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POLITICAL INFLUENCE OF STATE TEACHERS' UNIONS

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## ABSTRACT

Recent events involving teachers' union strikes across the country have gained the national spotlight and have raised important questions as to the political influence of these groups. Currently, there is little empirical analysis concerning the level of influence they possess or on the factors that contribute to this influence. There is even less empirical evidence concerning state governments. Most education policies are put in place at this level of government, which is also where there exists a very high level of unionization. This combination provides potential for teachers' unions to hold high levels of political influence. In answer to the question of why variation influence among states exists, I propose that state situational factors affect the level of political power, including the political and legal environments, state wealth, urbanization level, and region of the country. Each state situational factor is tested for association with a measure of influence accounting for state government alignment with teacher union goals in the areas of compensation and education funding, the frequency with which education bills are proposed, and the level of teachers' union political involvement. Through regression analysis, the socioeconomic variables seemed most influential, though not necessarily in the expected manner.

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## **Introduction: Political Power of Teachers' Unions**

Within the past five years, incidents across the country involving teachers' unions have gained the national spotlight. The recent worries about budget planning nationwide have often run into conflict with teachers' unions at each of the different levels of government. In particular, these conflicts are often in reaction to state policies, and the levels of uproar and success have varied greatly amongst the states. Every state within the U.S. has multiple active teachers' unions operating at the various levels of government, with at least one statewide association. These special interest groups seek to promote their interests and those of their members, especially in the state legislature. As such, success and failure are closely tied to the political power held by these public sector teachers' unions. This paper seeks to answer the question of why these unions in some states are more powerful than those in others.

Union power can be seen in many different ways – it can take the form of influencing a lawmaker's decision, passing a bill through a legislature, bringing issues to the agenda, or even preventing a bill or proposal from passing. Each of these is an exercise of power. Unions often use various methods in order to effect a desired change, including lobbying, striking, protesting, or other forms of political activism. These methods can be seen nationally, especially with respect to teachers' unions. In 2011, Wisconsin Governor Scott Walker sought to pass a budget reform bill, which was seen as an effort to limit teachers' unions, that sparked strikes and protests across the state (Davey and Greenhouse 2011). This incident gained and maintained national attention for months following Governor Walker's proposal. Such protests have not

been confined to the state governments. Within the past year, teachers' unions in New Jersey also came head-to-head with budgeting problems. Specifically, in Newark, district plans involving layoffs met with strong protests by the local unions – protests that were soon joined by national leaders as they garnered attention from the national media (McGlone 2014). Clearly, teacher union activism has repercussions at the different levels of government.

Budget problems, including teacher layoffs, contract renegotiations, and salary discussions are not the only areas in which teachers' unions are involved. Though these are clearly important issues, union interests and activism extend to other education and policy matters. Teachers' unions have made other locally and nationally visible efforts in areas such as general education funding, school privatization, and testing issues. The main focus of these groups is education; however, some teachers' unions have occasionally strayed into largely unrelated territories. For example, in August 2014, the United Federation of Teachers came out in support of a protest led by Al Sharpton concerning police brutality (Stewart 2014; Berry 2014). This controversial move, which sparked dissention even within union ranks, brings up the question of the level of sway teachers' unions have in the political realm.

These protests, strikes, rallies, and other forms of political activism within the educational and the non-educational realms beg the question of influence. Are these groups spinning their wheels and getting nowhere, or do they have influence, even extending outside of their main policy area? In answer to this question, researchers and legislators have traditionally identified teachers' unions as one of the most active and powerful special interest groups within state politics (Hartney and Flavin 2011, p. 2). While some of the aforementioned protests have occurred at local levels, the largest have taken place at the state level of government. Most education policies are put into effect at this level of government, which is also where there exist

higher levels of public sector unionization (Moe 2006, p.5). Despite the importance and prevalence of these protests, there is very little information about teachers' unions, particularly in relation to state governments. The scope of the unions at this level of government creates a great deal of potential for political influence, which makes the lack of literature a conspicuous gap in knowledge.

Determining that political power exists is only a start to understanding the influence. The political endeavors in each state have led to different results. In New York, for example, teachers' unions tend to be highly influential, appearing in many political spheres of power and sway. Large educational budgets, political leaders within their ranks, and high union membership levels have lent power to the various endeavors and methods of these groups – including strikes, protests, campaigning, and lobbying. However, in other states, such as Louisiana, unions have relatively little power and are rarely successful in pushing for their own political interests or agendas. The success and failure of these interest groups highlight a missing piece of the puzzle – the reasons for the variation in political influence amongst the states. Little research has been done in this area with regards to teachers' unions. Because these public sector unions are visible and influential in state government, this lack of literature is a distinct gap in knowledge. As such, the factors that help determine their levels of power are important both socially and politically.

In this paper, I will conduct an analysis of several state-situational explanations for political influence of teachers' unions at the state level of government. Within the first section, I will outline a few competing theories concerning variation in the political influence of teachers' unions. In the following section, five hypotheses will be outlined to present a broad spectrum of potentially influential state environment characteristics: political environment, legal situation, economic success, social characteristics, and geographic regions. Finally, in the conclusion, I

will discuss the statistically significant and insignificant variables and the implications of the results, especially for future research.

### **Literature Review:**

#### **Teachers' Union Influence**

Interest group influence, particularly that of teachers' unions, is an important topic. For many years, the influence of interest groups has been, and still is, a topic of much debate with respect to existence and measurement. Lobbying for public and bill support are just a few areas that have been researched for reflections of influence. Amongst all of the research efforts, however, teachers' unions have typically been overlooked, with very little research into the political power that they wield. There are some studies that look into the nature of teacher union influence; however, the topics in question are often very limited in scope. In this section, I will discuss the difficulty in quantifying political influence, especially in the case of teachers' unions, the literature concerning teacher union influence, and the lack of research concerning external characteristics of the state that might account for variation in union influence.

Ultimately, interest group influence is a difficult concept to quantify. One of the key topics in this field is the effect of lobbying on policymaking; however, this line of study has met with numerous complications. These problems similarly extend into the larger realm of interest group influence. The studies of particular events for influence have also met with confusing and often conflicting results (Lowery 2013, p.2). Much of the difficulty lies in determining and defining influence. Many confounding factors have produced conflicting and often null conclusions on the presence of political power when studied. The difficulty of isolating an

influential action, the multitude of potential influences, and the number of issues fighting for attention all serve to obscure individual influences (Lowery 2013, p. 9-18). To demonstrate the convoluted nature of this field, Baumgartner and Leech state that “the unavoidable conclusion is the PACs and direct lobbying sometimes strongly influence Congressional voting, sometimes have marginal influence and sometimes fail to exert influence (1998, p.134).”

