The Economic and Political Determinants of Minimum Wage Legislation

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Abstract

Much of modern American political debate focuses on laws which regulate the minimum wages of workers. A majority of the research done on minimum wage laws in recent years has focused on the effect that a minimum wage law may have on the economic well being of a society. Yet there is surprisingly little scholarship investigating the driving forces behind creating and increasing the levels of the minimum wage. This paper examines the factors that cause lawmakers to raise minimum wage levels, and determines that these factors, by their nature, are predominantly rooted on political bases and have very little economic justification.

The Economic and Political Determinants of Minimum Wage Legislation

Most of the research done on minimum wage laws in recent years focuses on the effects that minimum wage laws have on the economic well being of a society. (Zavodny 63). The traditional argument focuses on two competing effects. On one hand, the minimum wage improves the living standards of low wage workers; thereby reducing poverty. On the other hand, the minimum wage reduces employment levels of low income workers, thereby raising poverty. (Blais 15-6). Despite a plethora of research on the effects of minimum wage, there is surprisingly little scholarship on the causes or determinants of minimum wage laws. (Zavodny 63). Because minimum wage laws are the subject of so much controversy, it is therefore important to understand the driving forces behind creating and increasing the minimum wage.

The classical political economists, Adam Smith, David Ricardo and Karl Marx all shared the belief that regardless of the industry or type of labor, there exists a wage rate that is the minimum amount that laborers will accept. “A man must always live by his work, and his wages must at least be sufficient to maintain him. They must even upon most occasions be somewhat more; otherwise it would be impossible for him to bring up a family, and the race of such workmen could not last beyond the first generation.” (Smith 96). Though Smith and Ricardo, as proponents of laissez-faire economics, would likely not favor government mandating what this wage ought to be, even these early economists recognized the need for laborers to earn a wage great enough for their survival. Marx may have favored a mandated minimum wage, because he believed that capitalist’s profits were derived from their exploitation of labor.

In modern day economics, one of the major objections to the minimum wage is that there is no economically efficient basis for having one. The traditional neoclassical economics model holds that the cost to society of raising the minimum wage is far greater than its benefits. (Levin-

Waldman 3). “A policy which artificially raises wages to help some at the expense of others is simply inefficient. Even if there is some outward appearance of benefit to be derived, from an increase in the wage floor, there will invariably be a cost to be borne.” (Levin-Waldman 3). If this is true, economic regulations which place floors under the wage rate can inhibit the market from reaching socially efficient wage rates, as employers and employees are prohibited from negotiating a contract which results in a wage rate below the minimum wage.

Given these inefficiencies, it is natural to ask why we have minimum wage laws in the first place. According to Richard Posner, there are two main theories of economic regulation. The first is the “public interest” theory, which holds that regulations are designed to correct inefficient or inequitable market practices, such as monopolies and externalities. The second is the “capture” theory, which holds that regulations are implemented in response to interest groups who intend on maximizing the incomes of their members. (Posner 335-6). The main point here is that economic regulations are implemented for both economic and political reasons. This paper will attempt to determine whether the minimum wage is determined based primarily on economic or political bases. Furthermore, it will attempt to determine which factors have had the biggest influence on the determination of both the federal and state minimum wage rates.

Literature Review

In the United States, the minimum wage is set at both the federal and state levels. In effect, each state has the option to set their minimum wage higher or equal to the federal minimum if they choose. Furthermore, states may set their minimum wage below the federal level only for workers to whom the federal law does not apply. (Department of Labor). Of the small number of studies that have been done on the determinants of minimum wage laws, most analyze factors that influence the votes of individual senators and congressmen on an increase in

the federal minimum wage. A few studies analyze the determinants of minimum wage laws at the state level as well. For purposes of clarity, federal and state minimum wage studies will be discussed separately.

Determinants of Federal Minimum Wage Law

The literature of determining minimum wage law focuses on a number of key areas, including unionization, political ideology, influence of small business and right to work laws. The literature generally agrees that higher levels of unionization, higher wage rates, and liberal ideology are factors that would make a Senator or Congressman vote for an increase in the minimum wage. It also agrees that influence of small business, conservative ideology, and right to work laws are factors that would influence a congressman to oppose an increase in the minimum wage. The literature has shown other factors such as percentage of women in the work force, percentage of teens in the workforce, and percentage of African Americans in the workforce to be not significant in determining minimum wage rates. The most interesting variable in these studies are the income variables. The literature on income is contradictory. Some studies show that larger proportions of low income families increased the probability that a congressman would vote in favor of a minimum wage increase, whereas some found that higher average hourly earnings in manufacturing increased the probability that a congressman would vote in favor of a minimum wage. Many determined that wage levels were not significant at all. These differences could certainly be attributed to the differences in measurement of income; however the fact that coefficients could be positive, negative or insignificant shows that there is no consensus as to how this variable affects minimum wage laws.

