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# How did the 2003 Prescription Drug Re-importation Bill Pass the House?

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**Abstract:** This paper examines the major interest groups in the debate over allowing the wholesale re-importation of prescription drugs through the Pharmaceutical Market Access Act. By making use of the logit model, we see the effects that each of these groups has had on the voting behavior of the 108<sup>th</sup> Congress on the bill. We find evidence suggesting that Representatives are maximizing their electoral prospects: Contributions from pharmaceutical manufacturers and HMOs significantly influence the probability of voting for the Bill. Similarly, Representatives are sensitive to their constituency's interest: employment in pharmaceutical manufacturing and the presence of senior citizens are also taken into account. However, the decision was by and large a partisan one: Party affiliation was the most important factor in passing the Bill.

**Key Words:** Voting behavior; Health; Trade Policy

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### 1. INTRODUCTION

On July 25, 2003, the U.S. House of Representatives passed the Pharmaceutical Access Act of 2003 (H.R. 2427), by a margin of 243 to 186, paving the way for re-importation of drugs into the United States. Given the enormous money at stake in this bill—estimated at \$1.8 trillion by the Congressional Budget Office—H. R. 2427 witnessed perhaps the fiercest mobilization of political lobbyists in 2003. The Bill passed the House of Representatives despite extensive lobbying and a staggering \$29 million by large pharmaceutical companies to defeat the bill. The U.S. pharmaceutical industry trade group, PhRMA, alone spent \$8.5 million on political contributions in the first half of 2003 in a concerted effort to defeat H.R. 2427. Conventional wisdom among Washington observers holds political contributions from industry players as an essential – if not decisive—factor in legislative decision-making.<sup>1</sup> Given the sheer size of these contributions, the fact that H.R. 2427 was able to muster enough support with the House is intriguing.

Why, then, did a massive lobbying campaign by one of the most powerful U.S. interest groups, large pharmaceutical manufacturers, fail to bring about the desired legislative outcome? It is this question that provides the impetus for a detailed study on the factors affecting the decision-making process of U.S.

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<sup>1</sup> Among others, Baldwin and Magee, 2000; Fisher, Gokcekus and Tower, 2004; Frensdreis and Waterman 1985; Kau and Rubin 1982; Langbein and Lotwis 1990; Saltzman 1987; and Schroedel 1986 provided supporting evidence that indeed contributions have significantly affected votes.

legislators. Accordingly, we identify the factors that appear to influence legislative decision-making; and second, estimate the relative weighting of each of these factors by using regression analysis. Consequently, the purpose of this project is to analyze what role campaign contributions and demographics, such as the percentage of a Representative's congressional district that was over the age of 65, had on the voting behavior of the Representatives.

## **2. THE ISSUE**

The rising cost of prescription drugs in America has become a big concern both for politicians and the public. In a prepared statement, Dan Burton, the Chairman of the House Government Reform Subcommittee on Human Rights and Wellness, noted that American consumers pay a higher average price for prescription drugs than consumers in any other country. He goes on to explain that drug costs have been increasing by more than 17% annually from 1998 to 2001. This is approximately five times the growth rate of inflation and has created a situation in the U.S. where more than one in five American adults are unable to afford their prescription drugs. (Burton, 2003)

The Pharmaceutical Market Access Act, championed by Representatives Gil Gutknecht and Rahm Emanuel, authorizes pharmacists, wholesalers, and other qualified individuals to import pharmaceuticals from 26 countries back to the United States for distribution to consumers. The goal of this is to "give all Americans immediate relief from the outrageously high cost of pharmaceuticals"

and to “reverse the perverse economics of the American pharmaceutical markets” (U.S. House of Representatives, 2003).

Supporters of the bill claim that it would accomplish this goal by granting American consumers access to drugs in foreign countries where they are much cheaper. Gutknecht (2003) claims that, on average, Americans currently pay 30% to 300% more than consumers in other industrialized countries for the same prescription drugs. According to Brink (2003), Americans pay more because so many of them pay for their prescriptions individually, while the centralized health care systems of other countries, such as Canada, France, and Germany, can use the bargaining power of an entire population to negotiate prices.

