the number of charter schools and establishing reporting standards for charter schools. Finally, the primary interest of the mandate policy regime is to ensure that charter schools maintain certain functions of public schooling. This application of charter schools is likely to outline the specific responsibilities of these schools.

Do states clearly fall into one of these four dominant approaches to charter schools? Using the factor scores generated for each policy regime from above, I categorize states with charter schools into a regime based on their highest factor score. This factor score represents a state’s primary policy orientation to charter schools, but does not preclude the use of individual policies from other perspectives. All but one state with a charter school law in 2005 have a discernable regime type. The top of Table 2 lists the states aligned with each policy regime. While greater numbers of states follow an independence or support regime, each policy orientation has adequate representation among the states. In general, Table 2 does suggest that states follow one dominant approach in their adoption of charter school policies.

(Table 2 about here)

To confirm these four policy regimes are a consequence of states’ distinctive institutional environments, I compare the basic political, demographic, economic, and education profiles of the states under each regime. I also test the differences in these profiles for statistical significance using the Kruskal-Wallis test. These statistics can be found in the middle of Table 2. The state profiles of each policy regime tend to correspond to their specific approach to charter schools. Moreover, all of these variances between regime types are statistically significant. The independence regime appears to be largely shaped by partisan differences, namely support for
the Republican Party. Given the political fault lines in education policy, it is no surprise that Republican-leaning states would use charter schools to challenge the status quo in public education. High numbers of minority students in public schools and low academic performance among these schools distinguish states under the support policy regime. Such circumstances might motivate these states to call upon charter schools to address problems in certain quarters of public education, which may ultimately require state support in these Democratic-leaning states to be viable.

States following the accountability regime are heavily Democratic and perform well on the NAEP assessment. This backdrop would make these states less open to public education reforms. However, the large number of minority students in public schools in these states may suggest that charters are primarily used to lift the academic outcomes of minority students who are struggling in the traditional school setting. This approach would likely be an acceptable policy accommodation for states that strongly support traditional public education. The profile of states under the mandate policy regime is similar to the profile of states under the support regime, particularly in the number of minority public school students and low NAEP scores. That said, states following the former are more Republican-leaning than states following the latter. This political difference may translate into a greater willingness among mandate states to use charter schools to improve the performance of various groups of students enrolled in public schools. This outcome would be consistent with this regime’s practice of authorizing charter schools with specific students or schools in mind.

The unique aims of each policy regime come into much clearer focus once statistics on charter schools within each regime are considered. These statistics are displayed on the bottom of Table 2. The differences in charter schools enrollment between these four policy regimes are also
statistically significant using the Kruskal-Wallis test. The political impetus for charter schools in the independence policy regime is corroborated by the relatively high overall enrollment in charter schools and the relatively low numbers of minority students and students in poverty in charter schools. These figures imply that charter schools are appropriate in all contexts in states with this regime. On the other hand, the extraordinary number of charter schools in cities (63%) among states following the support regime suggests a more narrow application of charters, namely to rectify problems in public education within urban centers. These charter school statistics also clarify the goals of the accountability regime. The concentration of minority students (70%) in addition to the high number of students in poverty (54%) in charter schools found in these states substantiates the notion that these states rely on charter schools to assist vulnerable public school students. The smaller total enrollment in charter schools in this regime compared to other regimes further shows that charter schools are only used in these limited circumstances. Finally, based on the few enrollment indicators on Table 2, charter schools under the mandate regime enroll a wider group of students than charter schools under the support or accountability regimes. These differences suggest that states following the mandate regime use charter schools to address the academic performance of minority students as well as other prescribed groups of students. In addition, the low total enrollment in charter schools among mandate states may be a result of the multiple requirements charter schools face in this context.

In summary, this study has identified four intelligible policy regimes in state charter school policies that correspond to the theory outlined in this paper. In other words, state policies on charter schools are consistent with a diffusion framework that features policy regimes. These regimes represent distinct approaches to charter schools that appear to emanate from the common institutional environments among states. The full scope of these institutional
environments needs further elaboration. Finally, data on charter schools in each of these regimes confirm that this particular policy innovation is applied differently across regime types. The next section of this study explores the effects of these policy regimes by examining the relationship between regime type and charter school performance.