Extending this purposefully vague conclusion to the wider field of political influence, it is clear that power is highly variable amongst interest groups, policy areas, and states. Despite this difficulty of identifying influence, various studies have established that teachers’ unions are often influential. Hartney and Flavin (2011, p. 2) cite that observers typically name teachers’ unions as one of the most influential players in state government activity. Furthermore, in a study of state legislators, state teachers’ unions were named as the most active lobbyists (Moe 2006). Considering the consensus of influence and activity, and that the majority of education policies are enacted at the state level of government, there is a distinct need to look into the disparity between the importance and the lack of knowledge.

Measuring the influence of teachers’ unions has met with several competing ideas on appropriate methods. The main point of contention is the idea of internal versus external measures. Specifically, internally organized influence includes ideas such as the level of resources, while external power focuses on the effect of the union in the political realm. Certain studies, including Hartney and Flavin’s study (2011), decry the use of internal characteristics, claiming that the distinction between internally organized and external power is important (p. 4). Other studies, such as those by Winkler, Scull, and Zeehandelaar (2012) and Lott and Kenny (2013) disagree with the necessity to make such a distinction. Instead, they incorporate a mixture of the two methods. Specifically, the Winkler, Scull, and Zeehandelaar study creates an index

composed of approximately 35 characteristics – including everything from monetary resources to the involvement of members in politics and state policy measures (p. 9). While the thorough nature of this measure creates an in-depth picture, it incorporates factors that I argue influence the level of power rather than strictly reflecting it. This includes factors measuring the state’s legal environment. For example, a union’s right to strike may limit the union’s power, but is not likely to be an effect of the power. Taking a different approach on measuring political power, Hartney and Flavin’s study focuses on the external effects by incorporating state policies on public sector unions with respect to collective bargaining, the density of public sector union members, and membership in the National Education Association (p.4). This measure simply captures the level of teacher union political activism and fails to account for political success. For example, in their four-part index, the authors account for the favorability of state collective bargaining laws (p.4). This is a measure that I plan to incorporate. However, I argue that this particular measure is a factor that influences the political power of a public sector union rather than a measure of it. This simply demonstrates whether or not the state is open to public sector unions, not necessarily that the unions are effective. Just because a public sector union has the ability to bargain collectively, it does not mean that the union carries political clout. Ultimately, I plan to incorporate external and internal characteristics in my measure of political influence.

Regardless of the particular measurement method utilized, teachers’ unions have exhibited at least some level of influence. This established influence exists to varying extents within the different states (Winkler, Scull, and Zeehandelaar 2012). For example, in New York, teachers’ unions are widely regarded as highly influential, with one of the highest state educational budgets and many policies that align closely with the unions’ goals (Winkler, Scull, and Zeehandelaar, 2012, p.253). In contrast, Mississippi teachers’ unions are considered much

weaker than those in New York and those in other states, as they are considered to be ineffective at influencing state policy. Education leaders in this state do not often see eye-to-eye with teacher union interests (Winkler, Scull, and Zeehandelaar, 2012, p.206). Despite the large variation across states, few seek to understand why these differences exist.

The few studies that look into teacher union power at this level of government have not looked in-depth at what factors might affect this power. The number of explored variables is severely limited, and, to my knowledge, do not consider the state situational factors presented within this thesis. Winkler, Scull, and Zeehandelaar's study (2012) simply seeks to rank states by the political power of the teachers' unions within their borders and is not concerned with what influences these differing levels. Merely creating a ranking system, as done in this study, does not even attempt to illuminate the root of the power. Hartney and Flavin's study (2011) does consider influential factors, though it limits tested factors simply to the level of teacher union activism. In this case, teachers' unions are found to be influential in state education reform discussions, as well as in preventing unfavorable policies from being passed (p. 259). This limited scope of independently influential factors only discusses internal-type determinants. That is, this study looks inside of the unions for the source of influence, and did not look into the role of external, state characteristics. The majority of similar studies related to influence strictly consider municipal and district governmental levels, as opposed to state government. Studies, such as those by Lovenheim (2007), Moe (2006), and Strunk and Grissom (2010), look into teacher union political power in relation to educational resource dispersion, local politics, and individual district policies, but not the factors that contribute to this power.

Given the minimal base of literature relevant to state-level teacher union influence, a broad range of factors need to be considered to serve as a starting point for further study. One

particular factor that could have an effect on the political power is derived from studies on a similar topic. William Moore (1978) identifies a few variables that contribute to the growth of teachers' unions from 1919-1970. While this topic is not specifically related to the *influence* of teachers' unions, the factors Moore finds to be related to growth could additionally be related to their strength. Specifically, he mentions an association at the national level between union bargaining and urbanization (Moore 1978, p.213). This factor could be an influential element of political strength at the state level of government. More broadly, such an association could be indicative of potential social environment influence on political power.

Social factors are not the only potentially influential elements. Economics may also be influential. Specifically within this category, Daniel C. Lewis's 2005 study considers external state conditions, such as economic factors, competing with interest group influence in determining policy at the state government level (p.15). Following such a research design, he found that education groups are often influential at the state level of government (p.23). Though he discussed these economic factors and interest group influence separately, it is very possible that there could be a link between the two. That is, economic factors, such as GDP per capita and unemployment rates, could affect interest group goals and the vigor with which the interest groups pursue their goals. Also in Lewis's study, the definition of education groups includes more than just teachers' unions, encompassing groups that oppose teachers' unions (p.18). Because of the often-conflicting goals of the interest groups within this category, conclusions about the level of influence education groups have on policymaking need to be further examined to determine the specific relationship regarding teachers' unions.

The union friendliness of a state is also a potentially important characteristic. Legal restrictions upon public sector unions can contribute to a general atmosphere either encouraging

or stifling the growth and power of such organizations. In this respect, there is a great deal of variation amongst the states. For example, certain laws, such as the Right-to-Work laws, which have had the effect of weakening unions within state borders, are present in some states and absent in others (Vermont Legislative Research Shop). Laws of this type, and those concerning other pillars of unionism, were used in Hartney and Flavin's study (2011, p.254) in an effort designed to capture union activism. In this particular case, teacher union activism was found to be effective in influencing state education reform (p.259). This idea of union friendliness is often utilized when researching the strength or scope of unions (Winkler, Scull, and Zeehandelaar 2012). The size of a union can have a bearing on its power, though there is a great deal of disagreement concerning its role. Additionally, it is also frequently used in a broader sense to determine a state's openness towards organizations such as these.

A rather obvious potentially influential factor of political power is the political environment. State politics and constituent wishes are fundamentally tied into interest group strength. Further considering Lewis' previously mentioned study, public opinion and educational interest groups were both found to be influential in policymaking (2005, p.21). However, these two factors were never explored for a direct relationship in this study. Instead, both were only tested for their impact on state government policymaking. Public political opinions concerning education could be strongly related to whether an interest group is effective, which makes this gap a necessary area to explore before drawing any such conclusions.

