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**Does politics affect the public's health?  
An analysis of party effects on state public health capacity**

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Bioterrorism, pandemic influenza, global warming, and obesity are just some of the many problems taxing public health systems in the United States. Federal, state, and local public health agencies are legally responsible for mitigating emerging threats even though many agencies do not have the capacity to even address existing public health issues. In 1988, the Institute of Medicine (IOM) attributed inadequacies within governmental public health systems to the “inappropriate politicization” of public health (Institute of Medicine (U.S.). Committee for the Study of the Future of Public Health. 1988). Almost 20 years later, politics continues to compromise public health. In a 2003 update on the future of public health, the IOM noted, “The governmental public health infrastructure has suffered from political neglect and from the pressure of political agendas and public opinion that frequently override empirical evidence... [which] leave the nation’s health vulnerable” (Institute of Medicine (U.S.). Committee on Assuring the Health of the Public in the 21st Century. 2003). Even though practitioners readily observe the politicization of public health, empirical research has yet to investigate how and to what extent politics affects public health capacity.

In examining public health capacity, I analyze the relationship between partisanship and public health expenditures in U.S. states. In addition to a partisan hypothesis that suggests that Democratic-controlled states support public health more than Republican states, I also test two alternative hypotheses. The economic hypothesis argues that states with better economic conditions will have greater public health capacity while the ideology hypothesis contends that more liberal states will have greater support

for public health than conservative states. The results from a time series analysis of state per capita public health expenditures between fiscal years 1997 and 2003 support the partisan and economic hypotheses. In addition, the study finds that gubernatorial power and the proportion of specific minority groups also affect state public health spending.

### **Understanding the Broad Definition of Public Health**

Most public health policies are universalistic and require government agencies to address the public health needs of entire populations. Public health is defined as “what we as a society do collectively to assure the conditions in which people can be healthy” (Institute of Medicine (U.S.). Committee for the Study of the Future of Public Health. 1988). Public health differs from medicine or healthcare in that it does not solely focus on the health of individuals; rather it focuses on the health of *populations*. Public health is therefore not limited to the provision of health services or health insurance. It also includes more global issues such as mitigating environmental health threats and addressing conditions related to poverty, race, and class. Yet public health does not only serve the disadvantaged and poor. Public health services such as restaurant inspections, water quality maintenance, school immunizations, bioterrorism planning, and community mobilization protect everyone regardless of social class and need. More formally, the three core functions of public health are (1) to assess public health problems at the population level (as opposed to the individual level); (2) to develop policies that effectively address public health problems; and (3) to assure the proper implementation of interventions (Turnock 1997). Local, state, and federal public health systems comprise of all the entities that work on public health issues, and governmental public health

agencies serve as the “backbone of the public health system and bear primary, legally mandated responsibility for assuring the delivery of essential public health services” (IOM 2003).

### **Public Health and Partisanship**

In understanding how states provide the three core functions of public health, the public policy and political science literature suggests that partisanship may affect public health capacity. Scholars have found that Democrats tend to support human services, social policies, greater government responsibility and size, and redistributive policies more than Republicans. While the literature has yet to address public health specifically, I contend that these partisan findings apply to governmental public health as well.

First, public health falls under the umbrella of human services and social policies, which includes education, housing, welfare and social security. Recent studies indicate that Democrats support these types of policies more than Republicans (Budge & Hofferbert 1990), (Eismeier 1982). Democrats also tend to support greater government spending on Medicaid and on health in general (Budge & Hofferbert 1990; Eismeier 1982; Kousser 2002).

Second, public health requires government responsibility, action, and spending, which are characteristics that tend to be associated with the Democratic Party. Studies have shown that Democratic government control is associated with greater expenditures and revenue distribution (Fry & Winters 1970). In a study examining how voters perceive differences between parties, Pomper notes that “Partisan conflicts on such issues as national health insurance, federal revenue sharing, or enforcement of equal

opportunities are likely to reinforce the popular belief that Democrats favor increased federal government action” (Pomper 1972). In discussing why Democrats favor equalitarian and human welfare issues more than Republicans, McClosky and colleagues clarify that “Republicans want not so much to abrogate existing social welfare or equalitarian measures as to keep them from being broadened,” indicating a Republican desire to limit government size (McClosky et al 1960). Additionally, following the lead of cross-national studies on liberal party-controlled governments, some scholars have shown that Democratic-controlled state governments tend to be larger than Republican states (Garand & Baudoin 2004)

Third, even though public health policies are generally universalistic, I speculate that public health is often incorrectly perceived as mostly redistributive. In a 1996 Harris Poll only 36 percent of respondents knew that public health addressed the “overall health and well-being of the public” while 20 percent believed it referred to “government-provided system of health care” and 9 percent thought it provided “welfare programs for the needy and elderly.” If little over a third of Americans know that public health benefits everyone, then public health might be classified as a type of policy different from its actual function. Using Lowi’s terminology (Lowi 1972), if public health is considered mostly redistributive even though it is also distributive<sup>1</sup>, regulatory, and constituent-oriented, then the Democratic association with public health might be even stronger because research indicates that Democrats support redistributive welfare policies more than Republicans (Brown 1995; Budge & Hofferbert 1990; Eismeier 1982; Jennings 1979).

