Substance or Symbolism: States' Willingness to Adopt Minimum Wage Laws

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Paper prepared for the 7th Annual State Politics and Policy Conference in Austin, TX. February 23-24, 2007 **Abstract**: The federal minimum wage has remained unchanged for the past decade. However, a number of states have enacted minimum wage legislation that is more generous than the federal standard. But what factors influence such decisions? To date, the terms of debate have emphasized economics: proponents argue that increasing wages benefits those at the lower end of the economic spectrum, whereas opponents argue that such efforts amount to unnecessary governmental intrusion into the economic realm. While we acknowledge that economic considerations are undoubtedly important, we suspect that political factors may also play an important role in adopting more generous minimum wage laws. To date, few scholars have explored political features relevant to this debate. When political scientists have studied the minimum wage, they have tended to concentrate on developments at the national-level. We argue – as have other researchers – that the states provide an ideal setting in which to examine variation of economic and political factors and policy adoption.

To test the notion that political factors help to explain states' willingness to adopt more generous minimum wage laws, we hypothesize that increased Democratic majorities within state legislatures significantly predict the probability of states' adoption of minimum wage laws. To test this hypothesis, we utilize multivariate analyses to examine state-level minimum wage increases for the years 1997-2003. Specifically, we use event history analysis to examine relevant political and economic factors believed to be related to states' willingness to adopt minimum wage laws that are more generous than the federal standard. Again, we hypothesize that, all things being equal, Democratic legislative majorities (i.e., the political environment) will signal an increased likelihood of states adopting higher standards. Support for our hypothesis will add to the relatively thin body of literature within political science that examines minimum wage laws. Additionally, our findings will help political scientists better understand the relationship between the political environment and policy adoption.

Minimum wage legislation has its origins within the states, however, since its inclusion as part of the Fair Labor and Standards Act (FLSA) of 1938 the empirical study of the minimum wage has occurred almost exclusively at the national level. Somewhat surprisingly, political scientists have largely ignored the minimum wage – both nationally and sub-nationally – as a policy worthy of examination (although see Levin-Waldman 2001; Waltman 2000). To the extent that the researchers have subjected the minimum wage to empirical analysis, the primary focus has been on the effects of wage increases. Inattention among political scientists is all-the-more surprising considering efforts by state governments to step into the void left by federal inaction on various health and welfare issues, and characterization of the minimum wage as an anti-poverty measure. At a minimum, it suggests the need to examine the factors related to states willingness to adopt minimum wage laws. While state action in the domain of the minimum wage is not new, we are presently ill-equipped to offer explanations regarding which factors (if any) relate systematically to minimum wage adoptions.

We argue that the extant literature has largely ignored political aspects that are likely to influence whether governments adopt such legislation. If the "effects literature" does not speak with a unified voice regarding the impact of minimum wage increases (Levin-Waldman 2001), we fail to see how the policy debate can avoid politicization. To the extent that political scientists *have* paid attention to the minimum wage, it has been exclusive to national politics (e.g., Levin-Waldman 1998; Waltman 2000). Such work indicates that partisanship and interest group involvement significantly related to Congressional voting on minimum wage legislation (Levin-Waldman 2001; Silberman and Durden 1976; Sobel 1999). In this paper we seek to extend this literature by exploring the "politics of the minimum wage" within states. In other words, we are interested in using interstate variation to account for states' willingness to adopt mandatory minimum wages over and above the federal standard following the most-recent federal increase in 1996. Drawing upon the existing literature, we hypothesize that Democratic legislative strength will have a significant and positive impact upon the probability of minimum wage law adoption.

We begin by placing the minimum wage in historical context and sketching the main arguments advanced by advocates on both sides of minimum wage debate. Also, because economists have played a substantial role in the empirical analysis of the effects of the minimum wage, we devote considerable attention to summarizing their evidence. Lacking a clear and consistent picture of how wage increases impact employment and poverty, we argue, as have others (Waltman 2000), that this lack of consensus provides a convenient platform for both proponents and opponents to attempt to influence the debate. We draw on literature in both economics political science to build and test our model, and conclude by integrating our results with the broader political science literature on state politics and policy adoptions.

Literature Review

While minimum wage laws in the United States span the entire history of the 20th century, the terms of the debate have not remained static. Much of the early debate existed on legal grounds, revolving around questions regarding the scope of governments' authority in regulating the workplace. For example, Massachusetts passed the first American minimum wage law in 1912 and a number of other states subsequently followed suit. Over the next decade the U.S. Supreme Court struck a series of blows to these efforts, ruling that minimum wage laws violated the employee-employer relationship by unnecessarily restricting the freedom of contract (Segal & Spaeth 2002: 135-9).¹ Interestingly, and somewhat contradictory, the Court had recently issued a number of rulings upholding state laws seeking to regulate the number of hours worked by certain groups (usually women).² It was not until 1937, when the Supreme Court upheld a Washington State statute (*West Coast Hotel Co. v. Parrish*) that questions pertaining to the constitutionality of wage laws were largely settled. The culmination of this chain of events was the inclusion of the minimum wage in the FLSA of 1938.

The genesis of the early minimum wage movement was built on an intellectual foundation laid by the Progressive Movement (Waltman 2000). Consistent with key tenets of Progressivism (e.g., regulation of corporations, social justice, and somewhat indirectly, democracy), the minimum wage was initially advanced on normative grounds and pushed by activists in an effort to curb what they believed to be the excesses of industrialization. However, contemporary arguments regarding the minimum wage seem to emphasize its ability (or inability) to combat poverty. Along these lines, Jarold Waltman (2000; also see Andrews 2006) summarizes a number of propositions advanced by parties on both sides of the debate. For

¹ Such a conceptualization seems to be based on a relatively broad interpretation of 'liberty' derived from the 14th Amendment, and as applied by the Court in the early part of the 20th century (see *Lochner* v. *New York*, 198 U.S. 45 1905).

² For a summary of these rulings see Valerie Hoekstra's (2005) recent article dealing with state court responses to Supreme Court decisions regarding labor-related issues (especially Table 1).

instance, opponents contend that the minimum wage has a number of negative effects, claiming it is leads to everything from increasing unemployment to inflation to business relocation, if not business failure. At a minimum, there is considerable agreement among opponents that wage increases impose unnecessary burdens on employers and are largely incapable of combating poverty (Sherk 2007; Toikka 2001; Vedder and Gallaway 2001).

Minimum wage proponents, on the other hand, advance a number of counterarguments claiming that fixed assets prevent business from relocating and point to profits believed to be in excess of what many consider to be "normal" returns. Arguably, the two most prominent claims are that increases in the minimum wage move individuals and families out of poverty (Sobel 1999)³ and that it reduces economic inequality by more efficiently transferring income to those most in need of assistance, i.e., the working poor (Addison and Blackburn 1999; Waltman 2000). On their face, the latter two claims appear to lend themselves to empirical verification more readily than the related justifications. Thus, to the extent that scholars have empirically assessed such prognostications, we continue by summarizing the effects literature. However, before we proceed we should emphasize that our primary interest is in determining which economic and political factors *predict* adoption of minimum wage laws. This is in contrast to much of the existing literature, where scholarship has concentrated on the effects of such provisions while all but ignoring the adoption question. We do not wish to suggest that the work of economists is peripheral to adoption debates, in fact, we know it is a crucial component of such debate (Brandl 1985). Many of the economic arguments presented in this paper inform the political debate and are therefore necessary in establishing the proper context for our study. Thus, we believe a brief of review the most prominent theories and relevant empirical literature is in order.

The Economics to the Minimum Wage

Economists have spent considerably more time and effort in examining the minimum wage (e.g., Kelley 1912; Webb 1912), relative to political scientists.⁴ This is hardly surprising given the theoretical underpinnings of the neo-classical perspective and its place of prominence in the discipline. As Brown

³ Sobel (1999: 763) quotes President Clinton who, in signing the federal minimum wage law in 1996, said "This bill ensures that a parent working full-time at the minimum wage can lift himself or herself and their children out of poverty."

⁴ Using the JSTOR search engine, we conducted a title search among the political science journals using "minimum wage" as our search term. This returned a mere 20 citations, with only one-quarter appearing *after* 1979 and 65% appearing *before* 1930.