External explanations for teachers' unions' influence, including political, social, and economic factors, have been overlooked in the effort to determine their impact on political power. In fact, there is little information about general teacher union influence amidst the multitude of research concerning interest group influence. Between the debates over appropriate

measurement and specification methods with respect to teachers' unions (e.g., internal versus external power) and the larger category of interest groups in general (e.g., lobbying spending, bill proposals, opinion swaying), the most clear-cut conclusions are on the difficulty and tangled nature of this task and the need for further exploration.

## **Theory:**

### **Hypotheses and Model**

#### **Political**

The political environment of a state is likely to affect the level of power a teachers' union holds because of the current and historical associations between the parties and organized labor. Specifically, if Democrats politically dominate a state in comparison to Republicans, teachers' unions will have higher levels of influence. Democrats have been historically considered to be more favorable towards union interests, while Republicans are often seen as anti-union and in opposition to labor (Dark 1999, p.191). Therefore, a state that is controlled by Democrats should be more responsive to unions' issues and recommendations, meaning the teachers' unions would exert more influence on Democrat-controlled state government education policies than in more Republican-dominated states.

In contrast, it is possible that teachers' unions in states controlled by Democrats, who are considered more pro-union, would not find it necessary to be as powerful. If the majority of the government and the people of the state are already on the same ideological side as the union, then there is little reason for teachers unions to be more active or to exercise a great deal of influence. Being too aggressive and influential in a Democrat-dominated state could even cause push back against the union, ultimately weakening it and its ability to achieve goals.

## Socioeconomic

In terms of the effect of state income on teachers' union influence, my hypothesis is that the wealthier a state is should be associated with a greater capacity to spend money on education. This means that it is probable that teachers within these states are also more highly paid and are better able to support the teachers' unions. Teachers' unions benefit by having more resources at their disposal and a greater capacity to influence state government politics through contributions. Along the same lines, it is also possible that a state with lower income would have less funding for education, and thus, less money to pay teachers. Perhaps with reduced resources, teachers' unions would be less powerful. In contrast, teachers in less wealthy states may have more of an incentive to join and support their union in order to improve their own personal economic condition. On the other end of this scale, a state with higher income could result in a more apathetic attitude amongst teachers. If teachers do not see a problem with the way a state is run in terms of education, then it is possible that they will be unlikely to avidly pursue different policies.

The hypothesis behind urbanization influencing the power of teachers' unions within a state is based on the idea that highly urbanized areas are associated with more liberal leanings than more rural areas (Gimpel and Karnes 2006, p.471). This ideology better aligns with union interests than conservative ideological positions, so a more highly urbanized and liberal state would be more likely to support teachers' unions. More support would likely mean more influence on the state government. Further in support of this argument, teachers' unions within urban areas, typically the AFT, have traditionally been considered more militant than other teachers' unions (Berkman and Plutzer 2005, p.113). This militancy implies a more aggressive activism within the political realm and likely more power because of it. Conversely, there are

two other possibilities. A more urbanized state could have other, more pressing issues than those that teachers' unions put forth. If education issues are not as prevalent when compared to other problems, for example, crime rates, then teachers' unions would not be as likely to have a large amount of political power. Another possible explanation for urbanization not increasing union power could be that, in such a largely liberal area, there is little to concern teachers' unions: perhaps typical teachers' unions demands are already being met, and there is little room for the union to be more active. If there is no policy disagreement, many may see unions as unnecessary and not support them or their goals.

### **Regional**

Historically, the different regions of the U.S. have had different cultures and attitudes. For example, Southern states have had a distinct social and political culture for many years when compared to other parts of the country (Hayes and McKee 2008, p.7). This regional gap can be traced back to the founding of each of the different areas. Starting from the Revolutionary War, Northern and Southern states have been at ideological odds. This trend has continued, though changed, throughout the years, and encompasses other regions of the country such as the Midwest and the West. Individual regional identities affect how citizens of various areas view themselves and others outside of their specific region (Ayers 1995). It is not a stretch, therefore, to think that these trends have an influence on the political social climates within which teachers' unions operate. These regional attitudes could be reflected in the influence of certain interest groups. With such support from constituents, elected officials will likely reflect any cultural

opinions towards unions. Officials who want to please their constituents may attempt to prevent excessive political influence of teachers' unions or perhaps throw support behind these groups.

In contrast, it's also possible that these differences have only a minor impact and that any effects are overshadowed by other, more prevalent reasons. Regional differences encompass many different aspects, from language and food preferences to social norms and political opinions (Ayers 1995). Because of the breadth of this impact, it is possible that any effect of regionalism is masked by other variables examined within this study. For example, the more direct political or legal environment of a state could overshadow any regional influences.

### **Legal**

The legal environment could influence the power of teachers' unions by creating an environment that is or is not union friendly. States with laws that limit the scope and power of teachers' unions would be less likely to have strong teachers' unions, as the state is not friendly towards these interest groups. If the government is not friendly to the teachers' unions, it is likely a reflection of the views of the majority of the constituents or of historical attitudes against them. The level of friendliness a state shows towards unions varies greatly amongst states. Many laws have the effect of weakening or bolstering union power within a state (Vermont Legislative Research Service). More legal restrictiveness would then have the effect of weakening unions overall, including teachers' unions.

Conversely, it is possible that the relationship is reversed. A state government attempting to limit the power of the unions could be in response to perceived abuse of political power by a

very strong teachers union. In other words, more legal restrictiveness could be associated with higher levels of influence.

### **Control**

Because of the different manners in which schools are funded in various states, the model needs to control for local education spending. In certain states, funding has largely been delegated to local districts and governments, while others prefer to have a majority of school funding originate from the state government. Especially in the first case, omitting local education spending may lead to a misleading picture about political power. Therefore, it is necessary to include this variable in the analysis.

### **Model**

The proposed model of the influence of teachers' unions within states can be represented as the following:

$$\text{Power} = \alpha + \beta_1(\text{Envir}_P) + \beta_2(\text{Wealth}) + \beta_3(\text{Urban}) - \beta_4(\text{Envir}_L) - \beta_5(\text{S}) + \beta_6(\text{NE}) + \beta_7(\text{W}) - \beta_8(\text{MW}) + \varepsilon$$

where Power indicates the level of political power of teachers' unions upon state government policymaking,  $\text{Envir}_P$  represents the political environment within each state in terms of party associations, Wealth is a measure of state wealth, Urban represents the portion of the population that lives in city/urban areas,  $\text{Envir}_L$  is the restrictiveness of the legal environment within a state, and NE, S, MW, and W represent various regions (Northeast, South, Midwest, and West, respectively). I would expect the coefficients of  $\text{Envir}_L$ , S, and MW to be negative,

reflecting the inverse relationships between power and these three variables. All of the other variable coefficients are hypothesized to be positive, indicating a direct, positive relationship between each of these variables and the political power.