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<sup>1</sup> In fact, most public health policies are distributive, that is “1) the benefits targeted for one population or area can be varied without affecting those going to others and 2) the costs are assumed by the general population” (Collie 1988).

## **Party Effects on State Government**

The effects of partisanship on policy outcomes manifest in both the executive and legislative branches of state government. Scholars indicate that the effects of partisanship will depend on how the legislature works with the governor; whether the state has divided or unified party control; and the extent to which the legislature is professionalized. An overview of this literature suggests ways to test the effects of partisanship on state public health capacity.

How governors and legislatures work together can determine how partisanship affects public health capacity. Governors and state legislatures work together in distributing state resources and creating state policies. The governor typically serves as a state's "chief policy maker" (Morehouse & Jewell 2004) while state legislatures are responsible for state agency appropriations and administrative oversight (Hamm & Moncrief 2004). Legislatures dominate the appropriation process in states with independent legislatures, line-item executive budget formats, and executive budget offices that are independent from the governor. Governors dominate the appropriation process when legislatures are dependent on the executive and when executive budget offices support the governor's policy goals. (Abney & Lauth 1987) Still, while many governors lead the policy process in their states, legislatures have to "adopt the state budget, set or agree to basic policy directions, and in many cases, confirm major gubernatorial appointments." (Beyle 2004) Overall, how effective a governor is in working with the legislature depends on his or her political leadership abilities (Morehouse & Jewell 2004) and state-defined gubernatorial powers and roles

(Barrilleaux & Berkman 2003). The party in control of the more influential branch of government in a state may have more influence over public health spending.

Partisan effects on public health may also depend on whether Democrats control both the legislature and the governorship. While scholars do not agree on the general effects of divided versus unified governments on policy outcomes (see (Binder 2003; Mayhew 2005)), research specific to social policies suggest that unified states will support public health capacity more than divided states. For instance, divided states, where the legislative chamber is split, have experienced greater gridlock on high-conflict policy issues such as welfare, crime, and education (Bowling & Wright 1998). Another study found that when the party in control of the legislature differs from the governor's party, the legislature is less likely to support gubernatorial budgetary decisions (Moncrief & Thompson 1980). Additionally, divided states, where the legislative chambers are of the same party, tend to experience more conflict in allocating funds to state agencies (Clarke 1998).

Levels of legislative professionalism may also reflect differences in support for state public health policies. Between 1965 and 1980, state legislatures underwent substantial institutional development and increased their capacity and professionalism. Legislative professionalism refers to both institutional and elected official characteristics (Rosenthal 1998) and describes a legislature's capacity to participate in the "policy-making process with an expertise, seriousness, and effort comparable to other actors in the process" (Mooney 1995). "Professional legislators" differ from "citizen legislators" in that the former are typically full-time legislators who entered into the profession with

long-term political ambitions (Rosenthal 1998). Accordingly, professionalized legislatures may have more expertise, time, and capacity to support public health policies.

Professionalized legislatures also tend to have more Democratic than Republican members. Ehrenhalt contends that Democrats are more attracted to political office than Republicans because Democrats feel strongly about government as an institution and are more likely to make the necessary sacrifices to become professional legislators. Further, Republicans typically have higher salaries than Democrats and are less willing to take a pay cut to work for a government they distrust. (Ehrenhalt 1991) Fiorina asserts that professionalized legislatures require representatives to sacrifice alternative careers because of greater occupational demands. Moreover, Democrats are more willing than Republicans to sacrifice their current careers for full-time positions in professionalized legislatures because Democrats tend to have careers that are not as lucrative or prestigious as a position in a state legislature. (Fiorina 1994) Consequently, states with professionalized state legislatures may have more Democratic representatives and thus more Democratic public policies.

In sum, an examination of partisanship effects on public health support for governmental public health at the state level must take into account the relationship between governors and state legislatures, the level of state legislative professionalism, and the distinction between unified and divided governments. Given the effects of party on state institutions and policy, I propose the following two *partisanship* hypotheses. First, states with Democratic governors will have greater public health capacity than states with Republican governors. Second, states with Democratic-controlled state legislatures will support public health capacity more than Republican-controlled state

legislatures. In testing these hypotheses, this analysis will control for differences in gubernatorial control, unified government, and legislative professionalism.

