

Unions as Mobilizing Institutions in the U.S., 1964-2000

This paper examines how unions affect turnout and assesses the consequences of the dramatic decline in union strength since 1964 for the composition of the U.S. electorate. Our analysis relies on individual-level data from 1964 through 2000. We first estimate individual-level models to test for the independent effects of union membership and union strength on individuals' probabilities of voting. We then estimate more complex individual-level models to examine whether or not the effect of individual union membership and overall union strength varies across income levels. We find that unions increase turnout by increasing turnout of union members as well as turnout of non-members. And we find that the effects of union mobilization are approximately equal for the bottom two thirds of the income distribution, but are significantly less for the top third of the income distribution. By simulating what turnout would be were union membership at its 1964 level, we show that the decline in union membership since 1964 has had substantial implications for class-bias in the electorate, as well as for the overall level of turnout.

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1 Union Mobilization and Socioeconomic Class Bias

Recent scholarship on political participation has increasingly emphasized the importance of mobilizing institutions in structuring both electoral and non-electoral participation. Rosenstone and Hansen (1993), for example, argue that parties, political organizations and candidates seek to mobilize citizen participation when it is in their strategic interests to do so. Based on their analyses of American National Election Survey data from 1960 through 1988, Rosenstone and Hansen conclude that institutional factors are often more important than individual factors in explaining who participates. They also conclude that the decline in voter turnout over the past several decades clearly reflects differences in the level and type of mobilization efforts directed toward citizens by political elites. In particular, they point to weakening attachments to political parties, the lower proportion of union members, and reduced amounts of elite contacting of citizens as reflecting structural changes in mobilizing institutions that have led to declining turnout. Numerous scholars have affirmed various aspects of this perspective on mobilizing institutions and electoral participation (see, for example, Caldeira and Patterson 1983; Caldeira, Patterson and Markko 1985; Cox and Munger 1989; Hill and Leighley 1993, 1994; Jackson 1993, 1996, 1997; Leighley and Nagler 1992a; Patterson and Caldeira 1983).

Yet most of this research has focused almost exclusively on the nature and consequences of party mobilization.¹ As a consequence, we know very little, first, about how political institutions *other than political parties* mobilize electoral participation and the consequences of such institutions for democratic politics in the U.S. Labor unions constitute a notable example where we have limited understanding of non-party mobilizing institutions. Theories of political participation typically emphasize the particular importance of unions in stimulating voter turnout. The mechanisms by which such mobilization occur are postulated to result from a combination of skill-acquisition on the part of members, strategic

targeting by unions and perhaps indirect consequences of union activity and strength as they alter the political environment. Yet existing empirical analyses are unclear as to *whose* turnout unions mobilize: potential voters in general, regardless of class; only working-class and lower-class individuals, regardless of union membership, or only union members. We have at best mixed evidence on both points, the who and the how of union mobilization (see, for example, Radcliff 2001; Radcliff and Davis 2000; Rosenstone and Hansen 1993; Verba, Nie and Kim 1978; Verba Schlozman and Brady 1995).

The absence of evidence regarding how and whom unions mobilize is particularly striking given the dramatic decline in union strength since the 1960s. From 1964 to 2000, union membership declined from 28.0% to 12.7% of the workforce (Freeman 1997, US Census Bureau 2002). Common sense would suggest that such large changes in an institution thought to be central to voter turnout would have clear consequences for who votes. More specifically, as unions have become less visible and central electoral players, their effectiveness in mobilizing the mass electorate – whether members or non-members – would be expected to decline

Existing research on whether unions mobilize their own members provides ambiguous evidence: union members vote more than non-members in some elections but not in others (Asher, et-al 2001). Evidence on whether unions mobilize non-members with similar political interests (i.e., working- or lower-class individuals) is at best indirect (Sousa 1993). And evidence that strong unions mobilize turnout generally—regardless of membership, and regardless of individuals’ political interests—is quite limited (Radcliff 2001; Radcliff and Davis 2000).

Two critical, related questions that have been ignored in empirical analyses is how the post-1960s decline in union membership has changed the size and class composition of the electorate. Rosenstone and Hansen (1993) conclude that much of the decline in voter turnout

can be attributed to changes in elite mobilization, yet they do not directly examine the effects of union mobilization. For those who claim that turnout has not declined (McDonald and Popkin 2001), the political consequences of union decline are even more puzzling: did turnout remain at the same level *despite* the dramatic collapse of this critical mobilizing institution?

Numerous scholars have demonstrated that class bias exists in the American electorate: individuals with higher socioeconomic status are much more likely to vote than individuals with lower socioeconomic status (Leighley and Nagler 1992b; Rosenstone and Hansen 1993; Wolfinger and Rosenstone 1980). To the extent that unions successfully mobilize lower and working class individuals, independent of their union membership status, declining union strength should be associated with increased class bias in turnout. Thus, the question of whether unions mobilize their members, working- or lower-class individuals more generally, or both, is intricately tied to understanding the class composition of the electorate.

