Economists in Congress:
How Economic Education Motivates Votes
on Free Trade in Congress

J. Brian O'Roark
Robert Morris University

Abstract
In 2005 the U.S. Congress passed the Central American Free Trade Agreement (CAFTA), causing the immediate elimination of tariffs on goods traded between the member nations. In the mold of the literature studying the pattern of voting in Congress, this paper attempts to understand why a member of Congress would have supported the CAFTA legislation. We run a probit model of voting including a measure of undergraduate college major in the analysis. The findings indicate that those who majored in economics are systematically more likely than any other college major classification to vote in favor of this free trade agreement.

I. Introduction

The substantive differences in worldview between economists and the general population on economic issues have been well documented (Fuller et al., 1995; Blendon et al., 1997; Walstad and Rebeck, 2002; Caplan, 2002; Miller, 2009). One of the consistent outcomes of this research is the general suspicion under which the layman, and some politicians, holds free trade agreements. This is thought to lead to the outsourcing of jobs, along with the belief that trade is not mutually beneficial. Caplan (2007, p.36) refers to this as the "anti-foreign bias" in which a predisposition exists against the economic benefits resulting from dealings with other countries. Since 2007 poll results have consistently shown support for Caplan's anti-foreign bias. Some poll numbers are summarized in Table 1, with the tone being decidedly anti-trade.

Individual citizens however, do not write trade policy. While individuals can register their approval or disapproval of such policy,

representatives are at liberty to follow the course they think is best for the country. This means that poll-watching politicians are apt to be as divided about trade as the general population. Fuller, Alston, and Vaughan (1995) conduct a survey of delegates to the 1992 American political party conventions. When asked if tariffs and import quotas reduce the general well being of society, Republicans agreed at a rate of 62.4%, while Democrats agreed at a meager 25.7% clip, compared to economists who agreed at a rate of 71.3%. A more recent study by Fuller and Geide-Stevenson (2007) shows that for political party attendees in 2000, Republican support for free trade declined dramatically to only 31% from the Fuller, Alston, and Vaughan results, accompanied by a slight decline for Democrats to 24.6%.[1]

Interestingly, Miller (2009, p.43) notes that in terms of ideology and party, conservatives and Democrats are more likely than liberals or Republicans to support the notion of limiting imports to protect the domestic economy. Miller suggests that perhaps the framing of the question led to this peculiar result. The protection of domestic jobs could be considered a "valid" reason to conservatives for trade restrictions, as opposed to other reasons one might put forth for trade barriers. Read in this way, conservatives might agree with the statement, while liberals would point to other "more valid" reasons such as social justice for such barriers.

Despite current public animosity toward trade, economists overwhelmingly support free trade. Fuller and Geide-Stevenson (2003) show that economists are galvanized on this issue. Between 1990 and 2000, agreement among members of the American Economic Association responding to a survey question asking if "tariffs and import quotas usually reduce the general welfare of society" rose from 71.8% to 76.7%. This leaves us with one final group to consider: economists in Congress. Are they, as we might instinctively believe, the self-interested, re-election minded politician, or do they bring with them the economic beliefs they learned in their undergraduate education? This paper attempts to address that question by examining the votes of members of Congress in relation to the Central American Free Trade Agreement (CAFTA).

---

[1] The authors offer the explanation that a slight rewording of the question and an increase in the heightened perception of outsourcing led to the decline.

Table 1: Poll Results for Free Trade

Date	Question	Response	Source
May 2008	Has free international trade helped or hurt the economy?	50%–Hurt 26%–Helped	*LA Times*/Bloomberg Poll
April 2008	Do you think that free trade agreements have been a good thing or a bad thing for the United States?	48%–Bad 35%–Good	Pew Research Center/Council on Foreign Relations
Dec 2007/March 2008	Do you think the fact that the American economy has become increasingly global is good or bad?	Dec: 58%–Bad March: 58%–Bad Dec: 28%–Good March: 25%–Good	NBC News/*Wall Street Journal* Poll
March 2007	Do you believe that the United States is benefiting from or being harmed by the global economy?	25%–Benefiting 48%–Harmed	NBC News/*Wall Street Journal* Poll

Source: International Trade/Global Economy.
http://www.pollingreport.com/trade.htm. Accessed April 20, 2010.

