

**Does Financial Expertise Affect United States Representatives' Voting Behavior?**

**By**

**Molly Catherine Middlekauff**

**Advisor: Dr. Charles Leflar**

**An Honors Thesis in partial fulfillment of the requirements for the degree of Bachelor of  
Science in Business Administration in Accounting**

**Sam M. Walton College of Business  
University of Arkansas  
Fayetteville, Arkansas**

**May 14, 2011**

## **INTRODUCTION**

This thesis investigates the influence of financial expertise on the voting behavior of the House of Representatives in the 111<sup>th</sup> Congress. I selected 22 financial experts, tracked 40 votes in Congress, and statistically researched if financial expertise caused these House Members to vote against party more than non-financial experts.

The United States Congress is composed of two legislative powers: the House of Representatives and the Senate. Currently there are 435 voting members in the House of Representatives, which makes it the larger branch of Congress. The composition of the two Houses is established in Article One of the United States Constitution. The chief function of Congress is the making of laws. The Constitution specifically gives the House of Representatives the power to create bills to raise Revenue. This body of Congress holds the right to originate appropriation bills and bills that authorize the expenditure of federal funds (Galloway, 1990).

Because the House of Representatives holds a major fiscal power in the United States, most bills passed will carry huge monetary effects. In theory, the members that vote on these bills should have some sort of knowledge about the economic effects of these bills. Financial literacy would seem to be a needed prerequisite to become a Representative, especially when appropriating billions of dollars to certain bills. For my research, I have separated 22 “financial experts” from the rest of Congress to see if this financial literacy has had any affect on these House Members’ voting behaviors. For my research, I have differentiated between financial expertise and financial literacy. Financial literacy is someone’s ability to acquire important knowledge enabling him to make financial decisions with an awareness of the possible outcomes. Financial experts understand financial statements and U.S. Generally Accepted Accounting Principles (GAAP). Financial expertise is measurable with a certification (CPA, CFA, or MBA). My research studied through statistical analysis if having financial expertise would make a U.S. Representative more entitled to vote more independently, therefore voting against party lines more often.

Included in my research is a Review of Literature followed by the Experimental Design. Included in the Experimental Design are the Hypothesis, Data, and Methodology, which includes a description of specific members and votes chosen for my research. Then, results will be defined. A Summary, a few Limitations and Future Research will conclude the study.

## **LITERATURE REVIEW**

Literature concerning financial expertise and congressional voting behavior was reviewed and separated into five distinct categories: Legislative Process, Financial Literacy, Financial Expertise vs. Financial Literacy, Finance in Law and Politics, and Legislative Behavior.

### *LEGISLATIVE PROCESS*

As stated above, the main function of Congress is the making of laws. This legislative process consists of multiple steps, all of which are equally important. There are four principal forms of proposals from Congress: the bill, the joint resolution, the concurrent resolution, and the simple resolution. For my research purposes, I am going to focus on the most widely form of legislation, the bill. The letters “H.R” designates a bill originating in the House of Representatives. Any member of the House can introduce a bill at any time while the House is in session (U.S. House of Representatives, 2011).

An important part of this legislative process is when a committee considers the bill. This takes place as a “public hearing.” The committee members give the most intense consideration to the proposed measures. After the hearings, the bill is considered in the “mark-up” session where the committee members make changes by studying many viewpoints presented. The committee members then vote to accept or reject these changes. A vote of committee Members is taken to determine what action to take with the proposed measures (U.S. House of Representatives, 2011).

When the bill leaves the committee, the full House of Representatives makes a consideration of the measure. At this time, the Members in support or opposed to the bill are able to express opinions to the entire House. After all debates and amendments are decided on, the House can vote on the final passage (U.S. House of Representatives, 2011).

After a measure passes in the House, the Senate receives the bill for consideration. A bill must pass both bodies in the same form before it is signed into law. If the Senate changes the language of the bill, it will return to the House for concurrence or even additional changes. These negotiations are back and forth but once the two bodies concur on an identical bill, it is considered “enrolled.” This measure is then sent to the President of the United States, where he may sign the measure into law, veto it and return it to Congress for amending, let it become law without signing it, or “pocket-veto” it at the end of a session (U.S. House of Representatives, 2011). As shown through this process, the United States House of Representatives plays a very vital role in turning an idea into a law.

### *FINANCIAL LITERACY*

Financial literacy is defined, “what people must know in order to make important financial decisions in their own best interest” (Mandell, 2006). The U.S. Financial Literacy and Education Commission defines financial literacy as “the ability to make informed judgments and to take effective actions regarding the current and future use and management of money” (Widdowson & Hailwood, 2007). The Reserve Bank of New Zealand points out “financial literacy means different things to different people.” For some, it incorporates an understanding of economics and how household decisions are affected by economic conditions and circumstances. For others, it means to be capable of basic money management skills – budgets, savings, investments, and insurance (Widdowson & Hailwood, 2007).