(1988) points out, the dominant theoretical perspective in economics leads to strong predictions regarding the effects of exogenous wage increases on employment specifically, and the labor market more generally (also see Brandl 1985).⁵ According to the competitive model, a market clearing wage is obtained when the demand for, and supply of, labor reaches an equilibrium point. When labor supply is low and demand is high, wages increase as a means of enticing potential employees into the workplace. Conversely, when the labor supply is high and demand is low, wages decrease. In short, the imposition of an artificial wage floor interferes with the natural balance of demand and supply, leading employers to protect against profit loss by shrinking their workforce in an effort to avoid excess labor costs.⁶

Although this model is parsimonious and leads to testable hypotheses, it has a number of wellknown problems. For instance, the model ignores environmental (i.e., institutional or situational) factors and implicitly assumes low wages and poverty are individual shortcomings. Similarly, it ignores the power relationship that exists between the employer and employee. Despite its prominence, a number of critics claim it is an oversimplification of a considerably more complex world (Brown 1988; Card 1992a; Levin-Waldman 2001).

At least two alternative models have received some attention in the literature. First, the monopsony model describes a market consisting of a single purchaser of labor services. Under this model it is theoretically possible for increased wages to yield aggregate gains (assuming the employer is not already paying a market clearing wage). If the minimum wage does not exceed equilibrium, it should pull workers into the labor market by altering incentive structures. In short, the monopsony model acknowledges asymmetrical power in the employer-employee relationship and it suggests that, under certain conditions, a minimum wage has the potential to reduce poverty (Levin-Waldman 2001). The primary problem with this model is it seems to have little relevance to contemporary labor markets (West & McKee 1980).

A second alternative is the efficiency model. Although this model has largely fallen from favor, both advocates and policymakers used it during the Progressive Era (Levin-Waldman 2001). Proponents

⁵ Brandl (1985: 345) goes even further, claiming that as a system of analysis, the economic model is "society's most pervasively influential theory of social interaction."

⁶ For a more detailed treatment of the competitive, monoposony, and efficiency ("shock") models see Brown, Gilroy, and Kohen (1982) and Levin-Waldman (1998; 2001).

argued that regulation of wages would lead to increases in productivity and efficiency (Webb 1912). In theory, higher wages are associated with increased incentives for workers and should lead to greater productivity as workers seek ways to improve their performance as a means of justifying their higher wage. On the demand side, employers have an incentive to integrate technology as a way of enhancing outputs. At a minimum, the theory suggests higher wages are associated with decreased monitoring costs.

Admittedly these descriptions do not do justice to the models, however, our primary purpose in summarizing them is to highlight that each model makes certain assumptions that are not without significant implications for empirical results. Further, such logic suggests that choices between models may be the result of political considerations (Levin-Waldman 1998; 2001). For instance, the efficiency model implies that society makes a value judgment regarding just compensation and recognizes the importance of institutions and power relationships. Given the differences in expectations between these three models and the sociopolitical context of the 1930s, it is hardly surprising the efficiency model guided early thinking on the minimum wage as part of the Fair Labor and Standards Act of 1938. However, more recent efforts to empirically verify the model's predictions typically yield null results (West & McKee 1980).

Despite a plethora of models and competing dependent variables, the dominant approach, by far, has been to examine the effects of minimum wage legislation (usually at the national level) using the competitive model (Addison & Blackburn 1999; Brown 1988; Card & Krueger 1994; Neumark & Wascher 2002). Based on our sampling of the economics literature, the most common conclusions seem to emphasize the negative effects associated with minimum wage increases. However, more recent evidence suggests a more cautious approach may be in order (for early discussions see Brown, Gilroy, & Kohen 1982; Brown 1998). Nonetheless, economists have rigorously examined the effects of minimum wage increases and generally conclude its ability to combat poverty is negligible and that increases likely take a toll on the youth labor market. For instance, based on their review of studies published in the 1970s, West and McKee (1980) find that 70% of their sample reported statistically significant negative

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relationships between minimum wage increases and employment.⁷ Similarly, early evidence shows that teenagers are generally more susceptible to disemployment effects relative to young adults. However, a more complex picture is evident when policymakers consider that labor market exits increase among teenagers following minimum wage increases and there is also evidence of a shift toward more part-time employment (Brown et al. 1983; Brown 1988). Moreover, early evidence suggested racial minorities were more likely than nonwhites to lose their jobs in response to minimum wage increases (Kosters & Welch 1972).⁸ Subsequent analysis by Brown and his colleagues (Brown et al. 1983) suggests that these estimates are likely biased to inflated standard errors.

More recent evidence also offers support for conventional wisdom (i.e., the neoclassical perspective). Specifically, Partridge and Partridge (1998) corroborate earlier results using state-level data, finding that teenage unemployment is related to both increasing wage rates and expansion of those sectors of the labor market subject to wage requirements. The most consistent result in the "effects literature," even given differences in model specification, seems to be that wage increases have a disemployment effect on teenage labor, where aggregate data suggests a 10 percent increase in the minimum wage leads to a one to three percent decrease in teen employment. Although Brown (1988) argues that time-series analysis provides a more accurate estimate of disemployment among teenage workers; typically around the one percent following a 10 percent increase in the minimum wage.

Perhaps the most comprehensive analysis of the federal minimum wage occurred in response to uncertainty regarding the effects of the minimum wage during Congressional debates to amend the FLSA in 1977. Dual efforts by Congress (via the Minimum Wage Study Commission) and the American Enterprise Institute (AEI) came to similar conclusions regarding various effects (e.g., aggregate employment effects, employment effects in the youth labor market, income distribution, etc.) and were generally consistent with the prevailing professional consensus, i.e., little in the way of positive change (Eccles and Freeman 1982).

⁷ The other 30% of West and McKee's (1980) review shows non-significant results, whereas no study showed significant positive results.

⁸ It is important to point out that the differences between whites and nonwhites may be an artifact considering the data covers 1954-1968 (see also Card 1992b).

Arguably the most provocative research to challenge the orthodox expectations regarding minimum wage increases has been the work of Alan Krueger and his colleagues (also see Addison & Blackburn 1999). Using a quasi-experimental design, Card and Krueger (1994) employ longitudinal survey evidence to compare New Jersey and Pennsylvania and gauge the relative influence of minimum wage increases on rates of employment within the fast-food industry.⁹ Specifically, using a number of model specifications they find robust evidence of a positive relationship between wage increases and employment gains. Using similar methods in a single state, Katz and Krueger (1992) conclude that employment increased and price changes were unrelated to mandatory wage increases.¹⁰ Further support comes from analysis of aggregate data drawn from the Current Population Survey (CPS). Based on his analysis of data from California prior to, and following, a minimum wage increase in 1988, David Card (1992b) finds a three percent increase in teenage employment.¹¹ These seemingly counter-intuitive results may be an artifact – perhaps negative effects take longer to occur – but this would seem to only complicate identification of adverse effects by introducing potential confounds. Also, Card and Krueger (1994) acknowledge that the size of the wage increase is likely to have an influence on the direction of the impact. Given that we are interested in examining the determinants of legislative adoption, this point is particularly relevant. Since we are primarily interested in legislative adoption, debate over the size of the increase implies that political factors (e.g., constituent preferences or a perceived need to combat increasing poverty) may be important considerations (Seltzer 1995; Sobel 1999). Nonetheless, despite these caveats, the work of Card and Krueger and others provides considerable evidence that conclusions drawn from orthodox theory may be premature.¹²

The ambiguities in the "effects literature" may be the result of at least two factors. First, the direction of effects may be due, in part, to the unit of analysis. Specifically, as David Card (Card 1992b; Card & Krueger 1994) has argued, those studies that support the neoclassical expectations tend to rely on

⁹ In terms of experimental design, New Jersey increased its minimum wage on April 1, 1992, and thus serves as the treatment condition, whereas Pennsylvania did not increase its minimum wage, therefore serving as the control.
¹⁰ The 1990 amendment to the Fair Labor and Standards Act (FLSA) imposed a two-step increase with a \$0.45 increase on April

¹⁰ The 1990 amendment to the Fair Labor and Standards Act (FLSA) imposed a two-step increase with a \$0.45 increase on April 1, 1990, and a second \$0.45 increase on April 1, 1991. The first wave of their survey occurred in December of 1990 and the follow-up occurred in the summer of 1991. The survey examines the impact of these increases on the fast-food industry in Texas.