### **Alternative Explanations**

Challenging my claim that partisanship affects public health capacity, a review of the political science literature reveals considerable debate over whether party control affects policy outcomes. On the one side of the fence, Congressional scholars such as Cox, McCubbins, Rohde, and Aldrich argue party matters in explaining policy outcomes.<sup>2</sup> While other scholars such as Downs, Krehbiel, Brady, Erikson, McIver and Wright discount party effects. The literature that argues against partisan effects is primarily based on the median voter theory, which upholds that policy outcomes reflect the preferences of the median voter and not differences between party policy platforms (Downs 1957).

In his pivotal politics model, Krehbiel bases his non-partisan explanation of policy outcomes on the median voter theory. Krehbiel asserts that policy decisions depend on how close a particular policy is to a legislator's ideal preference point on a left-right continuum. The preferences of the other legislators, and most importantly the median member, determine the distance between a proposed policy and legislator's ideal point. A legislator's decision to support a particular policy therefore depends on the position of the median member and other legislators that play pivotal roles in supporting or blocking legislation. Therefore, according to Krehbiel, support for public health

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<sup>2</sup> These authors argue that parties influence policy outcomes; however, they do not indicate that party predicts policy preferences.

capacity would depend more on legislator preferences, measured on a left-right ideological continuum, than on partisanship. (Krehbiel 1998)

Erikson, McIver and Wright would agree with Krehbiel that ideology is a better predictor than partisanship in explaining policy outcomes, but their theoretical reason for why ideology matters differs from Krehbiel's argument. In their state level analysis, the authors assert ideology is expressed through public opinion and liberal opinions lead to liberal policies. Moreover, Erikson and colleagues argue, "when state electorates respond to party positions, liberal parties hinder Democratic success" because "centrist parties are electorally rewarded" (Erikson et al 1989). Their findings suggest that liberal Democratic states should see a decrease in public health support.

Alternatively, some scholars argue that economic factors affect support for public health capacity more than partisanship. In Dye's analysis of the relationship between economic variables and state expenditure levels in different policy areas, he finds that economic factors matter more than political variables in influencing policy outcomes. In particular, economic development is highly correlated with per capita spending on health. Dye finds that, "[w]ealthier states provide much better benefits than poorer states, and yet poorer states tend to spend larger shares of their personal incomes for health and welfare services" (Dye 1966).

At the local level, Peterson also argues that economic conditions predict support for policies more than political factors. He makes a distinction between developmental, redistributive, and allocative policies because the factors that influence expenditure levels differ depending on policy type. Peterson finds that a city's fiscal capacity influences redistributive expenditures more than supply-demand factors. If extended to the state

level, support for a redistributive public health expenditures, would depend on the fiscal capacity of a state, not on political factors. (Peterson 1981)

Based on these alternative explanations for variability in support for public health capacity, this analysis also tests two additional competing hypotheses. First, the *ideological* hypothesis upholds that liberal states will support public capacity more than conservative states. Second, the *economic* hypothesis maintains that states with better economic conditions will support public health policy more than states with relatively poor economic conditions.

## **Data and Methods**

### *Dependent Variable*

Per capita public health expenditures, the dependent variable, serves as an indicator of public health capacity. The Milbank Memorial Fund together with the National Association of State Budget Officers and The Reforming States Group publish data for health expenditures in their “State Health Expenditure Reports” (1999; 2001a; 2003; 2005). Per capita expenditures were calculated by dividing total expenditures by state population. Expenditure and population data were both documented in the “State Health Expenditure Reports”. Data were collected and calculated for all 50 states for fiscal years (FY) 1997 to 2003. Federal sources of state expenditures such as federal grants were excluded in order to capture the state support for public health irrespective of federal funds.

For FY1997 through FY1999, the dependent variable was calculated by adding “total public health-related,” “community-based services,” and “other public health

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expenditures” and dividing the total expenditures by the state population. Public health-related expenditures include direct personal health expenditures for a range of specific public health programs including “local health clinics, non-federal Indian health care, Ryan White AIDS grants, and licensing boards and regulatory oversight.” Community-based services also vary from state by state and can include “rehabilitation services, alcohol and drug abuse treatment, mental health community services, developmental disabilities community services, and vocational rehabilitation services.” Public health expenditures not included in the first two categories are accounted for in other public health-related programs. Other programs include chronic disease, childhood immunization, tuberculosis, Women, Infants, and Children (WIC), and health promotion and education programs. (2001a)