Although all of these definitions are not worded exactly the same, there is a common theme among them all. Financial literacy involves an individual’s ability to acquire essential knowledge and skills in order to make decisions with an awareness of the possible financial consequences (Widdowson & Hailwood, 2007). Financial literacy is important at several levels. It has major implications for the welfare of individuals in the management of their financial affairs. It affects the behavior of financial institutions and hence has implication for financial stability (Widdowson & Hailwood, 2007).

The Reserve Bank of New Zealand discusses the importance of financial literacy, focusing on financial literacy at the household and individual level, but one can easily apply these definitions with public officials like U.S. Representatives and their knowledge to make informed judgments regarding the use and management of money in legislation.

### *FINANCIAL EXPERTISE V. FINANCIAL LITERACY*

Recently, the national stock exchanges require all audit committee members to be financially literate and at least one member to have financial expertise. Because these two things are very similar, the differences have been defined. The Blue Ribbon Committee indicates that financial “literacy includes the ability to read and understand financial statements, including a company’s balance statement, income statement, and cash flow statements” (Giacomino, 2009). Financial expertise typically is framed in terms of employment experience or certification in accounting/ finance (McDaniel 2002).

SEC Regulation S-K section 229.407(d)(5)(ii) defines an audit committee financial expert as a person who has the following attributes: 1) An understanding of U.S. GAAP and financial statements, 2) The ability to assess the general application of U.S. GAAP in connection with accounting for estimates, accruals, and reserves, 3) Experience preparing, auditing, analyzing, or evaluating financial statements that present a breadth and level of complexity of accounting issues, 4) An understanding of internal controls and procedures for financial reporting, and 5) An understanding of audit committee functions (Giacomino, 2009).

Although this is focusing on financial expertise and literacy in an audit committee, these definitions give us a great overview on what the difference is between a financial expert and someone who is financially literate. For my research, I am focusing on financial expertise because it is measurable with a certification (CPA, CFA, or MBA) or with adequate training. For example, the securities firm, Edward Jones, offers Financial Advisor Training programs. They have three training programs that accommodate those who lack financial services and business development experience. For my research, I have decided to focus on the U.S. Representatives with specific certifications because it is more measurable when dealing with 435 members of the House of Representatives.

### *LAW, POLITICS, AND FINANCE*

A country’s legal tradition, for example, the United States Legislative Branch, helps explain “the development of its financial institutions today.” Legal systems internationally differ in their ability to “facilitate private exchanges and to adapt to support new financial and commercial transactions.” In Thorsten Beck’s article about law, politics and finance, he examines three different theories about what determines a country’s financial development. The first theory, “the law and finance view,” stresses that country’s legal traditions determine the “rights of individual investors relative to the state, which has important ramifications for financial development.” The second theory, “the dynamic law and finance view,” stresses that legal origins might change the country’s ability to adapt their laws to changing conditions. Last, the “politics and finance view” rejects the central role of legal origin, “stressing instead that political factors shape financial development (Beck, 2001).

He then proposes a combined theory of all three about the determinants of financial development within a nation. His empirical results are more consistent with the theory claiming that legal origin explains the development of a country’s financial institution. Although he focuses on four European countries, Great Britain, France, Germany, and Scandinavia, his research holds true to the United States’ legislative branch’s effect on the development of financial institutions. United States legislators have the power to change financial regulations and investor rights, which indirectly changes the entire financial institution.

This is important to consider in my analysis. Although I am trying to determine the effect of a U.S. Representative’s financial expertise on his/her voter behavior, I need to take into

consideration the underlying topic of power allocated to the legislative branch in developing financial institutions and their overall financial literacy/expertise. These lawmakers vote on large bills allocating millions of dollars to different causes and bills that change current financial laws and regulations. With this much power, the legislative branch shapes the United States' financial institutions.

### *LEGISLATIVE BEHAVIOR*

In John Ferejohn's article "Purposive Models of Legislative Behavior," he defines a legislature as "a type of deliberative assembly with the power to pass, amend and repeal laws" (Ferejohn, 1975). Many political scientists study legislative bodies, like Congress, to see "how alterations in various internal institutions affect the operation of legislatures and their policy output" (Ferejohn, 1975).

The article discusses multiple propositions about legislative behavior and policy making in certain situations, for example the roll call voting model. The roll call voting model studies voting records to observe electoral behavior. One method claims that Representatives make decisions to either "maximize their probability of reelection or to maintain it at some personally satisfactory level." They vote under the uncertainty that their vote might elicit an "electoral award or punishment of a given magnitude" (Ferejohn, 1975).

