Gatekeepers to the classroom: The influence of state teacher standards boards on state teacher policy

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ABSTRACT: We consider the politics of structural choice to examine how American states govern the teaching profession. Since the 1970s, nearly all states have adopted professional standards boards to regulate the licensing and certification of public school teachers. These boards vary in their composition, powers, and relationship to other government institutions. Some boards possess much autonomy and authority, while others are primarily advisory. Using the lens of structural choice, we ask: What impacts do state teacher standards boards have on policies governing the teaching profession? We find that the authority states' have vested in teacher boards appear to influence some teacher policies but not others. Additional variables capturing different aspects of the state's political environment also matter. Our findings show the dual impacts that prior structural choices and the contemporary political environment have on state teacher policy.

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Optimism frequently accompanies efforts to reform the institutions of government. Consider the Progressives of the 1920s and 1930s who believed that a science of administration could produce public organizations that would eliminate social problems (Light 1997). More recently, in debates after the attacks of September 11, 2001, current and past government officials and scholars have argued for reorganizing the nation's intelligence agencies to better secure the American homeland (National Commission on Terrorist Attacks upon the United States 2004; Kettl 2004). In short, establishing or reforming public institutions to improve their performance has been an ongoing pursuit of American governments dating from the earliest moments of the republic (Wilson 1989; Moore 1995).

But establishing new agencies or reconfiguring them is not only about making government more effective. Perhaps it is about other things altogether. A more pessimistic perspective holds that government effectiveness is rarely the main concern when elected officials design or redesign public organizations (Moe 1990, 1989). This view sees institutional choices as primarily designed to meet political needs that are unrelated to improving the government's performance. Put differently, structural choices are more about how elected officials wield power to please narrow political interests than about making government work better for all people (Chubb and Peterson 1988).

In this paper, we test the more pessimistic view by addressing one general and one specific question. First, how is the power of state institutions associated with state policy content? In asking that question we use the arena of state politics to test Moe's (1990; 1989) theory of structural choice. That is an important contribution given that much work on structural choice examines bureaucratic agencies of the federal government and their relationship to legislatures, presidents, and national interest groups (Moe 1990, 1989; Balla and Wright 2001; de Figueiredo 2002; Bendor, Glazer, and Hammond 2001; Drezner 2000). Although some work has considered the state politics of structural choices (Huber, Shipan, and Pfahler 2001; Potoski and Woods 2000; Potoski 2002), most research still tends to focus on national institutions.

Our second question is more specific and takes advantage of the unique opportunities that state venues provide. What impacts do state teacher standards boards have on policies governing teachers? In terms of testing expectations about politicians' structural choices, state teacher standards boards provide an interesting arena because their existence aligns closely with the preferences of teacher unions, a key actor in state politics. That link is important, given the theoretical view that interest groups, working through politicians, have much say over how public institutions take shape and eventually behave.

The following five sections develop our argument. First, we describe the characteristics of state teacher standards boards. Second, we elaborate the theory of structural choice and apply it to state teacher policy. Third, we describe our data sources, methods, and specific hypotheses. Our fourth section reviews our findings, and our fifth concludes. Overall, we find that state structural choices are related to teacher policy content, but state political factors, including the presence of teacher unions and the partisan control of state legislatures are perhaps more powerful. The findings show the dual impacts that prior structural choices and the contemporary political environment appear to have on state teacher policy.

State teacher boards as a structural choice

Even with major federal laws on the books, American education remains the primary responsibility of state and local governments. States are particularly important because their constitutions empower them to develop and maintain systems of public education. Despite that general similarity, structurally, the states vary in how they govern the nation's schools. Governors and legislatures are obvious players, but importantly, states typically also have some combination of a chief state school officer, who runs the state's department of education, a state board of education, which is a state-level version of a local school board, and in nearly all states a separate state teacher standards board (henceforth "teacher boards") (Masters, Salisbury, and Eliot 1964; Wirt and Kirst 1997; Loeb and Miller 2006).