**The Performance of Charter Schools among Policy Regime Types**

In addition to comprehending the variation of charter school policies across states, policy regimes may help explain the discrepancies in academic performance among charter schools. If policy regimes apply charter schools differently, then the outcomes of these schools may also vary under each regime. For example, policy regimes using charter schools to improve the academic achievement of student populations that historically underperform in public schooling such as in the case of the accountability regime are likely to have charter schools with relatively low academic performance almost by design. Conversely, policy regimes using charter schools broadly and enrolling all types of students such as in the case of the independence regime are apt to have charter schools with much higher levels of academic performance. Similar arguments could be made for the remaining policy regimes.

(Table 3 about here)

Table 3 provides the first comparison of the academic performance of students in charter schools among the four regime types. This table compares five different performance measures including AYP and NAEP proficiency rates over time. Each measure represents the performance differential between charter schools and all public schools. A positive value indicates that charter
schools in the aggregate outperform all public schools in states with that policy regime. A negative value indicates that all public schools outperform charter schools in the aggregate in states with that policy regime. All values on Table 3 can be interpreted as percentages. This preliminary look at performance by regime type shows clear separation in academic outcomes among these four policy orientations.

As expected, the accountability regime generally features the lowest achieving charter schools out of the four regimes. The performance differential between charter schools and other public schools under this regime can reach over negative nine percentage points. However, the theory of policy regimes can, in part, explain these poor charter school outcomes by pointing to these states’ narrow use of charter schools to assist minority students and students in poverty. The mandate regime and support regime also contain charter schools that consistently perform worse than other types of public schools, though the mandate regime is associated with some positive academic gains. Likewise, these results can be interpreted in light of these regimes’ more targeted approach to charter schools. In the case of the mandate regime, the somewhat positive charter school performance may be attributed to this regime’s broader focus on different student groups. The independence regime is the only regime with charter schools that invariably achieve better academic outcomes than other public schools. The performance of charter schools in this regime is impressive, encompassing an advantage of between four to nine percentage points over traditional public schools. These affirmative results can, in large part, be credited to the fact that charter schools under this regime serve nearly every type of student.

To determine whether each regime type is statistically related to charter school performance while controlling for other important factors, I estimate a series of ordinary least squares (OLS) regression models predicting the AYP differential between 2005-2010. The AYP differential is
the only performance measure with an adequate number of observations to statistically test each regime type.\textsuperscript{18} The primary independent variable in these models is regime type. These models also include several control variables representing charter school student characteristics and organizational characteristics.

(Table 4 about here)

Table 4 presents the estimates for these regression models. Overall, three of the four policy regimes are statistically related with this measure of student academic performance. The support regime is the only regime that does not reach statistical significance in these models. Moreover, these three regimes, including the independence regime, are negatively related to charter schools performance by negative three percentage points. These models also confirm that several student characteristics are relevant to the AYP differential. The percentage of minority students in charter schools is only significant in the first model with the independence regime type, suggesting this student demographic is associated with the remaining regime types (Zimmer and Buddin 2005; Bifulco and Ladd 2006). The percentage of charter students eligible for reduced or free lunch is also important in disentangling the performance disparities between charter and other public schools (Center for Research on Education Outcomes 2009). Finally, none of the charter school characteristics appear to be related to this performance measure across all regime types (Lacireno-Paquet 2006; Furgeson et al. 2012).

Why is the independence policy regime negatively associated to charter school performance in the predictive model above? The OLS regression model treats regime type as a continuum, in which the change in one quartile of the regime variable is linked to an expected change in the
AYP differential. Yet, half of all states are found in the second and third quartiles of the regime variables and not necessarily in the fourth quartile. Given these quartiles are an approximate measure of a state’s commitment to a policy regime vis-à-vis their factor score, this detail suggests that states are not at the extreme ends of these different policy approaches to charter schools. To gain a more precise understanding of how the different commitment levels to these policy regimes among states affect charter school performance, I estimate the predicted probabilities of the AYP differential for each quartile of the regime type variables. All of the other variables in the regression models are held at their means. Figure 1 reports and graphically displays the predicted probabilities for the independence, accountability, and mandate regime variables. Each value is the AYP differential for a given state commitment level to a policy regime. In Figure 1, the first quartile represents the lowest form of adherence to a policy regime, while the fourth quartile represents the highest form of commitment to a policy perspective.