Within the article, Richard Fenno presents another study of legislative behavior. He claims Congressmen desire "reelection, good public policy, and institutional influence." Congressmen vote accordingly to reach these desired goals. He claims, "party membership is the single most important predictor of roll call votes" (Ferejohn, 1975). This study will observe this claim and look into the power of party membership on a financial specialized Representative's voting behavior.

### **EXPERIMENTAL DESIGN**

#### *HYPOTHESIS*

In theory, a U.S. Representative with more financial expertise, has much more financial knowledge than non-experts. When voting on bills that allocate large sums of money and that change financial regulations, a House Member understands the consequences it will have on the economy and on a domestic company's "bottom-line." I hypothesize House Members with financial expertise vote more independently on financial issues. Their experience and knowledge should allow them to vote against their party more often, when necessary, on bills that are finance-related. Financial experts have the knowledge to form their own opinion about financial bills. On financial issues, I hypothesize that financial experts, both Democrats and Republicans, vote against party more often than non-financial experts.

In statistics terms, I have one null hypothesis and one research hypothesis:

H<sub>0</sub>: There is no difference between the average number of votes against party for financial experts and the average number of votes against party for non-financial experts.

$$H_0: Y_1 = Y_2$$

H<sub>A1</sub>: There is a difference between the average number of votes against party for financial experts and the average number of votes against party for non-financial experts.

$$H_{A1}: Y_1 \neq Y_2$$

## **DATA AND METHODOLOGY**

For my research, I focused on United States Representatives with financial expertise and votes on the floor of the House that are finance-related. Because Congress has hundreds of years of history, I focused on the 111<sup>th</sup> Congress, which covers the time period of January 3, 2009 to January 3, 2011. President Barack Obama's presidency began at the start of this two-year time period. In the House of Representatives, there are 435 members and the appointment of seats for the 111<sup>th</sup> Congress depended on the 2000 United States Census. At the start of the term, the distribution between parties was 256 Democrats and 178 Republicans. At the end, the distribution between parties was 255 Democrats and 179 Republicans. The change in membership is due to resignations and new membership throughout the term.

### ***MEMBERS***

For my research, I singled out all of the 111<sup>th</sup> Congress's financial experts. I used the Biographical Directory of the United States of America. This directory sorts through all the members of Congress, both Senate and House of Representatives. It provided small biographies of all the Congressmen and Congresswomen. I initially browsed through both Senate and House, sorting out members who are Certified Public Accountants (CPA), Masters of Business Administration (MBA), or Chartered Financial Analysts (CFA). After gathering all of the data, I had 22 Representatives and 3 Senators who are financial experts. After this initial analysis, I decided to focus on votes in the House of Representatives because I had a bigger sample size. Also, I found that there are no members that are Chartered Financial Analysts (CFA) in the House of Representatives. Due to the number of changes in membership with resignations and new members, I ended up with 443 members of the House of Representatives to compare, 262 Democrats and 181 Republicans. I recorded all 443 members' names of the House of Representatives to thoroughly compare the non-financial experts with the financial experts in my research.

The following U.S. Representatives have financial expertise:

| <b>Name</b>     | <b>Party</b> | <b>State</b>  | <b>Financial Expertise</b> |
|-----------------|--------------|---------------|----------------------------|
| John Campbell   | Republican   | California    | CPA                        |
| Andre Carson    | Democrat     | Indiana       | MBA                        |
| Michael Conaway | Republican   | Texas         | CPA                        |
| Chet Edwards    | Democrat     | Texas         | MBA                        |
| Ruben Hinojosa  | Democrat     | Texas         | MBA                        |
| Peter Hoekstra  | Republican   | Michigan      | MBA                        |
| Lynn Jenkins    | Republican   | Kansas        | CPA                        |
| Christopher Lee | Republican   | New York      | MBA                        |
| Cathy McMorris  | Republican   | Washington    | MBA                        |
| Walt Minnick    | Democrat     | Idaho         | MBA                        |
| Jerry Moran     | Republican   | Kansas        | MBA                        |
| Richard Neal    | Democrat     | Massachusetts | MBA                        |
| Gary Peters     | Democrat     | Michigan      | MBA                        |
| Collin Peterson | Democrat     | Minnesota     | CPA                        |
| Loretta Sanchez | Democrat     | California    | MBA                        |

|                |            |              |     |
|----------------|------------|--------------|-----|
| David Scott    | Democrat   | Georgia      | MBA |
| John Shimkus   | Republican | Illinois     | MBA |
| Bill Shuster   | Republican | Pennsylvania | MBA |
| Brad Sherman   | Democrat   | California   | CPA |
| Mark Souder    | Republican | Indiana      | MBA |
| Fortney Stark  | Democrat   | California   | MBA |
| Todd Tiahrt    | Republican | Kansas       | MBA |
| Michael Turner | Republican | Ohio         | MBA |