The undergraduate major of a member of Congress should play a role in the decision-making process of the member in some way. This adds to a theme of the voting literature known as background theory (Pjesky and Sutter, 2002; O'Roark and Wood, 2011). Rather than focus on the traditional composition of the constituency and political ideology, Pjesky and Sutter (2002) examine how life experiences of members, such as their involvement with the Chamber of Congress, and their educational attainment, affect the votes of members of Congress. The current study goes beyond Pjesky and Sutter by identifying the specific majors of the members and whether, for instance, a political science or humanities major might vote differently than an economics major.

The paper proceeds as follows: a brief analysis of CAFTA is presented in Section 2, the model and data are addressed in Section 3, Section 4 presents the results of the model, and Section 5 concludes.

II. CAFTA Trade History

A conscious effort to promote free trade between the United States and nations in the Caribbean was begun in 1983 with the Caribbean Basin Initiative (CBI). This agreement among 24 Latin American and Caribbean countries opened the United States to duty-free importation of goods from its southern neighbors. The objective of the CBI was twofold. First, the initiative would encourage closer economic ties between the two segments of the western hemisphere along with promoting economic development. Second, the hope was that by fostering economic relations, the spread of communism in the western hemisphere would be curbed. One particularly political problem with the CBI was that it required continual reapproval by Congress. Since the expansion of the CBI in 2000, work has been undertaken to circumvent the approval process by replacing the CBI with direct bilateral trade agreements. CAFTA was proposed to reduce the transaction costs of multiple trade deals and to make permanent the zero tariff rates contained in the CBI.

Passed by Congress and signed by President George W. Bush in August 2005, H.R. 3045, the Dominican Republic-Central America-United States Free Trade Agreement Implementation Act, currently includes the United States, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua. This free trade zone created the second largest export region for the United States in Latin America behind only Mexico. Dramatic reductions in tariffs for textile, agricultural, and manufactured goods were accompanied by provisions to open doors for U.S. firms in the area of financial services and government procurement contracts. Additionally, laws regarding intellectual property rights were strengthened. The primary impact of CAFTA for U.S. producers was to eliminate the one-way tariffs against U.S. products into the nations who signed the agreement (Export, 2010).

Provisions to address issues of corruption, labor rights, environmental concerns, and dispute settlement proved the most contentious part of deliberations across all signing nations. Labor and environmental interests vehemently opposed the bill. Manufacturing and farming groups were in favor, viewing the agreement as a way to

expand markets and to gain an equal playing field. Not all nations signing the agreement were supportive. Strong opposition in Costa Rica by those who feared expanded U.S. influence almost scuttled the deal.

Passage of the bill in the United States was hard fought. The final vote was 217-215 and occurred only after Republican leaders held the vote open for nearly two extra hours to convince some members to vote for the measure.

III. Model and Data

The literature on voting behavior is vast. Many studies have examined what influences a member of Congress as they vote for or against trade legislation. Virtually every trade bill over the past 30 years has been analyzed, from small bilateral trade bills, to large multination agreements such as NAFTA, using a multitude of control variables (Nollen and Iglarsh, 1990; Marks, 1993; Boadu and Thompson, 1993; Moore et al., 1995; Baldwin and Magee, 2000; Crichlow, 2002; Fordham and McKeown, 2003; Hasnat and Callahan, 2004; Bohara et al., 2005; Gai, 2005; Weller, 2009). What these studies have not shown is whether a member of Congress' educational background affects their vote.

A natural first test of association is to conduct a simple cross-tabulation of members of Congress by free trade vote and undergraduate major. This test shows that economics majors were statistically more likely than any other major to support this free trade agreement. Among the economics majors, 72 percent were in favor, compared with 50.2 percent of the overall congressional sample. These results are shown in Table 2 and indicate that there are systematic differences across the undergraduate majors of members of Congress in their willingness to support free trade in the Caribbean.