Leading up to vote on the bill in Congress, there was a heated debate centered around two major issues. The first of these is whether or not it is safe to import prescription drugs from other countries where they are outside the jurisdiction of the Food and Drug Administration. Mark McClellan, the Commissioner of the FDA, said, “We still can’t assure safety and quality because the products are outside of our authority. The situation remains ‘Buyer Beware’ and that’s not a good way to insure public health.” (PhRMA 2003 (a).) One fear is that this bill has included countries where counterfeit drugs are a problem. Rep. Jim Gibbons notes reports from South Africa that up to twenty percent of the medicines sold are fakes or stolen (Gibbons, 2003). Another concern is that improper shipping and storage of drugs may cause them to lose their potency (Biotechnology Industry Organization, 2003). Those in favor of the bill argue

that steps can be taken to insure that there is no risk in importing American drugs. In the bill, it states that the United States can only import FDA approved drugs that have been produced at home, and requires that “imported prescription drugs be packaged and shipped using counterfeit-resistant technologies approved by the Bureau of Engraving and Printing similar to those used to secure United States currency” (The U.S. House of Representatives, 2003). This would help insure that drugs could only be shipped back to the United States in their original packaging. Rep. Jo Anne Emerson, a strong supporter of the bill said, “We can uphold the integrity of the product. These are just bogus issues that they’ve created to make people nervous about these drugs” (Moyers, 2003).

The second major criticism of the Pharmaceutical Market Access Act is that it would hurt pharmaceutical research and development. According to Krauss (2003) the bargaining power of foreign countries allows them to set drug prices which are just above the marginal cost of production. These prices are much lower than the average cost of production, which includes all the research and development that it requires to develop new prescription drugs. Since a majority of the pharmaceutical research is done in the United States, foreign countries free-ride off of American consumers, who end up covering more than their fair share of the cost of research and development. Krauss (2003) fears that if Americans stop paying higher prices for drugs, the incentive to invest in the future research and development of new drugs will decrease, eventually leading

to a slow down in the pace of medical innovation. On the other hand, defenders of the bill argue that pharmaceutical companies are more than making up for this problem of free-riding, and that lower prices would not hurt research and development. Rep. Emerson says, "This bill is fair to everybody. If a pharmaceutical company that has a 27 percent profit margin only sees 20 percent after this law is passed, they'll still be doing pretty good" (Moyers, 2003). The pharmaceutical industry argues that high returns from successful products are needed to encourage investment because of the risks associated with spending huge amounts of money on products that may never make it to the market (Comanor, 1986). Reinhardt (2001, p.144) estimated that drug profits constitute only 1% of total national health spending so that even if all of the profits of the drug industry were confiscated, it would not make much of a dent in national health spending-about \$50 per person.<sup>2</sup>

### **3. FOUR SPECIAL INTEREST GROUPS AND THE MODEL**

We identified four major groups with an interest in the battle of H.R. 2427: (i) pharmaceutical manufacturers; (ii) senior citizens; (iii) HMOs; and (iv) border districts. The U.S. pharmaceutical industry currently enjoys a situation where they are able to charge Americans enough to cover their research and development costs and still profit from foreign countries who pay prices that are just above marginal costs. If the bill were to pass, pharmaceutical manufacturers

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<sup>2</sup> For two interesting analysis of drug re-importation and its effects on prices and profitability of domestic companies, see Pecorino, 2002; and Ganslandt and Maskus, 2004.

would either have to let U.S. prices fall in line with the rest of the world or limit exports of their product. Either way, their profits would be hurt. Clearly there was a lot at stake for the U.S. pharmaceutical industry, and as such, their lobbying efforts were aimed at defeating the bill. These efforts were led by the Pharmaceutical Research and Manufacturers of America (PhRMA), which represents many of the largest pharmaceutical manufacturers. Their strong opposition to Bill H.R. 2427 can be seen from a statement posted on their website: “the Gutknecht importation bill is dangerous legislation that jeopardizes the safety of our nation’s medicine supply and imports foreign governments’ price controls” (PhRMA, 2003(b)).