We have three goals in this paper. First, we identify and expand on three different mechanisms by which unions might increase turnout. Two aspects of these mechanisms are especially important: whether they equally affect members and non-members, and whether they differ across social class. Second, we provide individual-level empirical evidence regarding the effect of union mobilization on turnout of members vs. non-members; of working- and lower-class vs. upper-class individuals; and of the electorate more generally. Third, we estimate the effects of union decline from 1964 to 2000 on the level of overall voter turnout, and on the class composition of the electorate.

2 Labor Union Mobilization: Mechanisms and Consequences

We begin with a discussion of our theoretical expectations regarding who and how unions mobilize. The who question focuses primarily on whether unions mobilize members or non-members, while the how question focuses on how such mobilization occurs. Theoretically and empirically, however, these foci are intertwined. We structure the discussion below as focusing on three mechanisms that might account for the relationship between union membership or union mobilization and higher voter turnout.

The first mechanism linking unions and voter turnout focuses on membership effects. This argument follows from Verba, Schlozman and Brady's (1995) civic voluntarism model, which suggests that individuals' jobs, churches and voluntary associations provide them with opportunities to gain knowledge and skills and therefore become more likely to participate in politics. These civic involvements will also increase the probability that they will be mobilized directly (i.e., recruited) into political participation.² Verba, Schlozman and Brady note that this civic skill-acquisition in non-political institutions is especially important because it helps to equalize the well-established class bias in participation (Leighley and Nagler 1992b; Rosenstone and Hansen 1993; Shields and Goidel 1997). Thus, unions enhance the participation of their members (who otherwise lack resources necessary for participation, e.g., information, skills) and reduce the class bias in the participation population.

The civic voluntarism argument thus suggests, first, that whether indirectly mobilized through skill and information acquisition or directly recruited by union leaders' appeals, union members are expected to participate, *ceteris paribus*, more than non-union members (see Leighley 1996). This expectation is consistent with a few analyses that report union members vote at higher levels than non-union members (Delaney, et al, 1988; Leighley

and Nagler 1992a; Radcliff 2001; Rosenstone and Hansen 1993), but possibly inconsistent with those that report that union members sometimes do not report voting more than non-members (Asher, et al, 2001). Second, since higher status individuals are more likely to obtain participatory skills independent of union membership, the civic voluntarism model suggests that turnout differences between members and non-members should be greater for lower-class individuals than for upper-class individuals. Yet Sousa (1993) finds no consistent membership effects for lower-class individuals in elections from 1960 through 1988 (i.e., lower-class union members are no more likely to vote than lower-class non-union members).

The second mechanism linking unions with higher turnout is the strategic implementation of voter mobilization campaigns, which likely affects both members *and* non-members. Historically, what has distinguished unions from other groups in U.S. electoral politics is that their numbers make them well suited to engage in voter contact activities associated with phone banks, door to door canvasses, etc., efforts that are not limited to union members. Anecdotal evidence suggests the historical importance of unions in turning out voters, whether they were members or not (see, for example, Maisel 1999: 68-69; Riordan 1963; White and Shea 2000: 448-52). The assumption, of course, is that unions recruit individuals with political interests similar to union members, i.e., those who would vote for the pro-union candidate.

That is, unions' decisions about which voters to mobilize are intricately tied to the practical political goal of electing the "correct" candidate; who votes is important only to the extent that it determines who wins. Thus, unions may recruit non-members with similar political interests through explicit appeals for their participation. This logic suggests that unions will target voters who are expected to support pro-labor candidates, and these potential supporters are likely to be lower- or working-class individuals. According to this logic, then, strong unions recruit more, and such recruitment efforts should be associated with greater turnout of, lower- and working-class individuals regardless of their membership

status.

A third mechanism linking unions with increased turnout is through the contextual provision of electoral information. As strong unions become salient features of the electoral environment, this linkage might result from changes in the information or behavior of either elites or individuals. For example, a strong union presence in electoral politics might increase the likelihood that candidates or parties adopt policy positions that represent the lower- and working-class, thus signaling that their interests are represented, and that their involvement is both rational and important. As a result, strong unions would be associated with higher turnout of lower- and working-class individuals, whether union members or not.³

An alternative scenario to the class-based effect associated with mechanisms #2 and #3 is that the presence of strong unions in an electoral district may boost turnout of all voters. Even though, as described above, we expect that unions target their recruitment toward individuals with similar political interests, implementation of such strategies is not perfect (Huckfeldt and Sprague 1992). Similarly, some union mobilizing activities are surely available and visible to any individuals who choose to take advantage of them (e.g., voter registration tables located at local retail stores), and therefore cannot discriminate on the basis of shared political interests. We would also expect that high levels of union activity indicate competitive electoral contests, and it is possible that opposing candidates will respond to union activity through mobilization activities directed toward their own supporters. Finally, and relevant to our example above, strong unions might signal to higher income individuals that it is in *their* interest to turn out in opposition to a pro-union candidate.