(Figure 1 about here)

Figure 1 reveals three additional insights on the relationship between policy regimes and charter school student performance. First, the independence regime indeed has an increasing positive effect on academic performance in charter schools up to the fourth and highest commitment level. This finding suggests that granting too much autonomy to charter schools under this regime diminishes their academic progress over traditional public schools. The accountability regime is associated with positive charter school outcomes in quartiles two and three. Thus, sparse oversight of charter schools and excessive oversight of charter schools both lead to suboptimal academic achievement in this regime. Lastly, the predicted probabilities for
the different commitment levels to the mandate regime show that this policy approach has no affirmative impact on charter school performance. Few obligations on charter schools do not appear to stifle academic achievement in these schools. However, too many obligations on charter schools can have a deleterious effect on student performance.

This analysis of the academic performance of students in charter schools demonstrates that policy regimes are instrumental in sorting out the vast differences in academic outcomes among charter schools. Specifically, this study advances the conclusion that disparities in the performance of charter schools is not necessarily a function of the quality of these schools, but a consequence of how states utilize these charter schools within their system of public education. I also find limits in the capacity of certain policy regimes to increase student achievement in charter schools. While the independence regime and the accountability regime are largely associated with positive charter schools outcomes, these policy approaches are best applied in moderation.

**Conclusion**

Policy diffusion is an important theoretical framework in political science that explains some of the greatest shifts in public policy over the past several decades. Its strength lies in recognizing and quantifying the multiple factors that enable the transmission of a new policy innovation between states. This paper has argued that this framework currently lacks certain precision in understanding how states receive and apply policy innovations in the diffusion process. As a result, it is not equipped to fully account for the policy outcomes among states. To address this gap, this study has developed the concept of policy regimes. This concept provides more focus to policy diffusion by appreciating the common institutional environments that shape
states’ approach to a policy innovation. The utility of this concept was assessed by studying the many policy outcomes of state charter school policies.

Overall, this paper has demonstrated that the concept of policy regimes is a valuable addition to the policy diffusion framework. First, policy regimes help explain the wide variation in state policies over charter schools. States pursue distinctive interpretations of a policy innovation. In the case of charter schools, I identified four such policy regimes or approaches to charter schools. These policy regimes are a function of the common institutional environments found among states, which informs states’ interaction with policy innovations. The political, demographic, and educational institutional dimensions of states are important in tracing the origins of policy regimes in charter schools. Finally, policy regimes have a significant effect on the performance of a policy innovation. The different applications for charter schools among the four policy regimes lead to varying levels of student achievement among charter schools.

This study also has much to say about the policy diffusion of charter schools. It provides an additional explanation for why so many states adopted charter school policies. Specifically, states were able to easily tailor this policy innovation to fit their own institutional arrangements. Through the concept of policy regimes, the basis of state policies regarding charter schools is also better understood. These policies appear to be guided by one dominant narrative on the role of charter schools in public education. However, the most important consequence of this research concerns its assessment of the apparent discrepancies in student achievement among charter schools. While some would attribute these differences to the character of these schools, this paper suggests these differences stem from states’ separate policy approaches to charter schools. Thus, it raises the fundamental question of whether using one standard for evaluating charter schools is flawed. Specifically, should the independence policy approach be the model for all
charter schools when its performance gains are, in part, based on enrollment patterns of charter schools in states following this approach?

While this paper has produced support for the concept of policy regimes, it is still limited in scope by primarily focusing only on policy outcomes and their effects. The next step in this line of research is to study the process of diffusion under the guise of policy regimes. This analysis would observe diffusion among states with similar institutional arrangements to delineate how policy learning is facilitated among “kindred” states. The nature of the institutional environment that forms a policy regime also lacks specificity at this time. This paper has begun to identify some of the institutional factors at work, but additional research is warranted to describe the full extent of these policy environments and to detect how various institutions vary across states and among policy regimes. A full understanding of policy regimes require a deeper investigation of these complex state contexts in policymaking and a new appreciation of the old adage “all politics is local.”
Notes