¹¹ This is compared to a two percent increase in teenage employment at the national level, over the same period.

¹² For critical reviews of Card and Krueger's research, see Burkauser et al. (1996) and Kennan (1995). Specifically, these authors critique the model specification and methodology, and interpretation, respectively.

national-level data, whereas those studies that challenge the orthodox explanation tend to rely on statelevel data and utilize a comparative approach. A second reason for the ambiguity is the diversity of measures and model specification (Brown 1988). In other words, it is not entirely clear why we would expect the minimum wage to impact aggregate employment, teenage employment, aggregate unemployment, teenage unemployment, poverty, aggregate income distribution, etc. all in a similar manner. As dependent variables, each of these is conceptually distinct and it is unclear how they interrelate with one another.

Overall, the extant literature in economics lacks consistent evidence regarding the effects of minimum wage increases on employment and poverty. Those negative effects that are found tend to be small with regards to employment, and any benefits are likely miniscule (Brown 1988). It is due to such ambiguities and the lack of solid and consistent evidence that the minimum wage, as substantive policy, lends itself to political manipulation (Levin-Waldman 1998; 2001). In other words, it would seem that opposing parties are able to cherry-pick evidence that fits their political agenda (this was a major justification for the AEI efforts alluded to above). In short, because we lack consensus regarding what *is* (i.e., the effects of minimum wage legislation), the opportunities for emphasizing what *ought* to be remain ripe for the picking. It is with this observation in mind that we now turn our attention to the expressly political aspects of minimum wage adoption.

The Politics of the Minimum Wage

Beyond a disproportionate emphasis on teenagers (a group without much political clout), most examinations of the minimum wage treat adoptions as a non-events. The paucity of political science literature addressing questions related to the minimum wage is particularly perplexing given the historical context surrounding the passage of the FLSA of 1938 (also see Waltman's (2000), discussion of the Progressive Era). As Seltzer (1995) recounts, politics was an inherent part of national minimum wage legislation from the start. Specifically, the House of Representatives altered the original legislation by granting Congress the authority to set the wage floor, not the Wages and Hours Board as originally proposed. African Americans feared racist interests might capture the discretionary powers of the Board and the southern states had an interest in preserving their low wage economy. Similarly, Republican legislators in Alaska may have voted for a larger wage increase than they preferred in an effort to prevent a more generous ballot initiative from being put before voters (Brown 2002). While both of these examples are informative, they are of limited use due their lack of generalizability.

Nonetheless, even among those political scientists who have examined the minimum wage, they have neglected the exploration of policy adoption within the states. Rather, they focus almost exclusively on national-level decision making. Nonetheless these scholars argue that the ambiguities evident in the empirical literature prevent both advocates and opponents from winning any adherents. For example, according to Lowi's (1964) typology, the minimum wage would seem to be, at least on its face, a classic regulatory policy. However, Waltman (2000) argues that the policy lacks the necessary pluralism described by Lowi. In order to accommodate this deficiency, Waltman synthesizes a number of competing typology schemes into a two-tiered classification consisting of coercive and non-coercive policies at the broader level.¹³ Specifically, as a coercive policy the minimum wage has features both regulatory (e.g., authoritative commands to do or not do something, debate characterized by compromise and bargaining, etc.) and redistributive (e.g., identifiable winners and losers based on the transfer of resources, debate is characterized ideology, etc.) policies. Despite considerable public support for more generous wage floors, debates tend to be fiercely ideological, albeit short-lived. Again, proponents often argue that the minimum wage is necessary to help ameliorate poverty or that its declining real value is a significant hurdle to attaining certain basic necessities (Andrews 2006). On the other hand, opponents counter that small businesses will be hurt or that it is teenagers, rather than heads of households, who earn the minimum wage. According to Waltman, the virtual stalemate over the minimum wage results from an inability to properly conceptualize it as a political issue (perhaps due in large part to our willingness to allow the economists to dominate the subject). Further, low levels of public salience and ideologically entrenched interests suggest that the politics of the minimum wage is best characterized as a symbolic issue (Waltman 2000).

Beyond the descriptive approach taken by Waltman, other scholars have examined Congressional voting on the minimum wage. For instance, while Poole and Rosenthal (1991; as cited in Seltzer 1995)

¹³ Under Waltman's (2000) scheme, regulatory, distributive, and redistributive policies are all coercive, whereas constituent, suasive, and symbolic policies are noncoercive (see pp. 1-7).

find that a one-dimensional spatial model explains approximately 90% of legislators' votes on minimum wage legislation, others suggest a more complex relationship between Congressional voting and political identification (Levin-Waldman 2001) and ideology (Seltzer 1995). Specifically, using a rational choice framework, Seltzer finds that ideology is an important factor predicting the voting patterns of individual Members of Congress during debates on the original FLSA in 1937 and 1938. However, consistent with agency theory, he notes that as elections draw near, ideology loses some of its predictive power among House members. This suggests that an electoral connection may, under certain circumstances, override what is generally believed to be a strong relationship between ideology and legislative voting on economic issues such as the minimum wage.¹⁴

Moving beyond the case study approach, Oren Levin-Waldman provides what is arguably the definitive analysis of Congressional voting behavior on the minimum wage. Echoing agency theory, he posits that constituent preferences should also influence Congressional voting, and only in the absence of such factors does party take on a dominant role. Using state characteristics (union strength and right-to-work) as proxies for constituent preferences, Levin-Waldman (2001) argues that the decline of labor unions (particularly post-1970) has changed the dynamics of minimum wage voting in Congress. Although there are exceptions,¹⁵ the general pattern over a fifty year period (1949-96) shows that Democrats from right-to-work states are less likely to vote in favor of minimum wage legislation, relative to Democrats elected from states without right-to-work laws – see Table 1). Similar to Seltzer's (1995) work, this conclusion tends to be more accurate for members of the House, relative to the Senate. On the other hand, union density is a positive predictor of legislative decision-making (Silberman and Durden 1976; also see Sobel 1995), however, Republicans representing states with high union membership are not necessarily more likely to vote in favor of minimum wage legislation.

¹⁴ Partisan allegiances do not necessarily preclude Republicans from supporting efforts to raise the minimum wage – particularly when it is perceived to be politically expedient. For example, Republican Senators Chafee [RI], Collins [ME], DeWine [OH], Lugar [IN], Snowe [ME], Specter [PA], and Warner [VA], voted in favor of raising the minimum wage towards the end of the 109th Congress [S.AMDT 4322]. Similarly, 82 Republican members of the House voted in-favor of the minimum wage increase as part of the Democrat's "First 100 Hours" agenda at the outset of the 110th Congress. Other examples are available at the state-level. For instance, following the passage of House Bill 56 in 2002, Pete Kott (R-Eagle River, AK), referring to his modified bill said, "I believe working for a minimum wage in Alaska should not represent a minimum quality of life" (Brown 2002; also Adams 2001, for another example).

¹⁵ Levin-Waldman attributes these exceptions to specific provisions of the bills, although he doesn't follow up on this idea.

[Insert Table 1 about here]

To date, we lack systematic empirical evidence to bridge the gap between previous research focusing on national politics and efforts to increase minimum wages within the states. However, there is an abundance of circumstantial evidence. For example, reasoning that it would increase voter turnout among groups more likely to vote Democrat, activists and political strategists were successful in placing minimum wage initiatives on ballots in six states in 2006 (Andrews 2006). Consistent with numerous opinion polls indicating widespread public support for minimum wage increase (Pew Research Center 1995; 2006), these measures passed by large margins in all six states (see Table 2). Similarly, support within statehouses for minimum wage legislation is also likely to fall disproportionately on one side of the aisle. For instance, the former Speaker of the House in Massachusetts, Thomas Finneran (D-Boston) defended minimum wage increases as serving as "a combination of important symbolism and an attempt to establish a floor below which exploitation would not occur" (quoted in McMillian 1999). On balance, this notion lends weight to Waldman's claim regarding the symbolism of the minimum wage, but also suggests that Democrats believe wage increases are likely to have some substantive impact – a point that remains controversial according to the economic literature. Based on evidence drawn from the extant literature and casual observation, as well as their consistent advocacy for policies aimed at helping the working and lower classes, we test the hypothesis that higher levels of Democratic legislative strength will be positively related to a state's willingness to adopt minimum wage legislation.

