EMPIRICAL ANALYSIS OF CAMPAIGN CONTRIBUTIONS AND

CONGRESSIONAL 'GREENESS'

Except where reference is made to the work of others, the work described in this thesis is my own or was done in collaboration with my advisory committee. This thesis does not include proprietary or classified information.

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EMPIRICAL ANALYSIS OF CAMPAIGN CONTRIBUTIONS AND CONGRESSIONAL 'GREENESS'

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THESIS ABSTRACT

EMPIRICAL ANALYSIS OF CAMPAIGN CONTRIBUTIONS AND CONGRESSIONAL 'GREENESS'

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"Legislators possess political assets that economic interest groups may find valuable in pursuing their goals". This quote made by Kevin Grier and Michael Munger provides the impetus for my analysis. In the following paper I apply this theory to specific environmental legislation and ask the following question. Do politicians, who vote favorably for the environment, experience "consumer" approval in the form of differentially high campaign contributions relative to politicians who do not vote in favor of environmentally-friendly policies?

This paper asks whether or not the quotation above applies in the environmental arena. The model used to indicate such 'legislative attributes' has been augmented with a scoring system for a congressman's environmental voting record. Through this model I attempt to discover whether or not congressmen face a financial incentive to vote favorably on environmental issues.

Style manual or journal used: Public Choice.

Computer software used: Microsoft Word 2003 for document preparation; Microsoft Office Excel 2003 used for statistical analysis.

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INTRODUCTION

A recent Wall Street Journal article {Will Social Responsibility harm business} May 18, 2005) addresses the growing trend of 'corporate social responsibility'. This initiative is being embraced by large corporations as a more comprehensive mission statement, which does not begin and end with profit maximization. Pressured by non-governmental organizations (NGOs) and the like, companies voluntarily have begun implementing policies beyond government regulations which restrict actions that are environmentally harmful. This 21st century business model may not be without merit; in fact one corporate giant seems to think that it will generate more profits. In the above mentioned Wall Street Journal article, General Electric (the world's largest publicly held company) CEO Jeff Immelt argued that "new restrictions on green house gas emissions would have a de minimus impact on my investors". As well, Immelt believes that additional profits will be generated by further carbon emission controls that allow the company to capitalize on its robust line of 'friendly' products—wind turbines, efficient jet engines, etc. "Wind, water, lowering emissions, having an environmental service business ... The economics of scarcity are going to drive lots of technological innovation over the next ten, 20, 30 years," Immelt says. "This is an approach to growing the company faster." Further, Forest Resource Inc. in a January 19th, 2006 bulletin reports that several green interest groups commissioned the opinion research group to conduct a telephone survey on whether consumers base purchasing decisions on any other criteria

than price and quality. The study found that 80% of customers who had purchased a book or magazine in the past six months or who currently have a magazine subscription said the would be willing to pay more for a book or magazine printed on recycled paper.

It remains to be seen whether these business decisions will prove to be profitable, but the behavior being exhibited is interesting. The easiest and most recognized way for buyers in free, private markets to show their preferences for goods and services is in the way they spend their dollars. This is most noticeable in private markets because of the numerous transactions that occur daily. However, this behavior also can be seen in the public arena. Individuals running for public office spend a large amount of time raising funds in the form of campaign contributions. Given a choice of candidates for public office, a citizen of a specific political jurisdiction will logically donate money to the candidate who has the most similar views or is the most willing to show reciprocity upon election. However, unlike voting, donations are not restricted to only the district which a specific citizen belongs. It is also notable that a candidate receiving the most money for a campaign does not always win the election in a particular district.

If there are compelling incentives in private markets to restrict activities that harm the environment then there may be similar imperatives in the public sector. The possibility motivates this study. Do politicians, who vote favorably for the environment, experience "consumer" approval in the form of differentially high campaign contributions relative to politicians who do not vote in favor of environmentally-friendly policies?

Mr. Immelt's sentiment about the possible profitability of corporate environmentalism notwithstanding, there is evidence that such a payoff may not exist in

the public sector. David Brooks, a journalist for Time magazine in a round table discussion on cultural trends in the United States was quoted as saying "All I can say is when you ask politicians what subjects come up at town-hall meetings-which is something I do a lot-issues like global warming and environmentalism never come up". He added "In surveys too, when you ask people for the 10 issues that matter most to them, it's always health care, jobs, education, gas prices. Environment is never there". My goal then, in this thesis, is to explain empirically whether politicians who are regarded as 'pro-environment' receive consumer support in the form of differentially high campaign contributions controlling for other factors that influence campaign donors.

I analyzed determinants of campaign contributions to House members of the 107th Congress (2001-2002 election -cycle) and attempted to answer this question. Controlling for gender, party affiliation, seniority, their margin of victory in the 00 and 02 elections, and whether or not they were a chairman or ranking member on committees that were considered important to environmental issues, I find that a congressman's environmental voting record, reflected in his/her rating by the League of Conservation Voters, does not effect campaign contributions received.

LITERATURE REVIEW

"Legislators possess political assets that economic interest groups may find valuable in pursuing their goals" (Grier and Munger 1986). This quotation represents a view of government that began in the late-1950's and was cemented as the prevailing view a decade later. Previously researchers had set forward a theory that political representatives did not seek to maximize their own interests but instead sought to find the "public interest". This view was founded on the premise that individuals made different decisions in the political arena than they did in the private arena; this includes both citizens and statesmen.

Beginning with their seminal work 'The Calculus of Consent' in 1962, James Buchanan and Gordon Tullock developed the theory that the structure of government organization is analogous to private markets. In their view, both the market and our representative democracy are institutions that allow cooperative exchange to take place and that both parties benefit. Specifically, voters' are individual agents in search of the best supplier of public goods and services for their particular needs and elected representatives respond to the incentive of being elected by providing these 'Legislative services'. These services can only be provided in one form, through the successful election of legislators who best deliver services.

In the 1970's and 1980's, a number of authors further developed this market model for campaign expenditures and political competition. Underlying this model is the

traditional supply and demand relationship, characteristic of private markets. Demand for legislative services diminishes as the 'price' to acquire these services (votes and/or campaign contributions) increases and similarly, the supply of legislative services increases as more votes and/or campaign contributions are secured. With respect to expressing the intensity of desire for certain legislative services, campaign contributions arguably are a more revealing indicator than whether or not an individual casts his vote for candidate A or B. Casting a vote reveals which candidate is preferred but gives no indication of intensity of preference. As in private markets for goods and services, the 'price' paid for legislative services in the form of campaign contributions, reflects the demanders' intensity of consumer preference.

Grier and Munger (1986) identify several factors that, in general, are important to prospective campaign contributors when 'buying' legislative services. As a general proposition, the more effectively a legislator can deliver valuable special interest legislation, the more money he can raise. More specifically, the variables identified by Grier & Munger as affecting a Congressman's ability to supply special interest legislation in the legislature include:

(1) A congressman's position

(2) Electoral security

(3) Tenure

(4) Part

From our assumptions, namely that electoral politics are structured as a form of market economy, we observe an exchange that takes place between campaign contributors and elected congressmen as evidenced by the large amounts of money that

are donated to a congressman throughout an election cycle. Further, we observe that not all contributions are equal in amount. This indicates that, from a demander's prospective, not all congressmen are equally capable of supplying the legislative services important to them. How do potential contributors decide which congressmen can best deliver preferential legislative outcomes in the form of bill passage?

From a contributor's standpoint there are two stages of getting preferential legislation passed. The first deals with those congressmen that possess traits important to getting bills into and then out of committee. Most bills never make it out of this phase. At his/her discretion the committee chairman can keep legislation in limbo as long as they choose to do so. At this crucial first stage the supply of special-interest legislation is influenced by a congressman's position in the legislature.