For my Excel worksheet, I coded the political party and whether or not the member is a financial expert. When recording the members I used the following coding for each variable:

| Political Party |             |
|-----------------|-------------|
| 1               | Democrats   |
| 2               | Republicans |

| Financial Expertise |             |
|---------------------|-------------|
| 1                   | Experts     |
| 2                   | Non-Experts |

### VOTES

The Washington Post has a database that tracks all of the votes of Congress back to 1991. This database splits up the different terms of Congress, so it was easy to separate the votes only from the 111<sup>th</sup> Congress. It contains all of the United States House of Representative's votes from session one and two. Under each vote, it explains if it was passed and gives a brief description about what the bill entails. This made it easier for me to select the votes to track.

When selecting votes, I read the vote descriptions and singled out votes with either of the following criteria:

- Appropriations bills that allocate large sums of money to certain government run organizations/departments
- Finance related bills that amend the financial market directly or indirectly

After screening hundreds of votes, I selected forty main votes that have passed and fit this criterion. Of these forty votes, I found 30 appropriation bills and 10 finance related bills. The following are two examples of both of these categories, with short descriptions of the bills:

- Appropriations bills

|  |   |
|--|---|
| <b>H.R. 3326</b>   | <b>Department of Defense Appropriations Act, 2010</b> |
| Appropriates funds for military personnel, operation and maintenance, procurement of aircraft for the U.S. Air Force, research and development, etc.                       |   |
| <b>H.R. 2918</b>   | <b>Legislative Branch Appropriations Act, 2010</b>    |
| Appropriates funds to the Senate for salaries, agency contributions for employee benefits, inquiries & investigations, the Caucus on International Narcotics Control, etc. |   |

- Finance related bills

|  |  |
|--|--|
| <b>H.R. 4173</b>   | <b>Dodd-Frank Wall Street Reform and Consumer Protection Act</b> |
| Establishes the Financial Stability Oversight Council, describes the Council's duties, |  |

|   |  |
|---|--|
| establishes the Office of Financial Research to support the Council, etc.   |  |
| <b>H.R. 2847</b>  | <b>Hiring Incentives to Restore Employment Act</b> |
| Amends the Internal Revenue Code, allows an increase in the general business tax credit, increases to \$250,000 the expensing allowance for depreciable business assets, etc. |  |

The Washington Post’s *U.S. Congress Votes Database* was very helpful in the way it presented each vote. For every vote, it listed the “No” votes separately from the “Yes” votes. In each column, lists every member that voted that way and the state they represent. At the top of the column, it states the number of votes from each party for “Yes” and “No.” Also, this database keeps the two parties color-coded, making it easy to find which Democrats and Republicans voted against their party.

For example, from this database I collected data about H.R. 3082, an Appropriations bill for Military Construction, the Department of Veterans Affairs, and Related Agencies for the Fiscal Year Ending September 30,2010. Using this website, I easily gathered that 212 Democrats voted “Yes” and 35 voted against party or “No.” Also, 171 Republicans voted “No” and 0 voted against party or “Yes”. Sixteen members did not vote in this vote, 8 Republicans and 8 Democrats. This listed the 35 Democrats’ names that voted against party, making it easier for my research.

I recorded which members voted against party in all forty votes. To determine which way the party swayed, I researched which way the majority of each party voted. In all votes, there was a clear majority to one side of the vote. I documented in Microsoft Excel every member’s vote of the U.S. House of Representatives using the following coding:

|   |                                |
|---|--------------------------------|
| 0 | Voted With Party, Did Not Vote |
| 1 | Voted Against Party            |

### STATISTICAL ANALYSIS

Once all members and votes were entered, the focus was on running six different two-sample t-tests. A t-test “assesses whether the means of two groups are *statistically different* from each other” (Trochim, 2001). The two-sample t-test is used to compare two sample means. The independent variable is nominal level data and the dependent variable is interval/ration level. For each test, I will look at two samples, average the individual “successes” of each group of members voting against party and compare the two averages. For my research, the average number of “successes” is referring to the average amount of votes against party (VAP) for that particular sample size. I ran tests based on unequal sample sizes and unequal variances. The following formula was used for each set of tests:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{\bar{X}_1 - \bar{X}_2}}$$

Where,

$\bar{x}_j$  = Average Number of “successes” in sample 1



$\bar{X}_2$  = Average Number of “successes” in sample 2

$$s_{\bar{X}_1 - \bar{X}_2} = \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}, \text{ = Pooled Standard Deviation (Calculated with Microsoft Excel)}$$

$n_1$  = sample size for group 1

$n_2$  = sample size for group 2

With this type of test, I compared two samples to determine whether the difference between them is statistically significant or just a sampling error. For each test, the test statistic given from the formula gave a certain p-value. The p-value of a test is “the probability of observing a test statistic at least as extreme as the one computed given that the null hypothesis is true” (Trochim, 2001). For my research, I rejected the null hypothesis ( $H_0$ ) if the p-value was less than **0.05**.