Methods

In order to test our hypothesis, we adopt a comparative approach. Card (1992) points out that, within economics at least, this approach largely fell out of favor due in part to the expansion of the federal minimum wage and the availability of aggregated data over longer time series. While economists have largely ignored the comparative approach, scholars of state and local politics have embraced it. The primary advantage to state-level analysis is the use of the comparative approach to infer which independent variables are significantly associated with change in the dependent variable. For example, approximately one-half of the states have increased their minimum wage laws since the last federal hike. Prior to 2007 twenty states passed increases via legislative action, whereas nine states passed increases

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through the ballot process.¹⁶ Table 2 provides descriptive information showing a breakdown of which states passed minimum wage increases, how they were passed (legislative or ballot measure), and in what year (for descriptive purposes, Appendix A has a breakdown of minimum wage levels by state). At present, we are only concerned with those states passing minimum wage increases through the legislative process.

[Insert Table 2 about here]

We use event history analysis (EHA) to test whether Democratic legislative strength is a significant predictor of minimum wage policy adoption. Derived from the biomedical sciences (Allison 1984), EHA has been effectively applied to political situations (Box-Steffensmeier and Jones 1997; 2004), particularly in the state and local and policy adoption contexts (Hays and Glick 1997; Mooney 2001). For example, in a series of papers Berry and Berry (1990; 1991; 1992; 1994) demonstrate and defend the effectiveness of EHA in predicting the likelihood of states adopting lotteries and other innovative tax policies. The conceptual foundations and relative ease of statistical interpretation makes EHA an ideal technique with which to analyze the likelihood of minimum wage adoption within a multivariate context. This is particularly true as such familiar regression methods as logistic and probit analysis can be utilized in concert with EHA.

The seven-year time period used in our analysis begins in 1997 and ends in 2003. In EHA, as with any pooled cross-sectional regression technique, time is an important factor in conceptualizing the data set and interpreting the results (for a more complete discussion of time in regression, see Tucker 1982; Stimson 1985). In pooled time-series data sets, it is always possible that the selection of years omits important information. In other words, it is conceivable that events occurring within a discrete time period may be set in motion by events outside of any given range. Thus, drawing causal conclusions may result in the identification of a spurious relationship. In order to minimize any potential exogenous events from confounding the present analysis, we begin the dataset at 1997. The primary advantage of this strategy is

¹⁶ California passed minimum wage increases via the ballot process and legislative adoption. Since the legislative effort followed the ballot initiative, we decided to code California as a legislative adoption state.

that it immediately follows the most recent minimum wage increase at the federal level.¹⁷ In other words, it effectively reduces the likelihood of immediate adoption among the states.

In assuming that the probability of adopting minimum wage laws at the state level would be lowest in the time immediately following the federal government's adoption of the policy, it may appear that we are also assuming that the probability of states increasing minimum wage increases would increase over time. Though we control for time in three of our four models, this is not the case. In all likelihood, time will only increase the probability in those states that are more likely to adopt the policy in the first place. In other words, we do not expect that the likelihood of adoption will increase over time. Rather, we expect that we will increase the accuracy of our model in predicting the influence of political and economic factors as they vary over time.

Model Specifications

The dependent variable is minimum wage adoption by state legislatures. Using this criteria there were a total of 13 minimum wage adoptions between 1997 and 2003 (see Table 2).¹⁸ In coding the dependent variable we followed the discrete time method. Specifically, we code the dependent variable as 0 for each state, in each year they did not pass a minimum wage law. Conversely, when states did pass a minimum wage law, we code them as 1 in the year of adoption and then drop them from subsequent years. In other words, the number of states in our data set shrinks as more states adopt the policy. The primary goal with this strategy is to restrict our sample of states to those that contribute information to the model in the years leading up to adoption and to omit any post-adoption information that might confound the results. Obviously, a fair number of states did not adopt any minimum wage increases in this time period, however, due to the design of the dataset these states actually contribute the most information to the model.

We include a number of variables to tap the economic, social, and political context within states (see Appendix B for descriptions of each variable). Since political scientists have paid little attention to

¹⁷ We argue that by starting our analysis immediately after a mandatory federal increase, we are taking advantage of a minimization of the likelihood of adoption. Admittedly, we cannot definitively say that the federal increase sets the likelihood among the states to zero. For instance, California adopted a minimum wage increase through the initiative process in 1997, whereas both Vermont and West Virginia adopted the policy legislatively in 1997 and 1998, respectively.

¹⁸ In recent years, a number of states have adopted minimum wage increases via the initiative process (however, we do not model ballot initiatives in the current analysis).

minimum wage adoptions within states, little is known about what factors lead states to adopt. However, we reason that those variables utilized by scholars in examining the adoption of other policies are applicable to the present effort.

Economic Variables

As mentioned, debates over minimum wage laws often revolve around their ability to combat poverty or whether they place undue burdens on businesses. We suspect such claims are ubiquitous in debates about the minimum wage. While such arguments are relatively easy to place within the dominant ideologies espoused by the major political parties, the relationship between aggregate, state-level economic indicators and minimum wage adoption is less clear. Nonetheless, we include a number of economic variables that are theoretically linked to policy adoption.

Four of our five economic variables represent the "usual suspects." Specifically, we include median income (measured as the median income for a family of four) and per capita state gross domestic product (GDP). GDP serves as a measure of state wealth relative to the size of the population. Unemployment and poverty (or other permutations) are often used in the "effects literature." Ostensibly, these measures serve as alternate indicators of states' fiscal health and reflect a need for specifically targeted policies aimed at ameliorating substantive problems. For instance, those under the poverty line may be more likely to be employed in jobs where the minimum wage either approximates or reflects the value of their labor. In other words, an increase in the minimum wage is likely to positively impact this group and one might expect poverty to have a positive relationship with adoption decisions. However, many minimum wage opponents believe that wage increases only help some low wage workers, whereas others workers are likely to be laid off (this is consistent with the neoclassical perspective). Because we are primarily interested in adoption, and to the extent that the minimum wage is understood to be an antipoverty measure, it is plausible that there would be a positive relationship between poverty and mandated wage increases.

Our final economic variable is a measure of external investment. Borrowing insights from Hansen's (2006) recent analysis of state-level labor costs, we include foreign direct investment (FDI). Specifically, Hansen reports that states with higher levels of FDI tend to have lower labor costs. However,

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the neoclassical perspective suggests that the minimum wage serves to increase labor costs. Based on the literature, one might assume that FDI would decrease following a minimum wage increase (i.e., higher labor costs). On the other hand, higher levels of FDI may work against minimum wage adoption. In other words, greater foreign investment might serve as an incentive against minimum wage adoption (i.e., keeping labor costs low). Based on our review of the literature there does not seem to be any clear indication of what the relationship between FDI and minimum wage adoption will be.

Political and Contextual Variables

A total of ten variables are included to capture aspects of the political and social environment within states. Of these variables, we use three to measure our independent variable of interest, the level of Democratic control in each state. We address these three variables and implications of their measurements below. After discussing our measurement of Democratic control, we then describe the rest of our contextual and political variables, as well as the expected relationships between these variables and minimum wage adoptions.

Our key independent variable is Democratic control of the legislature. There has been considerable discussion within political science regarding the ways in which researchers should measure partisan influence in legislatures (Barrilleaux, Holbrook, and Langer 2002; Holbrook and Van Dunk 1993; King 1989), as well as the relationship between party control and policy outputs (Dye 1984; Winters 1976). Specifically, we include two separate measures of Democratic control. First, we include the Ranney Index. This measure utilizes proportional Democratic control of both houses of legislatures, Democratic control of the governorship, and the length of Democratic control of the governorship to produce an index that ranges from 0 to 1, where higher values are associated with stronger Democratic control of state government. Secondly, we measure Democratic control with a dichotomous variable that signals a unified Democratic legislature. Unified Democratic legislatures are scored 1 and split or unified Republican legislatures are scored 0.

Obviously the dummy variables are much simpler conceptually and mathematically than the Ranney Index. Our rationale for including the dummy variable is to allow us to determine more clearly the impact of legislative and gubernatorial control on the probability of minimum wage adoption, as the

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two variables are measured and tested separately in the models in which they are used. The Ranney Index has come under criticism for its use of both legislative and gubernatorial information in its computation. Critics of this measure point to the potential conceptual complications that might be introduced by combining information from two distinct institutions into one, single variable (King 1989; also see Smith 1997).

