PARTISAN PORK:  
HOW DELEGATION COHESION IN THE U.S. HOUSE OF REPRESENTATIVES AFFECTS EARMARK SPENDING  

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Abstract  

The federal earmark is a topic often lamented by the general public as corrupt and wasteful. Until recently, this “pork” was a mainstay of politics in Washington. Because distributive spending is often used to advance partisan goals such as reelection, previous scholarship suggested that legislators of the same party would work together to secure this money, resulting in higher federal earmark spending per person. Using a dummy variable for party majority within a House delegation, state-level data was analyzed through a regression analysis of House delegation cohesion and federal earmark spending per capita. Statistically significant results were found with an increase of earmark spending of $1.24 per person in a given state for every percentage point shift in a state delegation’s relative party composition. In addition, no significant relationship between party majority within a delegation and earmark spending was found, indicating Democrats and Republicans achieve similar results when they work together to secure federal funds. These findings suggest that the degree to which legislators work together has a larger effect on the benefits constituents receive than party affiliation.  

Literature Review  

The congressional earmark – federal funding provided by Members of Congress to companies, organizations, or projects – was an integral part of the modern political process. Following outcry of corruption and waste from the
general public, in 2010 and 2011, Democrats and Republicans moved to include in their party rules a ban on earmarks. While what is commonly referred to as “pork barrel spending” is, for now, a thing of the past, the ramifications of such distributive spending will be felt for decades to come. Much scholarly work has been done on the relationship between political parties and pork, but a gap remains as far as a relationship between the concentration of those political parties within a state and the dollar value of earmarks garnered.

This research contributes to the existing dialogue on congressional earmarks by exploring the relationship between the concentration of a political party in a state’s House delegation and the federal earmarks delivered to that state. Much of the existing literature focuses on congressional districts as their unit of analysis (Rocca and Gordon 2013, Lazarus and Reilly 2010), whereas this paper will use states as its unit of analysis. With the exception of Engstrom and Vanberg’s (2010) work, few scholars look at a state’s congressional delegation holistically. Giving a holistic view of earmarks at the state level is critical because representatives respond to voters at this level of analysis. To look at earmarks without taking into account the actions of others leaves out an important confounding variable in the form of other legislators. This paper aims to account for that confounding variable by integrating state-level data with a party-centric look at a state’s House delegation to discern the connection between legislative cohesion and constituent benefit.

**Background**

Scholars have long sought to establish a link between the congressional pork barrel and party politics. Many studies positively correlate positive election outcomes for incumbents with distributive benefits (Levitt and Snyder 1997, Lazarus 2009, Engstrom and Vanberg 2010, Lazarus and Reilly 2010, Rocca and Gordon 2013). Others look at which party holds the majority and uses political ideology as a determinant of earmark spending (Alvarez and Saving 1997, Bickers and Stein 2000). A few studies explore the relationship between collaboration amongst elected officials and earmarks (Levitt and Snyder 1997, Engstrom and Vanberg 2010). It is important to note party majority, electoral outcomes, and party cohesion are intrinsically linked as being simultaneous goals of a national political party.

**Electoral Outcomes**

A number of recent studies have positively correlated election outcomes with earmarks (Levitt and Snyder 1997, Lazarus 2009, Engstrom and Vanberg 2010, Lazarus and Reilly 2010, Rocca and Gordon 2013). Though
the overwhelming consensus in the literature is that earmarks contribute to positive incumbent election outcomes, studies point to different driving factors behind this correlation. Rocca and Gordon (2013) find a strong positive correlation between campaign contributions from defense-related PACs and earmarks relating to the defense industry. Lazarus (2009) contends the driving factor behind greater allocations of earmarks in a district is the electoral vulnerability of the incumbent, but only for the majority party. Another study, by Lazarus and Reilly (2010), points to a significant positive correlation between electoral outcomes and the type of distributive spending, namely, that Democrats benefit from traditional spending projects, such as highways and bridges. But it was only among conservative Republicans that electoral benefits from contingent liabilities, direct and guaranteed loans from the government to businesses and organizations, were felt. This study suggested a difference between political ideology and the effect of earmarks on a constituency.