1. Research on the academic performance of charter schools is often classified into studies that show positive effects, studies that show negative effects, and those studies that show mixed effects. An approximately equal number of national-level studies have provided evidence for positive effects (Center for Research on Education Outcomes 2013; Booker, Sass, Gill and Zimmer 2011; Vanourek 2005; Greene, Forester, and Winters 2003) and evidence for negative effects (Nelson, Rosenberg, Van Metter 2004; Center for Research on Education Outcomes 2009; Carnoy, Jacobsen, Mishel, and Rothstein 2005; Bracey 2005; Lubienski and Lubienski 2006) Some also offer mixed results (Gill, Timpane, Ross, and Brewer 2007; Gleason, Clark, Tuttle, and Dwoyer 2010). State-level studies have also been largely inconclusive for Wisconsin (Witte, Weimer, Shober, and Schlomer 2007), North Carolina (Bifulco and Ladd 2006), Michigan (Bettinger 2003; Fuller, Gawlik, Gonzales, and Park 2003), and California (Buddin & Zimmer 2005; Raymond 2003; Roy and Mishel 2005).

2. For example, Furgeson et al. (2012) found that charter management organizations (CMO) have a positive effect on student performance. Lacireno-Paquet’s (2006) work finds that educational management organizations (EMO) can have both positive and negative effects on low-income and minority enrollment. Studies have also discovered that charter school performance can vary by charter type (i.e. conversion versus start-up) and the longevity of the school (Zimmer and Buddin 2005; Bifulco and Ladd 2005).

3. The effect of these student demographics on academic performance is mostly unsettled. Nelson et al. (2004) found no statistical difference between the academic performance of black and Hispanic students in charter schools and black and Hispanic students in
traditional public schools. Others present data to the contrary (Bifulco and Ladd 2006b; Booker, Zimmer, and Buddin 2005).

4. This social learning often takes place among state actors engaged in a similar area of public policy and who are members of a similar social system (Rogers 1983). Policy entrepreneurs (Mintrom 2000) also facilitate social learning.

5. Wong’s three legal dimensions are statistically related to charter NAEP performance only after the inclusion of public school NAEP scores, state population, and age of charter school law in 2004.

6. The National Alliance for Public Charter Schools also publishes a ranking of state charter school policies using their catalog of charter school policies. This ranking is based largely on the level of flexibility states give to charter schools and are not utilized in this study.

7. I assume state charter school policies are stable between 2005 and 2010, which is largely the case. States that passed new charter school policies or significantly changed their charter school policies after 2005 are excluded from this analysis. For example, Mississippi is excluded because it overhauled its charter school laws in 2010.

8. More recent research on charter school performance has suggested that these schools have positive effects on high school graduation and admittance into college (Booker 2012; Zimmer 2015).

9. A fair number of charter schools do not report AYP due to their status as “ungraded.” These charter schools are not included in this analysis.

10. The number of students per charter school is an approximate measure calculated by dividing the total number of charter students in a state by the total number of charter schools in that state.
11. The NAPCS only has data for the percent of charter schools freestanding for the years 2007-2010.

12. Four charter school policies could not be placed in a regime. This includes the policies of conversion, start-ups, facility grants, and teacher certification.

13. The eigenvalue for each factor analysis is 1.86 for independence policies, 1.38 for support policies, 1.27 for accountability policies, and 1.32 for mandate policies.

14. The correlation between the independence regime and support regime is 0.44.

15. Iowa is the only state in which two of its factor scores were tied.

16. The Kruskal-Wallis test is used to determine if there are statistically significant differences between two or more groups of an independent variable on an ordinal dependent variable.

17. These statistics represent the means of these various indicators, and do not capture all of variation with regime types.

18. The state NAEP assessments in reading and mathematics are only administered in 2005, 2007, and 2009. In many cases, there are not enough charter schools participating in this assessment to meet NAEP’s reporting standards. Thus, I only have approximately 57 to 59 observations for each type of assessment. For example, the NAEP 4th grade reading measure only provides 16 observations of the independence regime, 17 observations of the support regime, 11 observations of the accountability regime, and 12 observations of the mandate regime.
References


Desmarias, Bruce, Jeffrey J. Harden, and Frederick J. Boehmke. 2013. “Inferring Policy Diffusion Networks in the American States.” Presented at the Annual Meeting of State Politics and Policy Conference, May 23-25, Iowa City, IA.