This cross-tabulation test does not, however, exclude the possibility that the economics majors, or any other major for that matter, supported the free trade agreement because of some influence other than their educational background. Individuals who major in economics may be naturally more predisposed to favor free trade; that is, they may be inherently more conservative. This selection effect could explain any bias in favor of free trade. Thus, we conduct a test of equality of means to determine if either the characteristics of the members or their constituents differ

systematically for economics majors and non-economics majors. There is no statistically significant difference in the Americans for Democratic Action (ADA) scores or party affiliation, which indicates that economics majors are not markedly more conservative than non-majors.

Table 2: Percentage Positive Vote on the CAFTA Free Trade Bill by Undergraduate Major

	Proportion positive vote	t-statistic		Percentage of majors in Congress
Economics	0.720	2.434	**	5.75%
Business and accounting	0.553	0.645		8.74%
Government, political science, and related fields	0.436	-1.842	*	45.52%
Humanities	0.548	0.854		16.78%
Vocational	0.600	0.758		3.45%
Human services, including education and medicine	0.375	-1.297		5.52%
Science and technology	0.516	0.157		7.13%
Other, including no college degree				21.61%
ENTIRE SAMPLE	0.502			
$\chi^2 =$	10.239			

** indicates statistical significance at 1 percent level.
* indicates statistical significance at 5 percent level.
Statistics are from a t-test of difference of means tests assuming unequal variances between each major and the rest of the sample; χ^2 test of statistical independence for entire sample.

Economics majors are disproportionately male and Caucasian. There are only two female and two non-white members of the economics majors club in the 109th Congress. Economics majors are slightly younger, with an average birth year of 1951, than the general Congress, with an average birth year of 1949. Additionally, while economics majors receive on average 5.6 percent of their contributions from labor unions and non-economics majors receive 8.8 percent of their contributions from labor unions, they also receive

slightly less than their non-economic colleagues in terms of business contributions—34.4 percent versus 34.9 percent.

Economics majors in Congress hail from districts that are less black, with 7.52 percent of the population being African American as opposed to 13.26 percent in other districts. However, districts represented by economics majors are slightly more Hispanic than non-economists' districts—15.7 percent to 14.6 percent. On average, there are fewer people in the economists' districts with a BA degree—10.2 percent to 11.3 percent—and per capita income is a bit lower in economists' districts—$22,844.04 versus 25,088.88.

Of all the control variables used in this study, the only one that is statistically different between economics and non-economics majors is the percentage of campaign contributions from a labor union. Summary statistics for these control variables are in Table 3.

Therefore, to better control for the labor contributions and other possible influences on the CAFTA vote, we construct a logit model using a representative's vote on the CAFTA trade legislation presented in H.R. 3045 as the dependent variable.[2] If the vote was "yea" in favor, a value of one was assigned. If the vote was "nay," a value of zero was assigned. Our model is similar to that of Abetti (2008), who also focused on CAFTA.

Our sample examines only House members. A lack of variation in the Senate precludes a clean analysis. Combining the two chambers not only presents problems in comparison but also is not a conventional method of analysis. Not all members of Congress voted on the bill, leaving us with a sample of 432; 217 voted in favor of the bill, while 215 voted against it.

The model takes the following form:

$$VOTE = a\mathbf{E} + b\mathbf{M} + f\mathbf{C} + \mu \qquad \text{(Equation 1)}$$

where VOTE is a dummy variable equal to 1 if a representative voted yes on the CAFTA bill and zero otherwise. **E** is a vector of dummies for the college majors of members of Congress. **M** is a vector of personal characteristics of the members, **C** is a vector of constituent characteristics, and m is an error term.

---

[2] At the suggestion of a referee, we also ran the model using an ordered probit. There were no substantive differences in the results. These outcomes are available from the authors upon request.