Almost all existing research on the effect of unions on turnout fails to distinguish between the mechanisms above. In particular, almost all existing research risks confounding membership effects with contextual effects. And no existing research attempts to distinguish the impact of contextual effects based voters' socio-economic status.

Radcliff (2001) and Radcliff and Davis (2000) offer the most recent and comprehensive evidence of the impact of unions, and their decline, on turnout. Radcliff and Davis (2000) estimate an aggregate pooled time series model of elections for the period of 1964 through 1982, where the unit of analysis is turnout by state by year. They found that state union strength was associated with higher overall turnout in the state. However, as we demonstrate in the next section, it is impossible to infer from their results whether the mechanism of union effect on turnout is via increased participation of union members, or whether unions are mobilizing non-members as well. Radcliff (2001) estimates individual-level models by pooling the National Election Studies data from 1952 through 1992. He includes as explanatory variables whether or not the respondent was a member of a union household, and uses national union density as a contextual variable. While Radcliff finds independent effects of both membership and context, he does not test whom unions are mobilizing in terms of class (either for membership or contextual effects).

While this research has highlighted the importance of unions to electoral mobilization, it does not provide definitive evidence regarding the mechanism accounting for the relationship between union strength and electoral mobilization. We note several reasons for this limitation. First, since the Radcliff and Davis analysis is conducted at the aggregate level, it cannot identify who is being mobilized. Second, the individual level analysis by Radcliff relies solely on national level union strength as a contextual measure of union strength, which introduces several methodological and conceptual problems. We know, for example, that national union strength has declined over time. This introduces the risk of noting a spurious correlation between two variables trending down: propensity of individuals to turnout and union strength. Moreover, the reliance on national union strength likely misconceptualizes what we are interested in: union capacity to mobilize voters. Instead, one might argue that the more relevant political context is at the state or local level. And, as unions have recently adopted a more retail-politics approach to campaigning, emphasizing

individual contact over media buys, we have all the more reason to believe that strength at the local level must be included in any model of union mobilization (Greenhouse 1998).⁴

Tied to the question of the consequences of union decline for turnout levels is whether the decline has led to a change in the composition of the electorate. While various scholars have demonstrated the remarkable class bias of the American electorate, few have investigated the institutional sources of such class bias. Rosenstone and Hansen (1993) consider the role of elite (i.e., partisan) mobilization, while Wolfinger and Rosenstone (1980) consider the consequences of registration laws for the composition of the electorate. And Shields and Goidel (1997) have documented the existence of class bias in congressional elections. But none of these scholars have assessed the consequences of the decline in union strength for changes in the class bias of the electorate. Since unions are hypothesized to have especially large participatory effects on lower and working class individuals, their decline may be contributing to this class bias over the past several decades.

We analyze the membership and class-related effects of unions on voter turnout by estimating individual-level models of turnout that include union membership and union strength as independent variables, along with a set of standard predictors of voter turnout. In these analyses, union membership is measured by individuals' self-reports, while union strength is a contextual characteristic representing the proportion of the workforce in the state or nation that is unionized. We assume that the effects of the contextual union strength measure on voter turnout reflect the increased probability of individuals' being recruited by unions in areas with high unionization (mechanism #2) as well as individuals reacting to unions as a salient feature of the electoral environment (mechanism #3). While we cannot distinguish the relative contributions of each of these two mechanisms, we can assess whether such contextual effects vary across social class. To do so, we estimate individual-level models of voter turnout that include interactive terms for income level, union membership and union strength. These analyses indicate whether unions are more important as mobilizing

institutions for (i.e., have a greater impact on) working-class individuals than for lower-status or higher-status individuals and thus reflect on the consequences of union decline for class bias in the electorate. These analyses are especially important because they provide the first empirical evidence regarding how the decline of union strength over the past several decades has affected the class composition of the electorate.

3 Model Specification and Data

Before describing in detail our data and estimation, it is important to clarify the underlying theoretical model and the assumptions implicit in alternative estimation strategies. Previous research has relied on both aggregate (state or national) and individual-level analyses. Using aggregate (state-level) data has the advantage that it represents the turnout decision of all voters as opposed to the turnout decision only of those voters who enter the national survey samples on which the individual-level analyses rely. However we cannot very reliably learn about *who* voted from the aggregate level data (Achen and Shively 1995, King 1997, Robinson 1950). And in fact the estimates from such analyses are neither estimates of the union mobilization effects on members, nor the mobilization effects of unions on non-members. Rather such estimates are the *total* effect of union membership and union strength on turnout.

