TEACHER'S ACADEMIC PRESS FOR LEARNING IN CHARTER AND TRADITIONAL PUBLIC SCHOOLS

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Research on school effectiveness continues to indicate that those aspects of schooling that are closest to the student, namely teaching, instruction, and curriculum, have the greatest impact on student learning (see Gamoran, Nystrand, Berends, & LePOre, (1995). Furthermore, the available evidence suggests that schools that cultivate particular in-school processes and conditions such as developing a shared vision and instructional norms, and taking collective responsibility for students' academic success are better able to meet the needs of all students (Bryk & Driscoll, 1985; Newmann & Wehlage, 1995; Purkey & Smith, 1983). In contrast, much of the research on charter schools has focused on aspects of governance structures (Kirst, 2006; Levin, 2006), issues of access and equity (Schneider, Teske, & Marshall, 2000; Laciereno-Paquet, Holyoke, Moser & Henig, 2002) and parent preferences and choice processes (Schneider & Buckley, 2002).

The rationale behind charter schools is that increased levels of autonomy and flexibility, and market-like competition among schools, should propel them to operate more effectively. In other words, charter school supporters expect that schools of choice will be more able to develop the in-school processes, conditions, and characteristics of effective schools. However, we don't know that this is the case. From a policy perspective, as noted by Hess & Loveless (2005), "Choice-based reform is not a discrete treatment that can be expected to have consistent effects.…While some of the changes produced by choice-based reform are a consequence of choice qua choice, many others are only incidentally related to choice and may or may not be replicated in any future choice-based arrangement" (p. 97).

A recent consensus panel of prominent researchers on choice concluded that researchers should seek to distinguish among schools of choice in terms of effectiveness, and to distinguish the reasons for those differences (Betts & Hill, 2006). Many researchers and policymakers advocate looking inside the black box of schools to better understand the conditions under which schools of choice have, or do not have, effects on achievement (Betts & Loveless, 2005; Gill, Timpane, Ross, & Brewer, 2001; Loveless, 2003; Zimmer, et al, 2003).

More charter school research is needed on the important in-school conditions that are related to student learning and achievement. In this paper we ask, do charter school teachers indicate higher levels of academic press for learning than traditional public school teachers (choice qua choice)? To what extent is the level of teacher academic press for learning dependent upon in-school organizational conditions that are associated with effective schools, such as strong instructional leadership? And, are charter schools more likely than traditional public schools to implement the in-school organizational conditions that are associated with teachers' academic press for learning? In other words, as noted by the Hess and Loveless, do in-school organizational conditions predict levels of teacher academic press for learning, irrespective of school type—charter or traditional public? We posit that for charter schools to enable positive student outcomes and affect student achievement, they most implement the core components of schooling that are related to effective organizational conditions, curriculum, and instruction.

Market and Institutional Theories

There are two competing theories about the possible impact of charter schools on teaching and learning and in school organizational conditions—market theory and

institutional theory. Many reformers argue that market style mechanisms of consumer choice and competition between autonomous schools will encourage diverse and innovative approaches (e.g., Finn &, Gau, 1998; Leonardi, 1998). The assumption is that with efforts intended to undercut bureaucratic political control of public education, educators in charter schools are given the opportunity and motivation to experiment with new instructional strategies for improving student achievement (Allen, 2001; Budde, 1988).

Reformers argue that allowing parents to choose their child's school will result in market-like competition and the decline of bureaucratic structures thus providing parents with greater opportunities for home-school interaction and a greater openness on the part of schools to parents' demands (Chubb & Moe, 1990). Supporters of de-bureaucratization claim that parents, especially low-income and minority parents, will be less intimidated by the school and more willing to make their needs known to school personnel (e.g., Cookson, 1993; Rinehart & Lee 1991), resulting in school processes that will lead to higher achievement. Based on the supply-and-demand supposition of market theory, we can imagine a situation in which school administrators have almost complete control over the mix of services that they provide and the approaches they use; and a situation in which parents have many choices of schools available for their children (Betts, 2005).

Critics of the market model, however, raise questions about the empirical validity of its key assumptions about parent-consumers (demand-side), school (supply-side), and the products that a market in education would generate (Henig, 1999). An alternative theory about the consequences of school choice rests with institutional theory.

Institutional theory predicts that choice will not result in innovation and the alteration of organizational conditions, curriculum and pedagogy (Goldring & Sullivan, 1995). Institutional theory emphasizes the "powerful institutional rules" held by public opinion, important constituents, and the laws and regulations (Meyer & Rowan, 1977; Dimaggio & Powell, 1983) that contribute to conformity and congruency between schools of choice and traditional public schools in terms of teaching and learning. From the institutional perspective, the structure of schools under recent reform movements is a response to institutional processes rather than a response to technical needs for efficiency and change (Goldring & Sullivan, 1995). The institutional process tends to be "ritually defined meanings and categories" (Scott, 1992, p.279) that may include the rhetoric and legislation surrounding the ideas such as teacher empowerment and school site management, but often do not involve the next steps—e.g., implementing changes in the classroom through new knowledge of teaching and learning.

Institutionalization is tied to legitimacy in that organizations facing uncertain environments and outcomes tend to adopt strategies and practices that others have used and are seen as legitimate (Meyer &Rowan, 1977; Scott, 1992). Thus, schools that face uncertain environments and outcomes tend to adopt practices that are seen as legitimate; wide scale innovation is thus rare. The result is that schools and schooling processes look much more alike than different (Elmore, 1996). Thus, institutionalism provides an explanation for maintenance of a status quo and would predict that charter schools would not exhibit different in-school conditions from non-charter, traditional public schools.

The limited empirical research on improved and differentiated instruction and in-school organizational conditions, curriculum content, and pedagogy in charter schools, is

mixed, neither providing support for market theories nor institutional theories (see for example, Hoxby, 2002; Lubinski, 2003; Bruno, Chester, Louann, & Gregg, 1998, Finn, Manno, & Vanourek, 2000).

In-school Organizational Processes and Teachers' Academic Press

There is considerable support for the notion that academic press is an important aspect of school improvement. Lee and Smith (1999) suggest that press toward a common goal, focus and purpose serves to "set a normative environment that motivates its members to behave in desirable ways" (p. 912). Academic press is linked to the notion of high expectations for all students and is often considered an organizational property of schools. A school's level of academic press is a measure of the extent to which teachers focus on academic excellence and the professional and academic standards in the school support learning. A school that is focused on student learning and achievement includes such aspects as a maximization of instructional time, high expectations for all, and a normative culture or climate focused on learning (Lee, Smith, Perry, & Smylie, 1999).

We test the conjecture that given market press (i.e., parent demands) and flexibility, charter schools should exhibit more academic press for learning and more of the in-school conditions that support teachers in their efforts to improve instruction, as noted in our conceptual model in Figure 1. Organizational conditions should mediate the relationships between charter status and academic press for learning.

Insert Figure 1 Here

In this study, we operationalize teachers' academic press for learning in terms of four specific concepts: Instructional Program Coherence, Time on Task, Focus on Achievement, and Academic Instructional Innovation.