## **Model:**

### **Testing the Model**

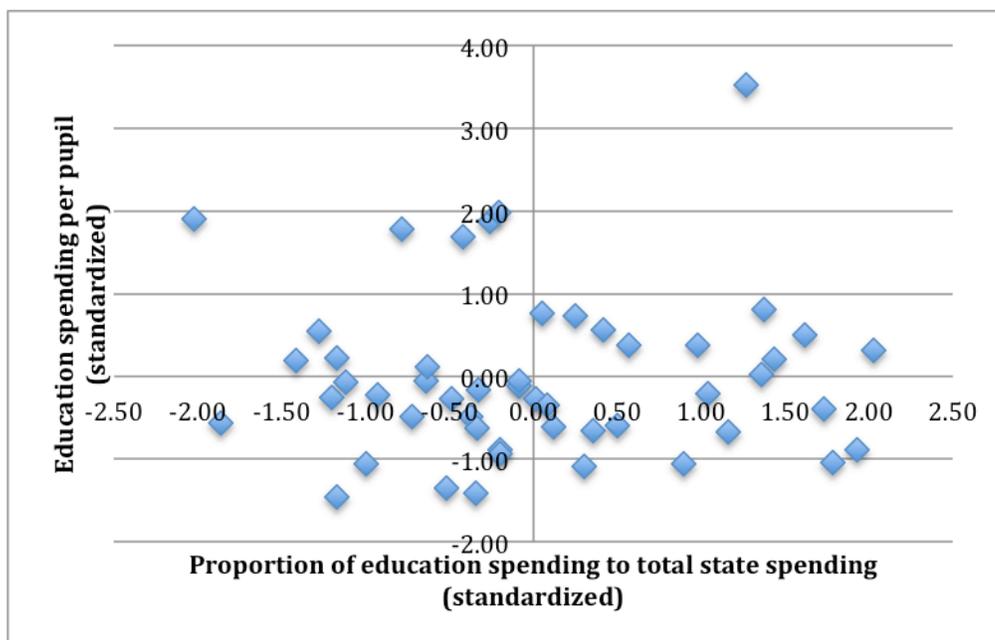
#### **Data and Operationalization**

The dependent variable in this study is Power, which represents the political power of teachers' unions at the state level of government. In order to measure this concept, I created an index composed of four parts: state government alignment with union goals on education funding and compensation, the frequency with which bills are proposed that are similar to the goals of the state teachers' unions, and the amount of political campaign contributions made by teachers' unions.

For position alignment on education funding, I use both the proportion of state education funding to overall government spending and the education spending per student (US Census Bureau Factfinder, National Center for Education Statistics), as mentioned in Table 1. As shown in Figure 1, these two measures of education spending are not strongly correlated. As there is no relationship, it is necessary to incorporate both measures to fully capture the level of spending. These two dimensions will allow for a more thorough representation of state education funding on a continuous level. Compensation will also be considered as a proportion. This proportion is the ratio of average teacher salary to the overall mean salary within the state. Though average teacher salary includes non-union teachers, this measure is reasonable, and a difference in pay is likely to be considered negligible. A union effect of compensation would have repercussions for all teachers across a given state – not only those belonging to unions.

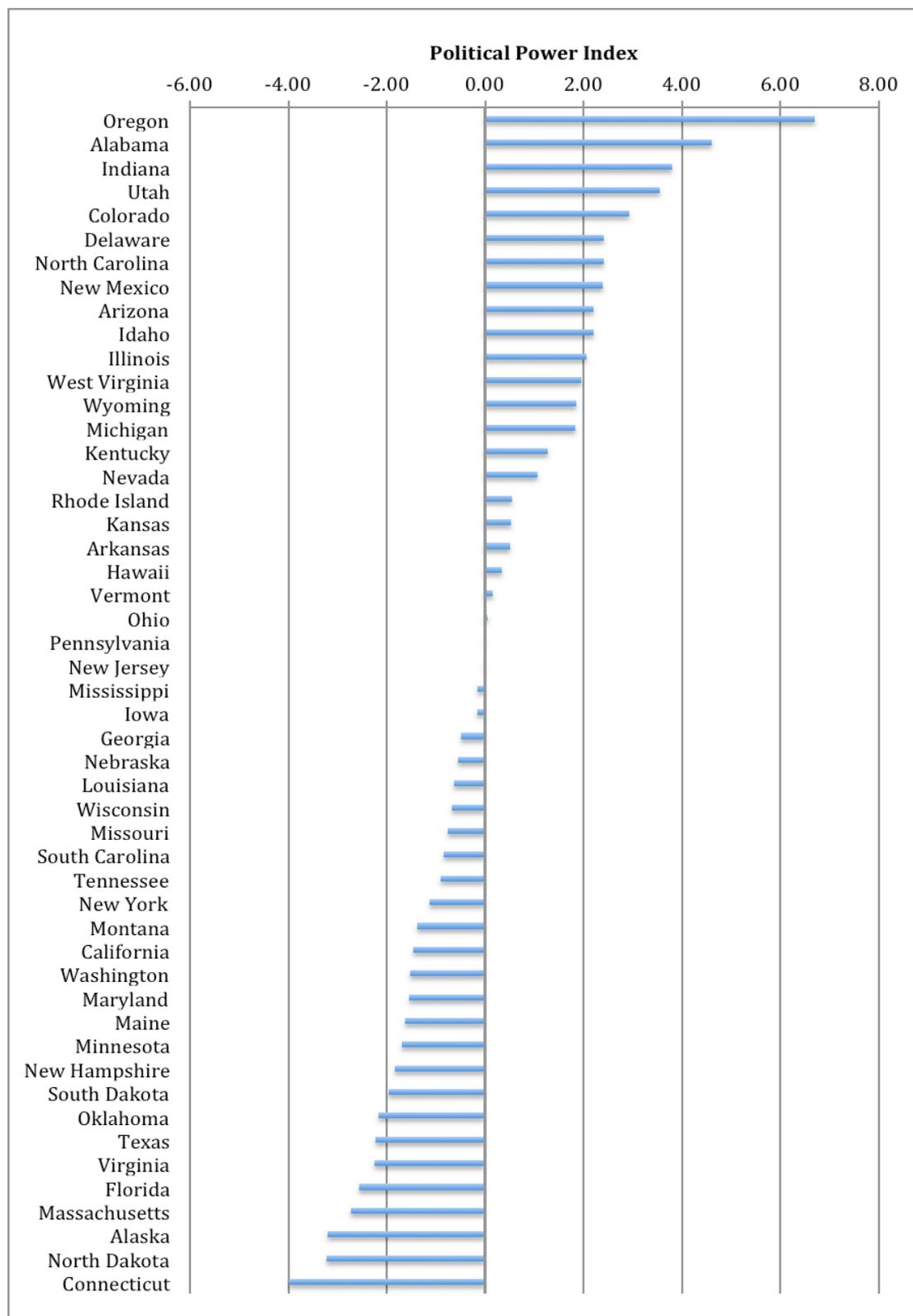
**Table 1. Definition, Operationalizations, and Data Sources**