A congressman's position is determined by interrelated traits, most notably tenure in the congress/position and his party affiliation. These two variables determine a congressman's all important position on committees. Ranking position on committees allows a congressman to essentially be the gatekeeper to legislation on certain subject matter. Committee chairmen are the most important in this regard. Based on which party has the majority in congress largely determines the trends in policy for the particular election cycle. So from a donor standpoint they will seek out congressmen who provide them with the most ability/access to influence introduction of legislation and who can shepherd that legislation through subcommittees and committees to a floor vote.

However there are other pressure points that campaign contributors may use when trying to get legislation passed or changed. One example would be logrolling. Logrolling is the term used to describe trading of votes or support by one legislative member to

obtain support in return by other legislative members. Once an influential member of congress i.e. a committee chairman is on board with a particular PAC's agenda, he then has the ability to influence other legislators to do the same by supporting their agendas. This is not the only way a congressman could garner support from other congressmen. A PAC need not donate money to a specific legislator; only donate it to one they believe can get their legislation passed. Once a congressman has the campaign contributions, he doesn't have to trade a vote for a vote as is the case with logrolling. He can actually physically transfer some of his campaign contributions to other congressmen with the understanding of a reciprocal favor either then or in the future.

A PAC need not donate money to an influential congressman that deals with their specific legislation; they may in fact donate to a congressman from an entirely unrelated committee who happens to have a larger political influence. An example would be for an environmental PAC to donate contributions to the committee leader for appropriations. This will result in the same behavior listed above only with the caveat that congressional influence can come from any committee chairman or other influential congressman, not necessarily one who is most closely involved with specific legislation important to a certain PAC.

Once an interested campaign contributor has secured committee support for a bill and the appropriate committee has finalized a bill and passed it through a committee vote, it moves on to a general house vote. At this stage special interest groups have two ways of getting their legislation passed. The first is through the previously mentioned logrolling. However, there is one important difference from the scenario explained above. Logrolling in this case is not as effective because for the general congressmen who don't

hold disproportionate power logrolling will only sway their vote. Logrolling other influential committee members may in fact aid in securing votes from other junior congressmen. Besides logrolling, contributors can directly influence congressman in the form of direct campaign contributions. However, they must be strategic in their donation strategy as funds are not infinite and rival interests exist.

So what do campaign contributors seek from congressmen at this stage? As stated above funds are finite, so contributors have to find the best donation strategy on the margin, meaning the most legislative support per dollar contribution. From this strategy we immediately ignore those congressmen who already have cast their strategies strongly with a rival interest. Any attempt to convince these 'extremists' may not be impossible, but it would be costly. As well the 'extremist' who already is going to vote favorably with a PACs interest will likely not receive much in the way of contributions either. The logic being that with limited funds PACs will just free-ride off the congressman's voting behavior and donate money where it can be more useful at the margin. A potential donor(s) need enough floor votes to secure passage. In order to accomplish this goal, these donors need to express intensity of preference—i.e. how much it would mean to them to have a particular bill passed. Contributions, not votes, are an efficient means to express appreciation to congressmen for their past or future vote on a particular legislation.

Whether needing an influential congressman to gain access to the legislative process or needing to marshal votes once a bill has made it through committee, one last characteristic that potential campaign contributors look for in a congressman is electoral security. For any specific congressman, security in office can be defined as how

vulnerable he is to being beaten in the next election. According to Jacobson (1979), the less security a congressman has the more important campaign contributions become due to their being an input in producing votes. This is due to the visibility gained by a challenger as he acquires more dollars. As potential voters are unclear about his/her candidacy, he must spend money on marketing to alert his constituents of his stance on important issues. From an incumbent's standpoint, the voters are already informed about his policies so those dollars would be better spent elsewhere. Consequently, higher spending is advantageous to the challenger on the margin and is indicative of his strength to provide legislative services. From an economic standpoint we take it as a sign of 'buyers' believing they have found a better deal in the form of another congressman.

In effect a congressman may trade services for contributions as contributions have become important to him in a tight race. This is due to his/her attempt to respond to his constituents and stay in office. Interested parties may see that the congressman most closely aligned with their preferences may be in for battle in the election and donate more aggressively to ensure his/her victory. This is because in close races the money donated by contributors is more likely to influence the outcome of the election. These effects are less likely to be seen for unopposed or secure incumbents. This may be due to buyers trying to attain services at their lowest cost. Therefore, a congressman in a district who faces little to no opposition doesn't need the amount of campaign dollars that a highly contested district may require.

There is general agreement that campaign spending greatly affects the outcome in specific congressional elections (Dix & Santore 2003). This leads to a logical question. Do congressmen alter their voting based on contributions received? That is do campaign contributions 'buy' favorable votes on legislation of interest to special interest groups? Or do donors support those most like-minded candidates? In their analysis of testing for how politicians' voting behavior changes during their last term before retirement (i.e., they no longer face the prospect of lost campaign contributions). Bronas & Lott (1997) found that the evidence supported the latter. Other researchers were unable to reach a consensus that contributions have a significant impact on voting decisions (Chappell, 2001; Stratmann 1998). Chappell finds that most often a candidate votes on the basis of personal ideology or the preferences of constituents. Stratmann (1998) argues that the timing of contributions indicates that even when an interest group does not get their 'preferred' candidate elected, their pattern of contributions is temporally related to voting on bills of interest. Magee (2000), who examines PAC contributions to challengers and incumbents for the House of Representatives, finds that while PACs donate money to influence election outcomes, PAC donations do not influence a candidate's policy stance. Their findings indicate that campaign contributions received by candidates are greatly affected by their policy positions, lending further support to Dix and Santore (2003). Further Magee (2002) finds that contributions flow to those members of influential committees important to those interest groups.

This still leaves the question of how prospective campaign contributors treat newly elected officials since voting records for newly elected congressmen do not exist. This lack of voting information on the part of potential contributors is addressed through

campaign promises. Ringquist (2004) finds that members of congress vote consistent with their campaign promises 73% of the time.

In a sense these congressmen, whether through promise keeping or voting behavior are signaling to voters how they will legislate on certain policy issues. Due to the complexity of policy proposals, ideology is a low-cost signal about future voting patterns that constituents use to lower information costs (Downs 1957, Peltzman 1984). This term should not be confused with how the congressman actually feels on the issue, only his general stance or position on policy matters(e.g.. environment) but not necessarily specific bills brought before congress.

Findings in other studies argue that, while important, ideology does not play the role in environmental voting that it does in other policy areas (Nelson 2002). In fact, most votes on environmental legislation can be attributed to by a simple combination of party and region. However, this is consistent with the possibility that congressmen use party to signal ideology to their constituents and then vote in a fashion both consistent with their campaign promises and previous voting record, which is controlled by their constituents (Nelson 2002).

To further support these findings, my initial results indicate an adjusted R^2 value of .73 when a simple regression is conducted on a party variable against League of Conservation scores for congressmen in the 2001-2002 election-cycle. This has led me to speculate that either inherently there is some underlying factor that causes Democrats to be pro-environment and Republicans voters to be anti-environment or that voting behavior gets 'bundled' in with other issues and environment just isn't as important as other policy issues (Peltzman 1984).

Signaling works fine for those voters who are interested in issues they feel strongly about, but what about the large number of swing voters? These voters are not as interested in a congressman's stance on a particular party line, let alone a single issue. It has been assumed that in congressional districts where there are a large number of swing voters, the ideologues contribute more vigorously as resulting campaign spending can persuade those swing voters. However, the researchers find the reverse to be true for their sample (Dix and Santore 2003). While not citing a reason, this may be caused by, ceteris paribus, less uncertainty going into contributors decision making function.