While it is difficult to say whether one measure is "better" than the other, it is important to keep in mind the institutional realities of state government in mind. Inclusion of gubernatorial control, as measured by the Ranney Index, may confound our measurement of Democratic strength of the legislature by introducing gubernatorial measures into the variable. However, we suspect that Democratic governors are more likely, relative to Republican governors, to sign minimum wage increases into law if the legislature that passed the law is strongly Democratic. Similarly, a Democratic governor who has been in office for a relatively long time and who is working with a Democratic legislature is also probably likely to sign the bill into law. Thus, the Ranney index provides a single measure with which to capture Democratic control of multiple branches of government. To mitigate any potential problems, we use both measures and compare the findings from the two models.¹⁹

In addition, we include a number of variables to control for contextual factors. In her analysis of labor costs, Hansen (2006) identifies education, voter turnout, and union membership as variables that counter the general trend in declining labor costs. As a by-product of political participation and the notion that those with more education command higher wages, we expect higher levels of education and turnout to buffer against aggregate wage losses. Admittedly, Hansen does not focus on minimum wage laws, but we argue that similar logic applies in the present context. In other words, we expect to find a positive relationship between both education (percent of residents with a BA) and turnout, and the likelihood of minimum wage adoptions.

Further, union membership is a variable that we expect to predict the adoption of minimum wage laws. The rationale for the inclusion of this variable is relatively intuitive. Labor unions may advocate for minimum wage adoptions for a number of reasons (e.g., to help prevent employers from hiring

¹⁹ Though it is not utilized in this paper, a third measure of Democratic control of a legislature could be devised by computing the proportion of legislative seats held by Democrats in both houses of state legislatures.

replacement workers, in an effort to raise wages across the board, i.e., a "ripple effect," to help prevent worker exploitation, etc.) (Levin-Waldman 2001; Silberman and Durden 1976; Waltman 2000). In our analysis, union membership is measured as a proportion of the work force who are members of labor unions. Conversely, we expect that the presence of right-to-work laws to decrease the probability of a state adopting minimum wage laws. According to the National Right to Work Legal Defense Foundation, Incorporated website, "A Right to Work law secures the right of employees to decide for themselves whether or not to join or financially support a union."²⁰ Accordingly, we can expect the priorities of these states to be in direct contradiction to states where high proportions of union membership exist; thus, government protection of workers' interests will be less likely to be a priority (Levin-Waldman 2001).

Consistent with the literature examining the Congressional voting, we included in our study is a variable controlling for citizen ideology. Specifically, we employ Berry et al.'s (1998) measure. The primary advantage of this measure is its use of up-to-date public opinion measures. According to the scoring scheme, higher values indicate higher levels of citizen liberalism. Conceptually, the measure ranges from 0-100, but in our data, the values range from 8.44 to 86.47 (see Table 3). The relationship between citizen liberalism and minimum wage adoption is expected to be positive in our test.

[Insert Table 3 about here]

Consistent with arguments found within the welfare literature, interstate competition may be an important element as well. Analogous to the "race to the bottom" argument, it is conceivable that states choose to avoid passing minimum wage legislation if elected officials believed it will reduce economic growth. For instance, prior to signing Maine's minimum wage increase into law in 2001,²¹ Angus King, the former independent governor repeatedly vetoed legislative efforts to raise the state's minimum wage. When queried about the governor's about-face, King's Labor Commissioner explained that the governor was concerned that the increase would put Maine at a comparative disadvantage relative to it neighboring states (Adams 2001).²² However, because Democrats in Congress were unable to mount a successful

²⁰ National Right to Work Legal Defense Foundation, Incorporated. http://www.nrtw.org/rtws.htm. Accessed February 11, 2007.

²¹ The law was signed in 2001, but did not take effect until January 1, 2002.

²² Although Maine's only official neighbor, New Hampshire, maintained the federal standard, nearby states such as Vermont and Massachusetts had minimum wages that were at least \$1 above the federal minimum wage.

campaign to raise the federal minimum wage, King ultimately altered his position. This example suggests a need to consider interstate competition, but also that long durations between federal increases should be an incentive leading some states to adopt wage increases. Thus, we also include a trend variable to control for time (Hays and Glick 1997; Mooney 2001).

Results

To test the hypothesis that Democratic-controlled legislatures are more likely to adopt minimum wage policies more generous than those at the federal level, we estimate four logistic regression models (see Table 5). However, we note that prediction of policy adoption can be a complicated process. This is due to the fact that, as is common in event history data, adoption is relatively rare. Immediate evidence of this claim is presented in Table 4. Between 1997 and 2003, thirteen states adopted minimum wage increases through the legislative process out of 309 total state-year cases in the data set. In other words, only 4.2% of the cases are scored as adoptions.

[Insert Table 4 about here]

Because economic indicators have received the most attention in the extant literature and they are likely to be salient to elected officials, our first model examines only the effects of economic variables upon state minimum wage adoption. This is done so that we can gain an understanding of which economic variables are related to the likelihood of state legislative adoptions. The second model is limited to examining only contextual and political variables that impact minimum wage policy adoption likelihood. Again, we do this to keep separate the effects of the contextual and political variables from the economic variables. Comparing the differences between the first two models allows us to see the relative importance of these classes of variables without contamination. Admittedly the comparison is unbalanced, due to the fact that we have fewer economic variables (five) relative to those measuring the social and political context (nine) (e.g., Sullivan 1972). Finally, we run two models that allow both the economic and political variables to contribute to the model. These models differ only in the way that our key independent variable is measured. Model three uses a standardized measure of Democratic control devised by Austin Ranney, and most recently updated by Bibby and Holbrook (2004). Model four employs a more blunt approach, using dummy variables to test whether unified Democratic control of the state legislature and partisan control the governorship are important factors that, in isolation, help explain state legislative adoption of minimum wage laws.

The results of the analysis are presented in Table 5. In each column, the logged odds and the standard errors are reported on the left; exponentiated betas are reported on the right. The logged odds can be interpreted much like the coefficients in a standard regression model, but the exponentiated betas, or odds, are interpreted as increasing or decreasing the probability of an event occurring (Pampel 2000).²³ The fit and explanatory power of each model is reported at the bottom of each column.

[Insert Table 5 about here]

The first model reports the results of our economic model. Overall, this model does a relatively poor job of predicting the likelihood of state legislative adoptions of minimum wage laws – explaining only 10% of the variance. None of the variables achieve conventional levels of statistical significance and a number of the coefficients are miniscule. The only information that can be taken from this model comes from the unemployment and poverty variables, where the probability of minimum wage adoption increases as the unemployment rate decreases and increasing poverty is related to increased probability of policy adoption. Although non-significant, the variables could be interpreted as offering support to minimum wage proponents. In other words, a negative relationship between adoption and unemployment may be indicative of a perceived need to raise wages so that those employed in entry level positions can afford basic life necessities. On the other hand, the poverty-relief argument suggests that the minimum wage is an important tool in helping people to meet certain basic needs. However, it is important to underscore the fact that none of the variables in the economic model achieve statistical significance. In short, this model offers little in the way of explanatory power for why states adopt minimum wage legislation.

The second model in Table 5 includes all of the social and political context variables. The model fit statistics indicate that this model does a better job explaining policy adoption, relative to the economic model. Further, two independent variables achieve statistical significance in this model. First, the Ranney Index achieves conventional levels of statistical significance, indicating that Democratic legislative

²³ Odds can be computed: Odds=(exp(b)-1)*100

strength is significantly related to minimum wage adoption. Specifically, the logged odds predicting minimum wage adoption increases by .889. The effect of Democratic control is more pronounced when considering the exponentiated beta. If the value is above 1, every unit increase in differential results in a positive increase in the log likelihood that legislatures will pass minimum wage legislation. Accordingly, the exponentiated beta coefficient indicates a one standard deviation increase in Democratic legislative strength leads to an increased likelihood of adopting that is 1.4 times greater on average. As an initial test of the hypothesis that Democratic majorities will help predict minimum wage policy adoptions, this finding provides some support for our hypothesis.