The amount of control that teacher boards have over policy varies across the states. All typically have some input on teacher preparation, licensing, credentialing, recruitment, evaluation, discipline, and setting professional practices. However, not all teacher boards are similarly empowered. For example, California has the oldest autonomous teacher board in the country. Established in 1970, its task is to create standards for teacher preparation, licensing and credentialing, enforcement of professional practices and teacher discipline (Connecticut Education Association 1993). On the other hand, Connecticut's advisory board simply offers suggestions to the state board of education, the governor, and the General Assembly on these and other areas (Loeb and Miller 2006).

In the areas of licensing and certification, our substantive focus, the most comprehensive current review of state policy (Loeb and Miller 2006) summarizes teacher board power as follows. Teacher boards in 28 states have advisory power only, meaning they can recommend policies to other institutions, usually the state education agency or state board of education. In 3 states teacher boards are semi-autonomous, which means their decisions are final unless another agency, again usually the state board, intervenes. In 11 states, teacher boards are fully autonomous. The remaining 8 states have no teacher board.

If it is true that structural choices are consequential for policy, then variation in levels of teacher board autonomy should help predict the content of state teacher policy. In the next section we summarize why theories of structural choice suggest this should be so. We then develop three specific expectations about how board autonomy should be related to state policy content.

Structural choice and expectations about teacher policy

As others have shown theoretically (Hammond and Knott 1996, 1999) and empirically (Heinrich and Lynn 2000), politics and different institutional configurations can influence public policy content. By exploiting institutional and policy variation in the American states, we provide a robust test of those claims in the increasingly important area of teacher policy. Our paper builds upon the work of others who have examined state education governance but have focused on higher education (Lowery 2001; Knott and Payne 2004) rather than state institutions governing elementary and secondary schools.

Accounts that governments' structural choices serve primarily political interests embrace three key claims (Moe 1990, 1989). First, conflicts over the proper exercise of public authority

turn on how elected officials respond to organized interests in the political environment. Second, these political concerns, rather than a desire to design effective bureaucracies, motivate elected officials to adopt some structures and eschew others. Third, today's choices about bureaucratic structure reflect politicians' desire to preserve current into the future when their political enemies assume power. In this section we use those ideas to elaborate the potential relationship between state teacher boards and teacher policy.

Politicians designing government organizations take cues from organized interests for several reasons. A desire to get reelected, and please their supporters is an obvious one (Mayhew 1974). But designing bureaucracies to address public problems---always the stated reason for creating a government organization---is a substantively challenging task. Elected officials frequently rely on pre-designed solutions that leading groups and policy entrepreneurs offer, sometimes during moments of perceived crisis when acting swiftly seems necessary (Kingdon 1995; Baumgartner and Jones 1993). Trusted interest groups provide politicians with cognitive assistance and useful heuristics to sort out the facts, assumptions, and political implications of choosing one structural path over others (Jones 2001).

At least two consequences follow when interest groups compete to influence how politicians design public institutions (Moe 1990, 1989). First, compromises result as group preferences accumulate and the legislative process determines winners and losers. That give and take pushes government organizations away from designs that are optimal in a technical sense, and toward those that can pass political muster. Second, interest groups and politicians operate with short- and long-term time horizons, which lead them to design government organizations in ways that lock in present victories. As any savvy politician or interest group leader will recognize, the political winds will eventually change and no majority is permanently secure. By making government structures difficult to change, their accomplishments can endure even when their political enemies take over.

Populating government organizations with friendly decisionmakers is one way for majorities protect those victories. One category of friendly decisionmakers are professionals trained in the fields that those agencies are charged with regulating. Politicians and regulated groups can never precisely predict how those professionals will act when the agency designs a regulation, enforces a law, or otherwise exercises public authority. But in general, professionalism tends to establish relatively regular and predictable courses of action given the common cultures from which professionalism enables "the group to anticipate how expert discretion will be exercised under various conditions; it can then plan accordingly as it designs a structure that takes best advantage of their expertise. . . . The professionals would see themselves as independent decision makers. The [interest] group would see them as under control. And both would be right" (Moe 1990, 135).