Silberman and Durden (1976) analyzed congressional votes on the 1973 amendment to the Fair Labor Standards Act to raise the federal minimum wage. Using variables for each

congressional district in a probit analysis, Silberman and Durden determined that larger political contributions by unions and larger proportions of low income families increased the probability that a congressman would vote in favor of a minimum wage increase. (Silberman and Durden 324-7). As expected union influence is associated with voting for higher minimum wages, because we know that unions are strong advocates for higher minimum wage laws. However, the income result is somewhat surprising, as low-income families would seem to be most at risk of losing their jobs as a result of a minimum wage increase. On the other hand, Silberman and Durden conclude that larger campaign contributions from small businesses and larger proportions of teen-age workers reduced the probability that a congressman would vote in favor of a minimum wage increase. (Silberman and Durden 324-7). These results make sense; we know that small businesses and teenage workers are typically opponents of such legislation.

Kau and Rubin (1978) expanded upon Silberman and Durden's work by analyzing five increases in the federal minimum wage between 1949 and 1974. They tested the effect of average hourly earnings in manufacturing, unionization, percentage of blacks, political party and political ideology (determined by the ADA interest group ratings). In this broader study, Kau and Rubin determined that liberal political ideology and higher average hourly earnings in manufacturing meant an increased likelihood to vote for an increase in the minimum wage. (Kau and Rubin 339). Kau and Rubin's results differ from those of Silberman and Durden, which they attribute to differences in their methodology. For example, Silberman and Durden's union variable was determined by political contributions, whereas Kau and Rubin's analysis measures unionization rates. (Kau and Rubin 341).

Bloch (1980 and 1993) partially confirms and partially rejects the conclusions of the earlier studies. Bloch approached this issue by first determining who the beneficiaries of

minimum wage laws are, and determining if Senators support these groups, among their constituents, politically. (Bloch 1989, 245-6). In his studies of the four increases in the minimum wage between 1966 and 1989, Bloch determined that unionization in a state was positively associated with voting in favor of increasing the minimum wage, confirming one of Silberman and Durden's findings. However, state wage levels were not significantly associated with voting for increasing the minimum wage which contradicts both Silberman and Durden and Kau and Rubin. (Bloch 1993, 189). He notes that his findings hold true for Republicans and all Senators in general, but not for Democrats by themselves because almost all Democratic Senators support increases in the minimum wage. (Bloch 1993, 189). Bloch notes that the Democratic Party has throughout history strongly supported increases in the minimum wage, this is regardless of ideology on the liberal conservative scale. It is therefore easier to determine what factors influence individual Congressmen by looking at what factors would cause a Republican to vote for a minimum wage increase, or a Democrat to vote against one.

Levin-Waldman(1998) builds on Bloch (1993) by looking at what might cause a Republican or Democrat to break the party line on a minimum wage increase. His analyses of congressional voting patterns look at the minimum wage laws in 1955, 1977 and 1989. Levin-Waldman finds that when Republicans come from states with high unionization, they are significantly more likely to break party ranks and vote for an increase in the minimum wage. Similarly, when Democrats come from states with "Right to Work" laws, they are significantly more likely to break party ranks and oppose an increase in the minimum wage. (Levin-Waldman 31).

Krehbiel and Rivers (1988) studied the 1977 Senate vote showed that party, regional, and unionization variables were all significant. They also note that state economic attributes which

they developed were not significant. (Krehbiel and Rivers 1168-9). This study further reinforced the impact of political factors and marginalized economic factors.

Seltzer (1995) revisited the original 1938 passage of the Fair Labor Standards Act. Seltzer determined that the major factors in determining the federal minimum wage in 1938 were the impact of small business and the percentage of low wage workers, both of which decreases support for its passage. In addition, Seltzer indicates that ideology was also an important factor. (Seltzer 1334-5). This shows that even since the passage of the original federal minimum wage law, the issues that have stayed relatively constant.

Determinants of State Minimum Wage Law

There have only been three studies on the determinants of minimum wages at the state level. (Cox and Oaxaca 1982; Zavodny 1996; and Waltman and Pittman 2002). Cox and Oaxaca (1982) used the "utility maximization model of legislators" and produced a model showing union strength, influence of "capitalists" and the average hourly wage in manufacturing were all significant factors in determining a state's minimum wage rate. They determined that "a 10 percentage point rise in the extent of organized labor would raise the expected minimum wage by $0.22/hr in 1975, whereas a 10 percentage point fall in the capital income share would increase the expected minimum wage by $0.33/hr. A $0.50/hr rise in the manufacturing wage is associated with an increase in the expected minimum wage of $0.13/hr in 1975." (Cox and Oaxaca 546).