Table 3: Selected Variables' Means (Standard Deviation Listed Below Means)*

Variable	Economics $n = 25$	Non-economics $n = 410$	Full sample $n = 435$
Individual characteristics of Members of Congress			
ADA	38.333	47.176	46.686
	41.117	42.974	42.874
FRESHMAN	0.08	0.093	0.092
	0.279	0.290	0.289
PACBUS	0.344	0.349	0.348
	0.162	0.384	0.374
PACLAB**	0.056	0.088	0.086
	0.067	0.092	0.091
PARTY	0.64	0.527	0.533
	0.489	0.500	0.499
District and state characteristics			
AG	0.013	0.015	0.015
	0.021	0.021	0.021
BA	0.102	0.113	0.112
	0.035	0.040	0.040
HISPANIC	0.157	0.146	0.147
	0.201	0.173	0.174
HS	0.203	0.194	0.195
	0.056	0.045	0.046
TEXTILE	0.077	0.095	0.094
	0.119	0.116	0.116
UNEMP	0.068	0.070	0.070
	0.015	0.021	0.021
UNIONREP	0.112	0.126	0.125
	0.050	0.066	0.065

* Values are missing for some variables, making $n < 535$ total in those cases.

** A test on the equality of means to determine if a statistically significant difference exists between economics and non-economics majors was conducted. The only statistically significant difference occurred for the percentage of campaign contributions from labor unions.

Data points for our analysis come from a variety of sources. Demographic characteristics for each state and congressional district come from the Census Bureau. The district data is based on the 2000 Census. Information about individual members of Congress is drawn from their personal websites and from the Congressional Staff Directory issued by Congressional Quarterly (Congressional Staff Directory, 2010).

We use the ADA ideology score to control for the ideological priors of members of Congress. ADA is a commonly used measure of ideology (see Groseclose et al., 1999; Bohara et al., 2005; Lopez and Ramirez, 2008; and O'Roark and Wood, 2011). We also run versions of the model including a control for party. Part of the reason for this is to identify if, as in Kahn (2005), there might be some impact of party loyalty inherent in the vote. Additionally, Nolan and Iglarsh (1990), Marks (1993), Baldwin and McGee (2000), Dennis et al. (2000), and Hasnat and Callahan (2004) include party as a control for trade votes. A natural concern is whether this might interact with the ideology variable, causing spurious results. Thus, we run versions of the model including party and ideology separately, as well as one in which party and ideology are included together.

The percentage of the workforce represented by unions as well as the percentage of the workforce in the textile and agriculture industries is only available at the state level. We nevertheless use this as a proxy for the congressional district. Spillover effects would inevitably make this a difficult value to quantify, as it is not uncommon for individuals to live and work across congressional district lines. Campaign contribution data comes from opensource.com.

A. Characteristics of Members of Congress

The primary variable of interest is the educational background of members of Congress. We grouped members into educational major categories on the basis of the definitions shown in Table 4. Table 2 provides a breakdown of the percentage of Congressional members in our major classifications. In all specifications of the model, we include eight major classifications, leaving out the "no major" category to avoid a near-singular matrix problem. A positive sign on a major category, as we would expect to see for the economics major, would be consistent with support for free trade.

Table 4: Definitions of Variables

Member Characteristics	
BUSACCO	First or second major provided was in business or accounting
ECONMAJ	First or second major provided was in economics
GOVETC	Major in government, political science, foreign affairs, international affairs, public administration, pre-law, or urban studies
HUMANITIES	Major in American studies, art history, religion, communication, English, French, general studies, history, journalism, philosophy, Spanish, speech, Far Eastern languages, music education, or social studies
HUMANSERVICE	Major in education, nursing, pharmacy, pre-dental, pre-med, or social services
SCITECH	Major in a science or technical field
VOCATIONAL	Major in agriculture, home economics, mortuary science, or criminal justice
ADA	Ideology score based on the voting records tabulated by Americans for Democratic Action
FRESHMAN	Dummy equal to 1 if a member of Congress is in their first term
PACBUS	Percentage of total campaign contributions from business PAC
PACLAB	Percentage of total campaign contributions from labor PAC
PARTY	Dummy equal to 1 if a member of Congress is a Republican

District and State Characteristics	
AG	Percent of labor force in agriculture industry by state
BA	Percent of population with a bachelor's degree
HISPANIC	Percent of the population that is Hispanic
HS	Percent of population with less than a high school education
TEXTILE	Percent of labor force in textile industry by state
UNEMP	Unemployment rate
UNIONREP	Labor force represented by a union percent of state (district data not available)

In testing for the influence of ideology, we expect the ADA measure to possess a negative sign. This would mean that more conservative members of Congress are likely to vote in favor of free trade. The party variable is a dummy equal to one if a member is a Republican. Since this policy was raised during the Bush administration, the sign on party should be positive. This would indicate at the very least that members of Congress held the party line, although it could indicate that Republicans are more in favor of free trade than Democrats.