State teacher boards provide a clear arena to test these claims about structural choices, interest group pressures, and government performance. That is because a tight link exists between the teacher board concept and stated interest group preferences. Establishing state teacher boards has been a long-term policy objective of teacher unions, especially the nation's

largest, the National Education Association (NEA). In its most recent set of policy resolutions, the NEA (2007, 289) holds this position about state teacher boards:

The National Education Association believes that the profession must govern itself. The Association also believes that each state should have a professional standards board, composed of a majority of practicing public school teachers. Professional standards boards should have exclusive authority to license and determine criteria for how a national certificate will be recognized for professional educators. Further, these boards should have the exclusive authority to establish the standards regarding licensure, including procedures for suspension and revocation. The Association opposes legislation that compromises the authority of state standards boards and urges the elimination of state statutes that conflict with this authority. The Association further believes that these boards must apply National Council for Accreditation of Teacher Education (NCATE) standards as a minimum for granting, denying, or withdrawing the approval of teacher preparation programs.

As theorists of structural choice would argue, if the NEA successfully persuaded states to allow the profession to "govern itself" through state teacher boards, the result would be a collection of highly predictable government organizations that would tend to make policy consistent with the union's interests. It is worth noting that many state laws creating teacher boards dictate some or all of the board's membership, which often includes practicing teachers or other members of the education profession.¹

Considering state teacher policy through the lens of politics and structural choice, we examine the following hypothesis: As state teacher boards possess more autonomy, states will be more likely to have policies consistent with teacher union interests, in particular the interests of the NEA. In our next section, we describe our data and methods for testing that general expectation.

Data, methods, and specific hypotheses

We analyze the relationship between teacher board autonomy and the content of state teacher policies. In accounting for board autonomy, we also control for state-level conditions during the years 2002-2006. An important recent national policy change motivated us to consider that period. Specifically, the federal No Child Left Behind Act of 2001 (NCLB) set a deadline of 2005-06 for all states to have only highly qualified teachers in classrooms where core academic subjects are taught (Hess and Petrilli 2006). After 2001, essentially all states were forced to revisit their policies governing the teaching profession to address that mandate.

Our dependent variables come from a comprehensive analysis of state teacher policies published by the National Council on Teacher Quality (2007) (NCTQ).² Using NCTQ's work,

¹ Loeb (2006, p. A-10) lists these state laws.

² The NCTQ is a non-partisan research and advocacy organization. Its stated mission on its website is to support "reforms in a broad range of teacher policies at the federal, state, and local levels in order to increase the number of effective teachers"; the group's research program focuses on "states, teacher preparation programs, and teachers unions." Its funding, board of directors, and its advisory board include individuals and groups representing diverse political and ideological perspectives. See http://nctq.org. Last accessed on December 10, 2007.

which considered whether states were achieving several specific teacher policy goals, we created indices for three policy areas: policies addressing specific requirements flowing from the No Child Left Behind Act, general policies governing licensing and certification, and policies addressing alternative licensing and certification methods.³

The index components appear in Table 2. The NCTQ ratings are based on a comprehensive, peer-reviewed analysis of state policies and regulations that defined several different policy goals designed to improve a state's stock of high quality teachers. To develop the goals and the ratings, the NCTQ conducted its own research and solicited input from over 150 groups and individuals, including state policymakers, teacher union representatives, and researchers at universities and think tanks (National Council on Teacher Quality 2007, 3). Using the NCTQ's ratings, we assigned states the following scores for each index component: 0=state does not meet policy goal; 1=state meets small part or partly meets goal; 2=state nearly meets goal; and 3=state meets goal or is a best practice state. We created each index by summing the scores for each component. Thus, high index scores would mean a state possessed policies that would help develop the state's stock of talented teachers.

Table 1 about here

Our indices take on whole number values and can range from 0 to 12. We analyze these measures using ordinary least squares regression.⁴ Our key independent variable is a 3-point measure of state teacher board autonomy to make policy in the areas that our indices capture. It is coded as follows: 0=state does not have a board; 1=state has an advisory board; 2=state has a semi-autonomous or autonomous board. Those codes come from Loeb and Miller's (2006) review of state teacher policies. States with higher scores on this measure have institutions more consistent with the stated interests of teacher unions, as the lengthy quote from the NEA illustrated previously.