**Party Ideology**

Attempts to link party ideology with differences in distributive spending have been less conclusive. Alvarez and Saving (1997) examined the effect of distributive benefits in the Democratically-controlled House of Representatives in the 1980s and found a “sharp partisan difference” in the effect of these outlays in that additional federal money positively affected Democratic reelection margins but had little effect on Republican reelection margins. Alvarez and Saving purported this difference was likely because of party ideology, with Republicans largely disavowing distributive spending as unnecessary waste. However, when Bickers and Stein (2000) looked at the effect of Republican control of Congress in the 1990s, they found that overall outlays on projects increased, even among entitlements, a typically Democratic focus. Most significant during the Republican era were the increases (27%) in contingent liabilities, outlays typically supportive of Republican pro-business doctrine. These studies assert that party majority is a contributory factor in the overall partisan fight to bring federal money to states.

**Legislator Collaboration**

Assess the House district as the unit of analysis has been the most common methodology in past research because of the relative ease with which empirical data can be gleaned from House election results and the easily identifiable monetary amounts of earmarks distributed to a district. Unfortunately, this partial approach does not take into account the work of
other actors in the political arena. The focus on U.S. House districts results in a gap of the majority of existing literature on this topic, rarely focusing on the effect of other politicians on federal money garnered for constituents. Levitt and Snyder (1997) are an exception to this focus on a district’s Member of Congress and they contend the driver behind distributive benefits in a district has to do with more than just the Representative. They believe earmark spending within a district is also partly due to other actors, such as governors, mayors, and local bureaucrats, lobbying for federal contracts and grants. To test this hypothesis, Levitt and Snyder look at the correlation between electoral benefits to a House member and the earmarks brought to adjacent districts within the member’s state, but outside their district. This focus is closer to the idea of collaboration as a driving factor behind earmarks to a state but still fails to look at the state in a holistic fashion.

Engstrom and Vanberg (2010) continue with this notion of collaboration. However, they use individual members as their unit of analysis in the success of lawmakers securing earmarks. They include senators in this analysis under the premise that the two senators from a state’s congressional delegation will work together to secure earmarks. Engstrom and Vanberg found that even among senators of the minority party, senators benefit from being partnered with another senator who is successful in the earmarks process, particularly if the partnered senator is up for reelection. Engstrom and Vanberg’s findings contribute to the idea of collaboration between lawmakers to secure earmarks for a state.

House Delegation Cohesion

Existing literature on earmarks in Congress make one fact clear: distributive spending within a district is an overwhelmingly partisan affair. Earmarks are used predominantly for partisan purposes, whether that it is to ensure a positive electoral outcome for an individual lawmaker (Levitt and Snyder 1997, Lazarus 2009, Engstrom and Vanberg 2010, Lazarus and Reilly 2010, Rocca and Gordon 2013), or for the entire party (Alvarez and Saving 1997, Bickers and Stein 2000). Thus, it seems sensible that lawmakers will collaborate to bring as many earmarks and as much money to their state as possible. Levitt and Snyder (1997) believe this to be the case, however they do not use the state as their unit of analysis. Engstrom and Vanberg (2010) similarly ignore the state, choosing individual members as their unit of analysis. In assuming earmarks are a partisan affair, this work will explore how party cohesion among legislatures in a state’s House delegation affect earmarks delivered to that state. In doing so, this paper will explain how party
politics is a driving factor behind the benefits constituents receive.

The hypothesis of this study comes from a body of research that suggests distributive spending, like much of politics, is a tremendously partisan affair. A number of studies have described a link between positive election outcomes for incumbents and distributive benefits (Levitt and Snyder 1997, Lazarus 2009, Engstrom and Vanberg 2010, Lazarus and Reilly 2010, Rocca and Gordon 2013). This link underscores the partisan agenda of garnering earmarks for House districts. Quite simply, those who garner earmarks for constituents are more likely to be reelected. Furthermore, studies examining a possible relationship between party ideology and differences in distributive spending have been inconclusive when taken in aggregate (Alvarez and Saving 1997, Bickers and Stein 2000), suggesting that party ideology cannot be established as a causal determinant of earmark spending. Inferred from this body of research is the notion that earmarks are used to advance partisan interests, regardless of political party affiliation.