Instructional Program Coherence refers the degree to which the interventions and programs a school has adopted fit together in terms of their demands on teacher attention and other resources; the alignment of classroom content with external standards and assessments; the consistency of the content taught among teachers of particular grades or courses; and the appropriate sequencing of content across grades (see Newmann, Smith, Allensworth, & Bryk, 2001). Newmann and colleagues define *instructional program coherence* "as a set of interrelated programs for students and staff that are guided by a common framework for curriculum, instruction, assessment, and learning climate that are pursued over a sustained period" (p. 297). Examining whether charter schools are able to foster greater program coherence may be critical for understanding achievement differences that occur among school types. Related is the notion that *instructional innovations* adopted by the school are focused on student learning, aligned with goals, and high expectation for academic learning. *Time on task* focuses on how engaged teachers are on the core activities of teaching and learning. This concept is one of the seven effective school correlates, which include instructional focus, high expectations, school climate, monitoring of student progress, and school-community relations (Garrison & Holifield 2005). *Focus on Student Achievement* refers to the extent to which teachers in the school strive for high levels of student learning; dedicate themselves to the quality of curriculum content, accuracy and precision in teaching practices and student performance; and emphasize an in-depth understanding of instructional practice and

student achievement (see Newmann, 1996; Newmann & Wehlage, 1995). Although effective schools have a shared mission and goals focusing on student learning, the focus is not on any type of student learning. Rather, effective schools concentrate on achievement goals that are aimed at a shared understanding of and continuous commitment to challenging academic standards for what students should know. Specifically, principals' influence on instruction is indirect through shaping the context within which teachers teach and work.

Enabling Conditions

School effectiveness research indicates that particular in-school organizational processes or conditions both support and enable student achievement and teachers' efforts to improve instruction. In this study we explore the extent to which charter schools are more likely to implement the in-school organizational conditions that are associated with teachers' academic press for learning. Specifically we focus on four in-school enabling organizational conditions. The importance of *principal leadership* for school reform and improvement has been well recognized in educational research. Several studies have shown the value of leadership in establishing effective school improvement efforts, both in terms of setting the school's vision and mission as well as providing instructional direction (Edmonds, 1979; Louis, Marks, and Kruse, 1996; Purkey and Smith, 1983;). The extent to which teachers cooperate, coordinate and learn from each other to improve instruction and develop the curriculum, *teacher professional community* is an important feature of any school embarking on the path of improvement (Louis, Kruse, & Marks, 1996). The importance of respectful, professional debate within professional learning communities is critical for continuous self-assessment—of

one's own teaching practice, of one's own management of the school and classroom, of the school-wide commitment to and engagement in furthering professional development and alignment to challenging instruction, and of coherence of schooling activities with the school's mission and goals (Newmann, 2002). Moore Johnson (1990) for example, found that teachers indicated that school-based collegiality and community are important to help them meet personal, instructional and organizational needs. Consistent with this premise, Bryk and Driscoll (1988) found that teachers in communally organized schools, schools with close collegial relations among teachers, reported high levels of morale and satisfaction. McLaughlin and Talbert (1993) in their studies found that "teachers' responses to today's students and notions of good teaching practice are heavily mediated by the character of the professional communities in which they work" (p. 8).

Teachers have a need for achievement, a sense of *efficacy*. In his seminal study, Lortie (1975) concluded that those teachers who perceive that they are achieving success with students report higher levels of commitment. "Conversely, teachers derive few rewards from teaching apathetic students" (Bryk, Lee, & Smith, 1990, p. 183). Efficacy refers to teachers' perceptions that their teaching is worth the effort and can lead to success for students (Newmann, Ruter, & Smith, 1989). We suspect that teachers with a high sense of efficacy are more likely to feel committed to their schools because they are more likely to invest in their profession and their students. Research has found that high schools teachers that have greater control of classroom practices are more efficacious (Lee, Dedrick & Smith, 1991). Other studies report a positive relationship between teachers efficacy and student achievement (Ashton & Webb, 1986).

An important hallmark of charter schooling and other reform efforts is to grant *teachers influence over school decisions*. The rationale for a high degree of teacher influence in school-wide decision making is twofold. First, it is argued that moving decisions closer to those with technical expertise will result in more informed decisions than those made by administrators who are further removed from students. Second, reformers claim that teachers who have a voice in decisions will take greater ownership over those decisions and therefore invest more in their implementation. Similar to the argument for teacher influence in school-wide decisions, the logic for greater teacher autonomy is grounded in the conception of the teacher as expert. If teachers were only freed from bureaucratic schools, critics suggest, they would be autonomous to innovate, diversify the curriculum, offer varied instructional strategies, and meet the needs of their students (Chubb & Moe, 1990). Data from a survey of charter school teachers across ten states suggest that the large majority indicated that having more teaching authority and less bureaucracy were factors in their decision to teach in a charter school (Vanourek, Manno, Finn & Bierlein, 1998). Similar findings are reported from research comparing private and public school teachers. Godwin, Kmerer and Martinez (1998) in their study of San Antonio's private and public schools, with students from a privately funded voucher program, report that private school teachers "have greater autonomy and influence in their schools" (p. 289).

In this paper we explore whether and the extent to which teachers in charter schools are more likely than teachers in traditional public schools to indicate higher levels of academic press for learning. We ask, are charter schools more likely to implement in-school processes associated with effective schools, or as noted by the Hess

and Loveless, do in-school organizational conditions mediate the relationship between school status and academic press? We assert that market theory would predict that the relationships between organizational enabling conditions and academic press for learning would be strongest in charter schools.

Methodology

The research reported in this paper is based on survey data collected from teachers in a matched paired sample of charter and traditional public schools in four states in the spring of 2006 as part of the ongoing research projects of the National Center on School Choice. Our selection of charter schools and matched traditional public schools made use of the sample of schools tested by the Northwest Evaluation Association (NWEA) during the 2004-2005 academic year. NWEA contracts with states, districts, and schools to provide computerized adaptive student assessments aligned to the academic standards of the state. Currently, NWEA tests students in over 1,200 districts in 40 states across the nation. We began our selection frame with NWEA because part of the ongoing research of the National Center on School Choice is to analyze student achievement in charter and traditional public schools.

We identified four states with the largest number of charter schools in NWEA's database as cluster states for analysis. The four states are Colorado, Idaho, Indiana, and Minnesota. Fourteen charter schools were tested by NWEA in Colorado, 16 charter schools were tested in Idaho, 18 were tested in Indiana, and 28 were tested in Minnesota. In total, the 76 charter schools tested by NWEA in these four states composed our sample of charter schools for the matching process. We used the sample of public schools tested

by NWEA in the four cluster states to identify matches for each of the 76 charter schools.[1]

We used school zip codes to identify a list of public schools tested by NWEA within a 5, 10, 15, or 20 mile radius of each charter school. We used geographic proximity as our initial criteria for inclusion in the matching process so as to improve the overall match by garnering a list of potential comparison schools as similar as possible before matching (Shadish, Cook, & Campbell, 2002).