Our general hypothesis is that states with more powerful teacher boards will possess teacher policies that are more consistent with teacher union interests. We consider stated policy positions of the NEA and previous work from other researchers to develop specific expectations for our three dependent variables.⁵ In other words, if teacher standards boards are moving states to adopt policies that the NEA supports, what would we expect to see on our indices for NCLB requirements, teacher certification, and alternative routes to the teaching profession?

³ The latter category typically involves creating non-traditional pathways to teaching for career-changers or those who did not earn a teaching credential as an undergraduate.

⁴ Given the data generating process under study, it is worth noting that we also obtained consistent results running our models with ordered probit specifications. But because of the large number of categories in the ordered probit models, we have reported least squares results in this paper to ease interpretation. Interested readers should contact us for the ordered probit results.

⁵ Our work does not directly consider the positions of the nation's second largest teacher union, the American Federation of Teachers (AFT). Focusing on NEA interests makes substantive sense given that the NEA tends to have more consistent influence in state-level policy debates than the AFT. That is because the AFT tends to be a more decentralized organization that focuses its efforts in local arenas, not state capitals (Koppich 2005; Hannaway and Rotherham 2006).

Regarding NCLB requirements, our first index, the NEA has tended to criticize the law since its passage (Koppich 2005). Specifically, item 1.2 on highly qualified secondary level teachers and 1.3 on veteran teachers would likely prompt the most NEA criticism. In general, the union opposes federal efforts to define the meaning of "highly qualified" teachers (National Education Association 2006, 23). Further, the NEA favors the law's HOUSSE provisions, which provide veteran teachers a way to earn highly qualified status (National Education Association n.d.).⁶ The union's stated preferences indicate some support for component 1.1, but the NEA's additional emphasis on pedagogical and other education courses would make it difficult for an undergraduate student to take a broad course of study in the liberal arts (National Education Association 2007, 252-4). Finally, the NEA appears to oppose component 1.4 regarding standardizing credentials for a subject major or minor given that it resists adopting federal standards that would weaken state credential or licensing requirements (National Education Association 2007, 321). Overall, given these positions, if the theory is correct that teacher boards have been structured to serve union interests, then we should find support for hypothesis 1: states with more powerful teacher boards will have lower scores on the NCLB index.

Consider next the teacher licensing index. The NEA's stated positions tend to oppose index components 2.1 on professional knowledge and 2.2 on passing tests to earn meaningful licenses. Its views on professional knowledge incorporate a range of content areas, some of which would be "easy to measure," as the NCTQ goal states. But the NEA stresses many others, in areas such as multiculturalism and group processes, for example, that would be much harder to gauge (National Education Association 2007, 252-4). The union's views about component 2.4 on reading instruction are similar. The NEA would likely favor training teachers in the science of reading instruction, but it would also argue that teacher training in reading should incorporate other approaches, too (National Education Association 2007, 314).⁷ Regarding component 2.2, the NEA does not necessarily oppose teacher testing, but it resists the high stakes approach that component 2.2 suggests, namely that teachers failing a licensing test could not continue into a second year of teaching. Further, the union would favor evaluations based on more than a single exam (or any single measure) to determine a teacher's fate, and it opposes "standardized literacy and basic skills tests" as a condition for license renewal (National Education Association 2007, 290). On interstate portability of licenses (component 2.3) the NEA's views seem in tension. The union has supported interstate recognition of other teacher credentials, namely certification

⁶ The HOUSSE provisions have been criticized as enabling states to set widely varying (Loeb and Miller 2006, pp. 24-29), and even watered down (Hess and Petrilli 2006, pp. 75-78) standards for veteran teachers to meet in order to be highly qualified. Partially in response to those critics, during the 2007 attempted reauthorization of NCLB, the House education committee proposed eliminating the HOUSSE provision. The NEA sent a letter to key House education committee members protesting that move. In part, the letter argued that eliminating HOUSSE would do "irreparable harm to thousands of teachers not new to the profession." See http://www.nea.org/esea/titles2-11commentsletter.html. Last accessed on December 11, 2007.