The efforts made by the Pharmaceutical industry to protect itself from this can be seen in Table 1, which shows that pharmaceutical manufacturers are one of the biggest contributors to the re-election campaigns of legislators. An increasing proportion of these contributions are in the form of Soft Money, which gives more power to each dollar because of almost no constraints on how the Soft Money can be spent. Additionally, Pharmaceutical companies have bargaining power as employers. Because they employ large numbers of people within a Representative’s district, the number of people employed in the pharmaceutical industry is another good indicator to capture the influence of pharmaceutical manufacturing interest in a Representative’s district.<sup>3</sup>

The second group with an interest in this battle is senior citizens. On

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<sup>3</sup> Employment in the industry, ISIC 3254. Source: U.S. Bureau Labor Statistics.

average, people over the age of 65 fill five times as many prescriptions as working Americans (Brink 2003): They have a strong incentive to follow this drug legislation and to lobby for passage of the bill. Therefore, seniors are informed voters, and since this group makes up approximately 20 percent of the voting population, they have a powerful voice (Brink, 2003). Average working Americans, who only pay small co-payments for their drugs do not notice the high prices and thus have less incentive to follow the debate; as such they are uninformed voters on the issue (Brink, 2003).

The AARP, the group lobbying hardest for seniors, clearly states on its web page that, it doesn't contribute in an "organized" way to the legislators' reelection campaigns. However, it is possible to identify whether the money received by a Representative for his reelection campaign is from a retired person or not. Also, for each congressional district, it is possible to identify the percent of the population that was above age sixty five<sup>4</sup>. Representatives know that voting against this bill may cause them to lose support from the population of seniors. This variable is an attempt to see how powerful the presence of voters who support an issue is on the stance taken by their Representative.

The third group is HMOs. We include this group because if U.S. drug prices were to decrease, it would cost them less to supply their clients with the medicines, and therefore, this decreased cost would improve the profits of

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<sup>4</sup> This data was obtained from UScensus.gov (2000).



HMOs.<sup>5</sup>

Senior bus trips have been organized in states close to Canada and Mexico. Although technically illegal, customs officials have been allowing people to fill personal prescriptions for up to a three month supply (Brink, 2003; and Flaherty and Gaul, 2003). Chellie Pingree, a former Senator from Maine said, “The last bus trip I was on six months ago had 25 seniors. Those 25 people saved \$19,000 on their supplies of drugs” (Brink 2003). We predict that people living in a district with easy access to Canada and Mexico would be more in favor of passing a bill allowing drug importation. We make this prediction not because this population would benefit most under the new legislation—pharmacies all over the country could import drugs directly and thus everyone should benefit equally. Rather, it is because they are most aware of the price inequalities and are the most likely to have either already crossed borders to save money or have heard stories of others who have done so. In effect, this creates another group of informed voters who support the issue.

Again, the fundamental question is: what factors affected the legislators’ decision? To empirically answer this question, we model the probability of voting yes on the Bill, as a function of (in addition to a Representative’s

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<sup>5</sup> Size of these potential cost cuts for HMOs needs to be examined further. Reinhardt (2001) provided a back-of-an-envelope estimates: “if prescription drugs currently absorb about 15 percent of a health plan’s premium (a relatively high estimate), and if spending on prescription drugs per insured in that plan rose by 20 percent (a high estimate as well), then only three percentage points of the total annual increase in that health plan’s premium could be attributed to prescription drugs. With premiums again at double-digit levels, that leaves much of these increases to be explained by cost drivers other than prescription drugs.” (p. 148)

characteristics) Political Action Committee (PAC) money received from pharmaceutical manufacturers, HMOs, retired people, the number of people employed by pharmaceutical manufacturers, number of senior citizens in a Representatives' district, and whether the Representatives' district has a border with Canada or Mexico.

In our model, we implicitly adopt the perspective of the *political-support approach* (Hillman 1982; Grossman and Helpman 1994, 1996). According to this approach, incumbent politicians make policy choices while being aware of the fact that their decision may affect their chances of reelection. Organized interest groups are able to offer political contributions, which politicians value for their potential use in the coming election. It is this ability to contribute that gives special interest groups their favored position in the eyes of legislators. The legislators attempt to set policies to maximize their own welfare, which is a weighted average of the well-being of their constituency and total contributions.