The matching began by sorting the public schools by the grade level configuration of the charter school. Charter schools with more than a basic elementary, middle, or high school grade configuration (e.g., K-8, 7-12) were matched on all grade spans in the school. After the grade level configuration of the charter school was matched, we examined the total number of students tested and the percentage of the school tested to select public schools with large testing populations. Once the testing population of schools was examined, we looked at school-level demographic data. NWEA collects student-level demographic data, including eligibility for free and reduced price lunch and race/ethnicity. However, given that many schools do not test 100% of the student body with the NWEA assessment due to their grade configurations or testing contract with NWEA, aggregating the student-level information may not have provided accurate school-level demographic data. Instead, we relied on the 2004-2005 Common Core of Data (CCD) for demographic information for the charter and traditional public schools. We collected data on the percentages of free and reduced price lunch and race/ethnicity. We used the demographic data to sort the traditional public schools based on the closest

[1] According to the U.S. Charter Schools website (http://www.uscharterschools.org/) the total number of charter schools in the fours states are as follows: Colorado: NWEA tests 14 of 113; Idaho: NWEA tests 16 of 24 Indiana: NWEA tests 18 of 21; Minnesota: NWEA tests 28 of 102

data to the charter school, starting with free and reduced price lunch and then race/ethnicity.

With the public schools sorted by grade configuration, testing population, and school-level demographic information, we used the geographic proximity information as a tie breaker to select two to three traditional public schools closest to the charter school for each grade configuration. If a charter school did not have a traditional public school within the 5, 10, 15, or 20 mile radius, we looked at the list of traditional public schools that had been identified as potential matches for other charter schools in the state and chose a match based on grade configuration, testing population, and school-level demographic data. For this non-geographic group of traditional public school matches, preference was given to schools that shared a district we had already identified as having other schools to match. The match process resulted in a list of charter schools and comparison traditional public schools to be contacted for participation in the study.

Of the 43 matched traditional public schools, 24 (56%) were schools matched based on our original matching criteria of grade configuration, testing population, demographic data, and geographic proximity. The additional 19 traditional public school matches included in this study agreed to participate and completed the survey, but the charter school that they were originally matched to did not participate in the study. In turn, they were matched after the survey to a charter school that was missing a traditional public school match, using the same criteria of grade configuration, testing population, demographic data, and geographic proximity. A total of 29 charter schools and 43 traditional public school matches are included in the analyses. The average teacher

response rate for the final sample of schools in this analysis was 67.6%, with a range of 20% to 100%. The total number of teachers in the study is 851.[2]

Variables

The survey scales and items of the constructs measured in this study are constructed from several well-established surveys with well-known psychometric properties and have been linked with student achievement in the literature. Four core constructs are selected to gauge teachers' academic press for learning based on research and theory of our understanding of school improvement processes (For their inter-correlations see Appendix I). *Academic Instructional Innovation* is based on nine items *(α= .92)* developed by the National Center on School Choice, measuring teachers' perception on the improvement efforts in school on a Likert scale from one to six. For example, teachers are asked if the school uses innovative strategies to improve student learning; if the instructional program is considered as unique; and if the instructional approaches used are based on research evidence. Our measure expands the concept to include innovations that are related to learning and those that fit the programs and practices already in place in the school.

Instructional Program Coherence (α=.81) is measured by eight survey items established by Newmann, Smith, Allensworth, & Bryk (2001) on a scale from one to six. This scale measures the degree to which the interventions a school has adopted fit together in terms of their demands on teacher attention and other resources; and, the alignment of classroom content with external standards and assessments; the consistency of the content taught among teachers of particular grades or courses; and the appropriate sequencing of content across grades.

[2] As evident from Table 1 we were not successful in matching the schools in terms of Black enrollment.

Time on task is a six item scale (α= 0.73) with responses on a six point Likert scale that measures how engaged students and teachers are on the core activities of teaching and learning. The particular concept was used by Garrison & Holifield (2005) as one of the seven effective school correlates, which include instructional focus, high expectations, school climate, monitoring of student progress, and school-community relations. Questionnaire items ask if the school use a multi-faceted approach to maintain a high level of student attendance; if teachers and administrators practice management and supervisory techniques that keep students on task and minimize disruptions; and if students are engaged during the vast majority of class time.

Focus on Achievement is based on surveys used by the National Institute of School Leadership study (NISL, 2004) with four 4 items (α= 0.86) on a scale from one to six. Teachers are asked if they expect students to complete every assignment; if they encourage students to keep trying even when the work is challenging; and if they set high expectations for academic work. *Charter* schools are coded as one; traditional public schools are coded as zero.

School Characteristics are obtained from the 2004-2005 Common Core of Data (CCD) for demographic information for the charter and traditional public schools. Included in the analyses are total number of students enrolled, percent of students on free and reduced lunch program, percent of black students and percent of Hispanic students. We also added a dummy variable for elementary school status, where if a school has at least one elementary grade from K-6, it is coded as "elementary", otherwise it is coded as "non-elementary".

Four constructs are used for In-School Organizational Enabling Conditions. *Principal Leadership* is based on surveys used by the National Institute of School Leadership study (NISL, 2004) with 12 items (α= 0.95) on a scale from one to six. Some of these items were adapted from the Consortium on Chicago School Research. Teachers are asked to think about the leadership the principal has provided at the school in terms of vision for academic success and instructional guidance. For example, the teachers are asked whether the principal carefully tracks student academic progress, encourages teachers to raise test scores, works directly with teachers who are struggling to improve their instruction, and monitors classroom instruction to see that it reflects the school's goals.

Teacher Decision Making Authority is based on surveys used by the National Institute of School Leadership study (NISL, 2004), The Schools and Staffing Survey and the Consortium on Chicago School Research with seven items (α= 0.86) on a scale of one to five, measuring the influence that the teachers have over school policy in areas such as hiring professional staff, planning how discretionary school funds should be used, establishing the curriculum and instruction program, and determining the content of in-service programs.

Professional Learning Community is based on surveys used by the National Institute of School Leadership study (NISL, 2004) on 10 items (α= 0.87) on a scale of one to six. This scale is adapted from the Consortium on Chicago School research and the Study of Instructional Improvement. Teachers are asked to what extent they agree that in their schools teachers respect other teachers who take the lead in school improvement efforts, may openly express their professional views at faculty meetings, are expected to

continually learn and seek out new ideas in this school, and typically go beyond their classroom teaching to address the needs of students.

Teacher Efficacy is also based on surveys used by the National Institute of School Leadership study (NISL, 2004) with seven items (α= 0.74*)* on a scale of one to six and adapted form the Study of Instructional Improvement. Teachers are asked to what extent they agree on statements such as "I am capable of making the kinds of changes expected in this school", "if I try really hard, I can get through to even the most difficult and unmotivated students", and "most of a student's academic performance depends on the home environment, so I have limited influence on my students' achievement".

Three charter-specific measures are included from a principal survey that was given to the administrators of the charter schools. First, we measured the *Length of Charter Operation* capturing how long a charter school has been in operation. *Autonomy* contains two scale measures using items from the National Assessment of Educational Progress (NEAP, 2003) Charter School Questionnaire. The first autonomy scale contains seven items (α = .88) regarding the number of operational waivers granted in teacher certification requirements, hiring and firing policies, curriculum requirements, student assessment requirements, control of finances, and reward or sanction policies due to school performance. Each waiver is counted as 1 with a total of 7 as the highest level of autonomy for the scale and 0 being the lowest with no waivers. The second autonomy scale contains seven items (α = .76) address the degree of "freedom" from monitoring to which the school is subjected, including instructional practices, student behavior, student attendance, school governance, school finances, and compliance with state or federal

regulations. The scale ranges from 0 to 7 with 7 as having complete freedom from monitoring.