To see this consider a scenario where union-strength is on average 30%, and where union members turn out at a rate 10% higher than the rest of the population. If unions effectively mobilize only members, our aggregate level regression would produce an estimate that suggested union strength in the state is associated with higher levels of turnout. But we would simply be observing the greater propensity of union members to turnout, as more union members are located in states with greater union strength. If unions effectively mobilize members as well as non-members, then our estimate of the impact of union strength in

the state would be measuring *both* effects of unions on turnout. This is a valid and meaningful estimate, it is simply important to understand what it represents. It cannot be interpreted as either the effect of unions on members, or the effects of unions on non-members mobilization because it simultaneously measures both effects. Thus while such an estimate can demonstrate that unions affect turnout, it cannot inform us about the mechanism through which unions affect turnout.

The primary advantage to using individual level data is that with the appropriate specification we can determine who is affected by unions: union-members, non-members, rich, poor, republicans, democrats, etc. However, we must again be careful to correctly interpret the coefficients. Imagine that being a member of a union, *ceteris paribus*, had no direct impact on participation, but that living in a state with many union members increased one's likelihood of voting since it increased one's likelihood of being subject to union mobilization or otherwise changed the utility of voting. Since union members are more likely to live in states with higher union density than are non-members, estimating an individual level model that omitted union-strength would incorrectly attribute the mobilizing affect of unions to membership in the union.

If we specify an individual's probability of voting as:

$$\begin{aligned} Pr(\mathbf{Turnout}_i) = & \mathbf{F}(\alpha_{10} + \beta_{11} \mathbf{union_member}_i + \beta_{12} \mathbf{union_strength}_{i,s,t} \\ & + \beta_{13} \mathbf{X}_{i,s,t} + \epsilon_i) \end{aligned}$$

where:

- **union_member_i** indicates whether the respondent is a union member.
- **union_strength_{i,s,t}** is the union density in the i^{th} respondent's state at year t .
- **X_{i,s,t}** are other individual and state characteristics.

then we see the two distinct effects of unions: 1) the individual effect of union membership

(β_1), and 2) the contextual effect of living in a state with a high density of union members (β_2). And if we specified an aggregate model:

$$Pr(\mathbf{Turnout}_{s,t}) = \mathbf{F}(\alpha_{20} + \beta_{22} \mathbf{union_strength}_{s,t} + \beta_{23} \mathbf{X}_{s,t} + \varepsilon_i)$$

then we would see that estimating such an aggregate model gives us a coefficient for union-strength (β_{22}) that clearly picks up the effect of union-strength *and* union-membership.

Thus we have two alternative, possibly ‘correct’ models, depending on the substantive question motivating the analysis. We can estimate an individual-level model which includes both the respondent’s union-status and the union-strength in the respondent’s state as independent variables. This will yield distinct estimates of the effect of union membership, and the contextual effect of union strength on turnout. Or, we can estimate aggregate-level models of turnout with union-strength as an independent variable knowing that this technique will give us a ‘reduced form’ combined estimate of the direct and indirect effect of union strength on turnout. Since we are interested in assessing the independent effects of both individual-level membership and the contextual effects of union strength, we estimate the individual-level model. And, as we show below, with our individual level model we can further refine our specification to allow us to examine the distinct affect of unions on voters of different income classes.⁵

An additional complication arises at the level of measurement. Union strength (as measured by the proportion of the workforce unionized) exists at both the state level and national level. Theoretically there are reasons to believe that both would matter. Unions are active politically at both the state and national level, and so we would expect union strength in a given state to lead to increased union activity in that state. But since mobilizing activities can obviously cross state boundaries, we would also expect national union strength to matter. Thus in the models we specify below we include both measures.

4 Estimation and Results

Our individual-level model of turnout consists of a set of individual-level characteristics supplemented with various state-level contextual measures. The individual-level data are taken from the National Election Study biennial surveys taken in on- and off-year elections from 1964 through 2000. We thus have data on representative samples in 10 on-year elections and 9 off-year elections. In each of these years we use a standard set of demographic characteristics that have been included as components of individual models of turnout for well over twenty years; we do not repeat the theoretical reasons here to include these as they have been well covered elsewhere (Wolfinger and Rosenstone 1980, Leighley and Nagler 1992a, Rosenstone and Hansen 1993). The characteristics we include in our models include: education, age, marital status, race, gender, family income, and union status. Union status is measured as whether the respondent reports being a member of a union.

We supplement this individual-level data in each year with contextual measures of the presence and competitiveness of presidential, gubernatorial and senate elections in the state, state union strength and national union strength.⁶ Union strength in each state is measured as the proportion of non-farm workers in the state covered by union contracts. The union strength data is compiled by Hirsch and MacPherson, as described in their 1993 and 2003 articles (Hirsch and MacPherson 1993, 2003), and available on their website. Union strength nationally is measured as reported by Freeman (1997), and updated from Census data (US Census Bureau 2002).