⁷ The NEA's official reading policy is as follows: "There is no one way to teach reading that is effective for all students. The teacher is the key to successful reading. Teachers should receive a sound preservice education as well as ongoing, relevant professional development in order to implement complete reading programs that address the full spectrum of reading skills and diverse student needs. Teachers should be supported by parents, skilled education support professionals, communities that value and promote reading, and policies that provide adequate resources and allow them to use their expertise." See http://www.nea.org/reading/index.html. Last accessed on December 11, 2007.

earned through the National Board for Professional Teaching Standards.⁸ But it opposes strong federal involvement on licensing that would trump state prerogatives (National Education Association 2007, 321); for example, the NEA would likely oppose a federal law that made licenses portable but that also defined the license content. Considering the components in the second index, the theory would generate hypothesis 2: states with more powerful teacher boards will score lower on the teacher licensing index.

Finally, on the alternative routes to teaching index, the NEA has supported "sound alternative routes to licensure or certification" (National Education Association 2006, 25). However, the union's definition of "sound" would essentially force alternative candidates into traditional routes. Specifically, the NEA opposes alternative routes that do not require candidates to receive teacher training through an institution certified by the National Council for Accreditation of Teacher Education (NCATE) (National Education Association 2007, 253-4 and 290). In practice, that would essentially force most alternative certification candidates to attend a traditional teacher training program, and lead to low scores on component 3.1 and 3.2. Those items stress that strong policies should provide genuine alternatives for "meeting the needs of new teachers" and should be "accommodating to the nontraditional candidate." The union would favor holding these alternative route programs accountable (component 3.3), but again it would stress that NCATE standards be the benchmark for accountability. The NEA does not appear to have an explicit position on interstate portability of alternative licenses, component 3.4. Overall, given the strong impulse to favor traditional mechanisms for assessing alternative routes to teaching, the theory would generate hypothesis 3: states with more powerful teacher boards will score lower on the alternative routes index.

Our models also control for the state's internal political environment. Descriptive statistics for these and all other variables appear in Table 2. First, we include the number of NEA members per 1000 state residents, averaged over the period 2002-2006.⁹ Second, we control for the state's political environment during 2002-2006 by including a measure of the number of years Democrats held both houses of the state legislature, and another variable capturing the number of years Democrats served as governor. A final measure counts the number of years that Democrats controlled the legislature and the governor's mansion, also from 2002-2006. Those political variables are important to account for given that teacher unions tend to align with Democratic politicians on educational matters.

Finally, we control for prior state educational performance by including measures of the percent of state students scoring proficient or better on the National Assessment of Educational Progress (NAEP) for fourth grade reading (averaged across 2003 and 2005) and math (also averaged for 2003 and 2005). Also known as "the nation's report card," the NAEP is taken by

⁸ Information on National Board certification is available here: http://www.nbpts.org/. Last accessed on December 11, 2007.

⁹ We attempted to obtain membership data for the nation's other major teacher union, the American Federation of Teachers (AFT), but the union does not make those data publicly available. Still, focusing on the NEA provides a useful approach. Structurally, the NEA has larger members, and it has a more top-down orientation, which makes it highly organized and effective in state-level politics (Koppich 2005; Hannaway and Rotherham 2006). In contrast, the AFT tends to operate with affiliates having much more local autonomy. The NEA is the more likely of the two to have a consistent powerful presence in state political arenas.

samples of students in each state and is the only measure of academic performance that is comparable across all states.¹⁰

Table 2 about here

Links between structural choices and teacher policy

Before considering our regression models, we begin by examining the basic relationship between the power of state teacher boards and our three indices of state teacher policy. Those results appear in Table 3.

The general pattern supports the theoretical expectation that state teacher boards with more power will score lower on the NCTQ's policy goals and our specific indices. Adjacent cells matching that prediction appear in bold in Table 3. All three index measures move consistently downward from left to right. The decline is not always large, but still noticeable. The largest drop in percentage terms is on the teacher licensing index, which moves from a score of 5.38 to 3.64, a drop of 32 percent. The alternative routes index declines by 21 percent, while the NCLB index drops by 16 percent as one moves from states with no teacher boards to those with semi-autonomous or autonomous boards.