Analyses

To assess school-wide teachers' academic press, we address the special features of schools as organizations. Researchers (Heck et al., 1990; Rowan, Raudenbush, & King, 1991) have raised a variety of conceptual and methodological problems associated with measuring organizational variables such as culture, climate or leadership. There is disagreement over whether these perceptions are basic properties of the organization (and must be measured at the organizational level) or merely properties of the individuals who perceive them.

Individual level models treat members of the organization as if they were independent of their organizational environments. On the other hand, aggregating such perceptions to the organizational level reduces the variability within each unit to a single mean. Such analyses can potentially distort relationships between organizational units. This is an important point to keep in mind because organizations are socially constructed and the effects of leadership on organizational processes are likely to be more perceived (depending upon how others view the actions) than real, in the sense that outcomes such as test scores can be quantified. There is a need, therefore, to consider the multilevel nature of most organizational data including, for example, individual's background and organizational characteristics as well as features of their schools (e.g., school size, mean SES) in understanding how the outcomes of interest should be assessed.

Understanding where such differences between groups exist is a necessary step in providing valid and reliable data that are useful in tapping into the impact of school

choice, assuming that assessments of academic press in schools are affected not only by the role of person providing the perception but also by the hierarchical nature of the data and by features of schools and their contexts. Hierarchical Linear Modeling (HLM) is used to capture the nested nature of schooling and to partition within and between school variations in the effects of charter school and other school conditions[3].

The analyses focused on four sets of independent variables: school sector (charter or traditional public school), school and student background characteristics (i.e., percent black and Hispanic students, school size), in- school organizational enabling conditions (i.e., principal instructional leadership, teacher efficacy), and the charter school measures (i.e., length of charter operation, autonomy). The modeling includes three stages to reflect the theoretical framework of the paper.

Model 1: Because we hypothesize that charter school will have no direct effect on teacher's academic press —only an indirect effect through in-school organizational conditions, we start the modeling with the charter school variable at the second level solely and test if there is a "charter effect" without controlling for school conditions and student characteristics.

Level 1: $T_{ij} = \beta_{0j} + \gamma_{ij}$

Level 2: $\beta_{0j} = \gamma_{00} + \gamma_{01} C_j + \mu_{0j}$

[3] Multiple imputation was done for missing values in the teachers survey by using switching regression, an iterative multivariable regression technique. The missing observations are assumed to be missing at random. Missing data for the survey scale results that are ordered categorical covariates were imputed by using the ologit (or mlogit) command in Stata. In these cases, prediction matching is done on the scale of the mean absolute difference in the predicted class probabilities, preceded by logit transformation. To obtain final estimates of the parameters of interest and their standard errors, we fit a model in each imputation and carry out the appropriate post multiple imputation averaging procedure on the results from the separate imputations. Multiple imputation is chosen as the option for "estimation settings" in HLM 6.0 when running the models.

Model 2: To see if the size of the "charter gap" is influenced by school context and student characteristics, we add three sets of school-level variables. First, we add the in-school organizational condition variables as reported by individual teachers to Level 1 of the model. Second, at Level 2 of the model, we include the student characteristics aggregated at the school level, which were used for the charter-TPS matching but still appear to be different according to the descriptive statistics. Third, also to Level 2, we add the three charter school variables: length of charter operation, level of waivers received, and level of monitoring received.

Level 1: $$T_{ij} = \beta_{0j} + \beta_{1j}IC1_{ij} + \beta_{2j}IC2_{ij} + \beta_{3j}IC3_{ij} + \beta_{4j}IC4_{ij} + \gamma_{ij}$$

Level 2: $$\beta_{0j} = \gamma_{00} + \gamma_{01}C_j + \gamma_{02}S_j + \gamma_{03}A_j + \mu_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\beta_{2j} = \gamma_{20}$$
$$\beta_{3j} = \gamma_{30}$$
$$\beta_{4j} = \gamma_{40}$$

Model 3: Because we hypothesized that charter school status would mediate the influence of the in-school organizational enabling conditions on teachers' academic press for learning, we test if there is a cross-level interaction between Charter and the in-school condition variables.

Level 1 model: $$T_{ij} = \beta_{0j} + \beta_{1j}IC1_{ij} + \beta_{2j}IC2_{ij} + \beta_{3j}IC3_{ij} + \beta_{4j}IC4_{ij} + \gamma_{ij}$$

Level 2 model: $$\beta_{0j} = \gamma_{00} + \gamma_{01}C_j + \gamma_{02}S_j + \gamma_{03}A_j + \mu_{0j}$$
$$\beta_{1j} = \gamma_{10} + \gamma_{11}C_j$$
$$\beta_{2j} = \gamma_{20} + \gamma_{21}C_j$$
$$\beta_{3j} = \gamma_{30} + \gamma_{31}C_j$$
$$\beta_{4j} = \gamma_{40} + \gamma_{41}C_j$$

Where T_{ij} is the teachers' academic press on learning reported by teacher i in school j, which contains four elements (Instructional Program Coherence, Time on Task,

Focus on Achievement, and Academic Instructional Innovation) that will be tested separately. IC_{ij} contains four in-school enabling condition variables that are reported by teacher i in school j on principal leadership, teacher decision making authority, professional learning community, and teacher efficacy. These variables are group mean centered to obtain the within-group regression slopes. In other words, we are interested in the expectation on "teachers' academic press" in school j at this school's average "in-school enabling conditions" as reported by the teachers. γ_{ij} is the level 1 error term. On the right side of the level 2 models, C_j is the charter school status for school j; S_j is a vector of school characteristics for school j, including enrollment size, percent of black students, percent of Hispanic students, and percent of students on free or reduced lunch program; and A_j is a vector of charter school autonomy indicators such as length of charter operation, amount of waivers and level of monitoring received. The error term is μ_{0j}.

Results

Descriptive statistics comparing charter and traditional public schools (Table 1) show that charter schools in our sample are smaller than their traditional public school matches in our sample, on average, where traditional public schools also have a much bigger range in sizes. We also notice that charter schools in the study enroll higher average percentages of black students and those that are on free or reduced lunch programs. As for Hispanic students, the averages are similar but traditional public schools have a bigger range, where some schools have close to a 50% Hispanic student body. When comparing the means of teacher reported measures on teachers' academic press for

learning, our dependent variables, charter schools have slightly higher averages on all four indicators that are statistically significant. However, the magnitude of the average mean differences is not very big, ranging from .22 of the standard deviation for *Academic Instructional Innovation* to 0.15 of the standard deviation for *Time on Task* on a scale of one to six. As for the four scale measures of the in-school organizational enabling conditions, charter schools have small but statistically significant higher averages on teacher reported *Professional Learning Community* and *Teacher Efficacy*. There are no significant differences on *Principal Leadership* and *Teacher Decision Making Authority*, noted governance structure indicators associated with theoretical aspects charter schooling.