Although I had one research hypothesis, I split it up into six different tests, comparing 2 different groups in each test. First, I separated the two parties, the Democratic Party and the Republican Party. I compared the Democratic experts to the Democratic non-experts. Also, the Republican experts were compared to the Republican non-experts. Next, I separated the experts from the non-experts. I observed if Democratic financial experts voted against the party more or less often than Republican financial experts. Also, I observed if Democratic non-experts voted against the party more or less often than Republican non-experts. Last, I compared the entire Democratic Party to the Republican Party to see which party voted against the party more frequently.

#### Democrats: Experts v. Non-experts

To determine if experts in the Democratic Party voted differently than non-experts, I will use the two-sample t-test. I split the Democratic Representatives into two groups: experts and non-experts. There were ten Democratic Representatives with financial expertise in the 111<sup>th</sup> House of Representatives. The votes against the party (VAP) were totaled for every Democrat. Both the expert and non-expert group’s “successes” were averaged, creating two numbers to compare with the two-sample t-test. This test statistic gave me a p-value that determined if these two numbers were significantly different.

Using the formula above, the following variables were:

$\bar{X}_1$  = Average # of “successes” in Democratic Experts Sample = **2.60 VAP**

$\bar{X}_2$  = Average # of “successes” in Democratic Non-Experts = **2.39 VAP**

$n_1$  = 10 Democratic Financial Experts

$n_2$  = 252 Democratic Non- Financial Experts

#### Republicans: Experts v. Non-experts

To determine if experts in the Republican Party vote differently more often than non-experts, I used the two-sample t-test, again. I split the Republican House Members into two groups: financial experts and non-financial experts. There were twelve Republican experts in the 111<sup>th</sup> House of Representatives. The votes against the party (VAP) were totaled for every

Republican in the House of Representatives. Every member's total votes against party were averaged to create two numbers,  $\bar{x}_1$  and  $\bar{x}_2$ . I compared both numbers using the formula above. This t-test presented a test statistic to determine the p-value that determined if the test was significant or not.

Using the formula above, the following variables were:

$\bar{x}_1$  = Average # of "successes" in Republican Experts Sample = **4.08 VAP**

$\bar{x}_2$  = Average # of "successes" in Republican Non-Experts Sample = **3.51 VAP**

$n_1$  = 12 Republican Financial Experts

$n_2$  = 169 Republican Non-Financial Experts

#### Experts: Democrats v. Republicans

To determine if Democratic financial experts vote differently more or less often than Republican financial experts, I once again used the two-sample t-test. This time I selected all 22 of the financial experts in the House of Representatives and separated the two parties, 10 Democrats and 12 Republicans. I averaged each group's amount of votes against party (VAP) and compared them with the T-Test. This gave me a test statistic that determined a certain p-value. Once I find the p-value of the test, I determined if the two numbers were significantly different.

Using the formula above, the following variables were:

$\bar{x}_1$  = Average # of "successes" in Democratic Experts Sample = **4.08 VAP**

$\bar{x}_2$  = Average # of "successes" in Republican Experts Sample = **2.60 VAP**

$n_1$  = 10 Democratic Financial Experts

$n_2$  = 12 Republican Financial Experts

#### Non-Experts: Democrats v. Republicans

To determine if Democratic non-financial experts vote differently more or less often than Republican financial non-experts, I returned to the two-sample t-test. I selected all 421 of the non-financial experts in the House of Representatives. I once again separated the two parties and totaled each member's votes against party (VAP) to get two sample numbers. I compared both groups (Democrat and Republican) using the t-test to see if there was enough evidence to accept the alternative hypothesis.

Using the formula above, the following variables were:

$\bar{x}_1$  = Average # of "successes" in Democratic Non-Experts Sample = **3.51 VAP**

$\bar{x}_2$  = Average # of "successes" in Republican Non-Experts Sample = **2.39 VAP**

$n_1$  = 252 Democratic Non-Experts

$n_2$  = 169 Republican Non-Experts

#### All House of Representatives: Experts v. Non-experts

Next, I compared all of the financial experts votes to all of the non-experts votes. Using the two side t-test, I separated the 22 financial experts from the 421 non-experts. I added up all of

each member's votes against party (VAP) and averaged the 2 group's numbers to come up with 2 variables,  $\bar{X}_1$  and  $\bar{X}_2$ . I compared these two numbers with the above formula to obtain a test statistic. Once I had a p-value, I determined if these two numbers were significantly different and tested my hypothesis.