Zavodny (1996) analyzed the determinants of minimum wage at both the state and federal level from 1954-1993. Her study included multiple dependent variables, which were whether or not the state's minimum wage was raised in a given year, and whether the state's minimum wage exceeded the federal minimum wage. Her findings show that the minimum wage

is influenced by economic variables, such as the average wage and teen unemployment rate, as well a political variables, such as Democratic control of the House, Senate and Governorship. (Zavodny 63-72).

Waltman and Pittman (2002) examined the state level minimum wages, by classifying states into four categories; states with no minimum wage, states with a minimum wage lower than the federal minimum wage, states with a minimum wage equal to the federal minimum wage, and states with a minimum wage greater than the federal minimum wage. Their analysis measured party control of the state legislature, political ideology of the public, and median household income, with only political ideology of the public always being significant. (Waltman and Pittman 54). They attribute this result to the minimum wage being a largely symbolic issue.

Additional Research

In addition to these American studies, there have also been two studies done on the determinants of minimum wage in the providences of Canada. Canada does not have a federal minimum wage, instead relying solely on the nine provincial governments to set their own minimum wage laws. Blais, Cousineau, and McRoberts (1989) use the minimum wage relative to the average manufacturing wage within each providence as their dependant variable. They found percentage women in the labor force, percentage of teens in the labor force, the impact of small business, and political control by the Conservative party were all negatively related to the minimum wage rate. They also found that union rates were not significant. (Blais, Cousineau, and McRoberts 18-21).

Lastly, Dickson and Myatt (2002) determine that the minimum wages in the Canadian providences were determined primarily by ideology, which once again showed that liberal governments tend to have higher minimum wage rates. Furthermore they also add that

percentage of women and teens in the workforce are negatively related to minimum wage rates, and surprisingly, influence of small business and big business were positively related. Lastly their economic variables also showed significant impacts, with higher unemployment and higher unemployment insurance both exerting downward pressure on the minimum wage. (Dickson and Myatt 63-4).

Methodology

This paper will attempt to determine the political and economic influences on both the federal and state level minimum wage laws. To do this, we will conduct separate analyses. For federal changes in the minimum wage, we will examine the voting patterns of individual senators and congressmen. For state changes in the minimum wage, we will examine the decisions to change the minimum wage by state legislatures. This distinction is important, because the process of increasing the federal minimum wage rate is very different than at the state level. Separating the analyses should also enable us to draw conclusions about the differences in legislation and political systems at the federal and statewide level.

Federal Minimum Wage Methodology

The federal minimum wage is set by acts of Congress. Because of inflation and increasing standards of living, Congress has never lowered the federal rate. The US system of government requires that legislation be approved by both the House of Representatives and the Senate, before being given to the President for approval. It is rare for a President to veto an increase in the federal minimum wage, and on the rare occasions in which the president has vetoed minimum wage legislation, Congress has overridden the veto every time. Therefore, for the purposes of this study we will only deal with the votes of Senators and Congressmen.

Another important distinction is the differences between the Senate and the House. The Senate is comprised of two senators from each US state, which gives each state equal voting power. The House, on the other hand, is comprised of representatives apportioned among the states based on population, which gives states with larger populations more voting power. Congressmen represent small constituencies within each state, whereas Senators represent their whole state, which is typically a broader constituency. (Some states with very small populations have only one congressman). Lastly, the party organization in the House is typically stronger than in the Senate, as party leaders exert greater control over the legislative agenda. As a result, Congressmen break party ranks less often, so as not to anger the party leaders. These points identify significant ways in which the decisions made by senators and congressmen differ. It is therefore necessary to separate the votes of the House and the Senate, and test them independently of one another.

For each chamber, we regress a series of factors on each senator's vote on the Fair Minimum Wage Act of 2007. A study on this particular piece of legislation is important on a number of levels. First, it is the most recent increase in the federal minimum wage. Second, it was the first increase in the federal minimum wage since September of 1997, which means the minimum wage rate was unchanged for a period of nearly ten years. These ten years were the longest period in which the minimum wage remained unchanged since the federal minimum wage was first enacted in 1938. Third, and finally, the bill was passed as part of the new Democratic majority's 100 hour plan, after they regained control of Congress in 2007. To analyze this vote, we create a dummy variable where a Yea vote is logged as a 1 and a Nay vote is logged as a 0.

The independent variables that will be tested here will be based on data for each senator's state and, where available, each congressman's district. The variables include: the unionization rate, the percentage of women in the workforce, whether a state has a right to work law, the legislator's political party, the legislator's political ideology, the median household income, and the unemployment level. For some of these variables data is not available at the congressional district level. This is due largely to the fact that Congressional districts are redrawn each decade, and compiling this type of information is expensive and typically not very useful. Where Congressional district data is not available state level data will be used.