#### **4. ANALYSIS**

The votes of Representatives on this bill is the dependent variable (VOTE), where votes were counted as 1 for aye and 0 for nay, with a nay vote registering a preference against re-importation of drugs. Due to the limits on the values that the dependent variable may take, logit analysis was used rather than linear regression. The logit analysis makes the probability of a yes vote a function of a

vector of constants ( $\beta$ ), times a vector of values for the independent variables ( $x$ ).<sup>6</sup>

We use the following logit probability model:

$$\text{Pr } ob(\text{Vote} = 1) = \frac{e^{\beta x}}{1 + e^{\beta x}},$$

where the independent variables are the following:

PARTY:	Political party affiliation of a Representative (1 if Republican, 0 otherwise);
PHARMA-PAC:	Campaign contributions received from pharmaceutical manufacturers during the 2002 election cycle and until June 30 <sup>th</sup> , 2003 in \$1,000;
PHARMA-EMPLOY:	Number of people employed in pharmaceutical manufacturing sector in 1,000;
HMO-PAC:	Campaign contributions received from HMOs during the 2002 election cycle and until June 30 <sup>th</sup> , 2003 in \$1,000;
RETIRED-CONTRIBUTE:	Campaign contributions received from retired people during the 2002 election cycle and until June 30 <sup>th</sup> , 2003 in \$1,000;
AGE65+:	Percentage of the congressional district's population who are 65 years or older;
BORCAN:	Congressional district has a border with Canada (if Yes = 1, otherwise 0) <sup>7</sup> ; and
BORMEX:	Congressional district has a border with Mexico (if Yes = 1, otherwise 0). <sup>8</sup>

As this list shows, in an attempt to control for political party affiliation, i.e., Representative's ideology, we include a dummy variable, PARTY, that takes

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<sup>6</sup> For details of logit models, see Greene, 2003. For recent applications of this model in legislative voting, for example, see Baldwin and Magee, 2000; Fennemore and Nelson, 2001; Gokcekus, Phillips and Tower, 2004; and Longley, 2003.

<sup>7</sup> List of Congressional Districts with Canadian Borders: Alaska 1; Idaho 1; Illinois 1-10; Maine 2; Michigan 1; Minnesota 7, 8; New Hampshire 2; New York 23, 25, 28, 32; North Dakota 1; Ohio 9, 10, 11, 14; Pennsylvania 3, 5, 10; Vermont 1; Washington 1, 2, 5, 6, 7, 9; Wisconsin 7.

<sup>8</sup> List of Congressional Districts with Mexican Borders: Arizona 7, 8; California 49-53; New Mexico 2; Texas 15, 16, 23, 27, and 28.

the value 1 for Republicans and 0 otherwise. It appears that the ideological views of each party suggest that Democrats are more in favor of the bill than Republicans are. Therefore it is predicted that being Democrat would increase the probability of an aye vote.

Before we conduct the regression analysis, we must take a closer look at two groups—those who voted for the bill and those who voted against it. As Table 2 shows, in general, (i) Republicans vote against the Bill; (ii) only 64% of the YES voters received contributions from Pharmaceutical Manufacturing PACs, compared to 85% of NO voters; (iii) more importantly, NO voters in average received \$14,418 compared to \$3,821 of YES voters; (iv) YES Representatives' districts have significantly higher proportions of senior citizens; and (v) Among NO voting Congressmen, 16% were from a district with a border either with Mexico or Canada. This number was 6% for the YES voters.

### **Estimates**

Table 3 presents the results of the logit analysis using PARTY, PHARMA-PAC, PHARMA-EMPLOY, HMO-PAC, RETIRED-CONTRIBUTE, AGE65+, BORCAN, and BORMEX as our explanatory variables. All coefficients have the predicted signs. However, RETIRED-CONTRIBUTE is not significantly different from zero at the 10% level. This is not a surprising result: the seniors who would be financially capable of contributing to a campaign are most likely not the same ones who are in dire need for the Pharmaceutical Market Access act to

pass and may not even support it at all. It is also not clear whether these retired contributors are residing in their recipient Representatives' district. In this table, we also present how well the model correctly predicts the outcomes: 66% of the NO votes; 82% of the YES votes are accurately predicted by the model—in total 324 of the 433 votes, for a 75% accuracy rate.