Similar to Kahn (2005), we control for whether a member is a freshman to indicate the mood of the nation toward the administration. This variable is coded as a one if a member is in their first term and zero otherwise. Newly elected members of Congress might have run on a pro-trade basis, hoping for coattails from President Bush. Contrariwise, they might have run on an anti-trade message to counter what some Democrats considered an illegitimate president. Thus, the sign on freshman could be positive or negative.

The percentage of PAC money from business and labor groups as a share of money raised is also expected to impact the votes of members of Congress. Since business generally favors the opening of markets, it is expected that the sign on business PAC contributions will be positive. As labor unions tend to be against free trade, the sign on labor PAC donations should be negative.

B. Constituent Characteristics

The second list of control variables in Table 4 focuses specifically on the characteristics of constituents. The percentage of the population that is Hispanic should be positively correlated with the vote on CAFTA. Prior research (Boadu and Thompson, 1993; Baldwin and Magee, 2000; Hasnat and Callahan, 2004; Abetti, 2008) found Hispanic population to be an indicator of a positive vote on trade issues dealing with Latin American countries. By supporting CAFTA, a member of Congress may be placating the Hispanic portion of their constituency.

Turning to the educational attainment of the population, those with less than a high school education are likely to be opposed to free trade either because they do not understand the benefits of it or, more likely, because this will create competition for low-skilled jobs. Thus, the sign on the percentage of the population with less than a high school diploma should be negative. Those with a college degree

are more likely to favor free trade, and the sign on this variable is expected to be positive.

Finally, we include controls for labor force traits. Here we include a variable for the percentage of the population that is represented by a union as well as certain sector-specific controls. The percentage of the population represented by a union is expected to be negatively related to the CAFTA vote, as unions are traditionally opposed to opening borders, and in this case opposition by labor union leaders was intense. Unemployment is expected to be negative, as those out of work sometimes use free trade agreements as a straw man for their ills.

Two specific sectors of the workforce, textiles and agriculture, were expected to be directly affected by CAFTA. Generally, textile workers viewed CAFTA negatively, as it was believed to intensify competition and possibly outsource jobs. Those in the agricultural sector, on the other hand, saw this as an opportunity to expand their markets. Thus, the sign on the control for the percentage of the workforce in textile production is expected to be negative, while that for the percentage of the workforce in agriculture is expected to be positive.

IV. Results

The results of the model are shown in Table 5. Column 1 presents the model using the control variables noted above without the college majors. Column 2 shows the impact on the base model of adding the college majors. The addition of the college majors improves the predictive power of the model, as indicated by the improvement in the percent correct rows in Columns 1 and 2 at the bottom of Table 5. While this is not a large increase, it is an improvement and suggests that future studies on voting should consider including college major as a control variable. Columns 3 and 4 are additional specifications of the model.

All of the variables have the expected sign except for the unemployment rate and the percentage of the population represented by a labor union. Neither of these variables displays a level of statistical significance.

The unemployment rate in 2005 was 5.1% and falling. In such an economic environment, the reaction to a free trade bill should be supportive; thus, the number of unemployed may not have the impact on voting that would be expected. Similarly, not all union

members were opposed to CAFTA despite the vocal outcry. Agricultural unions were in favor of the program; thus, union representation may not be as important in a member of Congress' decision.

In all versions of the model reported, being an economics major has the expected positive sign and is statistically significant. Interpreting the coefficients in a logit model can be difficult, so we present the marginal effects. Being an economics major makes the member of Congress between 30.49 and 39.26 percent more likely than another major to vote in favor of free trade. The only other majors that hold any level of significance are the human services majors, the majority of whom majored in education. The negative sign on the coefficient, as seen in Column 2, indicates that these majors are 33 percent more likely to vote against CAFTA than other majors. This raises an interesting question of whether a dearth of economics in the undergraduate education curriculum is leading not only to poor decisions in personal finance but also corresponds to poor policy decisions when it comes to economic issues.