Signaling is not uniform among incumbents and challengers. A congressman who has held his seat for many years faces very little in the way of opposition in any subsequent election. This is a result of name recognition enjoyed by the incumbent. After his initial and subsequent elections the congressman is much more difficult to remove barring extenuating circumstances i.e. scandal, natural disaster, death. In order for a challenger to oust such an incumbent (s)he must take a radically different approach and/or raise an incredible amount of money as campaign contributions make a larger difference to their campaigns (Jacobson 1979). This makes sense much in the same way any new product has to engage in vigorous marketing to inform buyers of its advantages over the established brand.

For environmental issues, there is a fine line to be walked in regard to strong issue specific ideology as Riddel (2003) finds that voters will reject what they perceive to be an excessively 'green' candidate in the Senate. However, Senators are under pressure to vote 'green' due to eco-labeling received from environmental PACs, which likely serves as a signal to voters that a particular congressman is environmentally friendly. Donations by

environmental Political Action Committees (EPACs) were observed to have a positive impact on Senatorial elections, by essentially 'Eco-labeling' certain senators as friendly to environment as compared to his competition for particular congressional races. Yet there are diminishing returns to this 'eco-labeling' as voters are shown to resist a candidate that is too 'green' for a particular district. So it becomes important for a Senator to be just more 'green' than his opposition, but not an environmental extremist. Obviously, these two forces of voters and campaign contributors are at odds as E-PACs would wish for the candidate to be as 'green' as possible.

Riddell 2003 indicates that all things equal, if a congressman faces strong opposition campaign contributions increase for both incumbents and challengers. Also, displaying a more 'green' ideology as compared to his opponent (as evidenced by voting record of incumbents or promises by challengers') increases the candidate's chance of winning. However, Riddel also indicates that environmental extremist candidates are more likely to be rejected by the voters on Election Day than candidates exhibiting moderate support for environmental issues. Constituent votes are a poor measure for whether or not a politician will return legislative services. While a congressman has the ability to 'shirk' his constituents once they have cast their votes for his election, s (he) also is trying to maximize their contributions for the next election. As potential campaign contributors face multiple deadlines as opposed to only one by voters their impact is more direct as they can pick and choose when to contribute and how much. Through contributions potential contributors are able to influence a congressman's voting patterns by timing their contributions to coincide with legislative votes on key issues

(Stratmann 1998). However, researchers analyzing whether or not legislators respond to PAC campaign contributions have yet to reach consensus (Lott 1987, Peltzmann 1984).

Riddel (2003) uses an environmental ideology index, the environmental scorecard compiled by the League of Conservation voters as an environmental ideology index. She then seeks to determine this index's role in determining the probability of a Senator winning reelection or a challenger usurping the senate seat. This score has become the standard indicator for environmental positions taken by senators and congressmen in empirical research (Rawls and Laband 2004, Nelson 2002, Hussain and Laband 2005, Shipan and Lowery 2001). Other than Riddel (2003) none of the literature has addressed the issue of environmental ideology on congressional campaign contributions and her analysis focuses exclusively on Environmental PAC donations and how LCV scores may influence voters, but not other potential PAC or individual contributions.

Previous authors have focused primarily on analyzing specific interest group donations. For the purpose of our study we include campaign contributions from individuals and all PAC's (political action committee's, these represent interest groups), not just those associated with a certain sector, in this case the environment. In my analysis I determine if potential campaign contributors' actual, observed donation behavior is influenced by a congressman's environmental voting record.

DATA

Based on the established findings regarding factors that influence campaign contributions, I propose the following general model of the determinants of campaign contributions received by a member (i) of the U.S. House of Representatives:

Contributions =

(a) i's 'support' for environmental causes/issues

(b) i's security in job

(c) i's influence in the legislature

(d) i's demographic characteristics

Based on established findings regarding factors that influence campaign contributions and the limitations and scope of analysis, the following specific model was estimated:

(1) $CAMPCON= \beta_0 + \beta_1 SEN + \beta_2 MVPE + \beta_3 MVCE + \beta_4 GEN + \beta_5 LCV + \beta_6 CHRM + e_i$

Where,

CAMPCON= the amount of dollars raised by a winning candidate for the Election cycle 2001-2002 (including PAC and individual contributions) as reported by the Federal election commission.

SEN= the number of years a candidate has served in the House of Representatives.

MOPV= the percentage of the vote that the winning candidate received

minus the percentage of the vote his/her principal opponent received in the 2000 election.

MVCE = the percentage of the vote that the winning candidate received
minus the percentage of the vote his/her principal opponent received in the 2002 election.

GEN= whether the elected congressman is male or female. 1=male 0=female

LCV= the average score (1-100) that a congressman received for his/her vote on environmental legislation. Environmental voting for this study was obtained from the League of Conservation Voters (LCV), which track each representative's votes on issues which the LCV deems to be environmentally important. For each election cycle each senate and house member is given a score, scaled from 0 (low) to 100 (high). The score is an aggregate of several bills that the League of Conservation Voter's determined to be environmentally important. The scores they give to a congressman reflect the % of the time a congressman votes with or against the LCV's stated position on this list of bills during the 2001-2002 election cycle*. The Scorecard represents the consensus of experts from 22 environmental and conservation organizations who selected the key votes on which members of congress should be graded. A members' score is calculated as a % of all Scorecard votes for both 2001 and 2002 rather than as an average of each year's score.

CHRM= Whether or not the House member served as a chairman or ranking committee member on committees which impacted environmental legislation as indicated by the League of Conservation voters. 1=Chairman/Rnk member

0=otherwise**

Ei = is the error term, assumed to be i.i.d.

Federal Election Commission. Website: HYPERLINK "http://www.fec.gov/finance/disclosure/disclosure_data_search.shtml" http://www.fec.gov/finance/disclosure/disclosure_data_search.shtml

National Journal. Website: HYPERLINK "http://nationaljournal.com/pubs/almanac/2006/people/"
http://nationaljournal.com/pubs/almanac/2006/people/
 HYPERLINK "http://www.lcv.org/images/client/pdfs/2001_Scorecard_Final.pdf"
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http://www.lcv.org/images/client/pdfs/scorecard02final.pdf

*Bills included in the 2001-2002 LCV scoring were H.R.2624-Farm conservation, H.R. 4546 -Defense Environmental Exemptions, H.R. 5093-California Coastal Drilling, House Roll Call vote 133, H.R. 5005 Right to Know, H.R. 3009 Trade & Environment.
** Committees deemed to have direct impact on passage of environmental legislation include: Agriculture, Apporpriations, Energy and Commerce, Resources, Transportation and Infrastructure.

METHODS

The sample necessarily is limited to those candidates that received environmental voting scores from the League of Conservation Voters and served throughout the 107th Congress. This ruled out candidates who may have passed away, been defeated or elected in special elections over this time period, or retired, resigned, or been expelled from office. My sample did not include the Speaker of the House, since The League of Conservation Voters did not include a score for this congressman, citing that the Speaker votes at his own discretion.

For each individual in this sample, I collected information (from the Federal Election Commission) on campaign contributions received. The goal of this study was to determine whether or not a relationship exists between House members' environmental voting record, proxied by LCV scores, and the level of campaign contributions they receive. No observations were discarded at this stage, as all winners of elections are required to report these (PACS and individuals) contributions fully.