The only other variable to achieve conventional levels of statistical significance in the second model is citizen ideology. The positive sign indicates that states with populations that are more ideologically liberal are also likely to have their state legislatures pass minimum wage increases. Moreover, this provides support for the conclusion drawn from previous tests at the national-level. Levin-Waldman (2001) and Seltzer (1995) both interpreted their results as evidence that constituent concerns are an important consideration for elected officials. However, Seltzer does not explicitly measure constituent preferences and Levin-Waldman uses union strength and whether or not a state has a right-to-work law as proxies for citizen preferences.

Models three and four in Table 5 examine the effects of both the economic and contextual variables when they are included in the same model. Again, the only difference between these specifications is how we measure our key independent variable. Specifically, Democratic control of the legislature is measured using the Ranney Index in model three, whereas model four includes two separate dummy variables – one for a unified Democratic control of the state legislature (coded as 1 for unified Democratic control) and one for Democratic gubernatorial control (coded 1 for Democratic governor and 0 for non-Democrat).

Consistent with model two, Democratic legislative strength (i.e., the Ranney Index) achieves statistical significance in the third model. Moreover, it is the strongest predictor of minimum wage adoption. Because this measure is standardized, a one standard deviation increase in Democratic control leads to logged odds of approximately 1.4. Interpretation of the exponentiated beta coefficient indicates

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that a one standard deviation increase improves the likelihood of adoption by a multiple of three. This result supports our central hypothesis that Democratic legislative strength is a significant predictor of minimum wage adoption. Further, this result offers more up-to-date evidence relative to previous efforts that focus exclusively on Congress. Combined with the positive coefficient for citizen ideology, the results suggest that citizen preferences in some states are likely taken into consideration (even if indirectly) on briefly salient and intensely ideological issues (Waldman 2000).

In terms of the political and social characteristics, model four tells much the same story, albeit with a slightly different emphasis. At this point, it is not much of a surprise that Democratic control of the legislature is a strong predictor of minimum wage adoption. However, the dichotomous variable is only significant at the more permissible .10 level. This is likely due to the relative infrequency of unified Democratic control in the time period we investigate (Bibby and Holbrook 2004). In addition, citizen ideology maintains conventional levels of significance and the presence of right-to-work laws approaches statistically significant in the expected direction. In other words, states with right-to-work laws are less likely to pass minimum wage legislation (although note that Arkansas has both a right-to-work law and has passed a legislative minimum wage laws). This is consistent with the work done by other scholars (Levin-Waldman 2001).

Although it does not achieve statistical significance, perhaps the biggest surprise in model four is the dummy variable measuring gubernatorial control. Specifically, Democratic control of the governorship is associated with a decreased likelihood of adoption. Between 1997 and 2003, states with Democratic governors experienced a decrease in the likelihood of minimum wage adoption, all things being equal. Substantively, having a Democratic governor is related to a .518 decrease in the logged odds of adoption and a 40 percent decrease in the odds of adoption. This counter-intuitive result may be partly attributable to a conservative shift among state legislatures and governors during the 1990s; a change that would parallel the gains made by the Republican Party in the early 1990s (Bibby and Holbrook 2004).

Compared to model one, the economic variables in models three and four appear to contribute to an explanation of minimum wage adoptions. For instance, both FDI and per capita GDP are statistically significant and positive, indicating that states with higher levels of investment of foreign capital are more

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likely to adopt minimum wage provisions, relative to other states. Similarly, higher per capita GDP levels are positive predictors of minimum wage adoption. However, the coefficients are quite small and their impact, measured by the exponentiated betas appears to be negligible. In short, there is virtually no change in the performance of the economic variables between these two models.

In sum, we estimate four models in an effort to predict legislative minimum wage adoption within states between 1997 and 2003. In three of four models (all of the models in which they were included) partisanship among the legislative branch and citizen ideology were the most significant and consistent predictors of adopting minimum wage legislation. On balance, we interpret our results to be consistent with earlier research that has focused exclusively on Congress (Levin-Waldman 2001; Seltzer 1995)

Discussion

In explaining how economists influence politicians, John Brandl (1985) quotes John Maynard

Keynes:

...the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from an intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air are distilling their frenzy from some academic scribble of a few years back (p. 383).²⁴

This quote suggests an implicit link between academic study and the practice of politics. While we suspect a number of social scientists desire to inform policy debates, their success may be questionable. In terms of the minimum wage, economists have engaged in rigorous empirical examinations and largely dominated the discussion. Certainly there are a number of legitimate reasons for this state of affairs. However, we argue that the focus has been unnecessarily myopic and neglects the diversity of factors that contribute to debates on the minimum wage. Moreover, the lack of consensus among economists regarding the impact of minimum wage policies on unemployment and poverty suggests that politics are an important consideration leading up to adoption (Levin-Waldman 2001; Waltman 2000).

In this paper we extend these insights by testing a relatively intuitive hypothesis regarding the relationship between partisanship and likelihood of adopting minimum wage legislation that is more

²⁴ As a professional economist and a former legislator in the Minnesota state legislature, Brandl is positioned to offer a unique perspective on his subject.

generous than the federal standard. Specifically, we tap into the variation available at the state-level to examine whether Democratic legislative strength is a significant predictor of minimum wage adoption. The results indicate that both Democratic strength (measured by the Ranney Index) and unified Democratic control of state legislatures are strong predictors of minimum wage adoption. Further, preferences of the citizenry also matter, in that a more liberal citizenry is positively correlated with a state's willingness to adoption minimum wage legislation. While we view the present analysis as relatively straight-forward, there are a few additional factors that may be important for future consideration.

First, one shortcoming of the present study is our admittedly blunt characterization of what is likely a multi-layered process. For example, in 2002 Alaska's lower house passed a bill increasing the state mandated minimum wage from \$5.65 to \$7.15 per hour, with a number of Republicans supporting the increase (Brown 2002). While Republican lawmakers favored raising the minimum wage, a number of them expressed concern over the specific features in the final bill. The bill that passed – introduced by a Republican legislator – called for a more modest increase and sought to establish a tip credit. According to Brown (2002), the tip credit provision contributed to the bill getting bogged down. Labor activists responded by collecting enough signatures to qualify an initiative on the November ballot. In order to keep the initiative off of the ballot, Republican lawmakers ultimately decided to pass the higher increase without the tip credit, but also tying the state minimum wage to inflation. Activists interpreted this move as an effort to prevent greater turnout among voters who might be sympathetic to liberal causes. In addition, California passed two minimum wage laws between 1997 and 2003. The first was via the ballot initiative process, whereas the second was by the legislature. In our analysis, we coded only the second as an adoption. In the future researchers should consider adopting more diverse methods that are able to handle the complexity associated with a number of different types of policy adoptions (Box-Steffensmeier and Jones 2004; Jones and Branton 2005).

It is also possible that our model could be specified more precisely. Specifically, although Hansen (2006) found a significant relationship between FDI and labor costs, it could be that foreign investment is not substantively related to minimum wage adoption (recall that although statistically significant, the

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likelihood of adoption as indicated by the exponentiated beta coefficient is 1). Rather, perhaps a measure of small business activity is more prudent in helping to explain the willingness of state legislatures to adopt mandatory wage increases. In addition, the influence of interest group activity (union strength) may be better accounted for through the use of interaction terms (e.g., Levin-Waldman 2001).

Further specification modifications might examine the influence of legislative professionalism on minimum wage adoption. Given the lack of consensus within the economics literature and between opponents and proponents, perhaps more professional legislatures invest greater resources into researching the issue and its expected impact on state economic development, and poverty and unemployment. A related question may be whether the imposition of terms limits has an influence on a state's likelihood to adopt minimum wage laws. Specifically, term limits have been found to change the incentive structure for individual legislators, which is also likely to alter the legislative process in practice (Meinke and Hasecke 2003). In other words, if term limited legislators are less willing to compromise and have a more specific interests, we might expect a decreased likelihood of minimum wage adoption.