Methodology

Theory and Expectations

This study hypothesizes that, in comparing American states, those states that have higher party cohesion within their delegations to the U.S. House of Representatives will have higher per capita federal earmark spending than will states that have lower party cohesion within their House delegations. The null hypothesis of this study is that, in comparing American states, those states that have higher party cohesion within their delegations to the U.S. House of Representatives will have the same per capita federal earmark spending than will states that have lower party cohesion within their House delegations.

A few recent studies have asserted that other politicians, not just the Member of Congress for a district, have an effect on the monetary amount of earmarks garnered for that member’s district (Levitt and Snyder 1997, Engstrom and Vanberg 2010). The crux of these assertions is that politicians will work together to secure as much federal money as possible for their districts. This is an assumption adopted in this study, which argues distributive spending is an overwhelmingly partisan affair: members of the same party within a state’s U.S. House delegation will try to win a majority for their party in the House by working together to bring earmarks to their districts.

In addition, both parties want to win a majority, thereby advancing their party’s interests. Republican House members will work with other Republican House members within a state to secure earmarks, just as much as Democratic
House members with work with other Democratic House members within a state. Since positive electoral outcomes and party interests are intrinsically linked, members of the House of Representatives will collaborate with other members of a state’s House delegation that are of the same party. Thus, a strong positive correlation between party cohesion and per capita earmark spending is expected in the findings.

Operationalization and Conceptualization

The independent variable (IV) in this study is the number of Democratic members of the U.S. House of Representatives as a percentage of the state’s House delegation. The independent variable will be operationalized as a measure of party cohesion by taking the percentage of Democrats in each state’s House delegation, subtracting 50% from that value, and then taking the absolute value of that difference. For example, a state with 25% Democratic and 75% Republican House members would have a value of 25, whereas a state with 90% Democratic and 10% Republican House members would have a value of 40. Please note that this formula does not differ for smaller states. Those states with fewer representatives in Congress are considered to be the same as those with larger members for the purposes of this study. Although efforts have been made to control for any skewing effects due to fewer representatives from population, with such a confounding error is not possible to control for completely within the limitations of this study. Thus, minimal skewing will occur.

Contextually, the measure for the independent variable is the measure for party cohesion, as both higher values are expected to positively correlate with the dependent variable. The operationalization of this variable as a percentage is intent on controlling for the population of each state, as the number of U.S. Representatives in a state is dependent on population.

The dependent variable (DV) in this study is earmark spending in dollars per capita. Again, the use of “per capita” in the operationalization of this variable is a way to account for a state’s population. Both the independent variable and the dependent variable for this hypothesis are interval level data, with the independent variable being measured as a percentage and the dependent variable being measured in terms of U.S. dollars. Using the state as a unit of analysis is an attempt to minimize duplication of previous work done on the topic of earmarks, with most scholarship to date focusing only on the House district as a unit of analysis (Rocca and Gordon 2013, Lazarus and Reilly 2010).
Research Design

The dataset for this study is adapted from Philip H. Pollock III’s An SPSS Companion to Political Analysis (CQ Press 2012): States. The independent variable data comes from the American Conservative Union’s calculation for number of House members of each party in 2009, at the beginning of the 111th Congress. Philip Pollock, the author of the dataset, converted the raw numbers into percentages. The dependent variable data comes from data collection done by Lauren Cohen, Joshua D. Coval, and Christopher Malloy for the National Bureau of Economic Research in March 2010, also during the 111th Congress. For each variable, the number of cases is 50, one for each state. As previously stated, the data already controls for population in its current form. In addition, having both variables during the same Congress controls as much as possible for variations in party makeup of individual House delegations. To test the theory that linking party majority to earmark spending is inconclusive, a dummy variable for party majority will be used. Because both variables are coded in States as interval level data, the method for this study will be to calculate a correlation between the independent variable and the dependent variable and then to conduct a regression analysis on the data. This analysis aims to disprove the null hypothesis.