State Minimum Wage Methodology

State level minimum wage rates are set by the state legislatures and governors. Once again, because of the relative infrequent use of veto power by governors on minimum wage legislation, we will focus just on the state legislature's role in the process. The dependant variables here will be slightly different. We will test three dependent variables based on panel data. Following Zadovny (1996) the first dependent variable equals 1 if a minimum wage rate was raised in a given year, otherwise it equals 0. The second dependent variable follows Waltman and Pittman (2002) by using a classification scale separating states into four categories which indicate whether a state has no minimum wage law, whether it's lower than the federal rate, whether it equals the federal rate or whether it's higher than the federal rate. The third independent variable will measure the actual minimum wage rate within each state. It is important to note here that not all states implement their minimum wage laws equally. Some states require a certain number of hours of work per week for the minimum to apply, others don't. Some states exempt certain industries, particularly service providers who receive tips, such as waiters, others don't. Furthermore, some states don't have minimum wage rates at all, or

have a rate below the federal rate, in these cases, the federal rate applies to most workers. The lower state rates are for workers to which the federal law does not apply. These aspects of the laws should be kept in mind when regressing the variables to determine the actual minimum wage level. We will attempt to predict these dependent variables using the unionization rate, the percentage of women in the workforce, political ideology of the citizens, political ideology of the government, the median household income, and the unemployment rate.

The ideological variable will be measured differently here. Interest groups typically don't rate the ideology of state legislators. However there have been a number of studies done which seek to determine the ideology of state legislatures as a whole, well as the ideology of state residents over a long period of time. (See Berry et. al. 1998). I will use data compiled by political scientists at the University of Kentucky who use a complex methodology to determine the political ideology of the citizens and the political institutions in each state for each year dating back to 1960. Waltman and Pittman (2002) used a data set similar to this in their analysis.

Formulation of a Model

Federal minimum wage analysis

We analyze the federal minimum wage law using a multivariate probit analysis. The dependent variable is each senator or congressman's vote. We code a YEA vote as a 1 and a NAY vote as a 0. This dependant variable is represented by "vcode". Each independent variable will be used to predict which way each Senator of Congressman voted. Each Senator and Congressman's political party affiliation is designated as "pcode", where members of the Republican party are coded as a 1, and members of the Democrat party are coded as a 0. For the purposes of this analysis, Senator Bernie Sanders (I-VT) and Senator Joseph Lieberman (I-CT) will be counted as members of the Democrat party, as this is the party they caucus with.

Unionization rate (Union) is the percentage of the workforce that identifies as being a member of a union. Statewide data will be used for the house for this variable, since it is not available for congressional districts. Women in the workforce (Women) is the percentage of the workforce that is female. Statewide data will be used for the house for this variable, since it is not available for congressional districts. States with right to work laws (righttowork) will be coded as a 1, all other states will be coded as a 0. Political ideology (ACU) will be measured by the congressional ratings of the American Conservative Union (ACU). This is a well respected rating agency which ranks Senators and Congressmen by political ideology on a scale of 0-100, with 100 being the most conservative, and 0 being the most liberal. Median household income (medianhouseholdincome) is the median household income in each state or congressional district (110^{th} congress) measured in 1999. While this data is slightly out of date, it was the most recent data available for the 110^{th} congress' congressional districts. Unemployment rate (unemployment) is the state average unemployment rate for 2007. Statewide data will be used for the house for this variable, since it is not available for congressional districts.

State level minimum wage analysis

The analysis of the state level minimum wage laws will involve three separate specifications. The specifications differ because we choose different measures of the minimum wage differences across states. We use a dummy variable indicating whether the state minimum wage was raised in a given year, a minimum wage category (on a scale of 1 to 4), and the nominal minimum wage rate. All regressions use panel data. For predicting whether the minimum wage rate was raised within a given year, we will run a multivariate probit analysis with panel data to control for the variable within each state over time. For predicting the state's minimum wage classification, we will run a multivariate random effects generalized ordered

probit analysis to predict the minimum wage category for each observation. For predicting the nominal minimum wage rate, we will run a multivariate random effects regression controlled for panel data. The data for this analysis will be set up with panel data using a seven year period from 2000 until 2006 for each state, giving us a total of 350 observations.

The variable representing whether there was a minimum wage increase in a given year (raise), will use a 1 to represent a raise in the minimum wage, and a 0 to represent no raise. This data however is lagged one year, because a change in minimum wage legislation that goes into effect on January 1st of a given year was voted on by the previous year's state legislature. The variable classifying each minimum wage law in each state in each year (code) will use a 1 to represent states that do not have a minimum wage, a 2 to represent states which have a minimum wage below the federal rate, a 3 to represent states which have a minimum wage equal to the federal rate, and a 4 to represent states which have a minimum wage greater than the federal rate. The actual minimum wage level for each state in a given year (minwage), will be measured nominally. Since we are trying to determine what factors influence minimum wage laws, we have to use data that would have been available at the time the law was being voted on. The independent variables "union", "medianhousehold income", "women", are the same data used in the federal minimum wage study. The new independent variables introduced here are the unemployment rate and ideological variables for citizen ideology and institutional ideology. Unemployment rate (unemployment) is measured as before, using annual average unemployment rate, however, since this dataset is panel data, and historical unemployment data is readily available, an unemployment rate for each state for each year is used. The ideological variables are represented by "citi6006" and "inst6006", and are derived from the University of Kentucky's study on state ideology for the years 2000 through 2006. (Berry et. al. 1998).

