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The Effects On a State When They Lose Their Senior Senator

Adam J. Morris
Claremont McKenna College

CLAREMONT McKENNA COLLEGE

THE EFFECTS ON A STATE WHEN THEY LOSE THEIR SENOR SENATOR

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CAMERON SHELTON

AND

DEAN GREGORY HESS

BY

ADAM MORRIS

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Abstract

The Primary purpose of this paper is to examine the role and importance of Senior Senators in the US Senate. Many states rely on Senators to bring in federal spending in the form of pork. When states lose their Senior Senator and the power they accumulated through increased tenure, they risk losing certain benefits in terms of pork. We use federal expenditures per dollar of tax and analyze how it is affected by Seniority in the Senate. Population, Income, and unemployment rates in each state were controlled for in our regression analysis. It is concluded that increased tenure significantly increases federal spending to Senators' states. Though this is statistically significant, we find the effects of losing a Senior Senator to be insignificant in the overall welfare of a state.

Introduction

United States Senator Daniel Inouye, from Hawaii, was re-elected to his ninth term in Congress on November 2, 2010. He is currently the most senior member in the Senate, and Chairman of the U.S. Senate Committee on Appropriations. For centuries, he has brought billions of dollars into the State of Hawaii through earmark distribution and pork barrel spending. The term "pork" with reference to Congress was popularized Chester Collins Maxey in an article in the *National Municipal Review* in 1919. "Pork" refers to government spending that is set aside for local projects, in order to bring money to a Representative's District. In fiscal year 2009, members of Congress spent nearly $20 billion on pork-barrel projects. In fiscal year 2009, Hawaii received over $19,000 in Federal Government expenditure per capita. California, in that same year, received only $9,360 per capita. Why is it that a state with a resident population of 1,295,178 received more than twice the amount of money than a state with a population of 36,961,644? California's Senior Senator, Dianne Feinstein, is the 25th most senior member in the US Senate. What role does seniority play in the distribution of federal funds? The "Culture of Spending" Hypothesis, presented by James Payne (1991) argues that Congressmen are more likely to support federal spending the longer they have been in office. If this is the case, what happens to a state when their Senior Senator retires or dies? Hawaii, a state that is dependent on federal spending to operate, relies on Inouye to bring in pork. At 86 years old, it is not certain that he will live to see the end of his ninth term. What will happen to the Hawaiian economy when it loses its Senior Senator? Does the length of tenure for the Junior Senator have any impact on the allocation of federal funds? These questions will be answered in this paper.

There are many factors that have been argued to increase government spending, other than seniority alone. Party membership and whether a Senator is member of the majority or not, can influence the allocation of spending. Democrats and Republicans may have different motives in the Senate. One may believe that securing earmarks is extremely important, while the other may find it detrimental to the role and purpose of government. These party differences will be examined in the analysis. Population size will also be considered as an influence on government spending. There have been arguments from both sides. Some say smaller populated states have higher number of earmarks (Atlas 1995; Lee 1998) because Senators from smaller states are more likely to be reelected if they bring in pork for local projects. Others argue that more populous states have larger number of earmarks (Lazarus et al, 2008). Population will also be examined in the analysis.

Literature Review

Public Policy and distributive politics has for a long time been a central issue in the US Congress. Seniority in the US Senate plays a major role in determining how federal funds are distributed among states and regions. Most states rely on pork-barrel projects to thrive. The process in which these funds are allocated has a lot to do with the seniority of State Senators in the committee system. Seniors Senators are given more power, by rule, and are able to influence the allocation of federal funds. For example, the current most Senior Senator is Daniel Inouye from Hawaii. His long tenure in the Senate contributed to his appointment as the Chairman of the Appropriations Committee. In order for a pork-barrel project to be added to the Appropriations bill, it must be approved by this Committee. Inouye has the most power in this Committee due to his seniority. Seniority in the committee system plays a major role in determining where pork is allocated. There has been little research in the past regarding seniority in the Senate and distributive politics. Much of the research deals with unequal Senate Apportionment and House seniority. The small portion of research regarding Congress tenure and government spending offers little insight on the differences between Senate and House influence. Also, many studies regarding variables other than Seniority affecting federal outlays had been conducted. The relationship between state growth and Senate Seniority has not yet been analyzed.