The ADA, Hispanic population, and percentage of the labor force in the textile industry are all consistently statistically significant. Those members of Congress who are more conservative, as indicated by a low ADA score, are more likely to vote in favor of CAFTA. An increase in a member's ADA score by one point increased the probability of voting in favor of CAFTA by 1.48% across the samples. Interaction effects do appear to be a concern in the final two columns of Table 5, as the party variable is insignificant in both columns and the sign switches to negative. In the samples in which only party is included (not reported), the Republican members are 76.3 percent more likely than their Democratic colleagues to vote for CAFTA. The strength of the party variable suggests that Republicans are more supportive of trade and perhaps, at least for CAFTA, there is a degree of party loyalty playing out.

The Hispanic population affects members of Congress, leading them to vote in favor of free trade with Caribbean nations. If the Hispanic percentage of the population in a district increases by 1%, the likelihood of a positive vote for CAFTA increases by 0.74%.

The textile industry appears to have a strong pull, more significant at least than union membership as a whole, within a congressional district. The marginal effects indicate that increasing

the percentage of the workforce in the textile industry by 1% decreases the probability of a yes vote on CAFTA by 1.79%.

Interestingly, the percent of the labor force in a union does not appear to affect the votes of Members of Congress. However, the percent of a candidate's contributions coming from a labor union does impact the vote rather significantly. Increasing the percentage of campaign contributions coming from a labor PAC by 1% decreases the likelihood of voting for CAFTA by 4.13% on average. This leaves

Table 5: Regression Results

	(1)		(2)		(3)		(4)	
ECONMAJ			1.916	***	1.9	***	1.343	*
			(2.46)		(2.45)		(1.85)	
BUSACCO			-0.592		-0.588		-0.563	
			(-0.79)		(-0.78)		(-0.80)	
GOVETC			0.001		-0.011		-0.328	
			(0.00)		(-0.02)		(-0.57)	
HUMANITIES			0.051		0.044		-0.06	
			(0.09)		(0.08)		(-0.09)	
VOCATIONAL			0.173		0.179		0.072	
			(0.30)		(0.31)		(0.12)	
HUMANSERVICE			-1.396		-1.427		-1.763	*
			(-1.57)		(-1.61)		(-1.93)	
SCITECH			-0.878		-0.898		-1.059	
			(-0.95)		(-0.98)		(-0.96)	
ADA	-0.071	***	-0.074	***	-0.07	***	-0.051	***
	(-3.94)		(-4.33)		(-9.44)		(-6.46)	
PARTY	-0.511		-0.319					
	(-0.38)		(-0.25)					
FRESHMAN	-0.535		-0.62		-0.61		-0.857	
	(-0.88)		(-0.99)		(-0.97)		(-1.26)	
PACBUS	1.704		1.933		1.999		2.014	
	(0.86)		(0.87)		(0.93)		(0.98)	
PACLAB							-15.556	***
							(-3.67)	

the impression that special interest money means more than special interest numbers. These two variables, percent of the workforce represented by a labor union and amount of labor PAC contributions, are run in separate versions of the model due to heterogeneity.

Table 5: Regression Results (continued)

	(1)		(2)		(3)		(4)	
UNEMP	7.808		10.18		10.249		18.778	
	(0.60)		(0.73)		(0.73)		(1.32)	
HISPANIC	2.925	**	3.187	**	3.158	**	3.415	**
	(2.02)		(2.08)		(2.05)		(2.21)	
HS	0.352		-0.975		-1.05		4.836	
	(0.05)		(-0.13)		(-0.13)		(0.57)	
BA	10.658		10.012		9.682		13.895	
	(1.28)		(1.17)		(1.13)		(1.45)	
UNIONREP	2.787		3.926		3.681			
	(0.78)		(1.07)		(1.03)			
TEXTILE	-6.539	**	-7.001	**	-7.011	***	-7.484	**
	(-2.35)		(-2.46)		(-2.47)		(-2.26)	
AG	7.17		3.671		4.158		11.183	
	(0.45)		(0.22)		(0.25)		(0.57)	
C	0.939		1.004		0.71		-0.66	
	(0.30)		(0.30)		(0.24)		(-0.19)	
Obs	416		416		416		416	
chi-squared	180.48	***	187.09	***	179.26	***	172.48	***
Pct Correct	88.70		89.90		89.90		90.14	
Sensitivity	86.54		86.54		86.54		87.98	
Specificity	90.87		90.87		93.27		92.31	