Results

State level results

We ran three types of panel data regressions run on the state level data: a simple random effects probit model where the dependent variable simply indicated whether the state increased their minimum wage in that year, an ordered probit model that classified states on a scale of one to four based on their minimum wage policy, and a random effects regression with the nominal minimum wage as the dependent variable. The nominal minimum wage variable and the four-tier state classification had a very high 96.7% correlation. This is because the classification is based on the nominal minimum wage rate. Despite this, we ran both regressions for the sake of completeness. None of the independent variables in the state-level analysis were highly correlated.

The probit analysis controlled for the panel structure of the data. The results that citizen ideology, institution ideology and unionization rates were significant factors in determining if a state's minimum wage rate was increased in a given year (see Table 1). All three variables had positive coefficients, which fits the model that liberalism and higher unionization predict an increase in the minimum wage rate. Calculation of the marginal effects indicates that for every 10 basis points on citizen ideology each state became 4.1% more likely to pass a minimum wage increase in a given year. For every 10 basis points on institution ideology, states were 3.2% more likely to pass a minimum wage increase in a given year. For each additional 10% of the workforce being union members, states were 15% more likely to pass a minimum wage increase in a given year.

The multivariate random effects generalized ordered probit analysis allows us to estimate the effect of the independent variables on the probability of moving across tiers. In comparing

states with no minimum wage to states with minimum wage levels below the federal minimum, unionization rates and median household income had a significant and positive effect on the probability of moving from tier 1 (no minimum wage) to tier 2 (minimum wage below the federal level) (see Table 2). In comparing states with a minimum wage rate below the federal rate (tier 2) to those equal to the federal rate (tier 3), citizen ideology, unionization, and median household income all have a significant positive effect on the probability of moving from tier 2 to tier 3 (see Table 2). In comparing states with a minimum wage rate equal to the federal rate (tier 3) and states with higher rates (tier 4), citizen ideology, unionization, median household income and unemployment rate were all significant (see Table 2). All except unemployment rate had positive coefficients. Positive coefficients for citizen ideology, unionization and median household income are all consistent with what we would expect, as it indicates that liberalism predicts higher minimum wage tiers, higher unionization predicts higher minimum wage tiers, and higher median household income predicts higher minimum wage tiers. The negative coefficient for unemployment rate is also consistent, as it predicts states with higher unemployment will be less likely to move to a higher minimum wage tier.

Lastly, the panel data multivariate random effects regression analysis revealed that citizen ideology, unemployment rate, and women in the workforce were significant variables in determining state nominal minimum wage rates. The positive citizen ideology variable once again confirms that liberalism is highly correlated with higher minimum wage rates. The negative unemployment rate coefficient is also consistent with the neoclassical economic model, as it predicts states with higher unemployment rates will set lower minimum wage rates. The negative women coefficient indicates that a higher percentage of women in the workforce will lead to a state having a lower minimum wage rate. All three variables have significant marginal

effects. Each additional 10 basis points on liberal citizen ideology yields a minimum wage rate that is $0.39 higher. Each additional 1% of unemployment yields a minimum wage rate that is $0.15 higher. Each additional 1% of women in the workforce yields a minimum wage rate that is $0.29 lower.

House vote results

In analyzing the House and Senate vote data, we first note that the senator or congressman's political party and their ACU rating are highly correlated. This is expected because political parties tend to form based on political ideology and the ACU rating measures political ideology. States with high unionization rates and right to work status are also highly correlated. This correlation makes sense as well. Considering the fact that unions are strongly opposed to right to work legislation, states with high unionizations rates would likely not have right to work laws. We therefore drop the right to work variable in favor of the union variable.

The results showed an interesting trend. Every Democratic member of the House voted in favor of increasing the minimum wage rate. This means that if a senator is a Democrat, their vote could be predicted perfectly based solely on their political party. Since that only leaves Republicans, we will adopt a technique used by Bloch (1993), in which we look at what factors can predict whether a Republican would vote for or against an increase in minimum wage legislation.