Brian E. Roberts, in 1990 at the University of Texas at Austin, analyzed the relationship between seniority in the US Senate and the distribution of federal benefits. For the purpose of this study, we will use Roberts's definition of seniority as, "an ordinal ranking of members of a

given congressional committee that is based on committee tenure" (1990, p. 33). The longer the Congressman/woman has served in the Senate, the more seniority s/he will have. Senators with more experience are indirectly given more power by assuming higher positions in the committee system. Roberts examined changes in policy as a result of an "exogenous shock to the seniority system", specifically the unanticipated death of a Senior Senator. Roberts used the death of Senator Henry Jackson to analyze the relationship between committee seniority and constituent benefits. Jackson became Washington's Senior Senator when Warren Magnuson lost the election in 1980. Right before his death in 1983, Jackson was appointed as the ranking Democrat on the Senate Armed Services Committee. Roberts explains that Jackson's death had enormous implications for constituent interests in both his State of Washington and the State of Georgia, which his successor on the Senate Armed Services Committee Sam Nunn represented. Roberts also analyzed the consequence of Jackson's death on the two Senators campaign contributors, more evidence that lead to the big question of whether seniority leads to benefits.

Roberts grouped firms that represented Jackson and Nunn's various constituent interests into two sets: geographic constituents and resource constituents. By looking at the change in stock prices of the firms that represented the Senator's constituents, Roberts was able to determine if there really was a seniority/benefit relationship. Roberts organized firms into groups along sectoral lines. Some of these sectors were more closely related to the committees Jackson chaired. Roberts found that the economic interests in the State of Washington were hit severely by Jackson's death compared to Georgia, at a statistically significant level (1990, p. 47). Data was consistent with Robert's hypothesis that "committee leaders offer tangible benefits to their constituent interests". With the *seniority model*, Roberts found that Jackson's death "resulted in substantial redistributions of wealth to the constituents interests of Sam Nunn".

Robert's research helps point out that there is a huge impact on a state when their Senior Senator dies, as the share prices of defense contractors fell in Jackson's State of Washington, as prices were inversely affected in Nunn's state of Georgia (1990, p. 52).

Moore and Hibbing (1996) similarly looked at the relationship between Congressional Tenure and the allocation of federal funds. They looked at both House tenure and Senate tenure in their analysis. They also analyzed distributive politics at a state level and at a district level. Does tenure lead to direct allocation of funds to a representative's state? Does the district that the Representative is from benefit most? Moore and Hibbing found that each additional year of tenure for a member of Congress led to a small increase in funds to the district s/he is from. However, the data was statistically insignificant (1996, p. 140). Different results were found for the allocation of funds at the state level. They found that for each year a Congressional member gained a year of tenure, the state would receive an extra $71 per person (1996, p. 142). What about the difference between house and senate tenure? Moore and Hibbing go further to examine the difference between the two positions. Their results indicate a significant coefficient for House tenure and a statistically insignificant coefficient for Senate tenure. However, the data Moore and Hibbing collected was from 1983-1990. This may be too short a time period. The seniority system in the Senate may have changed over the last twenty years, so more recent and extensive data could lead to different results. The returns to Seniority may be different with the turn of the century. This will be examined in the analysis.