Movement in the specific component scores is less consistent, but in most rows values to the right are lower than those on the left. At the component level, the most dramatic shift is in component 2.2. That item called for states to have meaningful licenses, which means, according to the NCTQ (2007) report, that states should require all teachers to pass licensing tests before they begin their second year of teaching. That finding tightly aligns with the expectations from theories about the politics of structural choice. Teacher unions have tended to strongly oppose high stakes tests for teachers, especially for teachers that are already employed, versus those still in training. On that particular measure, the pattern suggests that more powerful state teacher boards have acted consistently with those union preferences. As one moves from left to right in Table 3, this component score (measured on a 0 to 3 scale) declines from 1.88 to 0.50, a drop of 73 percent.

Table 3 about here

The regression models in Table 4 analyze this relationship between state teacher boards and policy but account for the additional control variables we discussed earlier. In this table, we focus on our three indices rather than the specific index components. The results continue to suggest the impact of enduring structural choices, but they also reveal how contemporary state political factors appear related to policy content.

Across all three models the coefficient on the state teacher board measure is negative, as the theory of structural choice would predict. More powerful boards should be associated with lower index scores. However, that variable is statistically significant only in the model predicting scores on the licensing index. The substantive relationship does appear strong. Holding other variables constant, the model would predict a state's license score to decline by

¹⁰ Full documentation on the NAEP is available at http://nces.ed.gov/nationsreportcard/. Last accessed on December 10, 2007.

1.74 points as the independent variable increases from a score of 0, indicating no board, to a board with advisory status (score of 1), and finally to a semi-autonomous or autonomous board (score of 2). Considering the descriptive statistics in Table 2, that drop would represent a change of over three-fourths of a standard deviation on the licensing index.

Two control variables capturing the state's internal political environment for 2002-2006 show the most consistent and statistically powerful impacts on the state indices. The number of NEA members per 1000 state residents is negatively signed in all models, and highly statistically significant ($p\leq.01$) in the licensing and alternative route models. Put differently, states with a larger NEA presence tend to be less successful at adopting policies consistent with the licensing and alternative route policy goals that the NCTQ (2007) examined.

The number of years during 2002-2006 that the legislature was in Democratic hands is the other political variable that is related to the index scores. Positive and statistically significant values ($p\leq.01$) on that coefficient appear in the licensing and alternative routes models. Substantively, the results show that states where Democrats controlled the legislature for more years were more likely to score highly on the licensing and alternative routes indices. That finding is somewhat interesting given that teacher unions tend to be closely aligned with Democrats. That alliance may indeed exist, but in terms of the two indices reported here, it appears that union views and positions of Democratic legislatures are at odds.

Table 4 about here

Enduring structures, contemporary politics, and public policy

In this article, we set out to examine how state policymakers' structural choices can influence policy content. State teacher boards are an ideal object to test theoretical claims about the politics of structural choice. Those claims hold that politicians create government organizations to serve group interests, not necessarily to solve public problems. In this case, the NEA, the nation's largest teacher union, has supported the adoption of teacher boards in all American states. That union position allows us to provide a strong test of predictions that structural choice theorists have offered. In other words, if the theory is correct that government organizations exist to serve group interests, then we should see states with teacher boards creating policies consistent with the NEA's stated policy preferences.

Certainly, there are limits to our approach, which additional research on state education policy could address. First, our findings in Tables 3 and 4 show associations between the power of state teacher boards and teacher policy, particularly on the licensing index. These results suggest a link between union preferences and the policy choices of teacher boards. But it would take up-close observations of the policymaking processes, something that interviews with state education elites could reveal, to identify clearly the specific mechanisms that enable union preferences to influence the policy outputs of these boards, if indeed they do.

Second, one could push the analysis in new directions. That could include examining the presence or absence of other state teacher policies, and also the specific content of those policies. Further, one might examine whether the internal characteristics of state teacher boards are related to policy content. Put another way, we have only considered broad definitions of board

characteristics, specifically, their statutory level of autonomy. A more detailed coding approach could test if additional board characteristics are related to policy content. For example, do teacher boards whose members are appointed by governors produce different policies than boards with members gaining their seats in other ways? Finally, another tight test the theory of structural choice would examine the internal state conditions that create state teacher boards in the first place. If those theories are correct, based on teacher union interests, one would expect boards to have emerged in states where union influence has been strong.