Insert Table 1

Charter schools in our sample have been in operation from 1 – 14 years, with the average being about five but more than half of them are younger than four years. With 7 being the maximum level of "autonomy" from requirements and monitoring, On average the 29 charter schools have few waivers and limited freedom from monitoring. Out of a total of 7, the means of 1.52 and 1.25 respectively, indicate a considerably low level of autonomy as far as management waivers and freedom from being monitored are concerned. In fact, 15 out of the 27 charter schools (2 did not have data) reported having no waivers, and 13 out of the 27 reported being monitored on all seven aspects. However, the standard deviations for the two measures are large compared with the means, 2.17 and 1.58 respectively, reflecting the variation where some charter schools did receive numerous waivers (up to 3 waivers from 3 schools) or were free from monitoring (up to 3 areas from 4 schools). The most reported waiver is related to teacher and staff

personnel policies (9 out of 27), and the least obtained waiver is on student assessment requirements (1 out of 27). In terms of monitoring, all schools reported being monitored for compliance with state or federal regulations, while eleven out 27 charter schools reported not being monitored for instructional practices (see Appendix II).

Findings from the HLM analyses are summarized in Table 2. Model 1 contains coefficients of charter as the single explanatory variable at the second level. We see that charter status has statistically significant coefficients on the dependent variables except for *Time on Task.* Charter school teachers report they are more likely to press for learning than their traditional public school counterparts without accounting for other features that teachers share within each school and without accounting for student background characteristics.

Insert Table 2

When school characteristics, in-school conditions and charter school conditions are added to Model 2, we see that the "charter gap" on three of the four measures is no longer statistically significant. Interestingly, *Time on Task* in this case is significantly associated with the charter status, indicating that charter schools in our sample have a stronger focus on using school time for academically related activities compared with TPS controlling for other school conditions and characteristics in the model. We find that school and student background characteristics are associated with the level of academic press. Among student body characteristics, percents of black students and low-income students on free/reduced lunch account for a small percent of the variance in the levels of teachers' academic press for learning. The percent of Hispanic students, however, has a consistent and very large negative association with all aspects of teachers'

academic press for learning. Schools with larger percentages of Hispanic students are less likely to indicate that their schools implement innovations focused on academics. They are less likely to report instructional program coherence, and less likely to focus on student achievement with high expectations for all students. It may be that limited language proficiency adds a layer of complexity to schooling that precludes a clear focus on academics and a coherent approach.

Among the four in-school organizational enabling conditions, *Professional Learning Community* has statistically significant and positive coefficients on all four measures of teacher academic press. The size of the association of *Professional Learning Community* is the largest among all explanatory variables. Schools where teachers feel that diverse opinions are supported, professional collegiality runs through the school, and there are shared values and understandings, may be more likely to create the conditions where there is a press on academic learning.

Teacher efficacy is another important predictor of levels of academic press and the results show significant positive influences for all four measures. Those teachers who feel they have the knowledge and ability to impact student learning are most likely to indicate their schools and colleagues are implementing programs pressing toward learning. *Principal Leadership* has significant and positive influences on academic press as well, although not on *Focus on Achievement*.

It is interesting to note that *Teacher Decision Making Authority* is positively associated—though it is not a very strong association—with *Academic Instructional Innovation* and *Instructional Program Coherence, and Time on Task*, but not with *Focus*

on Achievement. The governance notion most associated with charter schooling does not have a strong relationship to teachers' academic press.

Turning to Model 3, we found no evidence of mediating effects of charter school status between in-school enabling conditions and teachers' press for learning. Specifically, we analyzed the data interacting charter status with the four organizational enabling conditions to see if the association of these variables on academic learning press vary between charter and traditional public schools. All of the interaction coefficients are small and not significant with one exception, suggesting that we do not have strong evidence at this point to suggest that the mediating effect of key organizational conditions influences academic press for learning differently in charter schools as compared with traditional public schools. The exception is with the negative and statistically significant impact of *Professional Learning Community* in charter schools on *Instructional Program Coherence*, indicating that holding other factors constant, Professional Learning Community tends to have a smaller positive impact on Instructional Program Coherence in charter schools than in typical public schools.

The charter school variables, length of operation, autonomy with waivers, freedom from monitoring, have very small and statistically insignificant estimates, demonstrating little evidence of association with teachers' academic press for learning. This may be related to the newness of the charter schools and the relatively low level of autonomy reported by the principals in terms of school operations and monitoring.

The variances for slopes at the second level are fixed for the final models. Random variances components were tested but where not significant. Does this mean that (1) the influence of school characteristics are only on the mean outcome for teachers'

academic press (the intercepts), and (2) the influence of charter school cross-level interaction on in-school enabling conditions do not vary between schools? Not necessarily. It is a concern that because of the relatively low number of survey returns in some schools by teachers (as few as four) and the numbers of schools (29 charter and 43 non-charter) are small, we may lack power in testing interactions between teacher and school variations. It is also important to point out that variances within schools are large for all four outcomes of interests with intra-class correlation hovering around 25%, indicating that 75% of the variation occur within the schools. While teachers are asked to report their perceptions on the collective teacher experience, using survey item stems such as "your school" and "teachers in the school", inevitably teachers' personal experience vary, which further underscore the importance of having sufficient sample size for each school to reduce the amount of "noise" statistically.

Discussion

This paper asks, do charter school teachers indicate higher levels of academic press on learning than traditional public school teachers (choice qua choice)? To what extent is the level of teacher academic press dependent upon in-school organizational conditions that are associated with effective schools, such as strong instructional leadership? And, are charter schools more likely than traditional public schools to implement the in-school organizational conditions that are associated with teachers' academic press? We set forth two theoretical foundations that would predict opposite answers to these questions. Market theory suggests that charter schools would evidence stronger teacher academic press for learning and more in-school conditions that are

associated with effective schools. Institutional theory would predict that there would not be substantial differences between charter and traditional public schools. Therefore in-school condition in and of themselves may influence teachers' academic press for learning because of the strong institutional press and normative culture that the effective school traditions may be asserting on all schools.

While our conclusions only pertain to schools tested by NWEA (and we do not know the nature of the selection bias for these schools), and noting the limitations of our sample and surveys, our investigation suggests that on average, choice qua choice does not have strong relationships to teachers' academic press for learning when controlling for organizational conditions and student characteristics. What we did find, however, is that in-school organizational conditions, conditions often attributed to effective schools, such as professional community and principal leadership, are associated with higher levels of academic press. Although, charter schools were slightly more likely than regular public schools to exhibit these in-school organizational conditions, the influences of these conditions on teachers' academic press for learning are similar in both charter and traditional public schools.

We interpret these findings to suggest there are strong institutional forces, or the scripting of schooling today, that are driving all schools to believe that strong leadership and professional cultures and communities are integral aspects of the school organization that can impact the extent to which teachers focus on learning. The designation of a school as a charter school does not seem to alter these institutional forces or these norms of practice. Charter schooling does not seem to directly challenge what a real school ought to be doing (Cuban & Tyack, 1997). And as noted by Hess and Loveless (2005)

our findings suggest that in-school processes associated with effective schools seem to be unrelated to school choice and are not dependent on choice-based arrangements.