Because voters face different information environments and political elites may use different strategies in presidential vs. non-presidential elections, we estimate a pooled model but we pool the data separately for on- and off-year elections, using NES data for 1964 through 2000. Since turnout varies across election years based on many facts independent of union strength, we include year dummies in each model to pick up year-specific effects.

A host of characteristics of states – political culture, competitiveness of the party system, etc. – could account for the varying propensities of individuals in different states to vote. While measuring all such attributes and including them as predictors would be ideal, many of these attributes are unmeasurable and their independent effects are not central to our research question. Hence, the use of a fixed effects model is appropriate.⁷

Since the dependent variable is dichotomous one would typically estimate the model with logit or probit. However, as Nagler (1991, 1994) showed, using either logit or probit to determine the sensitivity of different sub-groups of voters to the effects of changes in independent variables is inappropriate if the central question of interest is which of those groups is most sensitive to such changes. This is because both logit and probit explicitly assume that it is respondents with probability of voting closest to .5 who will appear most sensitive to changes in any independent variables. Thus we estimate the model with scobit, which drops this assumption, but is otherwise identical to logit.⁸

The results for the on- and off-year models for the period 1964-2000 are reported in Table 1. As expected, we find that being a member of a union has a significant effect on turnout. The results for this model indicate that being a union member is of roughly equal importance for on-year and off-year elections, though the estimated effect is somewhat higher for on-year than off-year elections. We also find that *both* state level union strength and national level union strength have independent statistically significant effects on turnout. Individuals who reside in areas of union strength are more likely to vote than those who do not live in areas of union strength. In addition, the stronger unions are nationally, the more likely individuals are to vote. Thus we have documented that union members are more likely to vote than non-union members, and that individuals who live in areas of union strength, and individuals living in time periods of higher union strength are more likely to vote than individuals who do not live in such areas or time-periods. Thus we are able to distinguish between both the membership effect and the contextual effects, and we show that

the contextual effects cannot be measured by using either state level or national level union strength alone.⁹

[Table 1 Here]

To better appreciate the magnitude of these effects we computed the predicted changes in probability of voting for a typical respondent. The hypothetical voter was computed at the modal values for all the independent variables. Consequently our hypothetical voter is a 45 year old white woman, who is not a union member and who's occupation is 'homemaker.'¹⁰ There is no governor's election but there is a Senate election. Presidential closeness and senate closeness are set at their mean values (-2.12 and -2.36, respectively for the log values). The state dummy is Indiana, since it had the median state density for 2000 (15.7). The mean union density for 2000 is (12.7) and is (28.0) for 1964. Given these values, ceteris paribus, a union member is 6% more likely to vote than a non-union member. Thus the effect of being a union member, independent of the contextual effects of union strength, is quite substantial.

To illustrate the impact over time of the drop in union strength we computed the predicted probability of voting for a respondent in a state which had experienced a median change in union-density from 1964 to 2000, coupled with the national drop in union-density of 15% which occurred from 1964 to 2000. The drop in union strength results in a predicted drop in probability of turnout for our modal respondent of .104. Our preliminary estimate, based on simply assuming that the entire population responds as does our modal respondent, then is that overall turnout would have been approximately 10.4% higher in 2000 had union strength remained at its 1964 level. We offer a more rigorous aggregate calculation after development of our final model.

With this estimate clearly suggesting that the dramatic drop in union strength has had a large effect on turnout, what is especially interesting to determine is the aggregate effect

on turnout, and how the composition of the electorate is being affected. One advantage of individual level data is that we can assess whether there are class differences in *who* is affected by union membership and who is affected by union mobilization. To determine whether or not union membership was most influential for those at the bottom or top of the income distribution we included three separate interaction terms between union membership and a dummy variable indicating whether the respondent was in the bottom, middle, or top third of the income distribution. Based on the Verba, Schlozman, and Brady civic voluntarism model, we expect that the membership effect would be largest for people in the lowest income bracket because people at higher levels of income could acquire skills through other means. Thus union membership might merely teach them participatory skills they already have.

To determine whether union strength as a contextual factor was more influential for those at the bottom than at the top of the income distribution, we also included six separate interaction terms between national and state level union strength. The results for this model, again estimated separately for on-year and off-year elections, are reported in Table 2. The first column gives the results for on-year elections, the next column gives the results for off-year elections. These models are estimated with state-specific fixed effects.

[Table 2 Here]

First, it appears that union membership does have a smaller impact on voters at the top of the income spectrum: for persons in the top third of the income distribution the estimated coefficient for membership is the smallest of the three estimated membership coefficients in both on- and off-years, and never reaches statistical significance even at the 90% level. The effect of union membership is statistically indistinguishable between the bottom two groups, though for both groups it is large and statistically significant. Thus we confirm the essential arguments of the civic voluntarism model, though we find that it appears to operate at higher income levels than anticipated.