I then went to the National Journal which reports margin of victory for successful candidates. I specifically collected information on those candidates that won in the 2000 election and the 2002 election. I estimated 2 versions of the model described in equation (1): one included only those individuals who won both elections, the other included individuals who won the 2000 election and did not win the 2002 election (beaten, retired,

etc.). The sample that did include those candidates who won in 2000, but did not win in 2002 contained 414 observations (congressmen). This allowed us to include those lost observations of Congressmen who did have a LCV voting record for the time frame under investigation, but lost their seat in Congress. However, it does confront me with a new obstacle of trying to explain my results in light of the fact that these congressmen did not satisfy their constituents and resulted in their tenure in office being terminated. I then deleted those that voted in the 2001-2002 election cycle but lost in 2002, paring my dataset to only 363 observations. Seniority, gender, and party were all compiled from the National Journal website (www. National Journal.com)

Data on Chairman or ranking committee member status on environmentally influential committee's was gathered from the LCV scorecards. These committees were determined using those the League of Conservation determined to be of importance. They included the House committee's on Agriculture, Appropriations, Energy and Commerce, Resources, Transportation and Infrastructure. However, Billy Tauzin (LA-3) the chairman of Energy and commerce and Obey (WI-7) the ranking minority member for the appropriations committee were not included in this analysis. The national journal did not report margin of victory for Tauzin in the general elections or any other congressmen from Louisiana for that matter. The Federal Election Commission did not report campaign contributions for Rep. David R. Obey (WI-7), despite the fact that he was required to report this information.

My first step with this data was to begin constructing models which I determined to be suitable to explain my dependent variable, but that maintained believability with respect to the body of literature on campaign contributions. Grier and Munger (1985)

most closely resemble my approach, but they focus their analysis on contribution patterns of corporate and union PACs to incumbent legislators, this leads them to encounter many congressmen who receive contributions from neither of these groups. They use a Tobit model, which estimates a non-linear, maximum likelihood probability model. This approach is used in order to avoid biased ordinary least squares estimates, resulting from a mass point of zero contributions. My analysis does not suffer from this problem of biased estimates due to the inclusion of all PAC contributions as well as individual contributions. While not all congressmen receive PAC contributions, they all receive some contributions. Obviously, most all congressmen receive some form of contributions. Further, although Grier and Munger (1985) investigate what attributes make a congressman attractive to an interest group, I extend the analysis to include individual contributors, which I assume to follow the same pattern of seeking out low cost service providers at the margin**.**

Next, I conducted a check of the regressor variables (those explaining the dependent variable) for multicollinearity. The variables found to show multicollinearity with one another were the party variable and the LCV variable. Due to the importance of the LCV ranking in my model, I dropped the party variable from the model, in order to avoid confounded effects upon my dependent variable. I will revisit this relationship later in the results section and have an extended discussion the in conclusion.

Table 1. Sample Statistics (with Margin 02).

Variable	Mean	Standard Deviation	Minimum	Maximum
Camp. Contrib.	851449.4	549001.3	100	4660942
Seniority	10.53571429	7.54354406	2	47
Margin 00	39.29396	24.9327	0	100
Margin 02	44.68132	24.6348	1	100
Gender	0.857143	0.350409	0	1
Chairman /Rnk	0.016484	0.127501	0	1
LCV Score	47.93681	37.29591	0	100

Table 2. Sample Statistics (w/o Margin 02).

Variable	Mean	Standard Deviation	Minimum	Maximum
Camp. Contrib.	849358.8	681121.2	0	4660942
Seniority	10.67554479	7.47236381	2	47
Margin 00	39.11622	24.87495	0	100
Gender	0.857143	0.350352	0	1
Chairman /Rnk	0.019370	0.137990	0	1
LCV Score	47.64819	37.23580	0	100

SAMPLE STATISTICS

In tables 1 and 2, I first examine the mean campaign contributions for congressmen during my study period (election cycle 2001-2002). As reported in table 1, which includes only those who won the 2002 elections, this includes incumbents and newly elected congressmen, campaign contributions (Total- From all sources except self-funded) on average were $851,449.4 per congressman. However, In Table 2 this average drops due to inclusion of congressmen who won in 2000, but did not maintain their seat in the 2002 elections or retired. I also note the substantial change in sample size from the sample which includes those that won in both 2000 and 2002 (412) and those that won in 2000, but lost in 2002 (363).

Other notable sample statistics include the margin of victory variables. These means tend to reflect a split sample, as most races are either won by a candidate receiving a majority of the vote or barely defeating his opponent; House races typically feature a candidate in a highly contested race or an incumbent who is unopposed.

Lastly, the mean LCV score for both samples is around 50%. This finding may indicate that the average congressman faces little incentive to vote strongly one way or another. But of course, some representatives do vote strongly on environmental issues. As I report below, I examine whether candidates who vote strongly one way or the other capture higher amounts of campaign contributions than their peers. The reported mean certainly would not suggest that is the case, but a more advanced treatment will be

necessary as the mean may reflect a split sample, as encountered with the margin of victory variable.

Table 3. OLS estimation results. Dependent variable = Campaign Contributions

Variable	(1) Estimated Coefficient	(2) Estimated Coefficient	(3) Estimated Coefficient
Intercept	1509784.01***	1505168.53***	1472140.84
	(102514.42)	(105523.90)	(126878.78)
Seniority	-35016.52***	-40755.59***	-33474.19***
	(10230.68)	(10753.77)	(12942.94)
Seniority²	1219.89***	1326.88***	1173.91***
	(311.67)	312.52	(394.67)
Gender	-47892.02	-43891.63	-153969.48*
	(75007.09)	(75745.79)	(93107.77)
LCV score	66.32	-257.63	-293.64
	(705. 91)	(703.76)	(880.27)
Chair_Rank	281711.86	270608.68	183591.00
	(224271.95)	(226486.12)	(251550)
Margin 00	-3621.87***		-8236.79***
	(1265.36)		(1328.76)
Margin 02	-7128.30***	-8983.68***	
	(1224.68)	(1049.48)	
R-Square	0.24	0.23	0.13
Adjusted R-square	0.23	0.21	0.11
Regression F-statistic	16.45***	17.48***	9.91***
N	364	364	413

Standard errors in parentheses.***significant at 0.01% level; **significant at the 0.05% level; *significant at 0.10% level.

RESULTS

Several alternative model estimations from equation 1 are reported in Table 3. Using R-square values and F-statistics I chose the three most appropriate model specifications and report their findings. Overall my R-square values were indicating low explanatory power. However, it should be noted that one variable which I believe to be important in explaining campaign contribution phenomena had to be discarded at this juncture. The amount of contributions raised by the winning candidate's principle opponent was a limiting factor and was ultimately discarded due to the limitations it placed upon my model. Due to the number of observations that had to be discarded to include this variable, the explanatory power of the model was greatly reduced. This shortcoming was caused by those candidates who raised money for the 2001-2002 election, but did not win and therefore were not required to disclose their campaign contributions. Nonetheless, I find several highly significant model F-statistics. For further estimated model specifications, see the appendix.

First and most importantly for this study, in none of the alternative model specifications did I find the League of Conservation Voter scorecard ratings to have any significant relationship with campaign contributions. Alternative specifications for this variable were consistent (non-significant) throughout my analysis. This result was not accordance with the interview conducted with Jeff Immelt, but does support the

observation made by David Brooks, the journalist for TIME magazine. This result may indicate many things. One possibility is that the CEO of GE is incorrect, and that environmental support does not have the same 'payoff' in political markets as it does in private markets. In the realm of political economy, a congressman being environmentally friendly in his voting behavior does not lead to greater payoffs in PAC and individual contributions. It may also mean that for every voter who contributes dollars to a congressman who does vote strongly pro-environmental, there are voters or PACs that not only does not contribute, but finance the opposition candidates.