Our results support previous research about the importance of in-school conditions in maintaining teacher's academic press for student learning. We would have thought that charter school teachers would have substantial higher levels of efficacy than traditional public school teachers because charter school teachers often self-select to teach in a particular school and because their schools are theoretically freed from constraining rules and regulations. Furthermore, charter schools may be better able to attract and sustain principals who are instructional leaders. Rather, we found a significant effect of teacher efficacy on the level of academic press for student learning in all schools in our study. Research suggests that teacher efficacy can improve with professional devolvement and the most efficacious teachers often gain the most from learning new methods of teaching (see Moran, Hoy & Hoy, 1998). This line of research suggests that teacher efficacy is subject to change and may be an important mediating variable in understanding changes in teaching. "The development of a strong sense of efficacy can pay dividends of higher motivation, greater effort, persistence, and resilience across the span of teaching career" (Moran et. al, 1998, p. 238). Furthermore, as noted in previous research, instructional leadership does support teachers' efforts to focus on academics, but this is no more prevalent in charter schools than in traditional public schools.

Similarly, our results suggest the importance of teacher professional community and its association with teachers' academic press for learning. While charter schools were only marginally more likely to exhibit this important in-school condition, it did not

mediate teachers' academic press for learning differently in charter schools than in traditional public schools . Research has demonstrated that schools organized as communities, rather than bureaucracies, are more likely to exhibit academic success (Bryk & Discroll, 1988; Lee, Smith, & Croninger, 1995; Louis & Miles, 1990). Phillips (1997), for example, found that in schools where teachers are more concerned with affective relations than academic learning, test scores tend to be lower. She cautions that communities in schools must place academic learning at its center.

Given the possible support for the institutional perspective when interpreting our findings, we suggest that it is important to begin to look at charter schools in relation to the current policy context and the institutional environment of schooling. By and large, charter schooling began before the *No Child Left Behind* legislation. However, we raise the hypothesis that the prevailing accountability mechanisms under *No Child Left Behind,* and the normative views of what is involved with helping schools meet adequate yearly progress, is creating an institutional environment where choice cannot lead to the types of innovations hoped for by their founders. While not directly addressed in this study, we believe the 'grammar' of schooling is now even more impervious and unreceptive to the forces of market-based reform efforts.

Zimmer and colleagues (2003) note, "one of the most significant conclusions of our analysis is there is no single charter school approach and therefore no single charter school effect" (pg. 175). Our study suggests that in- school conditions are central for school improvement and, there are some traditional public schools that have in-school conditions that are similar to charter schools and some charter schools that have in-school

conditions similar to those in traditional public schools. Choice-based systems do not in and of themselves seem to lead to more of these in-school conditions.

References

Allen, J. (2001). Education by charter: The new neighborhood schools. In J. C. Goodman, & F. F. Steiger (Eds.), *An education agenda: Let parents choose their children's school* (pp. 56- 64). Dallas, TX: National Center for Policy Analysis.

Ashton, P. T., & Webb, R. B. (1986). *Making a difference: Teachers' sense of efficacy and student achievement.* White Plains, NY: Longman.

Betts, J. R. (2005). The Economic Theory of School Choice in J. R. Betts & T. Loveless (Eds.), *Getting Choice Right*. Washington, DC: Bookings Institution Press

Betts, J. R., & Hill, P. T. (2006). Charter School Achievement Consensus Panel. In *Key issues in studying charter schools and achievement: A review and suggestions for national guidelines* (pp. 24). Seattle, WA: National Charter School Research Project, Center on Reinventing Public Education.

Betts, J. R., & Loveless, T. (Eds.). (2005). *Getting Choice Right*. Washington, DC: Bookings Institution Press

Bruno, V. M., Chester, E. F., Jr., Louann, A. B., & Gregg, V. (1998). How charter schools are different: Lessons and implications from a national study. *Phi Delta Kappan, 79*(7), 488.

Bryk, A. & Driscoll, M. (1988). *The school as community: Theoretical foundations, contextual influences, and consequences for students and teachers*. Madison, WI: National Center on Effective Secondary Schools, University of Wisconsin.

Bryk, A., Lee, V., & Smith, J. (1990). High school organization and its effects on teachers and students. In W. Clune and J. Witte (Eds.), *Choice and control inAmerican education,* Vol. 1: *The theory of choice and control in American education* (pp. 135-226). Bristol, PA: Falmer Press.

Budde, R. (1988). *Education by charter: Restructuring school districts: key to long term continuing improvement in American education.* Andover, MA: Regional Laboratory for Educational Improvement of the Northeast & Islands.

Chubb, J. & Moe, T. (1990). *Politics, markets and American schools.* Washington, DC: Brookings Institute.

Cookson, P. W. (1993). *School choice and the creation of community.* Paper presented at a workshop entitled, "theory and practice in school autonomy and choice: Brining the community and the school back in". Tel Aviv University, Israel.

Cuban, L, & Tyack, D. (1995). *Tinkering Toward Utopia.* Cambridge: Harvard University Press.

DiMaggio, P. D., & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, Vol. 48,(2) , 147-160

Edmonds, R. R. (1979). Effective schools for the urban poor. *Educational Leadership,* 37, 15-27.

Elmore, R. (1996). Getting to scale with good educational practice. *Harvard Education Review,* 66(1), 1-26.

Finn, C. E., & Gau, R. L. (1998). New ways of education. *The Public Interest* (130), 79-92.

Finn, C. E., Manno, B. V., & Vanourek, G. (2000). *Charter schools in action: Renewing public education.* Princeton, HJ: Princeton University Press.

Fuchs, D. (2005). *Scaling Up Peer Assisted Learning Strategies to Strengthen Reading Achievement.* Nashville: Kennedy Center, Vanderbilt University.

Gamoran, A., Nystrand, M., Berends, M., & LePore, P. (1995). An organizational analysis of the effects of ability grouping. *American Educational Research Journal,* 32(4), 687-715.

Garrison, L. F., & Holifield, M. (2005). Are Charter Schools Effective? *Planning and Changing 36*(1&2), 90-103.

Gill, B. P., Timpane, P. M., Ross, K. E., & Brewer, D. J. (2001). *Rhetoric versus reality: What we know and what we need to know about vouchers and charter schools*. Santa Monica, CA: RAND.

Goodwin, R. K., Kremerer, F. R., & Martinez, V. J. (1998). Comparing public school and private voucher programs in San Antonio. In P Peterson and B. Hassel (Eds). *Learning from school choice* (pp. 275-306). Washington, DC: Brookings Institute.

Goldring, E. B., & Sullivan, A. S. (1995). Privitization: integrating private services in public schools In P. Cooksone & B. Schneider (Eds.), *Transforming Schools* (pp. 533-556). New York: Garland.

Henig, J. R. (1999). School choice outcomes. In S. Sugarman & F. Kemerer (Eds.), *School choice and social controversy* Washington, DC: Brookings Institute Press

Hess, F. M., & Lovelace, T. (2005). How school choice affects student achievement. In J. Betts & T. Loveless (Eds.), *Getting choice right: Ensuring equity, and efficiency in education policy* (pp. 85-100). Washington, DC: Brookings Institution Press.

Hoxby, C. M. (2002). Would school choice change the teaching profession? *The Journal of Human Resources, 37*(4), 846-891.

Kirst, M. W. (March, 2006). *Politics of Charter Schools: Competing National Advocacy Coalitions Meet Local Politics.* Paper presented at the Annual meeting of the American Education Finance Association, Denver, CO.