Of the 198 Republican votes, 82 voted in favor of the bill, while 116 voted against it. The regression of the remaining House votes indicated that political ideology (ACU rating) and median household income are both significant variables in predicting a congressman's vote on minimum wage legislation. (See Table 3). The negative political ideology coefficient indicates that the more politically conservative a Congressman is, the more likely they are to oppose an

increase to the minimum wage level. This outcome is consistent with all previous research on this topic, and it makes sense considering conservative ideology typically opposes higher minimum wages. The negative median household income coefficient indicates that congressmen from wealthier districts opposed the minimum wage increase and congressmen from poorer districts supported the minimum wage increase. It is hard to tell if this is consistent with previous studies because, as previously indicated, previous studies were contradictory with respect to income levels. See Silberman and Durden (1976), Kau and Ruben (1978), and Bloch (1993). The other variables we tested all proved to be insignificant in predicting congressmen's votes on minimum wage legislation. Both variables had significant marginal effects; each additional 10 basis points on the ACU's conservative political ideology scale made a congressman 19% more likely to vote against an increase in the minimum wage. On the median household income side, each additional $10,000 within each district was associated with a 6% increase in voting against the minimum wage increase.

Senate vote results

The outcome of the regression for the Senate vote yielded a surprising result. The final Senate vote passed the minimum wage increase almost unanimously by a vote of 94-3. In most cases, this outcome would be almost impossible to predict using independent variables due to the small number of NAY outcomes. However, in this case, the variables for political party and political ideology as measured by the ACU predict the outcome perfectly. As in the House, every Democrat voted in favor of the legislation, so we once again look at what factors can predict whether a Republican would vote for or against an increase in minimum wage legislation. Surprisingly, it is possible to predict the outcome using the political ideology ratings compiled by the ACU. There were exactly 3 Senators who received perfect 100 ratings from the ACU, Jon

Kyl (R-AZ), Thomas Coburn (R-OK), and Jim DeMint (R-SC). These were the same 3 senators who voted against raising the minimum wage level. Political ideology is therefore a very strong predictor of voting pattern for minimum wage legislation, even with the small sample of "NAY" votes. The other factors may be relevant, but none predict perfectly as political party and political ideology do.

Analysis

At the State level, liberal citizen political ideology, high unionization rates, high median household income, low unemployment rate, and low percentage of women in the workforce were, in order, the best predictors for a higher state minimum wage rate, higher tier classifications and an increased likelihood that they raised their minimum wage rate in a given year.

At the federal level, political party was a perfect predictor for Democrats, as all Democrats, both in the House and the Senate, unanimously voted in favor of raising the minimum wage rate. Among Republicans, a more liberal political ideology and a lower median household income were variables which predicted that Senators and Congressmen would vote in favor of increasing the federal minimum wage rate. At the federal level, higher income is associated with lower minimum wage rates, which is an interesting result, considering our state level analysis associated higher incomes with higher minimum wage rates.

The directions of these variables all have plausible explanations as to why they occur. Liberal ideology is always associated with support for higher minimum wages for a number of reasons. First, liberal ideology believes in having government regulations to ensure fair wage rates which will allow workers to meet their subsistence. Conservative ideology on the other hand believes in letting market forces control wage rates. Secondly, low income workers, and

workers who earn the minimum wage tend to hold a more liberal ideology, and liberal representatives must vote to appease these voting blocks. Lastly, organized labor organizations (unions) are strong supporters of minimum wage legislation because it makes it more difficult for their stilled workers to be replaced with unskilled workers. Unions are a large voting block for the Democratic Party, which is the liberal party in the United States. This variable is undoubtedly political in nature and has very little to do with economic theory or models.

A Senator or congressman from a state or district that has a lower median household income would be more likely to favor higher minimum wage laws, probably because they are more likely to have more low income workers in their constituency than a representative who comes from a wealthy district. Even though this variable seems predominantly economic in nature, it is also very much political. Very few people make the connection between minimum wage levels and unemployment rate. If representatives voted strictly on economic bases when it came to median household income, congressmen might be wary of raising the minimum wage because low income workers in their district may lose their jobs because of a higher minimum wage rate. Voting in favor of a higher minimum wage rate is very politically popular, especially among lower income constituencies; therefore congressmen from low-income areas will support higher minimum wage rates for political gain.

However, this is not the case at the state level, as higher household incomes are associated with higher minimum wage rates. This could be a result of states with higher incomes having higher standards of living, thus requiring a higher minimum wage for subsistence. Reconciling this disagreement about the association between income and minimum wage rates at the federal and state level is likely due to the fact that the federal minimum wage rate doesn’t really much matter to states that already have rates above the federal minimum, which tend to be

the higher income states. This result could also be explained by a difference in the methodology used in measuring the federal rate and the state rate.