Jeffrey Lazarus and Amy Steigerwalt (2008) analyzed the issue concerning pork barrel politics in the U.S. Congress. Specifically, they look at the differences between the House and the Senate, and the motivations that lead them to allocate pork in certain ways. Influences that were examined were members' electoral vulnerability, committee membership, seniority, and

party membership. After testing a number of variables that may have led to increased earmarks, Lazarus and Steigerwalt concluded, among other findings, that seniority does plays a major role in earmark distribution in both the House and the Senate at a statistically significant level. Their other findings, which are tangents to our interest in seniority, include a significant coefficient for *Reelection* Spillover, indicating there is a positive relationship between dual-requested earmarks and a Senator's partner's reelection. Also, contradictory to previous research (Atlas 1995; Lee 1998) Lazarus et al found a positive and significant relationship between population and earmarks. They found that more populous states receive more earmarks on average (2008, p. 360) Seniority in the Senate actually had a greater effect on earmark distributions than the House. They found that a one-standard-deviation increase in Seniority in the Senate led to a 19% increase in earmarks overall. These findings differ from previous research done by Moore and Hibbing (1996).

Lazarus and Steigerwalt found that majority Democrats in the Senate received almost 90% more earmarks that Republicans. Having a longer timeline allows us to examine the alterations of the majority party to see which party receives more. Though it is usually the case that the majority party receives more earmark money than the minority, these statistics were significantly higher than expected. Also, it brings up the question of whether one party is systematically better than the other at earmarking and the motives that influence their behaviors in the Senate.

Steven Levitt and James Poterba (1999) attempted to find a source of the link between state economic growth and congressional representation. They look at congressional delegation seniority, committee membership, and political competition as possible factors leading to state economic growth. Similar to Lazarus and Steigerwalt (2008), they found that states represented

by very senior Democrats had the highest growth rates. This brings up the possibility of reverse causality and that maybe prosperous states are eager to reelect their incumbent, leading to longer tenure. This is only true for very senior Democrats, as middle ranking Democrats and state growth are negatively correlated (1999, p. 192). There is no statistically significant evidence for state growth and any ranking Republican representative. Levitt and Poterba (1999) used a basic regression model to relate state growth rate in per capita personal income and variables for congressional delegation seniority, congressional committee influence, and state political competition. The earlier results did not include the second two variables, as they isolated the seniority variable.

Levitt and Poterba (1999) later found that federal spending and economic growth are not correlated. Because spending effects were not large enough to generate the growth effects found, Levitt and Poterba came to the conclusion that federal spending did not seem to be the link that tied state economic growth and congressional representation. The relationship between spending and seniority was not as strong as the relationship between growth and seniority.

Cary Atlas et al (1995) examined the unequal per capita representation of Senators in the US Congress and how this representation affects allocation of government spending across states. Atlas goes off the assumption that overrepresented states, or states that have a smaller population, should receive more per capita federal outlays due to greater per capita resources in the Senate and Senators' incentive to pursuit local benefits. She believed that Senators will more likely choose to benefit local projects than national policy-making when his or her constituency is smaller (1995, p. 624-625). In a state with a smaller population, local benefit-seeking will help a congressman or woman to get re-elected more than in a state with a large population. Atlas found in her research that states overrepresented in the Senate receive larger per capita

federal outlays than large underrepresented States. She also found that if California's representation in the Senate was proportionate to its population, it would receive an extra $25 billion in annual federal outlays (1995, p. 627).

Frances Lee (1998) had similar results when looking at the consequences of Senate Apportionment and the allocation of federal outlays. Lee found using a simple index that there are 31 overrepresented states (small populations), 14 underrepresented states (larger populations), and five that are represented fairly relative to their population size (1998, p. 38). Similar to Atlas et al (1995), Lee argues that Senate apportionment is likely to benefit states with smaller populations. Lee used a pooled cross-sectional time-series design to demonstrate that States overrepresented in the Senate tend to receive more per capita federal outlays than more populous States. These overrepresented States receive more than expected on the basis of need alone, in 8 out 9 policy areas tested. The areas affected most by Senate apportionment are community development and transportation (1998, p. 58-59).

Lee (2000) adds to his research and demonstrates consequences in Senate apportionment when he analyzed *Senate Representation and Coalition building in Distributive Politics*. Lee erased the thought that maybe smaller states receive more federal outlays than larger states because they are in greater need, when he proves that a states need for federal funding corresponds closely to its population size. A state like California needs much more federal outlays than a state like Wyoming. However, when it comes to the distribution of funds, small-State Senators will have a much bigger influence than large-state Senators. The allocation of funds largely reflects small-state Senators' preferences. Lee goes on to discuss coalition building and how large-state senators must seek out members to build a coalition in order to direct funds their way.