Variable	Definition	Operationalization	Sources
Power	Political influence on state government policymaking	<ol style="list-style-type: none"> <li>1. Alignment with union positions on (a) compensation and (b) education spending</li> <li>2. Proportion of proposed education bills out of total legislature bills</li> <li>3. Proportion of political campaign contributions made by teachers' unions</li> </ol>	<ol style="list-style-type: none"> <li>1. (a) Bureau of Business &amp; Economic Research (b) U.S. Census Bureau, 2012</li> <li>2. Lexis Nexis State Government</li> <li>3. National Institute on Money in State Politics</li> </ol>
Envir <sub>p</sub>	Democrat/Republican party associations within the state	<ol style="list-style-type: none"> <li>1. Political party of governorship</li> <li>2. Democrat advantage within state legislature</li> <li>3. Democrat advantage within population</li> <li>4. Liberal advantage within population</li> </ol>	<ol style="list-style-type: none"> <li>1. National Governors Association</li> <li>2. 2012 Gallup State of States</li> <li>3. 2012 Gallup State of States</li> <li>4. 2012 Gallup State of States</li> </ol>
Wealth	Level of prosperity within a state	GDP per capita	Bureau of Economic Analysis
Urban	Degree to which state citizens live in cities	Percentage of population in urban areas within a state	2010 U.S. Census Bureau
Envir <sub>L</sub>	Restrictiveness of a states policies with respect to public sector unions	<ol style="list-style-type: none"> <li>1. Presence of RTW laws</li> <li>2. Collective bargaining laws</li> <li>3. Right to strike laws</li> <li>4. Union membership</li> </ol>	<ol style="list-style-type: none"> <li>1. National Right to Work Committee</li> <li>2. National Council on Teacher Quality</li> <li>3. National Council on Teacher Quality</li> <li>4. Bureau of Labor Statistics</li> </ol>
Region	US Geographic regions	South Northeast Midwest West	National Geographic classifications
Local	Local education spending	Proportion of local education spending to overall state spending	USGovernmentSpending.com



**Figure 1. Standardized Values of Education Spending Measures by State (2012)**

For the next part of the political power index, the frequency of education-related bills, I totaled the number of bills introduced in a particular state legislature regarding education in one year. These data were used to create a percentage of the total number of bills introduced in that legislature over the same year. Relevant bills were identified using keyword procedures to identify the proposed bills in 2012 that were largely based around public or private elementary and secondary schools, as well as those related to the functioning of such institutions (e.g. school board procedures and teacher requirements). Finally, the fourth category of the index gauging the political power of teachers' unions is the amount of campaign contributions by teachers' unions within a given state, as described in Table 1. This category is quantified as a percentage of total campaign contributions within the state in order to control for state size. Ultimately, this measure represents the state's teachers' union political activism. While the other factors of the index measure effects of power, this particular factor reflects the unions' actual involvement in state politics.



**Figure 2. Political Power Index Value for Each State**

Each of the above measures were standardized and totaled to create the index. The various values of the ratings can be seen in Figure 2. The states are ordered from the greatest level of state political power to the least level of state political power. Thus, according to this measure, the first state listed, Oregon, has the most powerful teachers' unions at the state level of government. Conversely, Connecticut has the lowest index value, implying that its state-level teachers' unions are the least influential amongst the 50 states.

The first of the state-situational factors (listed in Table 1), political environment,  $Envir_P$ , is the political party breakdown within the given state. Specifically, this variable will be operationalized with four measures: one each for the executive and legislative branches and two for the voting population. For the executive branch, the measure is a simple binary variable: Democrat or Republican. According to the National Governors Association, which is the source for the political affiliations of each state's governor, nearly all of the U.S. governors in 2012 were either Democrat or Republican. The only exception is the Rhode Island's governor, who was an Independent. However, because the governor changed party affiliation from Independent to Democrat within a few years of his initial election, his political affiliation was considered to be Democrat for the purposes of this study. The political party affiliations of the legislative branch will be measured by the percentage of Democrat advantage over Republican representatives, which was gathered via National Conference of State Legislatures. In order to code Nebraska's legislature, I assumed the advantage of Democrat to Republican Senate and House representatives at the federal level would be comparable to that at the state level of government. The political parties of the constituents will, again, be the advantage of Democrat to Republican Party affiliates. As an additional measure, the political ideology of a state's electorate will be accounted as the liberal advantage over conservatism. The data for all

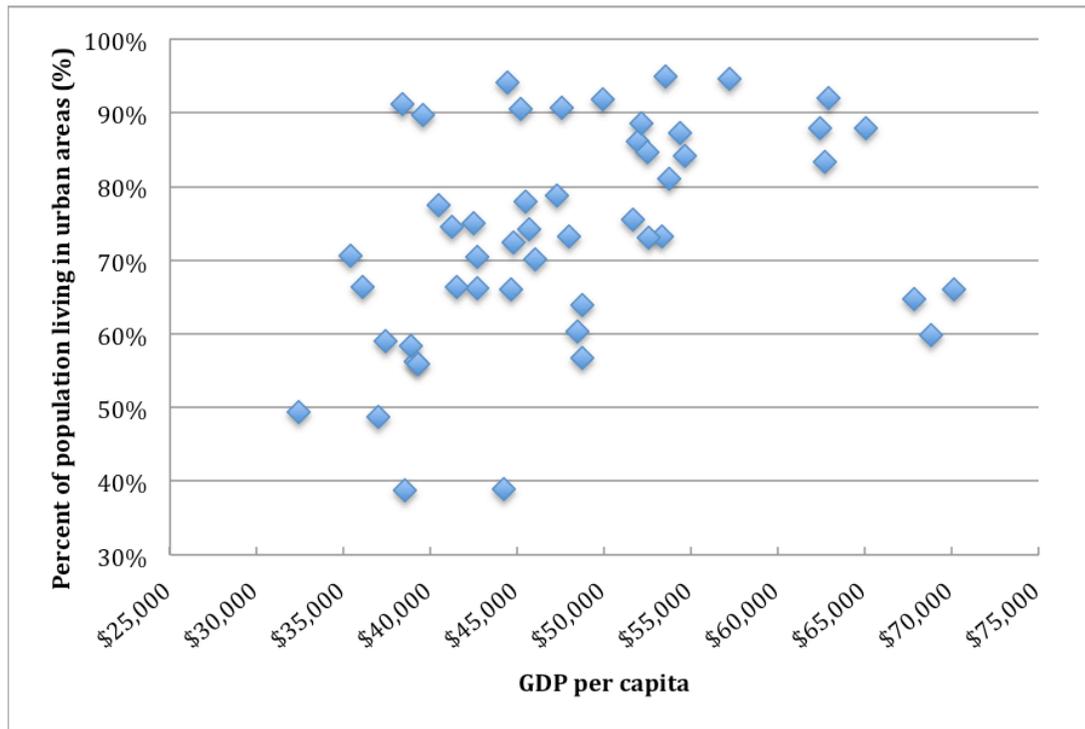
measures related to the constituency will be gathered from Gallup's State of States publication.