Using the formula above, the following variables were:

$\bar{X}_1$  = Average # of "successes" in Experts Sample = **3.41 VAP**

$\bar{X}_2$  = Average # of "successes" in Non-Experts Sample = **2.84 VAP**

$n_1$  = 22 Financial Experts

$n_2$  = 421 Non-Financial Experts

### All House of Representatives: Democrats v. Republicans

Although it does not test the financial expertise in the House of Representatives, I used one more two-sample t-test to observe if Democrats or Republicans vote differently more often. I totaled and averaged all of the Democratic Party's votes against party (VAP) to create  $\bar{X}_1$ . I used the same process for all Republican members in the House of Representatives for  $\bar{X}_2$ . I compared the numbers and got a test statistic to determine if the two numbers were significantly different. This value showed if Democrats or Republicans voted more independently more often, based on the forty votes I recorded.

Using the formula above, the following variables were:

$\bar{X}_1$  = Average # of "successes" in Democratic Sample = **3.55 VAP**

$\bar{X}_2$  = Average # of "successes" in Republican Sample = **2.40 VAP**

$n_1$  = 262 Democratic Representatives

$N_2$  = 180 Republican Representatives

When running all six of these tests, if any of the two averages in comparison were significantly different, I performed another two-sample t-test to determine in which way the numbers were significant. For example, if the Democratic experts' and non-experts' votes against party (VAP) were significantly different, then I would run a test to see which group (experts or non-experts) voted more independently. If this occurred, I tested two new alternative hypotheses:

$H_{A2}: Y_1 < Y_2$

$H_{A3}: Y_1 > Y_2$

## **RESULTS**

When observing the results, I used the following rubric to describe the p-value of each test:

|   |                                     |  |  |
|---|-------------------------------------|--|--|
| Overwhelming<br>Evidence<br>(Highly<br>Significant) | Strong<br>Evidence<br>(Significant) | Weak<br>Evidence<br>(Not<br>Significant) | No<br>Evidence<br>(Not<br>Significant) |
|---|-------------------------------------|--|--|

---

|          |             |             |             |            |
|----------|-------------|-------------|-------------|------------|
| <b>0</b> | <b>0.01</b> | <b>0.05</b> | <b>0.10</b> | <b>1.0</b> |
|----------|-------------|-------------|-------------|------------|

Democrats: Experts v. Non-experts

|         |       |
|---------|-------|
| P-value | 0.816 |
|---------|-------|

Because the p-value calculated was much more than 0.05, there was *no evidence* to infer that the alternative hypothesis<sub>1</sub> was true. This p-value showed that the resulting difference between experts and non-experts' votes against the party was *not significant*. Therefore, for the forty financial bills I chose for my research, Democratic experts and non-experts voted similarly. Democratic financial experts did not vote significantly more independent than non-experts. Do not reject H<sub>0</sub>.

Republicans: Experts v. Non-experts

|         |       |
|---------|-------|
| P-value | 0.168 |
|---------|-------|

Because the p-value given was much more than 0.05, there was *no evidence* that suggested the alternative hypothesis<sub>1</sub> was true. The p-value showed that the difference between experts and non-experts' number of votes against party in the Republican Party was *not significant*. Therefore, in the forty bills I chose for my research, Republican experts and non-experts voted similarly. Republican financial experts did not vote significantly more independent than non-experts. Do not reject H<sub>0</sub>.

Experts: Democrats v. Republicans

|         |       |
|---------|-------|
| P-value | 0.168 |
|---------|-------|

Because the p-value calculated was much bigger than 0.05, there was *no evidence* that one party's financial experts voted more or less more independently. The p-value showed that this result was *not significant*. Therefore, in the forty bills I chose for research, Democratic and Republican financial experts voted fairly similarly. Do not reject H<sub>0</sub>.

Non-Experts: Democrats v. Republicans

|                            |            |
|----------------------------|------------|
| P-value (H <sub>A1</sub> ) | 0.00001442 |
|----------------------------|------------|

Because the p-value calculated was significantly smaller than 0.05, there was *overwhelming evidence* that the alternative hypothesis<sub>1</sub> was true. Also, the test ran was *highly significant*. There was a *significant* difference between Democratic and Republican non-financial experts' votes against party. As stated above, when a test was significant, a one-sample t-test is run. In this case, I ran a test based on the following alternative hypothesis:

$$H_{A2}: Y_1 < Y_2$$

Y<sub>1</sub> = Democrat Non-Financial Experts

Y<sub>2</sub> = Republican Non-Financial Experts

The alternative hypothesis<sub>2</sub> claimed that Republican non-financial experts voted more against party than Democratic non-financial experts in the forty votes I studied. After running the two-sample t-test, the following p-value was calculated:

|                            |             |
|----------------------------|-------------|
| P-value (H <sub>A2</sub> ) | 0.000007212 |
|----------------------------|-------------|

Because the p-value for this alternative hypothesis<sub>2</sub> was much smaller than 0.05, there was *overwhelming evidence* that the hypothesis was true. These results determined that the test ran was *highly significant*. This means that based on the tests ran on these forty votes, Republican non-financial experts had a significantly higher average of votes against party than Democratic non-financial experts. Reject H<sub>0</sub> in favor of H<sub>A2</sub>.