Lee (2004) again builds on his research when he examines *Bicameralism and Geographic Politics*. He shifts his area of focus to differentiate between House and Senate's impact on distributive politics. Lee finds that the Senate has a much bigger impact on the distribution of funds than the House. This is in large part due to Senate apportionment. Senators and House members have different incentives in allocating funds, and Lee finds that the Senate's preferences have a much larger impact in distributive politics than House preferences (2004, p. 205).

Herron and Shotts (2006) examine term limits and how they may affect pork spending by the US Government. Currently in the US Senate, there are no term limits. However, Herron and Shotts (2006) use a legislative model to show that term limits in Congress would decrease the amount of pork allocated, as voters would not be able to re-elect representatives who were able to bring home pork in the past. This assumes and is proven in past literature that voters want Representatives who bring in federal outlays to their state. Herron and Shotts also prove that Senior Representatives are more likely to vote for pork-barrel projects than Junior Representatives (2006, p. 396). The results proving term limits would decrease pork-barreling, implies that the absence of term limits, or increased tenure leads to increased pork allocation. Their theoretical model, built for a generic representative body, is not tailored to either US House or Senate.

Almost no research has been done regarding the relationship between Hawaii State growth, federal spending, and Senate Representation. A 2001 report from the Department of Business, Economic, Development, and Tourism, illustrates Hawaii's dependence on Federal Government expenditures. From 1990-2000, Federal Expenditures to Hawaii increased by more than 60 percent. In those same years, these expenditures accounted for up to 12 percent of Gross

State Product (2001, p. 2). How these federal expenditures were affected by congressional representation and pork-barreling projects remain untested?

Data

The data chosen for the present study was used to analyze the effects of Senate Seniority on the distribution of federal funds to individual states. Data was collected from 1981 to 2005 on all fifty US States (does not include District of Columbia). Every state Senator, along with their tenure, from 1981-2005 was collected from the US Senate web-based system. Senators serving for the first time in 1981 were given a numerical value of "0" for tenure. Each year of added service increased their numerical value for tenure by "1". Senators that had served in the Senate before 1981 were given a numerical value for tenure in 1981 equal to the amount of years already served (e.g. if a senator was elected in 1979, his/her value for 1981 would be "2"). The political party of each Senator was also recorded. Senators were given a value "1" if they belonged to the Republican Party or "2" for the Democrat Party.

The dependent variable "Expenditure per dollar of Federal Tax" was used to measure federal spending per state. Each state sends taxes and receives federal spending from the government. The amounts for tax and spending are different for each state. The values in "Expenditure per dollar of Federal Tax" were calculated by the amount of funds states receive per dollar of tax they pay. The average *Expenditure Per dollar Tax* from 1981-2005 was $1.12 across all 50 states. This data was taken from the Tax Foundation's web-based system.

The populations for all 50 States from 1981-2005 were taken from the US Census Bureau. The natural log of population was then calculated for each state and year and tested as a possible variable that affects spending. The ln (population) was used instead of total population in order to control for malapportionment, or unequal representation. For example, a population increase of one million people for a state like Hawaii (pop = 1,275,194 in 2005) is much more

substantial than a similar increase for a state like California (pop = 36,132,147 in 2005). The natural log of population controls for malapportionment in state size when testing the independent variables against federal spending.

Federal unemployment benefits contribute to overall spending by the government, the dependent variable in this study. These benefits differ for each state and depend on unemployment rates. Therefore, unemployment rates were obtained from the US Bureau of Labor Statistics. Without accounting for the unemployment rate, federal unemployment benefits may be accredited to Senators who come from states with high unemployment rates. Controlling for these rates avoids the possibility of this problem. The average unemployment rate across all states from 1981-2005 was 5.9%.