In 2000, the measures for public health expenditures changed. For FY2000 to FY2003, the dependent variable is measured by adding “direct public health care,” “community-based services,” and “population health expenditures” and dividing the total by state population. Direct public health care includes the same expenditure data collected under total public health-related and other public health expenditures for FY1997 to FY1999. Expenditures included under community-based services remains the same. Population health expenditures, however, is a new measure that captures broad public health services and includes “prevention of epidemics and the spread of disease,” “protection against environmental hazards,” “injury prevention,” “promotion of chronic disease control and encouragement of health behavior,” “disaster preparation,” “disaster response,” and “health infrastructure.” (2003)

*Independent Variables*<sup>3</sup>

Data for gubernatorial party and party control of the legislature, the two main independent variables of interest, were collected for each state from 1996 to 2002. This information is available on the United States Census Bureau's website.<sup>4</sup> A dummy variable, coded "1" for Democrat and "0" for Republicans, was created for gubernatorial party. The proportion of Democrats was calculated by adding the number of Democrats in upper and lower house of each state legislature and dividing by the total number of legislators. Nebraska is the only state that has nonpartisan state legislators and was excluded from this analysis. In addition, a dummy variable was created to account for the effects of unified government where "0" equals divided government and "1" equals unified government.

In order to measure gubernatorial power, I used Thad Beyle's institutional power score, which is available on his website.<sup>5</sup> According to Beyle, gubernatorial institutional powers are "those powers given to the governor by the state constitution, state statutes, and the voters when they vote on constitutions and referenda" (Beyle 2004). His institutional power score combines measures of the number of separately elected executive branch officials, tenure limits, powers of appointment, budget control, veto power, and party control.<sup>6</sup> Gubernatorial institutional power ranges from 2.5 (least

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<sup>3</sup> All the independent variables were tested for collinearity. None of the correlation coefficients exceeded 0.40. Variables for state GDP, proportion of Democrats in the electorate, poverty rates, inequality, and state budget surplus were not included in this analysis because of multicollinearity.

<sup>4</sup> [www.census.gov](http://www.census.gov)

<sup>5</sup> <http://www.unc.edu/~beyle/gubnewpwr.html>

<sup>6</sup> Party control differs from unified control measured in this paper. Party control measures whether the governor's party controls both houses of the legislature, one of two houses, or neither house, and the extent to which the governor's party has a majority in the legislature. The inclusion of party control in the overall institutional power measure does not affect the inclusion of a separate dummy variable for unified government. The institutional power score and unified government variable are not highly correlated ( $r=0.2822$ ).

powerful) to 4.3 (most powerful), with an average power score of 3.5. Because gubernatorial power scores were not calculated for each year included in this analysis, the scores do not always correspond with the correct fiscal year. Specifically, 1994 scores were used to predict FY1996 expenditures; 1998 scores correspond with FY1997 and FY1998; 2000 scores correspond with FY1999 and FY2000; and 2001 and 2002 scores correspond with FY2001 and FY2002, respectively.

Legislative professionalism is based on characteristics of the legislature. Legislature salary, session length, and number of legislative staff are typical elements of professionalism measures. Greater legislator salaries, longer legislative sessions, and greater number of staff members are associated with professionalized legislatures. (Hamm & Moncrief 2004). In this study, I use the most up-to-date measure of legislative professionalism calculated by King and colleagues, which is based on the three indicators mentioned above (King et al 2002). Unfortunately, professionalism scores were only available for 2000, and data were missing for Massachusetts so the state was excluded from the analysis. According to these data, the least professionalized state was New Hampshire (-0.908) and the most professionalized state was Hawaii (3.202).

To test the alternative *ideology* hypothesis<sup>7</sup>, I include measures for state liberalism that were calculated by Erikson, Wright, and McIver.<sup>8</sup> Erikson and colleagues created a factor score of liberalism based on per pupil spending on public education; scope of Medicaid eligibility; scope of Aid to Families and Dependent Children (AFDC) eligibility; index of state consumer protection; support for liberal state laws and criminal justice; support for legalized gambling; years since the ratification of the Equal Rights

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<sup>7</sup> The theory behind Krehbiel's assertion that ideology matters more than party was not directly tested in this study.

<sup>8</sup> <http://php.indiana.edu/~wright1/>

Amendment; and the progressivity of state tax systems. In this study, liberalism ranges from zero to 0.398. Between 1996 and 2002, the three most conservative states include South Dakota, Alaska, and North Dakota; whereas the most liberal states include Wyoming, Vermont, and Hawaii.

To determine if economic conditions influence support for public health capacity, this analysis includes median household income for each state from 1996 to 2002. Data for median income are available on the U.S. Census Bureau's website. Median household income ranges from \$31,015.04 in West Virginia to \$58,749.02 in Connecticut. The average median household income is \$44,224.73.