#### All House of Representatives: Experts v. Non-experts

|         |        |
|---------|--------|
| P-value | 0.3194 |
|---------|--------|

Because the above p-value was much bigger than 0.05, there was *no evidence* that financial experts voted more or less independently than non-financial experts. These results show that the test ran comparing experts and non-experts was *not significant*. Therefore, in the forty votes I tracked, experts did not vote significantly more against their parties than non-financial experts. Do not reject H<sub>0</sub>.

#### All House of Representatives: Democrats v. Republicans

|         |          |
|---------|----------|
| P-value | 4.29E-06 |
|---------|----------|

Because the above p-value was much smaller than 0.05, there was *overwhelming evidence* that the alternative hypothesis was true. In this case, the alternative hypothesis stated that there was a *significant* difference between Democrats' and Republicans' average amount of votes against party. The p-value indicated that the test was *highly significant*. Because this was highly significant, I ran another two-sample test to determine which side (Democrats or Republicans) voted more independently significantly more. I tested the following hypothesis:

$$H_{A2}: Y_1 < Y_2$$

Y<sub>1</sub> = Democratic Representatives

Y<sub>2</sub> = Republican Representatives

The alternative hypothesis<sub>2</sub> claimed that in the forty votes I tracked, all Republican Representatives voted more independently than all Democratic Representatives. After, running another two-sample test to test the above hypothesis, the following p-value was calculated:

|         |          |
|---------|----------|
| P-value | 2.14E-06 |
|---------|----------|

Because this p-value was much smaller than 0.05, there was *overwhelming evidence* that the alternative hypothesis<sub>2</sub> was true. Also the test used to compare these two numbers was *highly significant*. This means that for the forty finance-related votes I tracked, Republican Representatives voted significantly more against party than Democratic Representatives. Reject H<sub>0</sub> in favor of H<sub>A2</sub>.

### SUMMARY

In my research, I hypothesized financial experts in both parties of the House of Representatives vote differently than non-financial experts. To begin this study, I defined

financial expertise and how it differs from financial literacy. Financial expertise typically is framed in terms of employment experience or certification in Accounting/Finance (McDaniel, 2002). Financial literacy is the ability one has to acquire essential knowledge and skills in order to make decisions with an awareness of the possible financial consequences (Widdowson & Hailwood, 2007). For my research, I defined financial experts as Representatives that have financial certifications, like CFAs, CPAs, and MBAs. Also, to set up the foundation of my research, I described the many steps of the legislative process. I explained the multiple steps that a bill goes through before becoming a law. Next, I described three theories about the effects of law and politics on a nation's financial institutions. Last, I defined legislative behavior and described two well-known theories about what causes law makers to vote certain ways.

To analyze my hypothesis deeper, I ran two-sample t-tests for six different groups: Democratic financial experts v. non-experts, Republican financial experts v. non-experts, Democratic financial experts v. Republican financial experts, Democratic non-experts v. Republican non-experts, All financial experts v. all non-financial experts, and Democrats v. Republicans. After running all six of these tests, the main conclusion that can be drawn is that financial expertise did not have any affect on these House Members' voting behavior. Of the six tests, four of the tests were not significant. The two tests that were significant were Democratic non-experts v. Republican non-experts and Democrats v. Republicans. After doing further analysis on both of these significant tests, I learned that in the forty votes I tracked, Republicans voted more against party than Democrats.

Overall, a Representative's financial expertise did not affect his voting behavior. Voting along party lines is very common for many representatives since they are representing the people and party that elected them and they want to keep their constituents happy. Based on this study, having a financial certification did not make a U.S. Representative more inclined to vote independently from party line.

## **LIMITATIONS**

Within this study, limitations exist due to several factors. First, the sample sizes I compared in some of the test were very small. For example, comparing both parties' financial experts, I compared 10 members to 12 members. The number of financial experts in the 111<sup>th</sup> Congress is only about 5% of the total House of Representatives. This a very small sample size to test. When comparing the financial experts group to the non-financial groups, I had to compare 22 members to 421 members. This creates obvious limitations to the statistic tests that I ran.

Also, forty votes is a relatively small number of votes to track in comparison to hundreds of votes the 111<sup>th</sup> Congress had in its two-year term. Although, after looking through 800 of these votes, I only found 40 votes that met my criteria. Also, I had to take into consideration that for each individual bill, there are many votes leading up to the final vote on the final bill.