Also I must reiterate that LCV scores and party affiliation were highly correlated with one another; upon testing for multicollinearity I found a correlation value of .71 between the 2 variables. When multicollinearity exists among two or more explanatory variables I encounter confounding effects on the dependant variable (Gujarati 2003 Chapter 10.). I still have unbiased and efficient estimators and, but my standard errors of the estimated coefficients are inflated. This can cause one of the affected explanatory variables to not be considered statistically significant even when, in fact it is related significantly to the dependent variable. To eliminate this source of multicolinearity, I needed to remove one of the two variables from the model and due to the importance of LCV scores in my study I chose to remove the party variable, while acknowledging that it remains an important explanatory variable for campaign contributions.

Next, I find a highly statistically significant relationship between seniority and campaign contributions. This relationship is negative, but increasing in the nonlinear specification. For my analysis campaign contributions decline with time in office, up to 14 years, and then start to rise. This pattern may seem odd, but in fact has a ready

explanation. Initial races are very expensive. Subsequent races are less expensive as the incumbent gains security with more time in office. That is to say those younger members are vulnerable, but as time passes may become more and more secure in their positions. After a time the disincentive to donate due to his almost invulnerable position, is overridden by his influence within the congress.

In models 1 and 2, Gender was not found to be a significant explanatory variable for campaign contributions, indicating that either there is no discrimination among voters when it comes to donations or that there were not enough female congressmen in the sample to properly observe this variable (N=364). However, in model 3 which included those congressmen who had votes during the 2001-2002 election-cycle, but did not win in 2002, I find that gender is significant and negative at the 10% level (N=412). My coefficient (-153969.48) tells us that for the 2002 election females raised approximately 154,000 dollars more than if they had been men, all other things being equal. This finding is interesting because I do not find similar results in my other models. I cannot offer reasonable speculation on why this is the case.

Lastly, I come to the margin of victory for candidates both in 2000 and 2002. I discuss these variables simultaneously due to their high correlation. For most variables I would exclude one if the correlation and subsequent multi-collinearity tests proved to be significant. However, in this case that is not a wise decision. These two variables affect one another, but their influence on the dependent variable separately is statistically significant. To accurately say that one is less important and thus deserving of exclusion would not present an accurate picture of campaign contributions. Nonetheless, one may be more important when both are present and my data confirms this belief. In my models

where both margins of victory are included, the 2002 election or forthcoming election for my estimation reveals that campaign contributions are impacted twice as much by expected margin of victory in 2002 then by previous margin of victory in 2000. In effect, the 2002 margin variable acts as an ex-post expectation of contributors that the candidate will win or lose and by how much. From a contribution standpoint a potential contributor or current contributor starts to modify their campaign strategy based on new information and inputs. For instance, a candidate who looks to be a surefire victory may not receive as much in contributions as he/she would in a close election, where money is more likely to influence the election.

Also, a candidate may start out after the 2000 election and be considered a strong incumbent which could have two possible effects. That a contributor gives the candidate money to be on the 'winning team' or that the contributor attempts to be a free-rider on the success of a candidate that stands no chance of losing and shares similar ideology. Nonetheless, the literature shows that money matters, but it matters more to challengers (Jacobson 1979). This can and does effect how much money a candidate must raise, *ceteris paribus*.

This strong candidate/incumbent may suffer some political blow which allows a perceived weaker opponent to seize advantage and thus begin collecting much larger contributions late in the process. It is not clear whether this would cause a contributor to switch the side he contributes to, but there are many who contribute to both sides to ensure access to the lawmaking process.

I first examine the full model (model 1), where both variables are included. I find both variables to be significant. Margin of victory in 2000 was significant at the .05 %

level. Margin of victory in 2002 was significant at the .001 %. . I also see in Model 1 that when both are present, margin (2000) coefficient (-3621.87) is smaller than the margin of victory for 2002 (-7128.30). These estimated coefficients indicate that for every 1% increase in the margin of victory a candidate receives less money in the amount indicated by the coefficients. This is further supported in model 2 (Margin 00 excluded). I find that Margin 2002 becomes more significant when it is present without the previous election's margin of victory score. Model 3 (Margin 02 excluded), I find that Margin of victory (2000) becomes more significant (.001%). This is in line with my expectations as these variables are important in determining contributions and that they are related. As one disappears the other will be become more significant in explaining campaign contributions. I speculate that contributors may be more sensitive to how they believe a candidate will do compared to how he did previously. However, verifying this is beyond the scope of this paper.

Extremist voting from a congressman is defined as any that deviates significantly from a recognized median. However, this is only true in the event that a median is indeed recognizable (Westley 2001). Causes of a congressman voting in such a manner include extremist voters convincing their district representatives of the positions taken by the median voter. If successful, the policies brought about may in reality be that of the extremist (i.e. special interest groups). The potential for such policies being past are more likely in an election with a low voter turnout in which case candidates supporting this extremist view are likely to be elected. Also, the candidate or representative may engage in shirking, which is described as a representative's deviation from his/her constituent's wishes (Westley 2001). If indeed shirking does exist then the model of the

median-voter hypothesis must be either dropped or modified. This shirking behavior may be explained through other means than an attempt to maximize votes. If a representative is likely to be reelected they may indeed attempt to maximize something other than votes, this includes but is not limited to campaign contributions. I do not attempt to answer whether or not a congressman is representing his constituents accurately thus attempting to maximize votes, but instead attempt to measure whether or not campaign contributions is a convincing enough tool for a congressman to vote in an extremist fashion on environmental issues.

To further investigate the possible relationship between LCV scores and campaign contributions, I devised an alternative method for determining if LCV scores, in fact, were significant in explaining campaign contributions. This new method consisted of taking the subtracting the individual congressman's score from the mean LCV voting score (47.93). I then took the absolute value of the score in order to use the OLS regression estimation technique, since negative numbers cannot be used. As in the previous models I used a linear and squared term to allow the LCV variable to more fully explain the relationship, if any, with campaign contributions.

Based on how far away the individual's score was I hoped to determine if there is a financial payoff for a congressman to behave strongly either for or against the environment as shown by the LCV record. As constructed, this new variable does not differentiate between pro or anti-environmental scores, but does give us insights as to whether congressmen will reap the benefits in the form of campaign contributions for essentially 'extremist' voting behavior.

Using the same three models used in the previous analysis, I found that in none of the three alternative models did the new LCV scoring system have a statistically significant impact upon campaign contributions. My other terms stayed consistent with those found in the previous three models.

XY scatter-plots indicated that there was a bimodal distribution among LCV scores when regressed on campaign contributions (Graph 1). In order to exhaust all possible interpretations, I then divided my observational data up among Democrats and Republicans. Univariate regression analysis revealed a positive relationship for Republicans (Graph 2) and a negative relationship for Democrats (Graph 3).Following this up, I split the aggregate sample into 2 sub-samples: one consisting of Republicans only; the other consisting of Democrats only. Then I re-estimated the model for each sub-sample.

For Democrats we observe that the intercept coefficient is lower than with both groups together and lower than the Republican as well. This is likely due to the Republicans being the majority group in Congress for the particular election cycle under consideration. This means they have more influence in congress and are the party which has the committee chairman positions, thus being better able to provide legislative services. Both parties still experience a negative coefficient for the linear seniority term, but again we see that democrats receive much less due to their minority party status. For Democrats we see that the squared term for seniority is positive and significant. This corresponds with the aggregate data, but not with the Republican only sample. Again, I feel that this influenced by the Chairman variable. With Democrats, none of them are chairman and being a ranking member for a minority party doesn't seem to exert

significant influence on contributions. Accordingly, we see that time in office for minority members is an accurate portrayal and is essentially unaffected if a congressman is a ranking member.