Finally, this analysis includes controls for racial and ethnic disparities in access to public health services and protections. Public health scholars widely believe that recognizing racial and ethnic disparities is fundamental in understanding public health issues in America (Mays et al 2003). The literature indicates that members of minority populations have increased risk and incidence of health conditions and poor access to healthcare (Williams 1999; Williams et al 2003). Accordingly, different minority groups might place unique demands on the public health system. To account for this affect, this analysis controls for the proportion of blacks, Hispanics, and American Indians in each state.

### *Methods*

This study uses panel corrected standard error (PCSE) time-series analysis to analyze the variability in public health spending in each state over time. PCSE is used for cross-section time-series data and can accommodate the temporal and state level

character of this analysis. The method is particularly useful because it corrects for differences in state error variances and heteroskedasticity. (Beck & Katz 1995)

Because the measure for per capita public health expenditures changed in 2000, two models were tested. The first model explains variability in expenditures from FY1997 to FY1999 while the second model includes expenditures for FY2000 to FY2003. Both models include the same independent variables. Values for each independent variable correspond with the year prior to each predicted fiscal year except for gubernatorial power and legislative professionalism for reasons stated above. Results for the two models are presented in tables 1 and 2.

[Insert tables 1 and 2 about here]

## **Results**

The results support one of two partisan hypotheses. In both models, the increases in the proportion of Democrats in the legislature are related to increases in per capita public health expenditures whereas Democratic governors do not have a significant association with public health expenditures relative to Republican governors. While higher proportions of Democrats in legislatures are related to greater public health expenditures, the magnitude of the association differs between FY1997-1999 and FY2000-2003. In the first time period, a one percent increase in the number of Democrats in the legislature is associated with a \$1.49 increase in per capita public health expenditures. In the second time period, a one percent increase in Democrats is related to a \$0.67 increase in per capita expenditures. Although the magnitude of the latter model

is more than half of the first model, the difference could be attributed to the differences in measure of public health expenditures. Nonetheless, the relative number of Democrats in state legislatures is significantly related to per capita public health expenditures.

Unlike partisanship, legislative professionalism did not have a consistent significant effect. In the first model, legislative professionalism is not significantly related to per capita public health expenditures, whereas in the second model, professionalism has a strong positive relationship. For FY2000 to FY2003, a one unit increase in legislative professionalism is significantly associated with an \$11.72 increase in per capita expenditures.

Even though gubernatorial party does not have an affect on expenditures, gubernatorial power does coincide with public health spending. In both models, a one unit increase in gubernatorial institutional power corresponds with a \$33.62 and \$25.26 increase in per capita public health expenditures in FY1997-1999 and FY2000-2003, respectively. While it is difficult to conceptualize what a one unit increase in power means, what is clear is that gubernatorial power affects public health expenditures irrespective of party. The contradictory coefficients for unified government in the two models further supports the notion that gubernatorial party does not affect public health spending. For FY1997 to FY1999, unified government is not significantly related to public health expenditures whereas between FY2000 and FY2003, the relationship is significant and the coefficient changes from positive to negative. The significant relationship between gubernatorial power and legislative party control, suggests that the unreliability of unified government as a predictor of expenditures is attributed to the null effect of gubernatorial party on public health spending.

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As for the competing hypotheses, the results support the effect of economic conditions but do not support the relationship between liberalism and public health spending. A \$1 increase in median household income coincides with a \$0.004 and \$0.003 increase in per capita public health expenditures in the two models, respectively. Even though the coefficient is small, the effect is considerable when comparing the states with the highest and lowest median incomes. The difference between median income in West Virginia and Connecticut is \$14,524.29. Based on the median income coefficient, West Virginia spends approximately \$50.85 per person less than Connecticut, which is 17 percent of the difference between the states with the most and the least per capita spending. Unlike the economic hypothesis, the results do not support the ideological hypothesis. Although liberalism is positively related to public health spending in both models, the relationship is not statistically significant.

Finally, the controls for the proportion of minority populations in states provided mixed results. The proportion of American Indians in states was the only minority population consistently related to increases in per capita public health spending from FY1997 to FY2003. A one percent increase in population of American Indians is associated with a \$3.61 and \$7.41 increase in per capita public health expenditures for FY1997-1999 and FY2000-2003, respectively. The proportion of blacks in a state was only significantly related to public health expenditures for FY2000 to FY2003; however, the coefficients in both models are close in value. For 2000 to 2003, a one percent increase in a state's black population is associated with a \$6.06 increase in per capita expenditures. The results for Hispanics have more contradictory findings. In the first time period, a one percent increase in the Hispanic population coincides with a \$0.81

increase in per capita expenditures; whereas, in the second model a one percent increase corresponds with a \$0.90 *decrease* in per capita expenditures.