Unlike many of the other variables tested within this paper, the political variables are highly volatile over time. Therefore, in order to appropriately capture the relationship between education spending (part of the dependent variable) and political party dominance within a state, these measures will be from the year 2012, which is the same timeframe as the education spending data.

The level of urbanization, represented by the variable *Urban*, is operationalized as the percentage of citizens within a state living in urban areas. This information is gathered from the U.S. Census Bureau (2010). The next variable, *Wealth*, which represents state wealth, is operationalized by GDP per capita. The information for this variable was found on the Bureau of Economic Analysis website. Neither of these variables is likely to exhibit much change from year to year, meaning that slightly older data, such as the 2010 Census data, are acceptable measures. There is often thought to be a relationship between urban areas and wealth – cities tend to be wealthier than rural areas. If a strong relationship such as this were to exist, it may not be appropriate to include both of these variables in the analysis. As shown in Figure 3 below, these two variables demonstrate only a weak correlation, however. Thus, it is appropriate to include both variables to analyze their associations with the dependent variable.

The overall union friendliness of states, represented by *Envir<sub>L</sub>*, will be operationalized as an index defined by the presence of three major laws and the level of union presence within the state. First, Right to Work laws will be used as a contributor to union power or a lack thereof. The information indicating the presence of these types of laws comes from the National Right to Work Committee, as listed in Table 1. The second portion of this index is the presence of collective bargaining laws. The third portion will be the presence of laws concerning the right to

strike (National Council on Teacher Quality). Lastly, the proportion of state citizens belonging to unions will allow for a more in-depth and accurate representation of overall union-friendliness.



**Figure 3. Scatterplot of State Wealth and Urban Independent Variables**

The final independent variable, Region, represents the different geographical areas of the country. These areas will be determined by National Geographic classifications and operationalized as the South, Northeast, Midwest, and West. For the purposes of this study, Southwest and Southeast have been combined into one region. There are not enough significant political cultural differences for the purposes of this study to distinguish between them.

Finally, the local education spending control variable will be operationalized as the dollar amount spent by local governments on education in the year 2012. This value will control for state size and spending, as it is included as a ratio of local spending to total state spending in the

same year. These data were collected from USGovernmentSpending.com, which has aggregate data from the Census Bureau and individual state information.

## Results

In order to test the relationship between the independent variables and the political power index, I ran various OLS regression models. Each included the local education spending control and Oregon<sup>1</sup> dummy variables. Many of the models demonstrated a great deal of collinearity, some of which was built into the model, e.g. liberal advantage and Democrat advantage within the population. Similar variables such as these were built into the design of the study in order to test which is a more significant factor in determining the political power of teachers' unions. For example, in the previous example, liberalism and Democrat are both included to determine if ideology plays a more significant role in determining power than political affiliation. Many of the political variables are designed in this manner. However, I discuss this problem below.

Table 2 shows a few of the different models run. Model 1 incorporates all of the variables discussed within the entirety of this study and the additional Oregon dummy variable. The dependent variable is the full political power index discussed in the previous section and Table 1. In this case, few variables are significant in a one-tailed t-test. Urban population and the Oregon dummy variable are the only such variables. However, it is worth noting that GDP per capita is strongly associated with the political power index. It is not listed as significant because the predicted relationship was anticipated to be a positive association – not negative.

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<sup>1</sup> The Oregon dummy variable was created to control for the outlier nature of its political power index value. Oregon's value is at approximately 6.40, while the other states are within the range from -4.21 to 4.55.

**Table 2. OLS Regression Model of Political Power on External State Factors**

Ind. Variable	Model 1	Model 2	Model 3	Model 4
Local Education Spending	-1.54	-1.87 ***	-2.36 ***	0.44
	1.56	0.62	0.42	0.73
	-0.99	-3.02	-5.62	0.60
Right to Work Laws	0.08	0.68	0.03	-0.56
	1.07	0.42	0.29	0.50
	0.07	1.60	0.12	-1.12
Collective Bargaining	0.40	0.56	-0.13	-0.15
	0.59	0.23	0.16	0.28
	0.68	2.41	-0.80	-0.53
Right to Strike	-0.14	0.25	-0.35 **	0.28
	0.77	0.31	0.21	0.36
	-0.18	0.80	-1.72	0.78
Non-Union percent	-0.31	-1.05	-1.00	11.35 **
	10.41	4.14	2.81	4.90
	-0.03	-0.25	-0.36	2.32
GDP per capita	-10.50	-3.32	6.57 ***	-1.29
	4.61	1.83	1.24	2.17
	-2.28	-1.81	5.28	-0.60
Urban Population	4.35 **	1.68 *	-3.08	-0.36
	2.95	1.17	0.80	1.39
	1.47	1.43	-3.87	-0.26
West (Oregon excluded)	-0.26	-0.13	-0.53	0.97 *
	1.53	0.61	0.41	0.72
	-0.17	-0.22	-1.30	1.34
Oregon	6.82 ***	-0.11	-0.90 *	3.51 ***
	2.31	0.92	0.62	1.09
	2.95	-0.12	-1.44	3.22
South	-0.36	-0.13	-0.25	0.30
	1.30	0.52	0.35	0.61
	-0.28	-0.26	-0.70	0.48

Midwest	0.58	0.44	-0.30	0.24
	1.15	0.46	0.31	0.54
	0.50	0.97	-0.90	0.44
Democrat Advantage in Population	-0.06	-0.01	0.02	0.01
	0.09	0.04	0.02	0.04
	-0.65	-0.36	0.63	0.16
Democrat Advantage in Legislature	1.59	-0.91	0.21	0.11
	2.28	0.90	0.61	1.07
	0.70	-1.00	0.34	0.11
Governor Political Party	0.35	0.55 *	-0.01	-0.04
	0.89	0.35	0.24	0.42
	0.40	1.58	-0.05	-0.10
Liberal Advantage in Population	1.10	4.26	-0.55	-0.67
	8.33	3.21	2.25	3.92
	0.13	1.29	-0.24	-0.17
Political Index				
RTW + Non-union percent Index				
Constant	3.60	2.75	2.79	-10.10
R <sup>2</sup>	0.42	0.59	0.80	0.40

One Tailed Test: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01

The values under the coefficients are first standard errors and then values.