At the state level, unionization rates become significant. High unionization rates will lead to a higher minimum wage for two reasons. First, in most states, unions are a strong political force, wielding large voting blocks, lobbying strength and large sums of campaign contributions. Second, unions are major advocates for higher minimum wage laws. This seems odd, considering workers in most unionized industries make far more than the minimum wage rate. Unions support higher minimum wages, because it requires employers to pay higher wages to unskilled workers who could potentially replace the skilled worker members of the union. Because of this, higher minimum wages make it more difficult for employers to hire unskilled labor to replace skilled labor. State legislators from states with very powerful unions, have to comply with the wishes of the union, or they risk being voted out of office or losing campaign contributions. So naturally, higher unionization rates will result in higher minimum wages at the state level. This variable is mostly political, because politicians vote for higher minimum wage rates simply because they want to gain the support of the unions.

Unemployment rates also become significant at the state level. Higher unemployment rates tend to result in lower minimum wage rates, because of the tradeoff between minimum wage and unemployment. State's which have high unemployment rates are reluctant to create more unemployment by raising the minimum wage level. This variable is mostly economic, as minimum wage rates are kept low in order to combat unemployment problems. However, there are some political aspects to this variable as well. Legislators realize that higher unemployment is not politically favorable, so they try to keep unemployment down for political purposes as well.

In one state regression, the percentage of women in the workforce was a significant predictor and had significant marginal effects, indicating that greater participation in the workforce by women was associated with lower minimum wage rates. The only explanation for this relationship is that greater percentages of women work for minimum wage rates, and they may be fearful of losing their jobs if the unemployment rate were to increase. However, since this variable proved to be insignificant in all but one regression, it is unlikely it has a major impact over the minimum wage.

Among the significant variables, political ideology (be it legislator, citizen or institution) maintains significance in all but one regression that was run in this study. Not only is political ideology almost always significant, but in each case, it is significant to a p-value below .01, and has significant marginal effects making it a very strong indicator of minimum wage rates. While the other variables play an important role in determining certain aspects of minimum wage legislation, this analysis of federal and state minimum wage laws shows that political ideology is by far the single most important factor in determining a minimum wage rate.

Another interesting result is that unionization rates and unemployment rates were significant at the state level but not at the federal level. We feel this is not just mere coincidence. Looking at the structure of minimum wage laws and the American political system, it becomes clear why these variables would be significant in state governments but not in the federal government.

For unions, the first and most important observation is that in most highly unionized states, the minimum wage is already greater than the federal minimum wage. Since this is the case, it makes little sense for unions in these states to lobby their national representatives for a higher federal minimum wage. Their time, money, and effort, is better spent encouraging higher

minimum wages in their home states, rather than nationally. Secondly, unions hold significantly more political power in local state elections than they do in statewide national elections. Elections for federal candidates typically have higher voter turnout, and more campaign contributions. In these elections, the union's voting power, and campaign contribution power is diminished in relation to the overall voter turnout and campaign spending. As a result, unions have less control over officials in federal office than they do in state office.

For unemployment rate, the explanation is not as simple. Typically, a state's unemployment problems are seen as the responsibility of the state and local governments, whereas national unemployment problems are seen as the responsibility of the federal government. For example, if unemployment is high nationally, the federal government is expected to take national action to counteract this. However, if one state in particular has high unemployment, it is typically the responsibility of that state government to counteract this problem, and the federal government does not get involved. If national unemployment is low, Senators and Congressmen may not consider the economic unemployment ramifications of raising the minimum wage, even if unemployment is high within their home state. This would separate federal representatives from the unemployment rates of their home state, and could explain why that variable is significant at the state level but not at the federal level.

The significance and magnitudes of the independent variables indicate that higher minimum wage rates are driven primarily by political motivations, like their personal or citizen political ideology, their political party, unionization rates and median household incomes of their constituents. Minimum wage rates appear to only be incidentally driven by economic motivations, like unemployment rate, percentage of women in the workforce and sometimes median household income, as they play a much smaller role in determining minimum wage rates.

This study would seem to indicate that minimum wage laws have little economic foundations, and are used primarily as an issue for political gain.

This conclusion, while bold, is not unrealistic. Despite intense economic and political debate over minimum wage legislation in the United States, the actual number of citizens significantly impacted by minimum wage laws is miniscule. Prior to the 2007 increase to the federal minimum wage law, 1.9 million Americans reported earning $5.15 or less per hour, which represented only 2.2% of hourly paid workers and only 1.5% of all workers. Furthermore, 53% of those who earned the minimum wage or less were between the ages of 16 and 24. The average household income of 16-24 years olds earning the minimum wage was $64,000 per year (which is considerably higher than the median household income for the country as a whole) and 67% work part time. All of this implies that a majority of minimum wage earners are part time young adults who come from middle class families, and are not in any danger of living in poverty. (BLS Min Wage Stats). Considering the small percentage and demographics of a majority of minimum wage earners, it's hardly a pressing economic issue in the United States.