Laciroeno-Paquet, N., Holyoke, T., Moser, M., & Henig, J. (2002). Creaming versus cropping: Charter school enrollment practices in response to market incentives. *Educational Evaluation and Policy Analysis*, 24(2), 145-158.

Lee, V. E., & Smith, J. B. (1999). Social support and achievement for young adolescents in Chicago: The role of academic press. *American Educational Research Journal*, 36(4) 907-945.

Lee, V. E., Dedrick, R. F., & Smith, J. B. (1991). The Effect of the social organization of schools on teachers' efficacy and satisfaction. *Sociology of Education* 64(3), 190-208.

Lee, V., Smith, J. B., Perry, T., & Smylie, M., (1999). *Social Support, Academic Press, and Student Achievement: A View from the Middle Grades in Chicago.* Chicago; Consortium on Chicago School Research.

Lee, V. E., Smith, J. B., Croninger, R. G. (1995). *Another look at high school restructuring. More evidence that it improves student achievement and more insights into why.* Madison, WI: Center on Organization and Restructuring of Schools

Leonardi, R. C. (1998). *Charter schools in Ohio: The rush to mend them should not end them* (Perspective on Current Issues). Dayton, OH: Buckeye Institute for Public Policy Solutions.

Levin, H. M. (November 14, 2005). *Why Is Educational Entrepreneurship So Difficult?* Paper presented at the Conference on Educational Entrepreneurship at American Enterprise Institute, Washington, DC.

Lortie, D. (1975). *School Teacher*. Chicago: University of Chicago Press.

Louis, K.S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal*, 33(4), 757-798.

Louis, K. S., & Miles, M. B. (1990). I*mproving the urban high school: What works and why.* NY: Teachers College Press.

Loveless, T. (2003). *Charter schools: Brown Center Report on American Education*. Washington, DC: Brookings Institution 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), 395-443.

McLaughlin, M. W., & Talbert, J. E. (1993). *Contexts that matter for teaching and learning.* Palo Alto, CA: Stanford University, Center for Research on the Context of Secondary School Teaching.

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: formal structure as myth and ceremony. *American Journal of Sociology 83*, 340-363.

Moore-Johnson, S. (1990). *Teachers at work: Achieving success in our schools*. New York: Basic Books.

Moran, M. T., Hoy, A., & Hoy, W. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202-248.

National Institute for School Leadership (NISL) Proposal by the Consortium for Policy Research in Education. *Assessing the Impact of Principals' Professional Development: An evaluation of the National Institute for School Leadership*

Newmann, F. M. (2002). Achieving high-level outcomes for all students: The meaning of staff shared understanding and commitment. In W. D. Hawley (Ed.) *The keys to effective schools: Educational reform as continuous improvement* (pp. 28-42). Thousand Oaks, CA: Corwin Press.

Newmann, F. M., & Associates. (1996). *Authentic achievement: Restructuring school for intellectual quality.* San Francisco, CA: Jossey-Bass.

Newmann, F. M., & Wehlage, G. H. (1995). *Successful school restructuring: A report to the public and educators by the Center on Organization and Restructuring of Schools.* Alexandria, VA: Association for Supervision and Curriculum Development; Reston, VA: National Association for Secondary School Principals.

Newmann, F. M., Smith, B.A., Allensworth, E., & Bryk, A. S. (2001). Instructional program coherence: What it is and why it should guide school improvement policy. *Educational Evaluation and Policy Analysis,* 23(4), 297-321.

Newmann, F. M., Ruter, R. A., & Smith, M. S. (1989). Organizational factors that affect school sense of efficacy, community and expectations. *Sociology of Education,* 62(4), 221-238.

Philips, M. (1997). What makes schools effective? A comparison of the relationships of communitarian climate and academic climate to mathematics achievement and attendance during middle school. *American Educational Research Journal,* 34, 633-662.

Purkey, S. C., & Smith, M. S. (1983). Effective schools: a review. T*he Elementary School Journal*, 83(4) 427-452.

Rinehart, J. R., & Lee, J. F. (1991). *American education and the dynamics of choice.* New York: Praeger.

Scott, W. R. (1992). *Organizations: Rational, Natural and Open Systems*. Englewood Cliffs: Prentice Hall.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin Company.

Schneider, M., & Buckley, J. (2002). What do parents want fro schools? Evidence from the Internet. *Educational Evaluation and Policy Analysis*, 24(2), 133-144.

Schneider, M., Teske, P, & Marshall, M. (2000). *Choosing schools: Consumer choice and the quality of American schools.* Princeton, HJ: Princeton University Press.

Smylie, M. A., Lazarus, V., & Brownlee-Conyers, J. (1996). Instructional outcomes of school based participative decision making. *Educational Evaluation and Policy Analysis, 18*(3), 181-198.

Vanourek, G., Manno, B. V., Finn, C. E., Jr., & Bierlein, L.A. (1998). Charter schools as seen by students, teachers, and parents. In p. Peterson, B. Hassel (Eds.), *Learning from school choice* (pp. 187-212). Washington DC: Brookings Institute.

Zimmer, R., Buddin, R., Chau, D., Gill, B., Guarino, C., Hamilton, L., et al. (2003). *Charter school operations and performance: Evidence from California*. Santa Monica, CA: RAND.

Figure 1:
Conceptual Model of the Relationships between In-School Organizational Enabling Conditions and Teachers' Academic Press for Learning