Wells, Amy Stuart, Jennifer Jellison Holme, Alejandra Lopez, and Camille Wilson Cooper. 2000. “Charter schools and racial and social class segregation: Yet another sorting machine?”


<table>
<thead>
<tr>
<th>Table 1: State Policy Regimes for Charter School</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independence Policy Regime</strong></td>
</tr>
<tr>
<td>- Multiple charter school authorizers</td>
</tr>
<tr>
<td>- Virtual charter schools allowed</td>
</tr>
<tr>
<td>- Charter schools not bound by collective bargaining agreements</td>
</tr>
<tr>
<td>- Appeals in charter school renewal process</td>
</tr>
<tr>
<td><strong>Support Policy Regime</strong></td>
</tr>
<tr>
<td>- State grants for start-up and/or planning of charter schools</td>
</tr>
<tr>
<td>- Charter schools receive funding through the state.</td>
</tr>
<tr>
<td>- Extended Learning Time in Charter Schools Allowed</td>
</tr>
<tr>
<td><strong>Accountability Policy Regime</strong></td>
</tr>
<tr>
<td>- State cap on the number of charters schools</td>
</tr>
<tr>
<td>- Charter schools required to submit annual report to state</td>
</tr>
<tr>
<td>- State agency required to report on the effectiveness of charter schools</td>
</tr>
<tr>
<td><strong>Mandate Policy Regime</strong></td>
</tr>
<tr>
<td>- State specifies who pays the transportation costs of charter school students</td>
</tr>
<tr>
<td>- State specifies charter schools or students given preference</td>
</tr>
<tr>
<td>- Charters schools required to provide special education</td>
</tr>
</tbody>
</table>
Table 2: Policy Regimes by State (2005-2010)

<table>
<thead>
<tr>
<th>Independence Regime</th>
<th>Support Regime</th>
<th>Accountability Regime</th>
<th>Mandate Regime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>California</td>
<td>Connecticut</td>
<td>Alaska</td>
</tr>
<tr>
<td>Arkansas</td>
<td>Indiana</td>
<td>Delaware</td>
<td>Hawaii</td>
</tr>
<tr>
<td>Colorado</td>
<td>Louisiana</td>
<td>Georgia</td>
<td>Kansas</td>
</tr>
<tr>
<td>Florida</td>
<td>Minnesota</td>
<td>Maryland</td>
<td>Michigan</td>
</tr>
<tr>
<td>Idaho</td>
<td>Nevada</td>
<td>Massachusetts</td>
<td>New Mexico</td>
</tr>
<tr>
<td>Illinois</td>
<td>New York</td>
<td>New Jersey</td>
<td>Rhode Island</td>
</tr>
<tr>
<td>Missouri</td>
<td>North Carolina</td>
<td>Wisconsin</td>
<td>Tennessee</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Ohio</td>
<td>Virginia</td>
<td>Virginia</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Oregon</td>
<td></td>
<td>Tennessee</td>
</tr>
<tr>
<td>South Carolina</td>
<td>Pennsylvania</td>
<td></td>
<td>Wyoming</td>
</tr>
<tr>
<td>Utah</td>
<td>Texas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 NAEP 4&lt;sup&gt;th&lt;/sup&gt; Reading: 220**</td>
<td>2009 NAEP 4&lt;sup&gt;th&lt;/sup&gt; Reading: 218**</td>
<td>2009 NAEP 4&lt;sup&gt;th&lt;/sup&gt; Reading: 226**</td>
<td>2009 NAEP 4&lt;sup&gt;th&lt;/sup&gt; Reading: 218**</td>
</tr>
<tr>
<td>2010 State Enrollment in Charter Schools: 4.4%</td>
<td>2010 State Enrollment in Charter Schools: 3.9%</td>
<td>2010 State Enrollment in Charter Schools: 3.1%</td>
<td>2010 State Enrollment in Charter Schools: 2.8%</td>
</tr>
</tbody>
</table>

* Differences between regimes statistically significant at .05
** Differences between regimes statistically significant at .01
Table 3: Performance of Charter Schools by Policy Regime (2005-2010)
(All values can be interpreted as percentages.)