Second, the coefficients of both state and national union-density are almost indistinguishable across the bottom and middle income groups. This suggests that unions do *not* have a larger effect on members of the lowest income group than on members of the middle group. The contextual effects of union strength are significantly less for the top income group. And in fact, adding the state and national density coefficients for each group, they follow the pattern of membership effects: the estimated effect of union strength is significantly larger for the bottom two income groups than the top income group.

The estimate of the scobit parameter α is again below 1, and the difference is again statistically significant. The estimates suggest that it is voters with estimated probability of voting of .47 who are most sensitive to change in any of the independent variables. While this is not very far from the corresponding logit value of .50, by using scobit we are sure that our estimates computed below of the responsiveness of different groups of voters to changes in union membership and union density are actual and are not artifacts of our statistical model.

Together Tables 1 and 2 underscore the importance of both state and national political contexts in influencing voter turnout and the class composition of the electorate. However, we can see that national union density does not appear to have any impact independent of state union density in off-year elections. This makes sense for off-year elections, where the cross-state variance in electoral activity is likely to swamp the temporal variance picked up by the national measure.

To interpret the magnitude of the effects in Table 2 we estimated a series of counterfactuals since the estimated coefficients of the scobit models are not directly interpreted in meaningful units. We postulated a set of three hypothetical ‘typical respondents’, one from each level of the income distribution, and then asked how would the probability of these respondents voting have changed under different conditions of (1) individual union

membership and (2) union strength? There are only two possibilities for union membership: a respondent is either a member or they are not a member. For union strength we looked at three different substantively meaningful changes in the level of union strength. First, what is the effect of a 1% increase in union strength? Second, what would the effect be on a respondent if union strength in their state went from the median in 2000 to the median in 1964, and national union strength changed from its 2000 level to its 1964 level? This scenario demonstrates how much more likely a respondent would have been to have voted in 2000 had union strength *not* declined from its 1964 levels. Third, what is the magnitude of turnout decline in the states with the largest drop in union strength. To examine this, we estimated how much more likely a respondent would have been to vote in a state with the maximum drop in union strength from 1964 to 2000 had that drop not occurred.

We constructed our hypothetical voters by setting all variables to their modal or mean values. Thus our hypothetical voters are 45 years old, white, women who are married and not union members. There is no governor's election, there is a senate election and presidential election. Our hypothetical voters live in Indiana, since it had the median union density for 2000 (15.7).

Our estimates for the effect of union membership (Table 3) suggest that, as hypothesized, union membership is more valuable for lower and middle class respondents, and least valuable for upper income respondents. The estimated increase in probability of voting based on union membership is smaller for high-income respondents (.04), in contrast the estimated effect for low-income and middle-income respondents is .06 and .08, respectively.¹¹ This is consistent with the civic voluntarism model, which suggests that higher income respondents do not need to learn the participation skills which union membership could teach them.

[Table 3 Here]

In Table 4 we report the change in probability of a respondent reporting voting

based on: 1) a 1% increase in state union strength; 2) a 1% increase in national union strength; 3) simultaneous 1% increases in both state and national union strength. These estimates suggest that lower and middle income respondents are also more sensitive to union contextual effects than are higher income respondents. The estimated changes in probability of a lower income or middle income voter reporting voting based on 1% increases in both state and national union density are .007 and .010, respectively. The corresponding change in probability for higher income respondents is only .005. Thus similar to membership effects, the decline in union strength would have a disproportionate impact on persons in the lower two income groups relative to persons in the highest income group.

[Table 4 Here]

To assess the impact on turnout of a more precipitous drop in union strength, we can look at the probabilities of a respondent reporting voting under two different scenarios: union strength at its 2000 levels, and union strength at its much higher 1964 levels. We computed the probability of three typical respondents, one each from the bottom, middle, and top income groups, reporting voting with national union strength at its 2000 level, then changed the value of national union strength to its 1964 level and recomputed the probability of the three respondents reporting voting. Results of these calculations are reported in Table 5. With union strength at its 2000 level (12.7%), in the state in 2000 with median state-level union strength (15.7%) our 3 modal respondents had reported probabilities of voting of .602, .654, and .753, respectively. Based on our model, had national union strength been at its 1964 level (28.0%), and had state level union strength also been at its 1964 level (33.0%), the same respondents would have had reported probabilities of voting of .709, .783, and .826, respectively. Thus the contextual change in union strength seems to account for a drop in turnout of approximately 10 percentage points for the typical voter. Most striking is the fact that the estimated effect for middle income voters (.131) is almost twice as large as the estimated effect for high income voters (.073).

[Table 5 Here]

Our final simulation, the results of which are reported in Table 6, considers an even larger drop in union strength and its consequences for voter turnout. Our case in point is Washington state, which had a drop in union strength of 26 percentage points: it went from 44.5% in 1964 to 18.5% in 2000. Had our hypothetical respondents been in a state with union strength 26 percentage points higher in 2000 than it actually was, and had national union strength been at its 1964 level, then the increases in the probability of reporting voting would have been .121, .145, and .094, respectively. Thus we have more evidence of the potential political impact of the collapse of unions. And again, it is the respondents in the middle income group for whom the effect is largest, and the respondents in the highest income group for whom the effect is smallest.