## **Discussion**

Somewhat unexpectedly, gubernatorial power has a consistently significant positive effect on public health spending. Unfortunately, as noted in the data section, the measures of gubernatorial power are less than ideal. The years for gubernatorial power do not always correspond to the following fiscal year, and the power score for some years had to be used more than once. However, gubernatorial institutional power measures are generally stable over time (see Appendix A). The components of the power score (number of separately elective executive officials, tenure limits, powers of appointment, budget control, veto power, and party control) do not drastically change from year to year. Consequently, I suspect that the effects of gubernatorial power would remain even if perfect measures of power were included in this analysis.

The results of the legislative professionalism variable probably reflect data limitations. The measure for legislative professionalism does not change over time like the other independent variables and professionalism in 2000 was used as a predictor for all fiscal years. This might explain why the variable is only significant in the model for FY2000 to FY2003. Additionally, the significant effect seen in the latter time period might also reflect changes related to September 11<sup>th</sup>. In response to September 11<sup>th</sup>, the visibility and importance of public health was elevated. Bioterrorism funding to public health agencies drastically increased and emergency preparedness became an important policy issue. The increasing salience of public health issues might demand more from

legislators in terms of expertise, staff time, and session time. Given some significant effects of professionalism, future time series analyses should include measures for professionalism for each year.

The results also indicated contradictory findings related to the proportion of Hispanics and blacks in each state. I suspect some of the discrepancy in the black coefficient (and perhaps in the magnitude of the American Indian coefficients) reflects the change in how the U.S. Census Bureau measured these populations. The population values for 1996 to 1999 are projected values based on the 1990 Census while the populations for 2001 to 2002 are based on the 2000 Census. In 1990, Census respondents were only allowed to pick one race category, and in 2000 respondents could select more than one. As a result of this change, the U.S. Census Bureau cautions the analysis of these data over time. (Grieto & Cassidy 2001) In regards to the major discrepancy between the two models in the proportion of Hispanics, I can only speculate that this difference reflects either the difference in how the dependent variable was measured in the two time periods or the significant increase in the proportion of Hispanics in the last decade. While the number of percent of blacks and American Indians increased 15.6 and 26.4 percent between 1990 and 2000, respectively, the percent Hispanics increased 57.9 percent (2001b). Arizona, California, Texas, and New Mexico consistently had the largest Hispanic populations from 1996 to 2002. Perhaps the relatively high increase in the Hispanic population can explain the observed negative affect on per capita public health expenditures in the latter years.

Overall, the results suggest that legislative party control, gubernatorial power, and median household income are related to public health spending over time. These models,

however, are limited in their overall explanatory value. The two models explain less than 30 percent of the variability in per capita public health expenditures. A future analysis that includes more observations over time, indicators of population public health need and demands, and a consistent measure of public health expenditures might have greater explanatory power.

### **Conclusion**

Despite the limitations noted in this study, the findings from this analysis do support the partisan and economic hypotheses. States with Democratic-controlled state legislatures are related to greater public health per capita expenditures than Republican-controlled states. This finding suggests that Democratic legislators support state public health capacity more than Republicans. The partisan effect, however, does not apply to governors. Additionally, increases in median household income are associated with increases public health expenditures suggesting that support for public health might be related to economic conditions in the state.

Even though gubernatorial party does not have an effect on public health spending, gubernatorial power does seem to matter. The strong positive relationship between gubernatorial power and public health expenditures suggests that institutionally powerful governors support public health capacity irrespective of their party affiliations. Powerful governors might be more inclined to support the executive state agencies that are responsible for public health. Moreover, strong governors could have more influence over state legislatures in passing public health policies and budgets.

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In sum, understanding factors that influence support for state public health capacity will become increasingly important as new public health threats emerge and the government continues to take an active role in protecting the public's health. Particularly in an era of avian influenza and bioterrorism, state governments' public health infrastructures and abilities to respond are critical. Determining which political factors decrease public health capacity may help identify and mitigate vulnerabilities in the public health system.

**Table 1: State Per Capita Public Health Expenditures from 1997 to 1999**

Independent Variables	Coefficient	Standard Error
Democratic Governor	12.081	11.028
Gubernatorial Institutional Power	33.624 *	15.749
Proportion of Democrats in the Legislature	148.619 *	62.867
Legislative Professionalism	3.990	3.365
Unified Government	17.481	13.458
Liberalism	46.036	135.111
Median Household Income	0.004**	0.001
Proportion Black	70.829	58.196
Proportion Hispanic	81.233**	11.455
Proportion American Indian	361.032**	105.637
Constant	-313.129**	81.631
N = 144		
R <sup>2</sup> = 0.2247		

\*\* p ≤ 0.001; \* p ≤ 0.05 (one-tailed)

Note: Democratic Governor and Unified Government are dummy variables.