Dependent variable: vote on CAFTA bill equal to 1 if member of Congress voted yes. z-stat in parentheses. *** Significant at the 1% level; ** Significant at the 5% level; * Significant at the 10% level.

V. Conclusion

An economically literate population is a vital component of a well-informed society. Understanding how the economy functions, the fundamental role free markets play, and the importance of private property is the foundation of a society whose economy is strong and vibrant. No less important is the understanding of such economic institutions for those who write policy.

This paper has shown that when it comes to voting on a free trade bill, those who understand economics, the economics majors, consistently vote as we expect them to. Over a number of specifications, controlling for ideology, party, and labor influences among other factors, the results are robust. Economics majors support free trade. Unfortunately, they do not appear to be having success in articulating the benefits of free trade to their colleagues. In particular, human services majors are consistently at odds with the CAFTA bill.

Short of instituting an economic literacy requirement for joining Congress (which we feel would have difficulty passing a Constitutionality hurdle as well as find little support among the many members who would fail to meet such a standard) improving the situation appears dire. A bland suggestion would be to hold educational seminars for representatives, but without an incentive to show up, these informational meetings are likely to be as well attended as 8 a.m. classes. Perhaps a signing bonus for economists who win election to Congress would prove to be more apropos. While some might object to such a blatant bribe, it should encourage office seekers to pursue economics degrees and provide an incentive for economists to run for office.

Realistically, however, economic educators need to be active in the circles in which current and future elected officials travel. We need to continue to be involved in law schools and in developing law school curricula. With 40 percent of members of Congress coming from the legal world, it makes sense to devote resources where they will reach the largest number. Additionally, we need to continue to promote economic education at the high school level. According to Walstad (2001) only 13 U.S. states have formal economics requirements. With funding in states being limited, centers for economic education across the states may have expanded opportunities to come alongside public school teachers to assist them in providing economic education.

Caplan's notion of an anti-foreign bias is a real concern for economic development. While economists understand this, apparently members of Congress as a whole do not. More work lies ahead for economic educators who want to see their work come to fruition. As is often the case, we see that the halls of Congress are the place where the work needs to begin.

References

Abetti, Pauline. 2008. "Congressional Voting on DR-CAFTA: The Ineffectiveness of Environmental Lobbying." *Journal of Economic Policy Reform*, 11(1): 11–20.

Baldwin, Robert E., and Christopher S. Magee. 2000. "Is Trade Policy for Sale? Congressional Voting on Recent Trade Bills." National Bureau of Economic Research Working Paper 63–76.

Blendon, Robert J., John M. Benson, Mollyann Brodie, Richard Morin, Drew E. Altman, Daniel Gitterman, Mario Brossard, and Matt James. 1997. "Bridging the Gap Between the Public's and Economists' Views of the Economy." *Journal of Economic Perspectives*, 11(3): 105–18.

Boadu, Fred O., and Maria R. Thompson. 1993. "The Political Economy Of The US-Mexico Free Trade Agreement: Analysis Of The Congressional Fast Track Vote." *Journal of Agricultural and Applied Economics*, 25(2): 27–35.

Bohara, Alok K., Alejandro I. Camargo, Theresa Grijalva, and Kishore Gawande. 2005. "Fundamental Dimensions of U.S. Trade Policy." *Journal of International Economics*, 65: 93–125.

Caplan, Bryan. 2002. "Systematically Biased Beliefs About Economics: Robust Evidence of Judgmental Anomalies from the Survey of Americans and Economists on the Economy." *The Economic Journal*, 112(479): 433–58.

Caplan, Bryan. 2007. *The Myth of the Rational Votes: Why Democracies Choose Bad Policies*. Princeton, NJ: Princeton University Press.