Data Analysis

All of the tests run use party cohesion as the independent variable (IV) and federal earmark spending per capita as the dependent variable (DV). Because the IV is measured in terms of the percentage of a state’s House delegation being Democrats, the operationalization of party cohesion in this study is measured as the absolute value of the difference between 50 percent and a state’s percentage of its House delegation being Democrats. It is important to note the independent variable is simply a way to easily reflect the partisan mix of each state’s House delegation and its quantitative value as percentage Democrats has no bearing or influence on the results of the analysis. The first tests conducted were to determine a level of correlation between the variables and one to test for statistical significance. Figure 1 shows results of the correlation and statistical significance tests run between the independent and dependent variables.
Figure 1: Correlation and Statistical Significance

<table>
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<tr>
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<th>House Delegation Cohesion (%)</th>
<th>Earmarks per capita (in USD)</th>
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<tr>
<td><strong>House Delegation Cohesion</strong></td>
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<td>Pearson Correlation (2-tailed)</td>
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<td></td>
<td>0.018</td>
<td>50</td>
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* Correlation is significant at the 0.05 level (2-tailed).

Figure 2: Regression Analysis

<table>
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<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T-value</th>
<th>Sig. (P-Value)</th>
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<tbody>
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<td>19.821</td>
<td>N/A</td>
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<td>House Delegation Cohesion</td>
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<td>0.499</td>
<td>0.338</td>
<td>2.476</td>
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<td>Party Majority D/R</td>
<td>-16.183</td>
<td>18.729</td>
<td>-0.118</td>
<td>-0.864</td>
</tr>
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</table>

a. Dependent Variable: Federal earmarks per capita (in USD)
b. Adjusted R2 = 0.089

Figure 2.

As Figure 1 demonstrates, there is a clear link between the percentage of members of a state’s House delegation being of one party and the federal earmarks garnered per person in that state. The Pearson correlation, known as r, is 0.335. To test for causation and magnitude, a linear regression was used. However, to test the theory that earmark spending is not significantly different depending on the party holding the majority of House districts in a delegation, a dummy variable for party was used.

Figure 2 shows the results of the bivariate regression analysis. The model yields the following function for federal earmark spending per capita: Federal earmark spending per capita = 20.748 + 1.236*(House delegation cohesion) + -16.183*(Party Majority D). The y-intercept of 20.748 shows us that when a state’s House delegation is 50% Democratic and 50% Republican, the average federal earmark per person is $20.75. The regression coefficient of
1.236 tells us that, for each percentage increase in House delegation cohesion; there is an increase of $1.24 in earmarks per person. With the average congressional district containing more than 700,000 people, each percentage point increase in House delegation cohesion correlates to an increase of more than $850,000 for each congressional district per year. Extend that benefit over multiple districts and multiple years and it becomes easy to see how members of a House delegation working together might bring tangible benefits to their constituents.

Interestingly, when a dummy variable for party majority was used, with a Democratic majority coded as a “1” and Republican majority coded as a “0”, the results are not significant

\[ p > 0.39 \] This suggests that it makes no difference whether a House delegation is majority Republican or majority Democratic. Per capita earmark spending will increase as the delegation becomes more cohesive, regardless of which party holds a majority.

The value of the adjusted R-square is 0.089. This means that about 8.9% of the variation in the federal earmark spending per capita is explained by party cohesion within a state’s House delegation. The other 91.1% of variation in federal earmark spending per capita in each state is explained by other factors, of which there are several. The data therefore describe a weak relationship between party cohesion and per capita federal earmark spending.

For a significance level of \( p < 0.05 \), the P-value of the relationship is 0.017. Under the assumption that the null hypothesis is correct, we obtain a regression coefficient of 1.236, by chance, about 1.7 percent of the time. Because the probability of obtaining the test statistic by chance is less than 5 percent, we can safely reject the null hypothesis. In comparing American states, those which have higher party cohesion within their delegations to the U.S. House of Representatives will have higher per capita federal earmark spending than will states that have lower party cohesion.