**Table 2: State Per Capita Public Health Expenditures from 2000 to 2003**

Independent Variables	Coefficient	Standard Error
Democratic Governor	3.824	8.358
Gubernatorial Institutional Power	25.258**	7.247
Proportion of Democrats in the Legislature	67.149 *	27.360
Legislative Professionalism	11.721**	2.511
Unified Government	-6.419	6.279
Liberalism	276.263	173.918
Median Household Income	0.003**	0.000
Proportion Black	60.600 *	21.613
Proportion Hispanic	-89.577 *	31.463
Proportion American Indian	741.221**	118.035
Constant	-221.527**	31.715
N = 192		
R <sup>2</sup> = 0.2916		

\*\* p ≤ 0.001; \* p ≤ 0.05 (one-tailed)

Note: Democratic Governor and Unified Government are dummy variables.

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Appendix A: Gubernatorial Institutional Power Scores

state	year	gov. power	state	year	gov. power	state	year	gov. power	state	year	gov. power	state	year	gov. power	state	year	gov. power	state	year	gov. power	state	year	gov. power	
AK	1994	3.5	DE	1994	3.3	IN	1994	3.0	MI	1994	3.6	NE	1994	3.7	OK	1994	3.0	TX	1994	2.8	WY	1994	3.3	
AK	1998	3.8	DE	1998	3.3	IN	1998	3.2	MI	1998	3.6	NE	1998	3.7	OK	1998	2.7	TX	1998	3.3	WY	1998	3.6	
AK	1998	3.8	DE	1998	3.3	IN	1998	3.2	MI	1998	3.6	NE	1998	3.7	OK	1998	2.7	TX	1998	3.3	WY	1998	3.6	
AK	2000	3.7	DE	2000	3.4	IN	2000	3.0	MI	2000	3.8	NE	2000	3.7	OK	2000	2.8	TX	2000	3.0	WY	2000	3.6	
AK	2000	3.7	DE	2000	3.4	IN	2000	3.0	MI	2000	3.8	NE	2000	3.7	OK	2000	2.8	TX	2000	3.0	WY	2000	3.6	
AK	2001	3.7	DE	2001	3.4	IN	2001	3.0	MI	2001	3.8	NE	2001	3.7	OK	2001	2.8	TX	2001	3.0	WY	2001	3.6	
AK	2002	4.0	DE	2002	3.5	IN	2002	3.1	MI	2002	3.6	NE	2002	3.7	OK	2002	3.1	TX	2002	3.1	WY	2002	3.3	
AL	1994	3.3	FL	1994	3.3	KS	1994	3.3	MN	1994	3.6	NH	1994	3.2	OR	1994	3.4	UT	1994	3.5				
AL	1998	2.7	FL	1998	3.1	KS	1998	3.7	MN	1998	3.6	NH	1998	2.8	OR	1998	3.1	UT	1998	4.0				
AL	1998	2.7	FL	1998	3.1	KS	1998	3.7	MN	1998	3.6	NH	1998	2.8	OR	1998	3.1	UT	1998	4.0				
AL	2000	3.0	FL	2000	3.2	KS	2000	3.7	MN	2000	3.8	NH	2000	2.8	OR	2000	3.2	UT	2000	4.0				
AL	2000	3.0	FL	2000	3.2	KS	2000	3.7	MN	2000	3.8	NH	2000	2.8	OR	2000	3.2	UT	2000	4.0				
AL	2001	3.0	FL	2001	3.2	KS	2001	3.7	MN	2001	3.8	NH	2001	2.8	OR	2001	3.2	UT	2001	4.0				
AL	2002	2.7	FL	2002	3.4	KS	2002	3.4	MN	2002	4.0	NH	2002	3.2	OR	2002	3.3	UT	2002	4.1				
AR	1994	3.4	GA	1994	3.1	KY	1994	3.5	MO	1994	3.6	NJ	1994	4.0	PA	1994	3.9	VA	1994	3.3				
AR	1998	2.8	GA	1998	2.9	KY	1998	3.5	MO	1998	3.5	NJ	1998	4.1	PA	1998	4.1	VA	1998	3.3				
AR	1998	2.8	GA	1998	2.9	KY	1998	3.5	MO	1998	3.5	NJ	1998	4.1	PA	1998	4.1	VA	1998	3.3				
AR	2000	3.0	GA	2000	3.0	KY	2000	3.6	MO	2000	3.4	NJ	2000	4.1	PA	2000	4.0	VA	2000	3.5				