For Republicans, contribution levels for margin of victory 2000 were not statistically significant. However, margin of victory in 2002 had a significant impact on contributions at the .001 % level. This particular finding does deviate from our previous results. In the aggregate model this variable is highly significant (.001%) but for both separate groups it is insignificant. I believe this is due to larger variance around coefficient estimates for the variable in these smaller samples. Notwithstanding, this finding, I do observe that the Margin 02 variable is still highly significant for both split models and for both models is more significant than for the aggregate models. Gender as well becomes significant in the Republican model but not in the Democrat only data. The Chairman variable also is significant for Republicans, but not for Democrats as we would expect since the current leadership in Congress is Republican and being a ranking member of committees does not carry the weight that Chairmanship does.

Finally, we come to the LCV variable. Similar to the aggregate data, our Democrat sample supports the result that LCV scores don't matter when campaign contributors are deciding on how to best spend their money. However, for the Republican only sample I find that for the Republican sample, LCV is significant at the 10 % level. Party is not compromised, as it may have been in the previous aggregate model since party, which is tightly tied to LCV scores, was an omitted but obviously co-linear, explanatory variable. I believe this result indicates that due to the irregularity of Republicans voting strongly for the environment, those congressmen either receive more

in the way of contributions due to ‘green’ groups rewarding them for voting differently than their fellow Republicans or conservative groups are donating to them in order to sway them from their current position. As for why we see this with Republicans, but not Democrats we must take into account the current position of strength the Republicans enjoy.

Table 4. OLS estimation results. Dependent variable = Campaign Contributions

Variable	(1) Estimated Coefficient	(2) Estimated Coefficient	(3) Estimated Coefficient
Intercept	1558638.34***	1571853.74***	1421795.02***
	(122522.96)	(123550.93)	(147165.11)
Seniority	-35727.83***	-41690.98***	-32952.12***
	(10294.51)	(10156.14)	(13006.16)
Seniority²	1237.09***	1347.07***	1159.20***
	(312.54)	(312.86)	(395.47)
Gender	-55937.28	-50409.08	-142194.80*
	(74224.40)	(74877.26)	(91741.01)
50% LCV score	-1079.02	-1929.76	838.52
	(1879.16)	(1870.54)	(2312.25)
Chairman	280075.45	270620.18	186497.24
	(224127.88)	(226155.51)	(251166.76)
Margin 00	-3483.26***		-8383.82***
	(1265.67)		(1335.15)
Margin 02	-7179.69***	-8990.01***	
	(1226.89)	(1045.14)	
R-Square	0.25	0.23	0.13
Adjusted R-square	0.23	0.22	0.12

(Table 4 cont.)

Regression F-statistic	16.51	17.68	9.91
N	364	364	413

Standard errors in parentheses.***significant at 0.01% level; **significant at the 0.05% level; *significant at 0.10% level.

Table 5. OLS estimation results. Dependent variable = Campaign Contributions

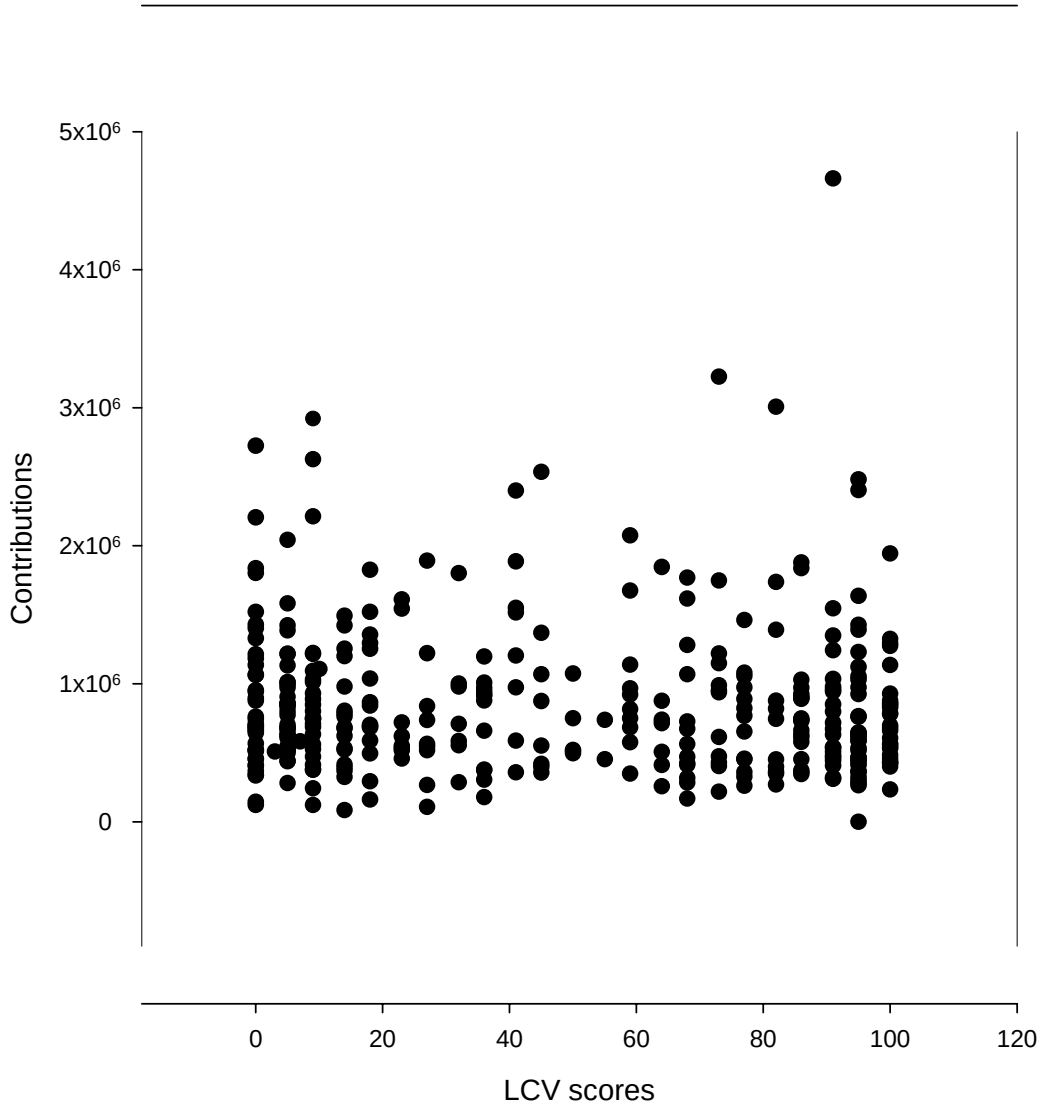
Variable	(1) Republicans Estimated Coefficient	(2) Democrats Estimated Coefficient
Intercept	1714116.69***	1376324.42***
	(146442.06)	(200025.53)
Seniority	-27102.33*	-39695.31***
	(14774.22)	(14446.37)
Seniority²	573.75	1565.90***
	(459.20)	(427.65)
Gender	-265761.76**	54337.76
	(117800.77)	(99770.99)
LCV score	-3060.84*	-142.39
	(1754.90)	(1700.81)
Chairman	1022987.15***	169889.82
	(364016.68)	(268504.92)
Margin 00	-588.76	-4743.46***
	(1924.65)	(1747.94)
Margin 02	10285.88***	-5085.70***
	(1786.05)	(1735.68)
R-Square	0.27	0.29
Adjusted R-square	0.25	0.26

(Table 5 Cont.)