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Independence Regime</th>
<th>Support Regime</th>
<th>Accountability Regime</th>
<th>Mandate Regime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charter AYP – All AYP</td>
<td>.043</td>
<td>-.023</td>
<td>-.058</td>
<td>.025</td>
</tr>
<tr>
<td>Charter NAEP 4&lt;sup&gt;th&lt;/sup&gt; Grade Reading – All</td>
<td>.063</td>
<td>-.064</td>
<td>-.025</td>
<td>.002</td>
</tr>
<tr>
<td>NAEP 4&lt;sup&gt;th&lt;/sup&gt; Grade Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charter NAEP 4&lt;sup&gt;th&lt;/sup&gt; Grade Math – All</td>
<td>.067</td>
<td>-.108</td>
<td>-.007</td>
<td>-.026</td>
</tr>
<tr>
<td>NAEP 4&lt;sup&gt;th&lt;/sup&gt; Grade Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charter NAEP 8&lt;sup&gt;th&lt;/sup&gt; Grade Reading – All</td>
<td>.094</td>
<td>-.017</td>
<td>-.080</td>
<td>-.006</td>
</tr>
<tr>
<td>NAEP 8&lt;sup&gt;th&lt;/sup&gt; Grade Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charter NAEP 8&lt;sup&gt;th&lt;/sup&gt; Grade Math – All</td>
<td>.057</td>
<td>-.040</td>
<td>-.095</td>
<td>-.049</td>
</tr>
<tr>
<td>NAEP 8&lt;sup&gt;th&lt;/sup&gt; Math Reading</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
### Table 4: Predicting AYP Differential by Regime Type

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independence Regime</td>
<td>-0.03* (0.01)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support Regime</td>
<td></td>
<td>-0.01 (0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountability Regime</td>
<td></td>
<td></td>
<td>-0.03* (0.12)</td>
<td></td>
</tr>
<tr>
<td>Mandate Regime</td>
<td></td>
<td></td>
<td></td>
<td>-0.03* (0.01)</td>
</tr>
<tr>
<td>Percent Minority</td>
<td>-0.17* (0.08)</td>
<td>-0.10 (0.78)</td>
<td>-0.13 (0.08)</td>
<td>-0.08 (0.08)</td>
</tr>
<tr>
<td>Percent Reduced Lunch</td>
<td>-0.32** (0.09)</td>
<td>-0.33** (0.09)</td>
<td>-0.31** (0.09)</td>
<td>-0.35** (0.09)</td>
</tr>
<tr>
<td>Students per Schools</td>
<td>-0.00 (0.00)</td>
<td>-0.00 (0.00)</td>
<td>-0.00 (0.00)</td>
<td>-0.00 (0.00)</td>
</tr>
<tr>
<td>Years Open</td>
<td>-0.003 (0.007)</td>
<td>-0.00 (0.01)</td>
<td>-0.00 (0.01)</td>
<td>-0.00 (0.01)</td>
</tr>
<tr>
<td>Free-Standing</td>
<td>0.02 (0.09)</td>
<td>0.04 (0.09)</td>
<td>0.11 (0.09)</td>
<td>0.04 (0.09)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.33** (0.12)</td>
<td>0.22 (0.12)</td>
<td>0.26* (0.11)</td>
<td>0.32** (0.11)</td>
</tr>
<tr>
<td>N</td>
<td>156</td>
<td>156</td>
<td>156</td>
<td>156</td>
</tr>
<tr>
<td>R²</td>
<td>0.31</td>
<td>0.29</td>
<td>0.31</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Note: * p < .05, ** p < .01
Figure 1: Predicted Probabilities of AYP Differential

<table>
<thead>
<tr>
<th>AYP Differential</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independence</td>
<td>0.01</td>
<td>0.026</td>
<td>0.028</td>
<td>-0.025</td>
</tr>
<tr>
<td>Accountability</td>
<td>-0.028</td>
<td>0.056</td>
<td>0.082</td>
<td>-0.037</td>
</tr>
<tr>
<td>Mandate</td>
<td>0.042</td>
<td>0.042</td>
<td>-0.041</td>
<td>0.005</td>
</tr>
</tbody>
</table>