In closing, we recognize no single study can definitively settle any dispute. However, despite the fact that economists have been studying the effects of the minimum wage for well-over fifty years, we lack consensus on whether wage increases play *any* substantive role in the aggregate economic picture. We argue that, to the extent that economists continue to study the minimum wage, the present analysis suggests that economists might consider including political variables in their models. For instance, does electoral vulnerability increase post-adoption? Maybe business groups target individual legislators who vote for minimum wage increases. While our initial reaction is to be cautious regarding such a claim, particularly given Waldman's (2000) work, it is merely an example of how economists might consider adopting a more diverse approach to the study of the effects of minimum wage legislation on labor markets and employment. Despite the best efforts of economists to provide insight and information to policymakers, our results suggest that partisan considerations are likely more salient and significant concerns for legislators. On its face, this suggests that symbolism may be an important consideration for legislators. Similar to previous scholars, we suggest that this is due, at least in part, to the lack of consensus regarding the impact of minimum wage laws (Levin-Waldman 2001), or even how to classify

the policy (Waltman 2000). In this paper we have sought to correct this oversight by considering whether political variables trump current economic conditions in decisions to adopt minimum wage laws over and above the federal standard.

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State	Year Adopted	Year(s) Amended
Alabama	1953	
Arizona	1946	1982
Arkansas	1947	
Florida	1968	1977
Georgia	1947	
Idaho	1985-86	
Iowa	1947	1977
Kansas	1958	1975
Louisiana	1976	
Mississippi	1960	
Nebraska	1946	
Nevada	1952	
North Carolina	1947	
North Dakota	1948	1987
Oklahoma	2001	
South Carolina	1954	
South Dakota	1946	
Tennessee	1947	
Texas	1993	
Utah	1955	
Virginia	1947	1970; 1973
Wyoming	1963	

Table 1: List of Right to Work States and theAdoption Information

Source: National Right to Work Legal Defense Foundation, Inc. http://www.nrtw.org/rtws.htm, accessed November 8, 2006.

Notes: The ID legislature passed a statutory law in 1985 that was subsequently approved through the referendum process in 1986; IA recodified their law in 1977.

State	Legislative Action	Ballot Initiative	Month and/or Year Passed	Margin of Victory
Alaska			July 2002	
Arkansas			2001	
Arizona			November 2006	31.6
California			2000	
Colorado			November 2006	
Connecticut			2000	
Delaware			April 1999	
Florida			2004	
Hawaii			June 2001	
Illinois			August 2001	
Maine			May 2001	
Maryland			2006	
Massachusetts			August 1999	
Michigan			2006	
Minnesota			2005	
Missouri			November 2006	51.8
Montana			November 2006	45.6
Nevada			November 2006	37.4
New Jersey			2005	
New York			December 2000	
North Carolina			2006	
Ohio			November 2006	12.4
Oregon			1997	
Pennsylvania			2005	
Rhode Island			June 1999	
Vermont			May 1997	
Washington			1999	
West Virginia			1998	
Wisconsin	۵		2005-6	
Total	20	9		

Table 2: List of States with Minimum Wage Laws in Excess of the Federal Wage	and
Method of Enactment	

Sources: Ballot Initiative Strategy Center. <u>http://www.ballot.org</u>, accessed November 8, 2006; National Conference of State Legislatures (NCSL). <u>http://www.ncsl.org/programs/employ/legarchive.htm</u>, accessed November 8, 2006; Economic Policy Institute (EPI). <u>http://www.epi.org/content.cfm/issueguides_minwage</u>, accessed November 8, 2006. Johnson (2002).

Notes: NV law requires all constitutional amendments be voted on twice prior to become law; WV's minimum wage law only applies to a small segment of the workforce. Election margins were calculated by subtracting the percentage of "no" votes from the percentage of "yes" votes. States in italics automatically adjust their minimum wage laws for inflation.

Wisconsin:

 $\frac{http://nxt.legis.state.wi.us/nxt/gateway.dll?f=templates&fn=default.htm&vid=WI:Default&d=indxsubj&jd=top_{p}$

West Virginia: http://www.labor.state.wv.us/employee/default.html

Pennsylvania: http://www.pahouse.com/Cohen/minimumwage/factsheet.htm

North Carolina: http://blog.laborlawcenter.com/2006/10/13/north-carolina-2007-minimum-wage/

New Jersey: http://www.state.nj.us/labor/lsse/wagehour.html

Minnesota: <u>http://www.doli.state.mn.us/pdf/minwage_broc_05.pdf;</u> <u>http://www.leg.state.mn.us/leg/statutes.asp</u> Bill Chapter 177

Michigan: http://www.michiganvotes.org/; http://www.michigan.gov/cis/0,1607,7-154-27673_27909---__00.html

Maryland: http://www.washingtonpost.com/wp-dyn/content/article/2006/01/17/AR2006011700581.html; http://www.dllr.state.md.us/labor/minwagefacts.htm; http://www.dllr.state.md.u

Florida: http://www.floridajobs.org/resources/fl min wage.html

California:

http://www.dir.ca.gov/scripts/samples/search/N/query.idq?CiRestriction=General+Minimum+Wage+Order& CiScope=%2F&CiMaxRecordsPerPage=10&CiSort=rank%5Bd%5D&HTMLQueryForm=query.htm http://www.google.com/search?q=Wage+Order+MW-98+&rls=com.microsoft:en-us&ie=UTF-8&oe=UTF-8&startIndex=&startPage=1

Variable	Mean	S.D.	Minimum	Maximum
Median Income	\$52,222	\$8,020	\$36,510	\$78,560
Unemployment	4.56	1.12	2.3	8.1
Poverty	11.76	3.60	4.5	41.7
FDI	\$18,799	\$19,886	\$685	\$12,1040
Per Capita GDP	\$31,889	\$5,295	\$20,932	\$5,2338
Population	5.58	5.6	.480	36.132
Union Membership	11.98	5.64	3.1	26.5
Education	24.31	4.28	14.6	37.2
Turnout	42.94	10.58	9.7	66.6
Citizen Ideology	45.6	13.66	8.44	86.47
Dem. Control (stand.)	.00	1	203	2.07

Table 3: Descriptive Statistics for Economic and Political Independent Variables

Notes: For all variables except FDI and Dem. Control, N=309; FDI-N=307; Dem. Control-N=302

	# States Adopting Minimum Wage	Number of States at	Estimated Hazard	
Year	Laws Via Legislation	Risk	Rate	
1 - 1997	1	50	.02	
2 - 1998	1	49	.0204	
3 - 1999	3	48	.0625	
4 - 2000	3	45	.0667	
5 - 2001	4	42	.0952	
6 - 2002	1	38	.0263	
7 - 2003	0	37	0	
8 - 2004	0	37	0	
>8	37			
Total	50	346		

 Table 4: Distribution of Years of Minimum Wage Law Adoption and Hazard Rates

Notes: Hazard rates are computed by dividing the number of states at risk by the number of states that adopted the policy that year.

	Mode	el 1	Model 2		Model 3		Model 4	
Variables ^a	Coeff. (SE)	Exp. (B)	Coeff. (SE)	Exp. (B)	Coeff. (SE)	Exp. (B)	Coeff. (SE)	Exp. (B)
Median Income	.000	1.000			.000	1.000	.000	1.000
	(.000)				(.000)		(.000)	
Unemployment	301	.740			519	.595	417	.659
	(.293)				(.463)		(.448)	
Poverty	.135	1.145			.200	1.222	.176	1.193
	(.080)				(.219)		(.238)	
Foreign Direct Investment	.000	1.000			$.000^{*}$	1.000	$.000^{*}$	1.000
	(.000)				(.000)		(.000)	
Per Capita GDP	.000	1.000			$.000^{*}$	1.000	$.000^{*}$	1.000
	(.000)				(.000)		(.000)	
Population			.046	1.047	391 [#]	.677	428*	.652
			(.044)		(.211)		(.205)	
Union Membership			.027	1.028	004	.996	.001	1.000
			(.074)		(.097)		(.095)	
Education			108	.898	143	.867	260	.771
			(.083)		(.154)		(.178)	
Voter Turnout			.029	1.029	.083	1.086	.068	1.070
			(.037)		(.052)		(.049)	
Right to Work Laws			-1.128	.324	-2.047	.129	-3.264*	.038
			(1.222)		(1.537)		(1.639)	
Citizen Ideology			.066*	1.068	$.086^{*}$	1.090	.100**	1.105
			(.034)		(.037)		(.037)	
Years Since Federal			.260	1.296	.568	1.765	.671#	1.956
Adoption			(.210)		(.323)		(.358)	
Neighboring States			1.680	5.367	1.289	3.629	.710	2.033
			(1.569)		(1.657)		(1.687)	
Democratic Control			$.889^{*}$	2.433	1.382^{*}	3.983		
(Ranney)			(.420)		(.636)			
Dem. Legislature							$2.019^{\#}$	7.533
(Dummy)							(1.081)	
Dem. Executive							518	.596
(Dummy)							(.964)	
Constant	-9.644***	.000	-7.044*	.001	-13.158#	.000	-12.855#	.000
	(2.987)		(2.805)		(6.933)		(7.218)	
-2 Log likelihood	98.706		79.646		63.933		65.676	
Nagelkerke R Square	.097		.292		.446		.429	
Chi-Squared	χ ² (5)=8.945		χ ² (9)=27.	568***	$\chi^2(14)=43$	3.105***	χ²(15)=41	.362***
N	300		300		300		300	

Table 5: Competing Risk Models of State Legislative Minimum Wage Adoptions 1997-2003

 $p^{*} < .10; p^{*} < .05; p^{**} < .01; p^{***} < .001$

Note: The left column of each model includes the logged odds and standard errors (reported in parentheses) and the right-hand column includes exponentiated betas.