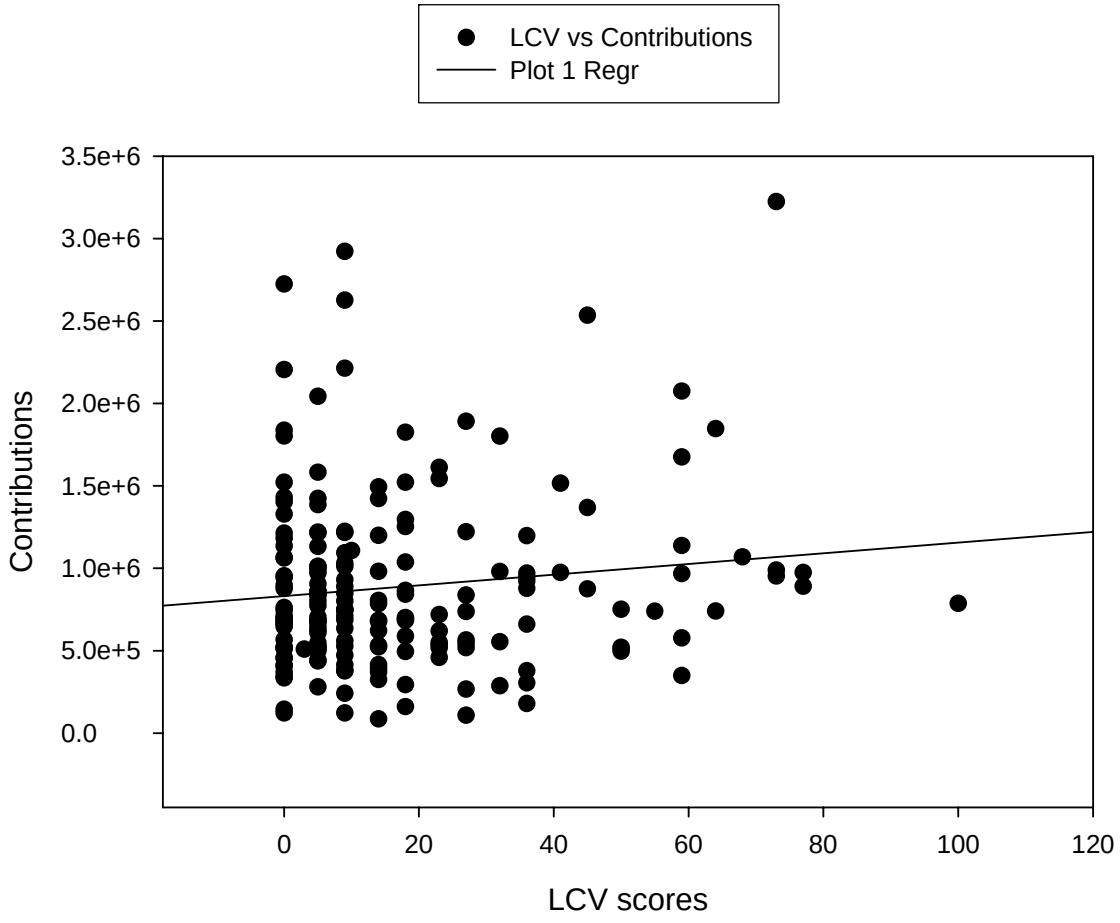
Regression F-statistic	9.67***	10.05***
N	186	178

Standard errors in parentheses.
***significant at 0.01% level; **significant at the 0.05% level; *significant at 0.10% level.

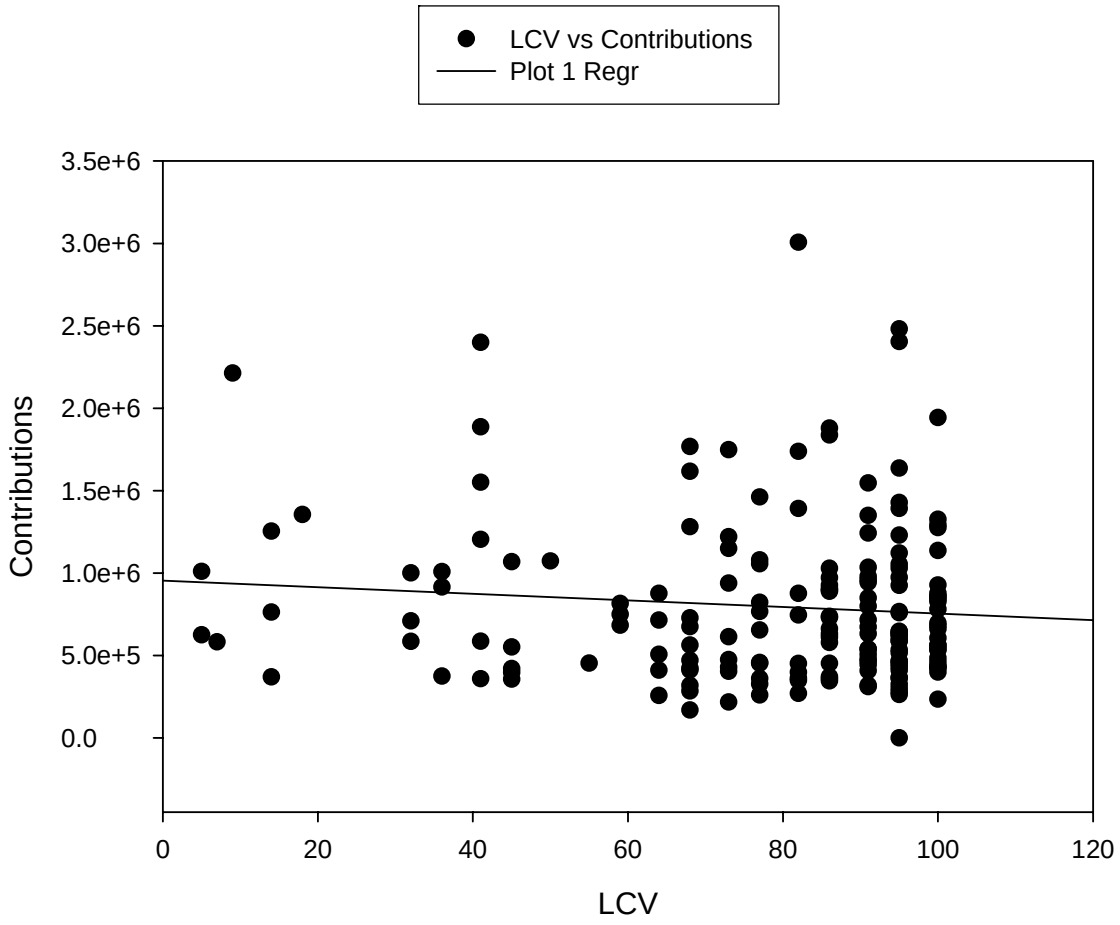
Graph 1. XY Scatter plot of campaign contributions (N=364) and corresponding LCV scores.



Graph 2. Simple regression of Contributions and LCV scores. Republican only sample (N=186).



Graph 3. Simple regression of Campaign contributions and LCV scores. Democrat only sample (N=178).



DISCUSSION

I believe my findings are of interest for several reasons. First, I demonstrate that LCV scores do not influence campaign contributions for congressional elections from 2001-2002 in the aggregate. However, there is evidence that having higher LCV scores does help Republican congressmen generate more campaign contributions. For the models in which there is no monetary incentive for legislators to vote in a pro-environment we are still left with valid reasons for voting friendly on environmental legislation. A politician's election success rests not on how much money he raises, but the number of votes he receives in relation to his nearest challenger and while money directly impacts how much campaigning a candidate can afford, it is not a direct measure of his probability of winning. As my study only investigates how congressmen may respond to campaign contributions and those factors which are important to potential contributors, a similar study analyzing how congressmen's voting behavior affects future citizen voting could be of scientific interest.