However, minimum wage increases have been extremely politically popular among the public. Polling data indicates that in 2006, 85% of the public favored an increase in the minimum wage level. This supermajority held true for Democrats (94%), Independents (84%) and Republicans (75%). (Polling Report). Such overwhelming bipartisan support for legislation almost never goes unpassed, regardless of whether the legislation is justifiable economically. Given the data collected in this study and the economic and political information surrounding minimum wage laws in the United States, it seems reasonable to conclude that political ideology and political pressure from interest groups are far better explanations for minimum wage legislation than any economic pressures.

Conclusions

A number of variables have proven to be significant across the various regressions tested. The differences among the regressions do not indicate that the significant variables are bad or unreliable predictors, but rather indicate that due to the complex American political system, which distributes power to different levels of government, different variables will exert pressures on the various governing bodies in the United States. This study shows that when it comes to minimum wage legislation, decisions on whether to raise the minimum wage, and what the rate should be, have very limited economic bases, and instead rely heavily on political bases. The most important of which is political ideology. While aspects of other variables contain some economic theories, for example unemployment rate and median household income, these variables have a limited impact, and can even be explained through political interpretations in addition to their economic bases.

Considering minimum wage laws actually change economic equilibriums, and impact major economic variables such as the wage rates and the profit rate, it is surprising to learn that economic indicators are conspicuously insignificant when it comes to determining the actual minimum wage rate. While this may not necessarily be a problem for the current state of the US economy, (due to the fact that minimum wage laws affect relatively few people), the fact that political decisions are unilaterally dictating policy that can impact important economic equilibriums, threatens the integrity of having economic regulations in the first place. The stated purpose for economic regulation ought to fit with public interest theory, which states that regulations are designed to correct inefficient or inequitable market practices. In the case of minimum wage laws in the United States, it seems to fit better with the capture theory which holds that regulations are implemented in response to public pressure and political purposes.

Minimum wage laws will continue to remain a hot button topic in economic and political circles in the United States. But rather than simply focusing on whether these laws are good or bad for a society, we should also be asking what is the rationale for minimum wage legislation?, Where do minimum wage laws come from?, And what factors influence their implementation. This study finds that in each case, political considerations have taken precedence over economic considerations despite the fact that minimum wages have direct effects on economic equilibriums, and little effect on political processes.

Table 1. State Level Analysis Results: Raise and Minimum Wage

Variable	Raise[1]	Minimum Wage[2]
Citi6006	.0203232**	.0391978**
	(0.009)	(0.008)
Inst6006	.0157551**	.0028289
	(0.005)	(0.003)
Union	.0744985*	.0759672
	(0.026)	(0.046)
Medianhousehold	-9.41e-06	.00006
	(0.00002)	(.0000343)
Women	-8.652567	-29.11011*
	(6.728)	(11.760)
Unemployment	-.181926	-.1523508**
	(0.107)	(0.053)
Constant	1.427483	12.40074*
	(3.364)	(5.739)

1. Probit regression predicting whether a minimum wage rate was raised in a given year
2. Multivariate random effects regression controlled for panel data predicts nominal minimum wage rate

Standard errors in parenthesis
*Significant at .05
**Significant at .01

Table 2. State Level Analysis Results: State Classification

Variable	Mleq1[1]	Mleq2	Mleq3
Citi6006	.0134393 (0.031)	.0595669** (0.017)	.1040309** (0.026)
Inst6006	.0149946 (0.012)	.0074129 (0.007)	.0062114 (0.006)
Union	.3910805** (0.119)	.1652532** (0.056)	.1590613** (0.042)
Medianhousehold	.0002108* (0.0000911)	.0001327** (0.0000447)	.0000476* (.0000237)
Unemployment	-.2935066 (0.301)	-.3100263 (0.181)	-.3391214* (0.166)
Constant	-10.62899* (4.888)	-7.954919** (2.642)	-9.320347** (1.528)

1. Random effects generalized ordered probit analysis, where Mleq represents the impact of independent variables between classifications. Ex/mleq1 represents the impact of each variable in predicting whether a state will be classified in tier 1 or tier 2.

Standard errors in parenthesis
*Significant at .05
**Significant at .01

Table 3. Federal Level Analysis Results: House Vote[1]

Variable	vcode[2]
Union	-.0259564 (0.029)
Women	7.543792 (7.658)
ACU	-.1156798** (0.017)
Medianhousehold	-.0000405* (0.0000174)
Unemployment	.0325837 (0.144)
Constant	8.380723 (4.146)

1. NOTE: Independent variable pcode was a perfect predictor for the Democrat party, meaning all Democrats voted YEA. We therefore disregard pcode and all Democratic house members in order to determine what factors may influence Republican congressmen.
2. Probit analysis where vcode represents each congressman's vote where a YEA vote is coded as a 1 and a NAY vote is coded as a 0.

Standard errors in parenthesis
*Significant at .05
**Significant at .01

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