[Table 6 Here]

5 Aggregate Effects

Of course looking at the effect of the decline of unions on the probability of individuals voting is of theoretical interest, but elections are decided by aggregating votes. Thus the larger questions are: what was the overall effect of the decline of unions on aggregate turnout, and how is it distributed among different groups of voters? Since we have a model that gives us predictions of the probability of any individual voter choosing to vote under different levels of union strength, we are able to estimate aggregate turnout under different scenarios.

We compute the aggregate change in turnout by computing separate estimates for what turnout would have been in each state had the state's union strength remained at its 1964 level, and thus had national union strength remained at its 1964 level. Doing this requires us to simulate probabilities over a representative sample of voters from each state.

While this cannot be done directly with the available data, we note that we only need to know how probabilities of voting are distributed across each state's population to perform the simulations. We are able to estimate these distributions for each state. Given those distributions, we can draw arbitrarily many voters at random and simulate the effects of increased union strength. The details of the simulation are described in Appendix I.

We find that under 1964 levels of union strength, the turnout of the bottom third of the income distribution would have increased by 10.3 percentage points, the turnout of the middle third would have increased by 10.0 percentage points, and the turnout of the top third of the income distribution would have increased by only 3.0 percentage points over 2000 levels (see Table 7).¹² Thus the change in union strength has had a huge impact on class bias in the electorate. Were unions as vibrant and strong in 2000 as they were in 1964, the turnout gap between voters in the top third of the income distribution and other voters would be reduced by approximately 7 percentage points.

[Table 7 Here]

This substantively large impact of the decline of unions is all the more striking when considered in light of recent policy efforts directed toward enhancing voter turnout. Since 1964, the federal and some state governments have reformed voter registration and election procedures in an effort to increase voter turnout. Moving the closing date for registration closer to election day or even adopting election day registration were intended to make registration easier (and therefore voting less costly). Eliminating poll taxes and increasing opportunities for absentee and early voting were, likewise, intended to make casting a ballot easier. And the Motor Voter Act of 1993 was intended to have the state more actively try to register voters. Considering existing estimates of the effect of these governmental reforms (Berinsky, Burns and Traugott 2001, Knack 1995, Oliver 1996, Rhine 1995, Stein and Garcia-Monet 1997) our evidence indicates that all of these well-intentioned reforms have in some sense been dwarfed by the collapse of a non-governmental institution that has played a key

role in encouraging the turnout of voters. And the effect of this change is decidedly biased. While government has worked to increase overall turnout, the drop in union strength has disproportionately discouraged the turnout of voters in the bottom two thirds of the income distribution.

Our empirical findings speak to central issues of democracy and representation in the U.S. and elsewhere. The role of groups in mobilizing turnout has been articulated theoretically (Chong 1991; Morton 1991; Uhlaner 1989) and demonstrated empirically (Jackman 1987; Lijphart 2001; Powell 1986; Rosenstone and Hansen 1993; Verba, Nie and Kim 1978; Verba, Schlozman and Brady 1995). And much of this work emphasizes the particular importance of groups in ensuring the representation of resource-poor individuals in electoral politics. With the conflict between labor and business interests perhaps the most enduring political conflict in industrialized societies, it is clear that unions play an important role in defining and politicizing this basic cleavage. And as they have weakened in the U.S., so has class bias in the electorate increased.

Our analysis assumes that individuals' responsiveness to the mobilizing efforts of unions — whether members or not — is the same across diverse types of political environments. However, individuals' responses to mobilization efforts may vary across political environments because the informational cues provided by labor unions are more effective for individuals in situations where the electoral context provides little, or conflicting, information. We expect labor unions' mobilizing efforts to be especially important in political environments where traditional political institutions such as parties and candidates do not provide clear cues as to the relative benefits of voting. In areas where the differences between the candidates are not clear — areas of low party competition, elections with candidates or parties taking similar policy positions, etc. — we argue that unions provide valuable information that is otherwise not available in the political environment and that this should result in increased turnout. In future research we plan to analyze the effects of unions across

different political contexts in order to develop a better understanding of the role of groups as information providers to voters.

6 Conclusion

It is perhaps surprising that the political consequences of union membership and, more recently, the dramatic decline in union membership has received such little attention from scholars of political participation. Our analyses provide a more direct and systematic assessment of how unions mobilize electoral participation than has been offered previously. We provide the first quantitative analysis that specifies a model rich with both appropriate contextual measures of union strength and measures of individual respondent characteristics. We find that individual union members are significantly more likely to vote in presidential and congressional elections, and that this membership effect remains when controlling for individual-level characteristics such as education, income and occupation. Whether unions enhance individuals participatory skills or directly ask their members to vote, the result is that union members have a greater probability of voting than do non-union members. Moreover, unions clearly mobilize beyond their membership, whether through explicit ‘get-out-the-vote’ efforts or through their symbolic presence in electoral politics. Thus, individuals living in areas of union strength are more likely to vote, and this increased probability is independent of other aspects of campaign mobilization or union membership itself. These empirical findings show that unions indeed play, or have played, an important role in stimulating electoral participation in the U.S.