^aA full description of the data and sources is included in Appendix A

State	Wage	Current Tip Credit
	(as of January 2007)	(as of January 2007)
Alaska	\$7.15	
Arkansas	\$6.25	
Arizona	\$6.85	No provision
California	\$7.50	No tip credit
Colorado	\$6.85	\$3.02
Connecticut	\$7.65	\$2.71 ^f
Delaware	\$6.65	\$3.92
Florida	\$6.67	\$3.02
Hawaii	\$7.25	\$0.25
Illinois	\$6.50	
Maine	\$7.00	\$4.12
Maryland	\$6.15	
Massachusetts	\$7.50	\$4.12
Michigan	\$7.15	\$4.30
Minnesota	\$6.15 ^a	
Missouri	\$6.50	\$2.58
Montana	\$6.15 ^b	No tip credit
Nevada	\$6.15	No tip credit
New Jersey	\$7.15	-
New York	\$7.15	\$2.40
North Carolina	\$6.15 ^c	\$3.02
Ohio	\$6.85 ^d	\$3.02
Oregon	\$7.80	No tip credit
Pennsylvania	\$6.25	\$2.32
Rhode Island	\$7.40	\$4.21
Vermont	\$7.53	\$3.60
Washington	\$7.93	No tip credit
West Virginia	\$6.55 ^e	\$1.17
Wisconsin	\$6.50	

Appendix A: Current Minimum Wage Levels and Tip Credits among the States

Sources: The American Payroll Association, http://www.americanpayroll.org/; U.S. Department of Labor, http://www.dol.gov/esa/minwage/america.htm#Illinois

Footnotes:

- (a) Businesses with annual gross receipts of \leq \$625,000 are required to pay a minimum wage of \$5.25.
- (b) Minimum wage of \$4.00 per hour for any business whose annual gross sales are \leq \$110,000.
- (c) Federal minimum wage rate if employer provides health benefits.
- (d) Employees under 16 years of age and employees of businesses with annual gross receipts of \leq \$250,000 are paid the federal minimum wage rate.
- (e) Businesses with six or more employees and all state agencies are required to pay the more generous wage, whereas businesses not meeting these requirements may compensate employees \$5.85 per hour.
- (f) The tip credit for bartenders is \$0.61.

Variable	Description	Source		
Median Income	Median income for family of four	Statistical Abstracts (various years) http://www.census.gov/hhes/income/4person.html		
Unemployment	% of population unemployed	Bureau of Labor Statistics (various years) http://data.bls.gov/PDQ/outside.jsp?survey=la		
Poverty	Poverty rate for state populations	Statistical Abstracts (various years) http://www.census.gov/hhes/www/poverty/histpov/hstpov21.html		
Foreign Direct Investment	Dollars of FDI in millions	Statistical Abstracts (various years) http://www.census.gov/compendia/statab/foreign_commerce_aid/ foreign_investment/		
Gross Domestic Product	In millions of dollars	Bureau of Economic Analysis (various years) http://bea.gov/bea/regional/gsp/action.cfm		
Per Capita GDP	State GDP/Population	Computed by authors		
Population	In millions	Statistical Abstracts (various years) http://www.census.gov/compendia/statab/past_years.html		
Union Membership	% of workforce represented by unions	Bureau of Labor Statistics (various years) http://stats.bls.gov/schedule/archives/all_nr.htm#UNION2		
Education	% of Population with Bachelor's Degree	Statistical Abstracts (various years) http://www.census.gov/prod/www/statistical-abstract- 2001_2005.html		
Voter Turnout	% of Eligible voting in last U.S. House of Rep. Election	Statistical Abstracts (various years) http://www.census.gov/compendia/statab/past_years.html		
Right to Work Laws	Dummy Variable: Right to Work Law = 1	See Table 1 for more detailed information about Right to Work Laws and sources		
Citizen Ideology	State Citizen Liberalism (range: 0-100)	Berry, et al. Measure – Accessed through ICPSR (November 2006) http://www.icpsr.umich.edu/		
Democratic Control	Ranney Index of Dem. Control and Party Competition - Standardized	Computed by Bibby and Holbrook in <i>Politics in the American States: A Comparative Analysis.</i> Virginia Gray, Russell L. Hanson and Herbert Jacob, eds. 7 th , 8 th , & 9 th editions. Washington, D.C.: CQ Press.		
Years Since Federal Adoption	Number of Years Since Federal Increase took Place (range: 0-6)			
Dem. Legislature	Dummy Variable: Dem. Control of Both Houses of State Legislature = 1	Book of the States (various years) Statistical Abstracts (various years) <u>http://www.census.gov/prod/www/statistical-abstract-2001_2005.html</u>		
Dem. Executive	Dummy Variable: Dem. Control of Executive = 1	Compiled by Klarner – SPPQ Website http://www.ipsr.ku.edu/SPPQ/journal_datasets/klarner.shtml		
Minimum Wage	Dummy Variable: Min Wage Law > Federal = 1	See Table 2 for complete listing of data sources		

Appendix B: State Level Variables, Descriptions, and Sources^a

^aThe entire dataset is available from the authors upon request.

	Mod	lel 1	Model 2		
Variables	Coeff. (SE)	Exp. (B)	Coeff. (SE)	Exp. (B)	
Median Income – Lagged	001*	.999	001	.999	
	(.000)		(.000)		
Unemployment - Lagged	-1.315	.268	-1.975#	.139	
	(.937)		(1.100)		
Poverty – Lagged	687	.503	929	.395	
	(.584)		(.504)		
Foreign Direct Investment	.000	1.000	.000	1.000	
- Lagged	(.000)		(.000)		
Per Capita GDP – Lagged	.000*	1.000	.001**	1.001	
	(.000)		(.000)		
Population	.193	1.213	.174	1.190	
-	(.697)		(.271)		
Union Membership	.096	1.101	.110	1.116	
-	(.195)		(.145)		
Education	264	.768	550	.577	
	(.352)		(.403)		
Voter Turnout	.003	1.003	073	.930	
	(.100)		(.088)		
Right to Work Laws	378	.686	-2.850	.058	
-	(1.976)		(2.201)		
Citizen Ideology	.313*	1.367	.442*	1.556	
	(.135)		(.176)		
Years Since Federal	2.392*	10.937	3.3**	27.106	
Adoption	(.953)		(1.288)		
Neighboring States	4.360	78.235	.426	1.530	
	(2.702)		(2.294)		
Democratic Control	3.382**	29.427			
(Ranney)	(1.154)				
Dem. Legislature			6.030*	415.521	
(Dummy)			(2.548)		
Dem. Executive			-3.335	.036	
(Dummy)			(2.040)		
Constant	-10.266	28740	-13.679		
	(14.137)		(13.658)		
-2 Log likelihood	27.168		32.302		
Nagelkerke R Square	.736		.683		
Chi-Squared	χ ² (14)=63	.149***	χ ² (15)=58	3.015***	
N	259		259		

Appendix C: Competing Risk Models of State Legislative Minimum Wage Adoptions 1998-2003 – Lagged Economic Variables

 ${}^{\#}p < .10; {}^{*}p < .05; {}^{**}p < .01; {}^{***}p < .001$ Note: The left column of each model includes the logged odds and standard errors (reported in parentheses) and the right-hand column includes exponentiated betas.