I believe that due to the narrow focus of LCV scores as a measure for environmental friendliness, much of the explanatory power of my model is lost. LCV scores are derived from a select few bills, 7 to be exact. It is not unreasonable to assume that much more congressional behavior relative to environmental and other policy issues is occurring that is not reflected in LCV scores, but that influence contributions nonetheless. There are large numbers of bills that never make it out of committee, but

congressmen either work to kill them or to support them and this visible behavior influences contributors. As well, congressmen influence the flow of funds to special interest groups; these funds may or may not be earmarked for certain programs. These 'pork' dollars could be used to fund conservation groups or efforts within a congressman's state or to an organization elsewhere. There is also the possibility that a congressman might try to derail efforts that an environmental group finds destructive (i.e. Dam building on a particular river through threats of future legislation).

One approach to more accurately capturing a politician's environmental support is to analyze the difference between State and Federal conservation groups and congressional responses. While LCV scores focus on large environmental policies with mass media coverage, there are a multitude of bills that may get passed that are not considered important to the League of Conservation Voters or come under the scrutiny of media attention. Thus it is plausible that a disparity exists between state and national conservation groups with respect to their perception of a congressman's support for the environment. Because their mission statements may be radically different, congressmen may choose to cater to the state organizations. An organization's spatial proximity may give them greater sway with district voters and thus the representatives from those districts than a group organized at the national level. Hussain and Laband (2005) explain part of this phenomenon by revealing that there is a pronounced tendency, at least for senators, to vote against environmental legislation if their constituents will have to pay for it and to vote in favor of environmental legislation when the costs are borne elsewhere. Further approaches to determining congressional alignment on environmental issues must be developed in order to appropriately determine whether or no

environmental positions of congressmen are meaningful to potential campaign contributors.

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APPENDIX

The first model in the following table was a model which included every variable I initially included for my study. After this model I did decided to construct a correlation matrix and found party and LCV variables to be highly correlated. Model 2 excludes party and margin 00 from the previous full model. Model 3 leaves out party, but includes margin 00. Models 2 and 3 are the final models (N=364) that I included in my paper.

OLS estimation results. Dependent variable = Campaign Contributions

Variable	(1) Estimated Coefficient	(2) Estimated Coefficient	(3) Estimated Coefficient
Intercept	1345223.80	1490966.71	1502337.56
	(148157.85)	(105172.43)	(104274.49)
Seniority	-35715.83	-41439.19	-35481.57
	(10290.62)	(10176.16)	(10307.10)
Seniority²	1230.61	1342.50	1230.05
	(312.51)	(313.33)	(313.05)
Gender	-44594.51	-51348.37	-51677.66
	(75696.41)	(76387.31)	(75676.85)
LCV score	2982.92	2120.46	1292.02
	(3308.22)	(3127.67)	(3112.89)
LCV²	-13.46	-24.32	-12.60

	(31.12)	(31.17)	(31.17)
Chair_Rank	301646.85	266271.58	279250.45
	(224736.23)	(226678.39)	(224618.43)
Party	142635.54		
	(95711.75)		
Margin 00	-3278.62		-3551.87
	(1289.54)		(1278.63)
Margin 02	-7334.57	-8963.56	-7153.73
	(1231.62)	(1050.37)	(1227.73)
R-Square	0.25	0.23	0.24
Adjusted R-square	0.23	0.21	0.22
Regression F-statistic	13.07	15.05	14.38
N	364	364	364

Standard errors in parentheses.***significant at 0.01% level; **significant at the 0.05% level; *significant at 0.10% level.

The next model (4) was a traditional model which did not include LCV scores, just run of the mill variables which are considered important in determining contribution levels. Model five removed the chairman due to its correlative relationship with seniority, while still holding LCV out of the model. The next model excludes all variables except for those that have been heretofore significant. These include margin 00 and 02 and seniority.

OLS estimation results. Dependent variable = Campaign Contributions

Variable	(4) Estimated Coefficient	(5) Estimated Coefficient	(6) Estimated Coefficient
Intercept	1496288.01	1504772.02	1485542.60

	(97003.91)	(96855.88)	(76865.47)
Seniority	-35221.34	-37601.77	-37817.44
	(10223.99)	(10058.99)	(10020.37)
Seniority²	1228.55	1356.83	1350.48
	(311.36)	(294.75)	(294.05)
Gender	-56942.55	-56203.16	
	(74039.71)	(74100.66)	
LCV score			
LCV²			
Chair_Rank	284354.88		
	(224093.07)		
Party	38395.69	37141.94	
	(52376.57)	(52411.99)	
Margin 00	-3406.17	-3390.41	-3536.14
	(1276.57)	(1277.60)	(1245.37)
Margin 02	-7193.12	-8963.56	-7234.66
	(1226.52)	(1050.37)	(1216.29)
R-Square	0.24	0.24	0.24
Adjusted R-square	0.23	0.23	0.23
Regression F-statistic	16.55	19.01	28.36

N	364	364	364

Standard errors in parentheses.***significant at 0.01% level; **significant at the 0.05% level; *significant at 0.10% level.

I further simplify the model leaving out Margin 00 to see the effects on model F-stat and to observe the relationship of Margin 02 without the margin 00 interfering with it. The next two models were done to observe the multicolinearity between variables that I suspected to have strong relationships after running a correlation matrix.

OLS estimation results. Dependent variable = Campaign Contributions (7) Dependent variable= Margin 00 (8). Dependent variable=LCV (9).

Variable	(7) Estimated Coefficient	(8) Estimated Coefficient	(9) Estimated Coefficient
Intercept	1470178.10	15.08	79.91
	(77423.20)	(2.29)	(1.49)
Seniority	-43317.15		
	(9927.35)		
Seniority²	1447.79		
	(294.89)		
Gender			
LCV score			
LCV²			
Chair_Rank			

Party			-62.91
			(2.10)
Margin 00			
Margin 02	-9069.09	0.54	
	(1040.58)	(0.04)	
R-Square	0.22	0.29	0.71
Adjusted R-square	0.22	0.28	0.71
Regression F-statistic	34.45	145.54	899.74
N	364	364	364

Standard errors in parentheses.***significant at 0.01% level; **significant at the 0.05% level; *significant at 0.10% level.

The models following are the same as the previous but includes those who lost the 2002 election, but had LCV scores over the period of interest. With these models margin 02 is obviously not included, consequently the models have much weaker explanatory power. My correlation matrix still indicates that LCV and Party still should not be in the model together. So I ran regression tests of party regressed against LCV. The second model is the full one based on the models I decided upon from the N=364 models. The next has no LCV, but all the other variables in model 2. Again at this point we know what variables to use we just want to see the traditional model for the N=412 data.
OLS estimation results. Model 1. Dependent variable = Party

Variable	(1) Estimated Coefficient	(2) Estimated Coefficient	(3) Estimated Coefficient
Intercept	1.03	1472140.84	1425857.05
	(0.02)	(126878.78)	(119779.41)
Seniority		-33474.19	-33709.22
		(12942.93)	(12933.98)

Seniority²		1173.90	1181.44
		(394.67)	(394.30)
Gender		-153969.48	-159020.16
		(93107.76)	(91606.56)
LCV score		-293.64	
		(880.27)	
LCV²			
Chair_Rank		183591.00	184290.12
		(251550.18)	(250923.14)
Party	-0.01		59895.55
	(0.00)		(64957.93)
Margin 00		-8236.79	-8059.18
		(1328.75)	(1339.65)
Margin 02			
R-Square	0.65	0.13	0.13
Adjusted R-square	0.65	0.11	0.12
Regression F-statistic	753.21	9.91	10.04
N	412	412	412

Standard errors in parentheses