The story is told in Figure 1. This figure shows the probability of a yes vote as a function of contributions from pharmaceutical manufacturing PACS to four different type of Representative: (i) a Democrat from a district with Canadian border; (ii) a Republican from a district with Canadian border; (iii) a Democrat from a district without Canadian (or Mexican) border; and (iv) a Republican from a district without Canadian (or Mexican) border.<sup>9</sup> We see from Figure 1 that for a Democratic Representative from a district with Canadian border with no PHARMA-PAC, the probability of a YES vote is 92%. For a Republican from the “same” district with no PHARMA-PAC, the probability of yes is 71%. For this Republican, the probability of yes can be brought down below 50% (which is the logit model's cut-off line between a YES and a NO vote) by raising the PHARMA-PAC contributions from \$0 to \$10,750. Similarly, for a Democrat whose PHARMA-PAC is zero, the probability of yes can be brought down from 92% to 49.9% by raising the PHARMA-PAC contribution from 0\$ to \$29,900.

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<sup>9</sup> For each one of these groups, we assume that HMO-PAC = \$4,420, AGE65+=12.4%, RETIRED-CONTRIBUTE =\$29,854, and PHARMA-EMPLOY=10,521. In other words, we assign sample average for these variables for each group.

We see from Figure 1, that it takes only \$800 from PHARMA PACs to reduce the probability of a Republican voting yes to 49.9% if he or she is from a non-border district. That figure rises to \$20,000 for a Democrat who is also from a district without Canadian or Mexican border.

Moreover, this figure shows that depending on the level of contributions, the effect of Canadian Border varies between 8 and 20 percentage points in the case of a Democrat; and 4 and 20 percentage points for a Republican. It also shows that the first \$10,000 contribution from PHARMA PACs changes the probability of a Republican yes vote almost by 20 percentage points and by 8-14 percentage points for a Democrat (depending on whether he is from a district with Canadian Border or not, respectively.) The next \$10,000 PHARMA PAC has a 15-20 percentage point impact on a Republican and a 15-20 percentage point impact on a Democrat.

The most interesting observation, however, is how big the PARTY effect was: The average difference between two identical Representative's (except their party affiliation) probability of yes votes, was 30 percentage points. Depending on the level of contributions, this effect may take a value between 13 and 38 percentage points. For instance, two Representatives from a district with Canadian border, both receiving \$20,000 from PHARMA PACS, the probability of a yes vote for Republican Representative is 31% and for Democratic Representative, it is 69%.

### **Aftermath: Revisiting the Distribution of Contributions**

Finally, in this section, we briefly examine the aftermath of the Bill: How did the pharmaceutical manufacturing PACs react to not getting enough support from the legislators? In particular, did they use their contributions to send signals to legislators? Table 4 presents a revealing picture. It shows that, after evaluating the performance of Representatives, i.e., their vote on H.R. 2427, PHARMA PACs implemented an incentive system that included both rewards and punishments: 90% of those who had received contributions in the 2002 cycle and voted NO received contributions in the 2004 cycle with these contributions averaging \$15,253. On the other hand, only 60% of those who had received contributions in the 2002 cycle but voted YES received contribution in the 2004 cycle with these contributions averaging \$2,961! There is a mirror image of this picture for those who had not received any 2002 contributions: 74% of those who did not receive contributions in the 2002 cycle and voted NO received contribution in the 2004 cycle, with these contributions averaging \$6,721. On the other hand, only 33% of those who did not receive contributions in the 2002 cycle but voted YES received contribution in 2004 cycle, with these contributions averaging \$1,100.

## **5. CONCLUSION**

The results of this paper suggest that campaign contributions affected the vote taken by the 108<sup>th</sup> Congress on the Pharmaceutical Market Access Act. Whether a candidate represents a district within a state sharing a border with Canada or Mexico, the percentage of the population within a district over the age of 65, and

the size of employment in pharmaceutical manufacturing also appear to have played a roll in the vote.