Still, our findings provide useful insights about the politics of structural choice, and the content of state education policy. In particular, we see descriptive evidence in Table 3 that the content of state teacher policy is correlated with the power of teacher boards. Our regression models in Table 4 show that the association is most detectable statistically for policies concerning traditional teacher licensing. States with more powerful teacher boards tend to have more work remaining to achieve important policy goals in this area.

It may be that state structural choices are most consistently associated the teacher licensing index because it contains familiar items that have been part of state policy debates for several decades. In short, traditional teacher licensing is a fairly mature area. In contrast, the content of our first and third indices on NCLB requirements and policies concerning alternative routes to teaching raise several relatively newer issues regarding teacher policy content. Many state teacher boards, politicians, and interest groups are still figuring out how to approach some of the particulars in these areas. For that reason, it may be harder to detect a systematic relationship between policy content and state structures. Interestingly, no variables in our NCLB regression, even the very basic political measures that researchers often use in other contexts, helped to predict the content of state policy. That suggests that nonsystematic factors may be most important in such a turbulent policy area, and that it may take several years for scholars to identify more regular, predictable patterns related to state structures.

While we see evidence that enduring structures matter, they are far from deterministic. Contemporary political contexts are also associated with the development of state teacher policy. As we found in Table 4, the NEA's state presence and the state legislature's party were strong predictors of policy content. In the licensing regression, union influence manifested itself above and beyond the strength of the state teacher board, where both variables were statistically important and associated with lower index scores. In contrast, on the alternative route index, teacher union power appeared important, also in the negative direction, but the teacher board's autonomy did not. Additionally, and interestingly given the historic alliance between Democrats and teacher unions, in both models Democratic legislatures appeared to play a countervailing role to union preferences.

In general, our results suggest that the presence of a powerful government organization that interest groups say they desire is no guarantee that the organization will produce policies consistent with the group's preferences. No government organization is perfectly predictable. Thus, it is not surprising that contemporary political factors can remain important. As a practical matter, it would be surprising to see the NEA or any other group's advocacy cease or become less vigilant even if politicians had resolved prior institutional debates in their favor. By taking advantage of variation in the American states, we have been able to examine theories of structural choice in a new policy context. Empirically, the increasing importance of teacher quality in state and national debates will continue to make state teacher boards an important object of study. More generally, because they are public institutions that have emerged from political choices, they can also provide valuable theoretical insights about the relationships between government organizations, interest groups, and public policy.

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Table 1. Indices of state teacher policy

1. No Child Left Behind Index

- 1.1 Elementary Teacher Preparation. The state should ensure that its teacher preparation programs provide elementary teacher candidates with a broad liberal arts education.
- 1.2 Secondary Teacher Preparation. The state should require its teacher preparation programs to graduate secondary teachers who are highly qualified.
- 1.3 Veteran Teachers Path to HQT. The state should phase out its alternative "HOUSSE" route to becoming highly qualified.
- 1.4 Standardizing Credentials. The state should adopt the national standard defining the amount of coursework necessary to earn a major or minor.
- 2. Traditional Teacher Licensing Index
 - 2.1 Defining Professional Knowledge. Through teaching standards, the state should articulate and assess the professional knowledge of teaching and learning that new teachers need, but steer clear of "soft" areas that are hard to measure.
 - 2.2 Meaningful Licenses. The state should require that all teachers pass required licensing tests before they begin their second year of teaching.
 - 2.3 Interstate Portability. The state should help to make teacher licenses fully portable among states—with appropriate safeguards.
 - 2.4 Teacher Prep in Reading Instruction. The state should ensure that new teachers know the science of reading instruction.
- 3. Alternative Routes to Teaching Index
 - 3.1 Genuine Alternatives. The state should ensure its alternate routes to certification are well structured, meeting the needs of new teachers.
 - 3.2 Limiting Alternate Routes to Teachers with Strong Credentials. The state should require all of its alternate route programs to be both academically selective and accommodating to the nontraditional candidate.
 - 3.3 Program Accountability. The state should hold alternate route programs accountable for the performance of their teachers.
 - 3.4 Interstate Portability. The state should treat out-of-state teachers who completed an approved alternate route program no differently than out-of-state teachers who completed a traditional program.