Per Capita State Income was also recorded for each state and year. Federal income taxes, which are progressive, differ for each state. States that make more on average pay more in taxes to the government. This affects the dependent variable, "Expenditure per dollar of Federal Tax", in our study. Thus, it is important to control for average income level of each state. Data was collected from the US Census Bureau. Average per capita income for all states from 1981-2005 was $21,119.

The political party of the Senior Senator, denoted "Party Senior", and the political party of the Junior Senator, denoted "Party Junior", were derived for each state and year. Once again, Senators were given a value "1" if they belonged to the Republican Party or "2" for the Democrat Party. This variable was used to test whether the political party of the Senior Senator or Junior Senator was important in amount of federal funds distributed.

The Political Parties controlling the House, Senate, and White House in each year during the period of 1981-2005 were recorded. For each variable, another dummy variable was created and given a value of "1" for each year and state if the political party of the Senior Senator at the time, matched the political party of the chamber being examined. For example, in 1990 for the State of Alabama, the Senior Senator was Howell Heflin. The variable "control_S" was given a value of "1" because both Howell Heflin and the majority party in the Senate were Democratic. Another variable "WH/H/S_tenure_s" was created for all three chambers that had a numerical value equal to the tenure of the Senior Senator if "control_WH/H/S" had a value of "1".

Variable	Observations	Mean	Sd	Min	Max
Tenure Senior	1250	15.36	9.19	0	46
Tenure Junior	1250	6.25	5.86	0	36
Pop (State)	1250	5207	5671.8	418	36132
Ln (pop)	1250	8.07	1.01	6.035	10.495
Income	1250	21.2	7452	7849	48032
Unemployment	1250	5.85	2.05	2.3	17.4
Expenditure per dollar Tax	1250	1.12	0.289	0.57	2.33

Data Analysis

In order to see the affects of controlling for specific variables, a simple regression was initially ran between tenure of the Senior Senator (*Tenure Senior*) and Junior Senator (*Tenure Junior*) on the federal expenditures per dollar of tax (*Expenditure per dollar of Tax*). The regression was the most basic of regressions as it did not control for any of the factors that were considered to invalidate the results.

The party of the Senior (*Party Senior) and* party of the Junior (*Party Junior*) were added to the tenure of the senior and junior for the next regression. The regression was ran to see examine the change in the *Expenditure per dollar of Tax* if the party of the senior or junior senior changed from a value of "1" (Republican) to "2" (Democrat). However, this regression did not control for population size and malapportionment. The effects of political party on *Expenditure per dollar of Tax* may be the result of the unequal representation of people's political affiliation across the United States. In order to control for this problem, the natural log of population (ln_pop) was added to the next regression. This leads to a more accurate outcome for the effects of political affiliation on federal expenditure per dollar of tax.

Unemployment rates and state income per capita were the next two variables added to the regression. Unemployment benefits contribute to federal spending receipts, along with income tax that varies across different US States. Controlling for these two variables leads to more accurate results. Richer states that pay more in taxes have a smaller *Expenditure per dollar of Tax* on average, which would be expected given income taxes directly affect *Expenditure per dollar of Tax*. Also states that have high unemployment rates receive more in unemployment

benefits. These skewed statistics will not cause errors in the regression analysis, as they are controlled for.

Lastly, in three separate regressions, "control_WH/S/H" and "WH/S/H_tenure_s" were added and examined. These variables were added to see how *Expenditure per dollar of Tax* changed if a senior senator's, whose political party was the same as the chamber being analyzed for the specified state and year, tenure increased by one year. All three chambers: Senate, House, and White House were examined and regressed. These results tell us which chamber and senator political affiliation combination leads to higher federal spending per dollar tax.

Fixed state effects were also controlled for in each regression. The fact that Hawaii receives more in defense spending than other states on average due to their location, should not affect differences in overall returns to states. Fixed effects were controlled, and therefore one more possible obstruction in obtaining accurate results was removed.