Congressional Staff Directory. 2010. http://csd.cqpress.com/ scripts/searchMembers.cfm (accessed February 2, 2010).

Crichlow, Scott. 2002. "Legislators' Personality Traits and Congressional Support for Free Trade." *The Journal of Conflict Resolution*, 46(5): 693–711.

Dennis, Christopher, Benjamin Bishin, and Politimy Nicolaou. 2000. "Constituent Diversity and Congress: The Case of NAFTA." *Journal of Socio-Economics*, 29(4): 349–60.

Export. 2010. "Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR). http://www.export.gov/fta/ cafta%2Ddr/ (accessed April 20, 2010).

Fordham Benjamin O., and Timothy J. McKeown. 2003. "Selection and Influence: Interest Groups and Congressional Voting on Trade Policy." *International Organization*, 57: 519–49.

Fuller, Dan A., Richard M. Alston, and Michael B. Vaughan. 1995. "The Split Between Political Parties on Economic Issues: A Survey of Republicans, Democrats, and Economists." *Eastern Economic Journal*, 21(2): 227–38.

Fuller, Dan A., and Doris Geide-Stevenson. 2003. "Consensus Among Economists: Revisited." *Journal of Economic Education*, 34(4): 369–87.

Fuller, Dan A., and Doris Geide-Stevenson. 2007. "Consensus on Economic Issues: A Survey of Republicans, Democrats and Economists." *Eastern Economic Journal*, 33(1): 81–94.

Gai, Zheya. 2005. "Permanent Normal Trade Relations with China: How Members of the U.S. House Voted." *International Review of Economics and Business*, 52(2): 269–88.

Groseclose, Tim, Steven D. Levitt, and James M. Snyder, Jr. 1999. "Comparing Interest Group Scores Across Time and Chambers: Adjusted ADA Scores for the U.S. Congress." *American Political Science Review*, 93(1): 33–50.

Hasnat, Baban, and Charles Callahan III. 2004. "The Determinants of U.S. Congressional Voting on the Trade and Development Act of 2000." *International Journal of Business and Economics*, 3(1): 35–44.

Kahn, Haroon A. 2005. "Determinants of Congressional Support for NAFTA and Clinton's Economic Package." *The Journal of Developing Areas*, 38(2): 143–54.

Lopez, Edward J., and Carlos D. Ramirez. 2008. "Mr. Smith and the Economy: The Influence of Economic Conditions on Individual Legislator Voting." *Public Choice*, 136(1-2): 1–17.

Marks, Stephen V. 1993. "Economic Interests and Voting on the Omnibus Trade Bill of 1987." *Public Choice*, 75: 21–42.

Miller, Stephen C. 2009. "Economic Bias and Ideology: Evidence from the General Social Survey." *The Journal of Private Enterprise*, 25(1): 31–50.

Moore, William J., Denise R. Chachere, Thomas D. Curtis, and David Gordon. 1995. "The Political Influence of Unions and Corporations on

COPE Votes in the U.S. Senate, 1979–1988." *The Journal of Labor Research*, 16(2): 203–21.

Nollen, Stanley D., and Harvey J. Iglarsh. 1990. "Explanations of Protectionism in International Trade Votes." *Public Choice*, 66: 137–53.

O'Roark, J. Brian, and William C. Wood. 2011. "Determinants of Congressional Minimum Wage Support: The Role of Economic Education." *Public Choice*, 147(1–2): 209–25.

Pjesky, Rex. and Daniel Sutter. 2002. "Searching for Cincinnatus: Representatives' Backgrounds and Voting Behavior." *Atlantic Economic Journal*, 30(1): 74–86.

Walstad, William B. 2001. "Economics Education in U.S. High Schools." *Journal of Economic Perspectives*, 15(3): 195–210.

Walstad, William B., and Ken Rebeck. 2002. "Assessing the Economic Knowledge and Economic Opinions of Adults." *The Quarterly Review of Economics and Finance*, 42(5): 921–35.

Weller, Nicholas. 2009. "Trading Policy: Constituents and Party in U.S. Trade Policy." *Public Choice*, 141(1-2): 87–101.