Note: Index components come from the National Council on Teacher Quality (2007). Each component is coded as follows: 0=state does not meet goal of the component; 1=state meets small part or partly meets goal; 2=state nearly meets goal; and 3=state meets goal or is a best practice state.

Table 2. Descriptive statistics

Variable	Mean	Std dev	Min	Max
NCLB index	5.36	1.90	1	9
Licensing index	4.62	2.22	1	10
Alternative routes index	3.52	2.32	0	9
Power of teacher board	1.12	0.66	0	2
NEA members per 1000 state residents	10.64	4.88	1.91	21.71
Democratic legislative control (years), 2002-06	1.76	2.17	0	5
Democratic governor (years), 2002-06	2.18	1.92	0	5
Unified Democratic government (years), 2002-06	0.80	1.36	0	5
Percent of 4th graders proficient or better on NAEP math, average for 2003 and 2005	30.79	5.67	18.24	42.04
Percent of 4th graders proficient or better on NAEP reading, average for 2003 and 2005	36.46	7.24	20.12	49.11

Note: N=50 for all variables.

	Mean index and component scores by group				
	No	Advisory	Semi-autonomous or		
Index and components	board	board	autonomous board		
1. No Child Left Behind index	6.00	5.32	5.07		
1.1 Elementary teacher preparation	1.25	1.11	1.00		
1.2 Secondary teacher preparation	0.63	0.86	0.93		
1.3 Veteran teachers path to HQT	1.38	1.75	1.50		
1.4 Standardizing credentials	2.50	1.61	1.71		
2. Teacher licensing index	5.38	4.89	3.64		
2.1 Defining professional knowledge	1.25	1.00	1.00		
2.2 Meaningful licenses	1.88	1.39	0.50		
2.3 Interstate portability	1.75	1.71	1.50		
2.4 Teacher prep in reading instruction	0.50	0.79	0.64		
3. Alternative routes index	3.88	3.64	3.07		
3.1 Genuine alternatives	0.88	1.11	0.93		
3.2 Limiting to strong credentials	1.00	1.04	0.86		
3.3 Program accountability	0.50	0.25	0.50		
3.4 Interstate portability	1.50	1.25	0.79		
Number of states	(8)	(28)	(14)		

Table 3. Relationship between teacher policy power of state teacher board

Note: Index scores can range from 0 to 12. Component scores can range from 0 to 3. Higher scores represent state policies that are closer to meeting policy goals in each area. Cells in bold are consistent with our general prediction that more powerful boards will be associated with lower scores on the NCTQ's components and our overall indices.

	NCLB	Licensing	Alternative
Independent variables	index	index	route index
Power of teacher board	-0.25	-0.87*	-0.31
	(-0.58)	(-1.99)	(-0.68)
NEA members per 1000 state residents	-0.01	-0.19**	-0.23**
	(-0.13)	(-2.82)	(-3.38)
Democratic legislative control (years), 2002-06	0.04	0.50*	0.44*
	(0.21)	(2.55)	(2.19)
Democratic governor (years), 2002-06	0.05	0.01	0.20
	(0.29)	(0.05)	(1.04)
Unified Democratic government (years), 2002-06	0.25	-0.22	-0.23
	(0.73)	(-0.62)	(-0.64)
4th grade math NAEP, 2003 and 2005 average	-0.14	-0.00	-0.19
	(-1.26)	(-0.02)	(-1.60)
4th grade reading NAEP, 2003 and 2005 average	0.20	0.08	0.30*
	(1.44)	(0.52)	(2.00)
Model constant	4.23*	4.63*	2.99
	(2.25)	(2.41)	(1.51)
R-square	0.12	0.33	0.35
Adjusted R-square	-0.03	0.22	0.24
F(7, 42)	0.83	2.94*	3.20**

Table 4. Predicting content of state teacher policy

Note: N=50 for all models. $p\le .05$, $p\le .01$. Cells report unstandardized ordinary least squares regression coefficients and t-statistics in parenthesis. The NAEP variables measure the percent of students proficient or better in each state, averaged for the 2003 and 2005 administrations of the test.