Results

After running a simple regression between the tenures and political affiliations of the senior and junior senators on the amount of federal spending per dollar of state taxes, I found three of the four variables, *Tenure Senior, Party Senior, and Party Junior,* to be statistically significant at the 99th percentile. Without controlling for any of the other variables, I found that increasing the tenure of the Senior Senator by one year, increased *Expenditure per dollar of Tax* by $0.003. Increasing the value of *Party Senior* from "1" to "2", meaning a change from the Republican Party to the Democratic Party, causes Expenditure *per dollar of Tax* decrease of nearly $.06. As for *Party Junior,* the same change leads to a $0.03 decrease in *Expenditure per dollar of Tax*. This is interesting as the results imply that Republicans are better at pulling in pork than Democrats. However, this regression did not control for malapportionment or any other factors that may lead to inaccurate results.

Running a regression controlling for all of our variables, we find different results. The second Regression in Table 1 shows us that *Tenure Junior*, along with the other three variables examined in the initial regression, are all statistically significant at least at the 90th percentile. *Tenure Junior* is particularly interesting, as it is *negative* and significant. This implies that increasing the tenure of the junior senator actually decreases the amount of *Expenditure per dollar of Tax*. In this case, it is more beneficial for a state to have a Senior Senator with ten years tenure and a Junior Senator with two years tenure, than a Senior Senator with ten years tenure and a Junior Senator with nine year of tenure. It is hard to explain why a larger gap in regards to tenure between a Senior and Junior Senator leads to higher federal spending among individual states. It is easy to understand why increased tenure of the Senior Senator leads to

higher spending, as more Seniority means more power in the Senate, but the negative relationship between tenure of the Junior Senator and *Expenditure per dollar of Tax* is a bit more confusing. It is possible that higher combined power, in terms of tenure, for two State Senators is bad when forming coalitions while trying to advocate for pork-projects. Two very experienced Senators may mean too much power in coalition building in the eyes of other senators. Having a very Senior Senator and an inexperienced Junior Senator may not seem as threatening in terms of power. Therefore, this combination of state Senators may be better at coalition building and bringing in pork to home-states.

Another interesting finding in the regression was the *Unemployment* statistic, which was negative and significant at the 95th percentile. Increasing unemployment rates by 1% causes a \$0.006 drop in *Expenditure per dollar of Tax*. This is interesting because higher unemployment rates lead to higher unemployment benefits from the government for a given state. Thus, if rates go up, *Expenditure per dollar of Tax* should also go up, controlling for income and population size. However, the results lead us to believe that a lower unemployment rate equals higher *Expenditure per dollar of Tax* for a given state. It is possible that Senators from states with low unemployment rates are more driven to bring in pork in order to maintain their states high status. Senators from states with higher unemployment rates may not have the drive to bring money to their home state and believe that spending should go to a state that deserves it, in terms of hard work. Though this explanation seems highly fabricated, it represents some sort of justification for the peculiar results.

Income per capita, similar to the results for *Unemployment*, was also interesting. *Income per capita* was positive and statistically significant at the 99th percentile. Increasing income by \$1000 causes a \$0.006 increase in *Expenditure per dollar of Tax*. Income is usually tied to taxes.

States with higher incomes have higher taxes and therefore should have a lower *Expenditure per dollar of Tax*. This, however, is not consistent with our findings. The results lead me to another possible, but unlikely explanation. Higher income and therefore, higher tax rates may give Senators more incentive to bring back money that was taken from the people (in taxes) in his/her home state. Pork, in this case, would be positively correlated with *income per capita.*

More normal findings exist for other variables, in their relationship to *Expenditure per dollar of Tax*, such as population size. From the regression, I found *ln(population)* to be negative and statistically significant at the 99th percentile. Increasing *ln(population)* one unit causes a $0.39 increase in *Expenditure per dollar of Tax*. The large increase in *Expenditure per dollar of Tax* may seem extreme, but a one unit increases in *ln(population)* is very large as well. For example, the average *ln(population)* from 1981-2005 in Hawaii was 7.04, while the average for California was only 10.33. States with higher populations on average will usually also receive less in federal expenditures. This can be explained by the assumption that Senators from states with lower populations are likely to bring in more pork for local projects, with the incentive of being re-elected. Senators from larger states, due to the sheer number of people, are not usually associated with the retrieval of pork. Therefore, acquiring pork may not be as important for these Senators.