**Table 3. OLS Regression Models of Political Power of External State Factors (Continued)**

Ind. Variable	Model 5	Model 6	Model 7	Model 8	Model 9
Local Education	-0.49	0.62 ***	-2.06 *	-2.06	-1.94 *
Spending	0.73	0.74	1.39	1.37	1.27
	-0.66	0.83	-1.49	-1.51	-1.53
Right to Work Laws	-0.06	0.35	0.02		
	0.50	0.51	1.04		
	-0.12	0.69	0.02		
Collective Bargaining	0.32	0.00	0.39	0.40	0.43
	0.28	0.28	0.58	0.56	0.55
	1.16	0.01	0.75	0.71	0.80
Right to Strike	-0.15	-0.21	-0.12	-0.12	-0.10
	0.36	0.37	0.75	0.74	0.70
	-0.42	-0.58	-0.16	-0.17	-0.14
Non-Union percent	-6.72 *	-3.94	0.37		1.96
	4.90	4.95	9.45		7.49
	-1.37	-0.80	0.04		0.26
GDP per capita	-7.27	-3.60	-8.98	-9.01	-8.74
	2.17	2.22	3.66	3.55	3.50
	-3.35	-1.63	-2.45	-2.54	-2.50
Urban Population	3.09 **	2.37 *	3.73 *	3.73 *	3.24 *
	1.39	1.45	2.79	2.75	2.19
	2.22	1.64	1.34	1.36	1.48
West (Oregon excluded)	-0.73	-1.90	0.03	0.02	0.33
	0.72	0.75	1.45	1.38	1.10
	-1.02	-0.25	0.02	0.01	0.29
Oregon	0.94	2.86 ***	6.81 ***	6.80 ***	7.00 ***
	1.09	1.11	2.24	2.20	2.10
	0.86	2.58	3.05	3.09	3.34
South	-0.39	-0.21	-0.47	-0.46	-0.38
	0.61	0.63	1.13	1.12	1.07
	-0.48	-0.33	-0.41	-0.42	-0.36
Midwest	-0.38	0.63	0.39	0.38	0.56

	0.54	0.56	1.08	1.06	0.91
	-0.71	1.14	0.36	0.36	0.62
Democrat	-0.01	-0.05			
Advantage in	0.04	0.04			
Population	-0.32	-1.24			
Democrat	0.01	1.85 **			
Advantage in	1.07	1.08			
Legislature	0.01	1.72			
Governor Political	-0.01	0.14	0.35	0.36	0.20
Party	0.42	0.41	0.85	0.81	0.62
	-0.01	0.34	0.42	0.44	0.33
Liberal Advantage	-0.29	0.05			
in Population	3.92	3.95			
	-0.07	0.01			
Political Index			-0.07	-0.07	
			0.22	0.21	
			-0.31	-0.35	
RTW + Non-union				0.04	
percent Index				0.94	
				0.04	
Constant	8.01	2.91	2.95	3.39	1.56
R <sup>2</sup>	0.43	0.40	0.41	0.41	0.41

One Tailed Test: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01

The values under the coefficients are first standard errors and then values.

Because of the large differences between the factors of the political power index, it is possible that the different portions of the index do not work well together (Appendix B). Therefore, it is important to analyze each part separately. These analyses are denoted Models 2, 3, 4, 5, and 6, which represent, respectively, education spending as a percent of total spending, education spending per pupil, the proportion of education bills, teachers' compensation, and

campaign spending by teachers' unions. Each of the models highlights different variables as significant – though, it appears that urban population is consistently important for most of the individual factors. Again, GDP per capita is a variable worthy of note for its relationship to each of the factors of the dependent variable. Only once is it significant in a one-tailed test in a manner in line with the original hypothesis. In this case, it is very highly significant. However, in each of the other measures, GDP per capita is strongly related, though not marked as significant because of the negatively signed coefficient.

Because of collinearity, some of which is inherent in the model design, I first combined the Democrat advantage in the population and legislature and liberal advantage in the population into a political index. The first model incorporating this index, Model 7, shows significant values only for local spending and the Oregon dummy. Furthermore, while creating the index did reduce auxiliary  $R^2$  values slightly, the political index still carried an  $R^2 = 0.81$  (Appendix A), indicating that there was still quite an effect of collinearity. Furthermore, the auxiliary  $R^2$  values cast suspicion on the Right to Work and Non-union Percent variables.

Model 8 further attempts to correct for this continuing high collinearity by creating an index for the presence of right to work laws and the percentage of non-unionized workers in the state. The results of this model are very similar to those of Model 7, with the additional significance of urban population on political power. Ultimately, there is little advantage to this model.

Because of such persistently high auxiliary  $R^2$  values and theoretical overlap, Model 9 reflects the removal of the variables within the political index and of the Right to Work dummy variable. In this model, the control, local education spending, urban population percentage, and Oregon dummy variables are significant at least at the 0.10 level. Local education spending and

urban population percentage were signed negative and positive, respectively, which were the expected results. A large portion of the variation within this model is accounted for by GDP per capita, however, in a manner opposite of the expected<sup>2</sup>. The negative coefficient indicates an inverse relationship between teachers' union power and the GDP per capita.

Other models were run to adjust for the theoretical overlap between the groups of variables (e.g. political, regional, and legal), such as that of the South and the presence of Right to Work laws. However, these resulted in minimal changes. I tested the relationship between the political variables and GDP per capita, because of their insignificance and unexpected behavior, respectively, by analyzing the OLS model without GDP per capita. These models did not result in large differences regarding significance. However, they accounted for much less of the political power index's variation.

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<sup>2</sup> Other models were run to further test GDP per capita. A nonlinear relationship was considered but rejected after examination due to large insignificance within various models.

## **Conclusion:**

### **Factors that Influence Teachers' Unions Power**

The influence of special interest groups can have far-reaching effects at any level of government, particularly at the state level. This influence can be seen in many different ways – from the laws in place and the bills killed before reaching the legislature to the media attention and fiscal power. In this study, political power is measured by position alignment concerning compensation and education spending, the proportion of education bills proposed in the state legislature in a given year, and political involvement in terms of campaign contributions. In order to test if state situational factors are significant in determining the political power of teachers' unions at the state level, I ran linear regression models of various factors in relation to the political power index. The various factors, which account for the political environment, union-friendliness, geographic region, social characteristics, and economic factors of each state, proved to be sparsely significant.

When controlling for the role of local teachers' unions, the percentage of a state's urban population and GDP per capita seem to be consistent predictors across the various models. These socioeconomic variables are more consistently significant than any of the other categories of state situational factors. Across most of the models, the urban population independent variable shows a positive relationship with the measures of political power index, indicating that as the level of urbanization increases within a state, the level of political power of teachers' unions also seems to increase. Conversely, GDP per capita tends to be negatively, but very significantly, correlated

with political power. This relationship holds true even when removing various sources of collinearity.