**Conclusion**

As hypothesized, states that have higher party cohesion within their House delegations will have higher per capita federal earmark spending than will states that have lower party cohesion. This provides a frame for the assumed link between party politics and constituent benefits, a link described as having positive electoral outcomes for members (Levitt and Snyder 1997, Lazarus 2009, Engstrom and Vanberg 2010, Lazarus and Reilly 2010, Rocca and Gordon 2013). Research attempting to link party majority with earmark spending has been inconclusive (Alvarez and Saving 1997, Bickers and Stein
2000) and indeed, when using a dummy variable for party majority within a House delegation, there is no significant difference between Republicans and Democrats. In addition, since many politicians will work together to secure as much federal money as possible for their districts (Levitt and Snyder 1997, Engstrom and Vanberg 2010), it is logical that a House delegation that is heavily of one party would secure more earmarks for constituents than a House delegation split between Democrats and Republicans. This occurs as House members of the same party and state delegation, either because of self-interested reasons of wanting to win reelection or because of directives from the national party, will be eager to work together to sponsor bills, draft amendments, or pressure committees that bring federal dollars back to their state.

In addition, it is intrinsically easier to work together if interests are shared, which often occurs between delegation members of the same party. As greater amounts of federal dollars come to the state, constituents look at these benefits, whether they are infrastructure projects or tax breaks for a large employer, as a reason to reelect the politicians who secured the funding (Lazarus and Reilly 2010, Rocca and Gordon 2013). Consequently, higher amounts of earmark spending become associated with positive reelection outcomes to those who secured more earmarks, increasing the incentive for members of the same party to work together to secure these contracts and bids. This reinforces the overtly partisan function of distributive spending in the U.S. Congress.

This study established a clear link between House delegation cohesion and per capita federal earmark spending. In fact, almost 10% of the variation in earmark spending can be attributed to this variable alone. Nonetheless, as with all social science research, it is difficult to not only operationalize concepts and phenomena into statistical tests, but also to control for other variables that may be affecting the relationship being studied. One of the main reasons these two particular variables were chosen is because they both control for population and both occurred over a similar time period, during the 111th Congress. But as is evident in the analysis, other variables are at play in this relationship, which provide ample opportunity for further research.

One aspect of distributive spending that can be researched further is the effect of committees on earmark distribution, using states as the unit of analysis. However, to take into account a smaller sample size that would result from this research, any further studies would have to examine a longer time period. Engstrom and Vanberg (2010) examine the effect of committee members, particularly those on the Appropriations Committee, on earmarks garnered, but they do so without the lens of cohesion and without the state
as a unit of analysis. One further avenue for research is to examine this relationship, as existing literature suggests committee membership may also affect earmarks.

Another possibility for further research on this topic would be to expand the scope of the current study to include additional sessions of Congress. This study focused on only the 111th Congress due to the availability of data on that particular session and the complexity of expanding the timeframe. Including this time series data could help determine whether or not the relationship between House delegation cohesion and federal earmark spending has increased or decreased over time and to further examine whether delegation majority continues to be a non-significant variable. Creating a panel study could eliminate additional confounding variables, such as the possible negative skewing effect of having smaller districts with only one representative.

Democrats and Republicans included in their party rules a ban on earmarks for the 112th Congress because of the often corrupt and wasteful appearance of earmark spending. While this might predicate an end to distributive benefits to constituents, it is very likely that what is commonly referred to as “pork barrel spending” has and will continue under other guises. One only has to look at recent news to know this is true. As part of the October 2013 deal to end the government shutdown and raise the debt ceiling, the amount of money authorized for the Olmsted Lock and Dam project, a series of locks being built by the Army Corp of Engineers in Kentucky, increased from $775 million to $2.9 billion (Robillard 2013). Even though Senate Minority Leader Mitch McConnell of Kentucky claimed to have had no part in the inclusion of this provision in a bill that reopened the government, the inclusion of such an authorization suggests that distributive spending is alive and well in the United States Congress.

Thus, since the earmark ban and methods of earmarking money have become less explicit, it has become more imperative – not less – to study distributive spending and its effect on our political system. This study’s findings provide valuable evidence that legislators will work together to secure federal spending, which also benefits their particular constituents. The finding that the majority party in a delegation does not matter for earmark spending is of particular importance, as it suggests that the degree to which members work together matters much more than their party identification. But what will happen now that legislators cannot secure spending in the same fashion? Will constituents still benefit from government spending? Will party cohesion disintegrate? As time goes on, the answers to these questions will grow to define our changing political landscape and with it, our nation’s political future. ✻