Comparing chamber political affiliations, we find only *Control House* and *H_tenure_s* to be statistically significant ($p<0.05$). *Control House* was negative, which means that if the political party of the Senior Senator goes from being different (denoted "0") than the affiliation of the House Majority, to the same (denoted "1"), then there will be a $0.03 decrease in *Expenditure per dollar of Tax*. Therefore, it is better for a state if their Senior Senator's political affiliation is different than that of the majority if the house. *H_tenure_s*, on the other hand, was

positive in its relationship to *Expenditure per dollar of Tax*. This statistic tells us that if a Senior Senator's political affiliation is the same as the House Majority's political affiliation, then an increase of one year of tenure causes a $0.002 increase in *Expenditure per dollar of Tax*. This finding seems to contradict our findings for *Control House*. However, a positive *H_tenure_s* is only explaining an increase of tenure if political parties are similar, while *Control House* only tells us that it is better to have a Senator with a different political affiliation than that of the House majority.

Another possible explanation for the unanticipated results for *Unemployment, Income per cap,* and *Party Junior* is that there is an endogeneity problem. The econometrics were wrong because of reverse causality. We know, for example that, that there is a positive relationship between *Income per* cap and *Expenditure per dollar of* tax. However, reversing the cause and effect variables lead to overestimation of our results. The direction of the bias is hard to solve unless we use a bivariate model. In a multivariate regression, it is hard to know the direction of the bias. Increases in *Expenditure per dollar Tax* are attributed to the accompanying increase in *Income per cap*, even though other variables may have affected the results.

The Effects of given variables on *Expenditure per dollar of Tax*

VARIABLES	(1) *Expenditure per dollar of Tax* ****	(2) *Expenditure per dollar of Tax* ****	(3) *Expenditure per dollar of Tax* ****
Tenure Senior	0.00287***	0.00154**	0.00178**
	(0.000553)	(0.000697)	(0.000691)
Tenure Junior	-0.000966	-0.00142*	-0.00153**
	(0.000778)	(0.000751)	(0.000749)
Party Senior	-0.0581***	-0.0511***	-0.0425***
	(0.00995)	(0.00983)	(0.0103)
Party Junior	-0.0269***	-0.0279***	-0.0275***
	(0.00868)	(0.00845)	(0.00841)
Ln(population)		-0.388***	-0.368***
		(0.0461)	(0.0451)
Unemployment		-0.00576**	-0.00531**
		(0.00226)	(0.00224)
Income per cap		0.00572***	0.00537***
		(0.000774)	(0.000760)
Control Senate		-0.000508	-0.00714
		(0.0127)	(0.0121)
S_tenure_s		-1.81E-05	0.000717
		(0.000734)	(0.000673)
Control House		-0.0323**	
		(0.0143)	
H_tenure_s		0.00169**	
		(0.000822)	
Control White House			0.00852
			(0.0129)
WH_tenure_s			0.000919
			(0.000710)
Constant	1.207***	4.274***	4.079***
	(0.0214)	(0.362)	(0.355)
Observations	1250	1250	1250
R-squared	0.053	0.132	0.138
Number of stateID	50	50	50

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
**** Federal Expenditure per dollar of State Tax

Discussion

Ted Stevens, the longest serving Republican Senator in US History from Alaska, lost his seventh re-election bid in 2008. The loss left Alaska with Republican Lisa Murkowski to replace Stevens as their Senior Senator. In the 2009 Alaska primary elections, Murkowski illustrated the importance of Seniority to voters. Unfortunately for Murkowski, the state that had received billions in federal dollars largely in part to Stevens, did not agree, and voted fellow Republican Joe Miller to take her place. Steve Haycox, a University of Alaska Anchorage history professor, said in article, "On the face of it, it puts Alaska in a desperate economic situation because it will have two junior senators…That's a big, big problem when one-third of our economic base is federal spending." This is the exact situation that people in Hawaii are anxiously awaiting when Senator Daniel Inouye eventually loses his seat in the Senate. Nearly fifty years of experience in the Senate simply cannot be replaced. How much will states like Hawaii and Alaska suffer with the loss of their Senior Senator? Will it really be a "big, big problem" as Haycox puts it?