While urban population and GDP per capita are the only consistently significant variables with respect to this measure, the other variables are significant by their lack of significance. Surprisingly, the political variables are rarely significant, likely because of overlap between socioeconomic factors and political affiliations. Furthermore, the union-friendliness of a state seems to either be accounted for by other factors or simply generally insignificant in predicting power.

Because of the level of influence teachers' unions exercise in state government, it is important to know what factors influence this power. Teachers' unions are purported to be one of the most influential special interest groups active at this level of government, according to Hartney and Flavin (2011, p. 2) and Moe (2006). State legislatures are one of the most important governmental agencies in determining education policies (Moe 2006, p.5). These policies are then influential to each county, borough, and district. Therefore, understanding what factors help determine the level of power of these state teachers' unions is necessary to form a more complete picture of the political power landscape.

New Jersey, New York, and Wisconsin have all had very visible conflicts involving teachers' unions within their borders in the past few years. Based on the political power index used within this study, none of these states are amongst the states with the strongest statewide teachers' unions, indicating on a surface level that tactics such as strikes and invigorated protests may be more suggestive of a lack of power. However, looking more closely, the New York and New Jersey cases are instances where the protests are on a city or local level – not the state level. The government entities that they are appealing to are on a smaller scale – typically a school

district or city level. Thus, these states may have weak state unions, but may have very strong local unions. This possibility can be supported especially when considering New York, where the more militant AFT operates. The 2011 situation in Wisconsin, on the other hand, is a true and highly publicized demonstration of an attempt to exercise influence over the state government policy-making. According to the political power index utilized in this study, Wisconsin teachers' unions are not particularly strong – this state is ranked 30th (out of 50).

The largest limitation of this study revolves around the measure of political power. Despite the theoretical justifications and seemingly encompassing measures, it is possible there is some aspect missing. While the individual parts of the index make sense, the ranking of states do not necessarily align with other measures of teachers' unions' political power. With this line of thinking, one potential improvement could be further examination of the perception of teachers' unions within the states. Another point that could be improved upon could be the education bill proposals category. While proposals of education-related bills are a rough measure, it may be more accurate to specifically look in to bills that are either friendly towards teachers' unions or towards their causes. Another possible reason for discrepancies between this and other political power measures is the scope of the measure in question. Other indices, particularly that of Winkler, Scull, and Zeehandelaar, incorporate some factors more closely related to local level politics – not state level politics. This lack of separation means that other measures could be attributing more influence to unions at the state government level when local districts are truly more influenced by teachers' unions.

Because of the consistent significance of the socioeconomic variables in this model, further research should be done into the effects of these categories of variables. One possible social characteristic that could prove influential is the proportion of older citizens within a state.

Senior citizens are much less likely than younger Americans to be supportive of higher government education spending (Berkman and Plutzer 2005, p. 38). Given that education spending is a pillar of teacher union rhetoric, such a generational gap could also lead to distaste for teachers' unions amongst those in this age group. If the proportion of senior citizens is high enough, therefore, it could influence the level of power that the union can exercise within a state.

A further possibility for expanding research on this subject could be to carry out a similar research design at the local level. Looking into a random sample of school districts, boroughs, or cities may provide a more complete picture the power of teachers' unions. For example, a study conducted in a manner similar to this one may allow for the ability to draw conclusions about the relationship between state and local teachers' unions. If state unions are more powerful, would the local unions also be more likely to be powerful or is there a tradeoff? As local districts have the most individual control over what exactly is taught in schools and the running of the local education program, the influential political players at this governmental level are also important. A further benefit of this type of study would be for comparison purposes. If the aggregate of the political power index calculated for this research and a similar value for local areas and districts was found to be similar to the measures of other studies, it would lend support to the use of this measure. Conversely, this summation could support the possibility of incompleteness within this 4-part political power index. Therefore, looking into the factors that influence the political power of local teachers' unions could be an interesting and important area for further research.

**Appendix A:**  
**Auxiliary R<sup>2</sup> values**

**Table 4. Auxiliary R-Squared Values for Models using Complete Political Power Index**

Dependent Variable Name	Model 1	Model 7	Model 8	Model 9
Local Education Spending	0.54	0.45	0.45	0.36
Right to Work Laws	0.72	0.72		
Collective Bargaining	0.50	0.49	0.48	0.46
Right to Strike	0.37	0.37	0.36	0.31
Non-union Percent	0.75	0.71		0.55
GDP per capita	0.57	0.35	0.32	0.31
Urban Population	0.59	0.55	0.55	0.29
West (Oregon excluded)	0.80	0.79	0.77	0.63
Oregon	0.26	0.25	0.24	0.18
South	0.81	0.76	0.75	0.73
Midwest	0.69	0.66	0.65	0.51
Democrat Advantage in Population	0.95			
Democrat Advantage in Legislature	0.87			
Governor	0.56	0.56	0.53	0.21
Liberal Advantage in Population	0.90			
Political Index		0.81	0.78	
Right to Work + Non-union percent index			0.71	

**Appendix B:**

**Correlations between Political Power Index Factors**

**Table 5. Correlation Matrix of the Political Power Index Factors**

	Education Spending Percent	Education Spending per Pupil	Education bill proportion	Teacher Compensation	Campaign Contributions
Education Spending Percent	1.0000				
Education Spending per Pupil	0.0001	1.0000			
Education bill proportion	0.0175	-0.1172	1.0000		
Teacher Compensation	0.3111	-0.1301	0.1808	1.0000	
Campaign Compensation	0.1291	-0.1565	0.1246	0.2088	1.0000

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- Utilized Stata and SQL to explore and clean data
- Created charts, graphs, and tables to visually represent analyses

Penn State Learning, University Park, PA August 2014 to present  
*Guided Study Group Leader*

- Facilitate learning for Mathematics of Money
- Encourage development of reasoning and problem solving skills
- Lead reviews for large groups of students

*Math Tutor* March 2012 to present

- Assist students, including international and adult learners, in individual and small group settings
- Aid students in time management and study habits

Law Office of Robert P. Grim, Kutztown, PA June 2013 to January 2014  
*Intern*

- Helped draft wills, leases, counterclaims, and other legal documents
- Communicated with clients and lawyers regarding legal matters

**HONORS AND AWARDS**

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Kermit Anderson Memorial Scholarship, 2014-2015 Academic year  
 Thomas R. and Joan G. Dye Scholarship, 2014-2015 Academic year  
 Dean's List Academic Achievement – All semesters

**EXTRACIRRICULAR ACTIVITIES**

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Team Leader, Fresh Start Day of Service, 2012-2014  
 Welcome Crew, Member, Fall 2012-2014  
 Recycling Chair, OPPerations Committee, THON, Fall 2012-2014