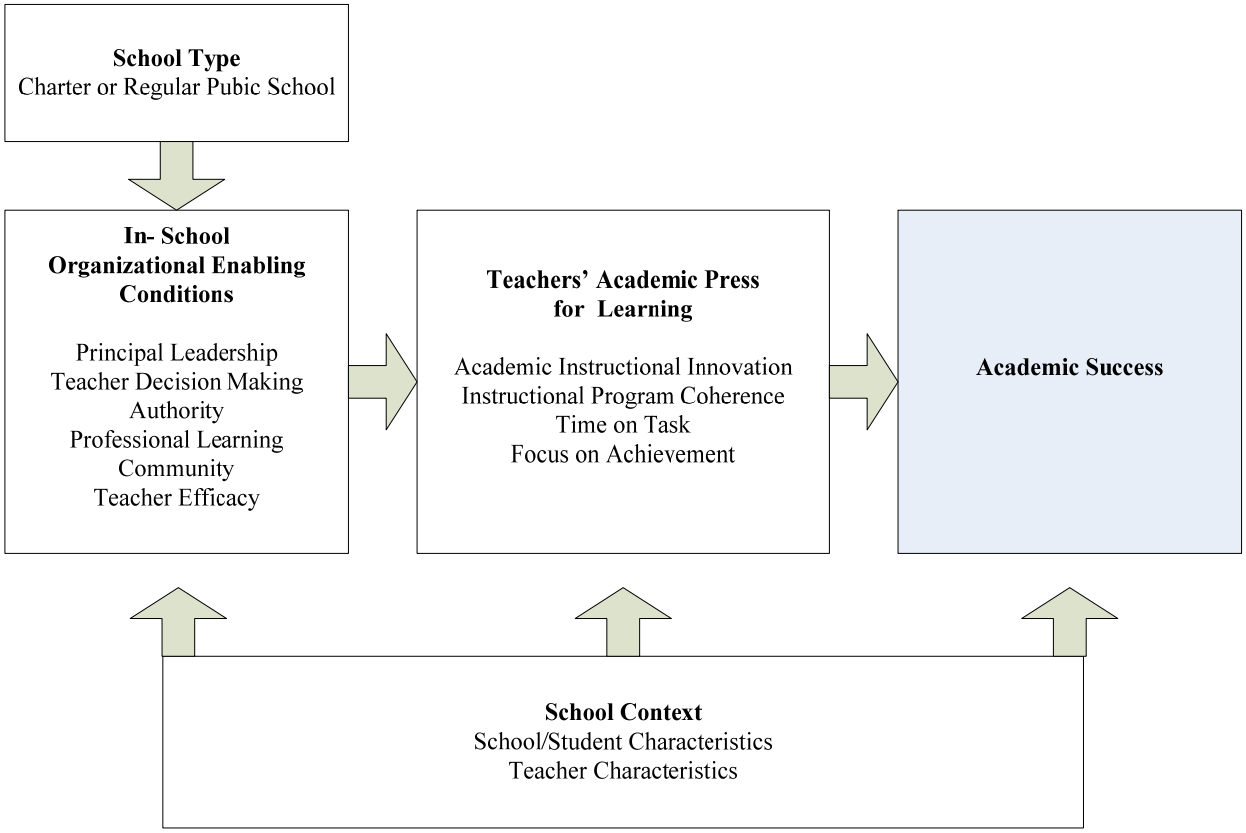

Table 1: Descriptive Statistics Comparing Variables between Charter and Traditional Public Schools

Variables	Charter School		Traditional Public School		
Elementary/Non-Elementary	Elementary	Non-Elementary	Elementary	Non-Elementary	
# of teachers (#of schools)	248(22)	59(7)	317(27)	227(16)	
School Characteristics	**Mean**	**Range**	**Mean**	**Range**	
Total School Enrollment	221	39 - 696	664	57 - 1549	**
Percent Receive Free/Reduced Lunch	49%	0% - 83%	27%	3% - 82%	
Percent of Black Students	49%	0% - 99%	7%	0% - 49%	
Percent of Hispanic Students	5%	0% - 24%	7%	0% - 56%	
	Mean	**SD**	**Mean**	**SD**	
Teachers' Academic Press for Learning					
Academic Instructional Innovation	4.62	0.84	4.43	0.85	**
Instructional Program Coherence	4.40	0.80	4.25	0.69	**
Time on Task	4.51	0.77	4.40	0.76	*
Focus on Achievement	5.10	0.76	4.98	0.81	*
In-School Organizational Enabling Conditions					
Principal Leadership	4.62	0.99	4.66	0.94	
Teacher Decision Making Authority	3.47	1.03	3.59	0.70	
Professional Learning Community	4.74	0.78	4.61	0.76	**
Teacher Efficacy	4.47	0.67	4.33	0.66	**
Charter School Conditions					
Length of Charter Operation for Instructions			5.10	3.05	
Waivers			1.52	2.17	
Freedom from Monitoring			1.25	1.58	

**p<.05, ** p<.01(two-tailed test)*

Table 2: Teachers' Academic Press for Learning in Charter and Traditional Public Schools

	Instructional Program Coherence			Focus on Achievement			Time on Task			Academic Instructional Innovation		
	1	2	3	1	2	3	1	2	3	1	2	3
Sector												
Charter /Traditional Public School	0.24*	0.30	0.30	0.23*	0.25	0.25	0.14	0.51*	0.51*	0.31*	0.27	0.27
School Characteristics												
Percent F/R Lunch		-0.11	-0.11		-0.31	-0.31		0.13	0.13		0.55	0.55
Percent of Black		-0.39	-0.39		0.00	0.00		-0.51	-0.51		-0.62*	-0.62*
Percent of Hispanic		-1.09**	-1.09**		-1.08**	-1.08**		-1.93**	-1.93**		-1.40**	-1.40**
Total School Enrollment		0.00**	0.00**		0.00**	0.00**		0.00*	0.00*		0.00*	0.00*
Org. Enabling Conditions												
Prof. Learning Comm.		0.29**	0.34**		0.40**	0.38**		0.31**	0.32**		0.49**	0.51**
Charter Interaction			-0.15*			0.06			-0.03			-0.06
Teacher Decision Making		0.08*	0.04		-0.04	0.01		0.08*	0.09*		0.09*	0.08
Charter Interaction			0.11			-0.10			-0.03			0.03
Teacher Efficacy		0.25**	0.24**		0.10*	0.10*		0.15**	0.11**		0.22**	0.20**
Charter Interaction			0.03			-0.01			0.11			0.04
Principal Leadership		0.23**	0.21**		0.06	0.10*		0.19**	0.19**		0.18**	0.19**
Charter Interaction			0.03			-0.12			0.01			-0.02
Charter School Conditions												
Length of Operation		0.00	0.00		-0.04	-0.04		-0.05	-0.05		0.01	0.01
Waivers		-0.04	-0.04		-0.02	-0.02		-0.07*	-0.07*		0.00	0.00
Monitoring		-0.02	-0.02		0.02	0.02		-0.01	-0.01		-0.04	-0.04
Variance between schools	0.13**	0.13*	0.13*	0.12**	0.09**	0.09**	0.15**	0.12**	0.12**	0.18**	0.17**	0.17**
Variance within schools	0.40	0.22	0.22	0.50	0.33	0.33	0.47	0.27	0.27	0.57	0.27	0.27
Intra-class correlation	0.25	0.38	0.38	0.25	0.28	0.28	0.25	0.31	0.31	0.24	0.39	0.39
Degree of freedom	68	61	61	68	61	61	68	61	61	68	61	61
Chi-square	307.30	431.53	433.94	263.33	256.47	258.35	294.67	337.67	337.26	315.87	507.44	505.80

**p<.05, ** p<.01(two-tailed test)*

Appendix

Correlations of Dependent Variables

Charter School (n=307)				
	Academic Instructional Innovation	Time on Task	Instructional Program Coherence	Focus on Achievement
Academic Instructional Innovation	1.00			
Time on Task	0.61	1.00		
Instructional Program Coherence	0.56	0.62	1.00	
Focus on Achievement	0.30	0.41	0.28	1.00
Traditional Public School (n=544)				
	Academic Instructional Innovation	Time on Task	Instructional Program Coherence	Focus on Achievement
Academic Instructional Innovation	1.00			
Time on Task	0.52	1.00		
Instructional Program Coherence	0.55	0.51	1.00	
Focus on Achievement	0.48	0.50	0.39	1.00

Charter School Autonomy Frequency

Does your school have waivers or exemptions from the following state or district policies?	Pct of Total	Yes	*Which of the following areas is your school monitored by the state or charter-granting agency?*	Pct of Total	Yes
Teacher certification requirements	15%	4	Instructional practices	59%	16
Teacher/staff hiring/firing policies	33%	9	Student achievement	96%	26
Curriculum requirements	26%	7	Student behavior	63%	17
student attendance/seat time requirements	22%	6	Student attendance	85%	23
Student assessment requirements	4%	1	School governance	78%	21
Control of finances/budget	30%	8	School finances	93%	25
Incentives reward, or sanctions due to school performance	22%	6	Compliance with state or federal regulations	100%	27