It has been concluded in the study that, in terms of federal spending per dollar of tax, states will be negatively affected by the loss of a Senior Senator. Controlling for the variables we analyzed, Hawaii will approximately lose ($0.0015 x [48-20]) $0.04 in *Expenditure per dollar Tax* if Daniel Inouye (48 years) is replaced by the current Junior Hawaii Senator Daniel Akaka (20 years). However, they should also gain ($0.0014 x [20-0]) nearly $0.03 with the decreased tenure of the Junior Senator. Alaska's change will be even less than Hawaii as Murkowski only had eight years of tenure under her belt.

The loss of Senate Seniority will not completely sink Hawaii and Alaska's economy, but it will definitely have a big impact. Federal spending is obviously a huge reason why states like

Hawaii and Alaska are able to thrive. In Alaska from 1982 to 2005, *Expenditure per dollar Tax* increased 216% from $0.85 to $1.84 and expenditures per capita jumped %280 from $4977 to $13950. This is in large part due to Stevens and his chairmanship to the Appropriations Committee in 1998. Steven's seniority was extremely important for Alaska in terms of his chairmanship. A similar situation occurred in 1997 when Oregon lost 30 years of Senate experience and two periods of Appropriation chairmanship with the retirement of Mark Hatfield. States that lose senior representatives like Hatfield and Stevens are losing years of institutional knowledge. Senior Senators understand the system; they know who to call, they know how to get things done quickly, and they know exactly what they need. It is like any industry. When a company loses a worker with decades of experience, they are losing all the invaluable knowledge that worker has accumulated over his/her career. This knowledge is very hard to replace and often times companies or states struggle to move on.

A large part of pork allocation in the Senate deals with forming coalitions. Fortunately for states like Alaska, the relationships Senators create often last after a Senator has lost his/her position. For example, Stevens and current Appropriations chairman Daniel Inouye had a great relationship in the Senate. Inouye often visited Alaska, and understood the challenges they faced. It is unlikely that Inouye will leave Alaska in the cold, even when Stevens is gone. Making positive relationships is another key immeasurable quality that Senior Senators possess.

Another reason why state economies will not completely destruct when losing a Senior Senator is the fact that there is a federal commitment to each and every state. Alaska receives large amounts of federal spending in environment projects, an area that will be boosted under a Democratic administration. A state like Hawaii is extremely important as strategic military center for the US. Daniel Inouye without a doubt plays a key role in the allocating federal

spending for the military complex in Hawaii, but losing him does not mean the state will lose money for defense. Hawaii will remain a military center and will continue to receive money for military purposes, no matter who is the Senior Senator.

Many of the plans that Daniel Inouye has enacted and is currently working on will continue to benefit the state for many years. This type of "long-tem thinking" is crucial for Hawaii's future. Future Hawaii Senators will be able to continue Inouye's Legacy by carrying out his plans. I n essence, Inouye will be a contributing factor to Hawaii's economy long after he leaves.

While state Senators can play a large role, there are many other factors that go into a state's economy. It is almost impossible to forecast the future of that state in terms of Senate Seniority. Senior Senators, and their committee chairmanship, have a lot to do with the welfare of their state, and it is hard to replace a Senator with decades of experience. Fortunately, the effects Senators have on states do not disappear when they retire or lose their seat. States continue to operate on plans enacted by previous Senators, and are able to thrive with government support.

As for the future of Hawaii, it will continue to play a monumental role for national prosperity, with or without Daniel Inouye. As long as future Senators continues to support positive plans for the people of Hawaii, it will continue to be a paradise for all.

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