AR	2000	3.0	GA	2000	3.0	KY	2000	3.6	MO	2000	3.4	NJ	2000	4.1	PA	2000	4.0	VA	2000	3.5				
AR	2001	3.0	GA	2001	3.0	KY	2001	3.6	MO	2001	3.4	NJ	2001	4.1	PA	2001	4.0	VA	2001	3.5				
AR	2002	3.0	GA	2002	2.8	KY	2002	3.4	MO	2002	3.2	NJ	2002	3.9	PA	2002	3.7	VA	2002	3.2				
AZ	1994	3.4	HI	1994	4.1	LA	1994	3.3	MS	1994	3.0	NM	1994	3.5	RI	1994	3.7	VT	1994	2.6				
AZ	1998	3.3	HI	1998	4.1	LA	1998	3.1	MS	1998	2.8	NM	1998	3.5	RI	1998	2.8	VT	1998	2.9				
AZ	1998	3.3	HI	1998	4.1	LA	1998	3.1	MS	1998	2.8	NM	1998	3.5	RI	1998	2.8	VT	1998	2.9				
AZ	2000	3.5	HI	2000	4.0	LA	2000	3.1	MS	2000	3.1	NM	2000	3.3	RI	2000	2.7	VT	2000	2.7				
AZ	2000	3.5	HI	2000	4.0	LA	2000	3.1	MS	2000	3.1	NM	2000	3.3	RI	2000	2.7	VT	2000	2.7				
AZ	2001	3.5	HI	2001	4.0	LA	2001	3.0	MS	2001	3.1	NM	2001	3.3	RI	2001	2.7	VT	2001	2.7				
AZ	2002	2.9	HI	2002	3.7	LA	2002	3.1	MS	2002	3.4	NM	2002	3.7	RI	2002	2.8	VT	2002	2.8				
CA	1994	3.0	IA	1994	3.8	MA	1994	3.2	MT	1994	3.3	NV	1994	2.8	SC	1994	2.5	WA	1994	3.3				
CA	1998	3.0	IA	1998	3.8	MA	1998	3.0	MT	1998	3.6	NV	1998	3.0	SC	1998	2.8	WA	1998	2.9				
CA	1998	3.0	IA	1998	3.8	MA	1998	3.0	MT	1998	3.6	NV	1998	3.0	SC	1998	2.8	WA	1998	2.9				
CA	2000	3.4	IA	2000	3.9	MA	2000	3.7	MT	2000	3.7	NV	2000	3.0	SC	2000	2.9	WA	2000	3.3				
CA	2000	3.4	IA	2000	3.9	MA	2000	3.7	MT	2000	3.7	NV	2000	3.0	SC	2000	2.9	WA	2000	3.3				
CA	2001	3.4	IA	2001	3.9	MA	2001	3.7	MT	2001	3.7	NV	2001	3.0	SC	2001	2.9	WA	2001	3.3				
CA	2002	3.4	IA	2002	3.6	MA	2002	3.4	MT	2002	3.6	NV	2002	3.0	SC	2002	3.1	WA	2002	3.2				
CO	1994	3.2	ID	1994	3.2	MD	1994	4.3	NC	1994	2.5	NY	1994	4.1	SD	1994	3.6	WI	1994	3.5				
CO	1998	3.7	ID	1998	3.7	MD	1998	4.1	NC	1998	2.7	NY	1998	4.1	SD	1998	3.8	WI	1998	3.7				
CO	1998	3.7	ID	1998	3.7	MD	1998	4.1	NC	1998	2.7	NY	1998	4.1	SD	1998	3.8	WI	1998	3.7				
CO	2000	3.6	ID	2000	3.5	MD	2000	4.2	NC	2000	3.0	NY	2000	3.9	SD	2000	3.9	WI	2000	3.6				
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CO	2001	3.6	ID	2001	3.5	MD	2001	4.2	NC	2001	3.0	NY	2001	3.9	SD	2001	3.9	WI	2001	3.6				
CO	2002	3.8	ID	2002	3.5	MD	2002	3.8	NC	2002	2.8	NY	2002	4.1	SD	2002	3.8	WI	2002	3.6				
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CT	1998	3.7	IL	1998	3.3	ME	1998	3.4	ND	1998	3.8	OH	1998	4.1	TN	1998	3.6	WV	1998	3.8				
CT	1998	3.7	IL	1998	3.3	ME	1998	3.4	ND	1998	3.8	OH	1998	4.1	TN	1998	3.6	WV	1998	3.8				
CT	2000	3.7	IL	2000	4.0	ME	2000	3.4	ND	2000	3.9	OH	2000	4.0	TN	2000	3.6	WV	2000	4.3				
CT	2000	3.7	IL	2000	4.0	ME	2000	3.4	ND	2000	3.9	OH	2000	4.0	TN	2000	3.6	WV	2000	4.3				
CT	2001	3.7	IL	2001	4.0	ME	2001	3.4	ND	2001	3.9	OH	2001	4.0	TN	2001	3.6	WV	2001	4.3				
CT	2002	3.8	IL	2002	4.1	ME	2002	3.8	ND	2002	3.9	OH	2002	3.9	TN	2002	3.9	WV	2002	4.0				

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