One more factor to consider in these tests is the Political Party in power at the time. During the term of the 111<sup>th</sup> Congress, the Democrats held the majority of the House of Representatives. This might be a factor for why each party voted the way they did. This kind of factor creates a limitation because I cannot consider it quantitatively in my tests.

## **FUTURE RESEARCH**

Future research would focus on finding a way to measure United States Representative's financial literacy. Including financial literacy as well as financial expertise would create a bigger sample size and would help render more conclusive results when considering my alternative hypothesis. Because financial literacy is hard to measure, in-depth interviews or financial surveys to all 435 of the House of Representatives would help determine how many financially literate members there are in office. In theory, this would increase the sample size substantially and avoid such limitations when running the statistical tests.

Researching multiple years of Congress, tracking votes of both Senate and House of Representatives, would help create more in-depth conclusions about financial expertise in Congress. Comparing financial experts' voting behavior over a five to ten year time period might present more conclusive results. Also, comparing the 111<sup>th</sup> Congress to a term where the Republicans held the majority would decipher whether or not there is a trend for the majority party to vote less independently than the minority party.

Also, future research would include many more variables. For example, this research would include specific committee assignments, seniority, sex, district demographics, etc. Overall, adding more variables would observe other trends in legislative behavior that would be conclusive and worth studying.

Last, a possible follow up study would observe whether or not the economic condition affects a financial expert's voting behavior. The study would compare a ten to fifteen year period and address if good or bad economic conditions have any effect on financially literate House Members' voting behavior. In the end, there are many factors that affect the way a U.S. Representative votes on the floor and based on my research, financial expertise has little effect on his voting decisions.

## REFERENCES

- Beck, Thorsten, Asli, and Levine, Ross, *Law, Politics, and Finance* (April 12, 2001), World Bank Policy Research Working Paper No. 2585. Available at SSRN: <http://ssrn.com/abstract=269118>.
- Chieh, Chew J. "Making Sense of the Two-Sample T-Test." *ISixSigma*. 2011. Web. 6 Apr. 2011. [http://www.isixsigma.com/index.php?option=com\\_k2&view=item&id=988:making-sense-of-the-two-sample-t-test&Itemid=205](http://www.isixsigma.com/index.php?option=com_k2&view=item&id=988:making-sense-of-the-two-sample-t-test&Itemid=205)
- Cover, Albert D., Neil Pinney, and George Serra. "Voting Behavior in the US House and Senate." *Party Politics* 221-241 3.2 (1997). Print.
- Ferejohn, John A., and Morris P. Fiorina. "Purposive Models of Legislative Behavior." *The American Economic Review* 65.2 (1975): 407-14. Print.
- Galloway, George, *History of the House of Representatives* (1976); James H. Hutson, *To Make All Laws: The Congress of the United States, 1789-1989* (1990). Print.
- Giacomino, Don E., Michael D. Akers, and Joseph Wall. "Testing the Financial Literacy and Expertise of Audit Committee Members." *The CPA Journal* (Aug 2009): 66-71. Print.
- Keller, Gerald. "Introduction to Hypothesis Testing." *Statistics for Management and Economics*. Vol. 7e. Mason, OH: Thomson South-Western, 2007. 330-42. Print.
- Mandell, Lewis, *Financial Literacy: If It's so Important, Why isn't It Improving?* (April 2006). Networks Financial Institute Policy Brief No. 2006-PB-08. Available at SSRN: <http://ssrn.com/abstract=923557>.
- McDaniel, Linda, Roger D. Martin, and Laureen A. Maines. "Evaluating Financial Reporting Quality: The Effects of Financial Expertise v. Financial Literacy." *The Accounting Review* 77 (2002): 139-67. Print.
- Trochim, William M. "The T-Test." *Research Model Knowledge Base*. 2006. Web. 6 Mar. 2011. [http://www.socialresearchmethods.net/kb/stat\\_t.php](http://www.socialresearchmethods.net/kb/stat_t.php)
- Tying It All Together: Learn About The Legislative Process*. U.S. House of Representatives. Web. 13 Mar. 2011. [http://www.house.gov/house/Tying\\_it\\_all.html](http://www.house.gov/house/Tying_it_all.html).
- United States. *Biographical Directory of the United States of America*. Web. 2 Oct. 2010. <http://bioguide.congress.gov/biosearch.asp>.
- United States. *United States Constitution*. U. S. House of Representatives, 20 Sept. 2004. Web. 13 Mar. 2011. <http://www.house.gov/house/Constitution/Constitution.html>.
- U.S. Congress Votes Database*. The Washington Post. Web. 31 Mar. 2011. <http://projects.washingtonpost.com/congress/112/>.