The results fit well the theory that campaign contributions affect the votes of legislators. Specifically, Representatives maximize electoral returns by balancing the acceptance of contributions in return for a vote on an issue which costs support from voters who are informed and have a contrary stance on the issue. The role of campaign contributions is shown by the negative relationship between contributions from pharmaceutical manufacturers, who oppose importation, and support for the bill. At the same time, there is a positive relationship between the prominence of two groups of informed voters, namely senior citizens and people living close to Canada and Mexico who largely support the bill, within a Representative's district and the likelihood that the Representative will vote for the bill. However, our analysis also reveals that the vote was by and large a partisan one: Party affiliation was the most important factor in passing the Bill.



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**Table 1 Pharmaceutical Manufacturing Long-Term Contribution Trend: 1990 – 2002**

Election Cycle	Total Contributions	Type of Total Contributions			Recipients of Contributions	
		From Individuals	from PACs	Soft Money	Donations to Democrats	Donations to Republicans
2002	\$ 21,749,155	7%	25%	68%	20%	80%
2000	\$ 19,638,447	16%	24%	59%	23%	77%
1998	\$ 9,031,146	13%	35%	51%	31%	69%
1996	\$ 9,265,843	15%	31%	54%	29%	71%
1994	\$ 5,378,722	17%	52%	32%	40%	61%
1992	\$ 4,905,427	24%	49%	27%	49%	52%
1990	\$ 2,338,670	19%	81%	N/A	44%	57%

Source: [www.opensecrets.org](http://www.opensecrets.org), Web Page of the Center for Responsive Politics.

**Table 2 Descriptive Statistics of the YES and NO Voting Representatives**

	Vote=NO	Vote=YES	t-statistic	Significance (two-tailed)
Republican	74.6%	37.0%	8.412	0.00
Received Pharma PAC	87.6%	63.8%	6.048	0.00
Average Pharma PAC	\$ 14,418	\$ 3,821	6.928	0.00
Average HMO PAC	\$ 5,357	\$ 3,646	1.837	0.07
Pharma Employment	12,019	9,462	2.363	0.02
% of Poverty: Age 65+	10.0%	10.5%	-1.644	0.10
% of Age 65+	12.0%	12.8%	-2.342	0.02
Borders with Mexico	1.6%	4.1%	-1.578	0.12
Borders with Canada	4.3%	11.5%	-2.832	0.00
Borders with (Mexico or Canada)	5.9%	15.6%	-3.326	0.00

**Table 3 Logit Model Maximum Likelihood Estimates: Vote on H.R. 2427**

Variable	Coefficient ( $\beta$ )	Std. Error	Wald Statistic	Significance (two-tailed)
Constant	.065	.506	0.016	0.898
PARTY	-1.593	.248	41.294	0.000
PHARMA-PAC	-.083	.016	28.418	0.000
PHARMA-EMPLOY	-.024	.011	4.791	0.029
HMO-PAC	.040	.021	3.794	0.051
RETIRED-CONTRIBUTE	.003	.004	0.608	0.435
AGE65+	12.681	3.859	10.799	0.001
BORCAN	.818	.457	3.203	0.074
BORMEX	.973	.760	1.641	0.200
<i>Frequencies of actual and predicted outcomes</i>				
		<b>Predicted</b>		
		Vote=No	Vote=Yes	Percentage Correct
	Vote=No	126	65	66%
<b>Observed</b>	Vote=Yes	45	198	81.5%
	Overall Percentage			74.7%
Log L = 230.968, $\chi^2 = 133.471$ .				

**Table 4 Rewards and Punishment in 2004 Cycle**

		Vote=NO	Vote=YES
Received 2002 Pharma PAC?	YES	Probability of getting in 04 =90% <i>Expected Amount = \$15,253</i>	Probability of getting in 04 =60% <i>Expected Amount = \$2,961</i>
	NO	Probability of getting in 04 =74% <i>Expected Amount = \$6,721</i>	Probability of getting in 04 =33% <i>Expected Amount = \$1,100</i>

**Figure 1 Predicted Probability of Voting Yes on H.R. 2427**