Also, we find specific class-effects of union mobilization, as one would expect if unions targeted and effectively mobilized lower and working-class individuals to vote. And while it is not the case that unions mobilize the poorest voters at the expense of others, it is the case that they mobilize voters likely to share an interest in pro-labor policies: those voters

who are not in the top third of the income distribution. And as over the 1964 to 2000 period voters in the bottom two-thirds of the income distribution were significantly more likely to favor the Democratic presidential candidate than were voters in the top third of the income distribution (59.75% versus 42.15%, respectively according to NES data), the political implications are clear. Thus we conclude that unions play an important role in electoral politics today.

7 Appendix: Computing Aggregate Turnout Decline

In a previous section of the paper we demonstrated how we could compute first differences for a given respondent: by changing the value of one or more of the independent variables (whether state level or national level union strength, or union membership), we were able to estimate the affect of changes in union strength on individual respondents. To estimate the aggregate change caused by the change in union strength we need to estimate the effect of a change in union strength over a representative sample of voters, and aggregate our results. And since our model contains state-level variables, we must do this for each state, then aggregate over the 50 states to get national estimates.

Now in going from a non-linear individual model to aggregate estimates we need some approximation of the characteristics of the respondents we will aggregate over. Our individual level model relates respondent characteristics to estimated probability as: $\hat{P}_i^* = F(X_i\hat{\beta})$. Thus for each state, we do not actually need the distribution of the respondents' characteristics (the X s), but we only need the distribution of $X_i\hat{\beta}$. We do not observe this distribution, but we can estimate it. We do this as follows. We observe the distribution of \hat{P}_i^* nationally from the NES. This means that we could compute the standard deviation of this, the sample standard deviation from our 1500 or so NES respondents for 2000 (i.e., we compute the standard deviation over $\hat{P}_1^*, \hat{P}_2^*, \dots, \hat{P}_{1500}^*$). Call this $\hat{\sigma}_{nes}$. So we have \hat{P}_i^* nationally distributed as $N(\bar{P}^*, \hat{\sigma}_{nes})$. For each state, we need \bar{P}_s^* so that we can compute $\overline{X_i\hat{\beta}}$. While we do not observe reported state turnout with any meaningful accuracy, we do observe actual state turnout, as well as actual national turnout. These numbers are available as part of the officially reported vote totals and population data from secretary of state's offices, and have been compiled through 1996 by the Congressional Research Service (Crocker 1996, 1997). To estimate each state's reported level of turnout, we assume that: the ratio of the odds-ratio of reported turnout in a given state to the odds-ratio of actual turnout in the

state is equal to the ratio of the odds-ratio of reported turnout nationally to the odds-ratio of actual turnout nationally.¹³ Similarly, to estimate the reported turnout of each income group within each state we assume that the ratio of the odds-ratio for reported turnout of each income group to the odds-ratio of reported turnout of the entire state is equal to the ratio off the odds-ratio for reported turnout nationally of each income group to the odds-ratio of reported turnout nationally. We again estimate the national ratios using the NES, and this allows us to compute the state-specific quantities we need: $\bar{P}_{k,s}^*$. From $\bar{P}_{k,s}^*$, we can compute $\overline{X_{k,i}\hat{\beta}_s}$ by taking $F^{-1}(\bar{P}_{k,s}^*)$.

Formally, we assume:

$$\frac{\bar{O}R_s^*}{\bar{O}R_s} = \frac{\bar{O}R_{usa}^*}{\bar{O}R_{usa}} \quad (1)$$

and:

$$\frac{\bar{O}R_{k,s}^*}{\bar{O}R_s^*} = \frac{\bar{O}R_{k,usa}^*}{\bar{O}R_{usa}^*} \quad (2)$$

where:

- $\bar{O}R_s^*$ is odds ratio for overall reported turnout in state s
- $\bar{O}R_s$ is odds ratio for overall actual turnout in state s
- $\bar{O}R_{usa}^*$ is the odds ratio for overall national reported turnout
- $\bar{O}R_{usa}$ is the odds ratio for overall national actual turnout
- $\bar{O}R_{k,s}^*$ is odds ratio for reported turnout of the k^{th} group in state s
- $\bar{O}R_{k,usa}^*$ is the odds ratio for national reported turnout of the k^{th} group

As we stated above, we compute the standard deviation of the sample standard deviation from our 1500 or so NES respondents for 2000 to get $\hat{\sigma}_{nes}$. However, mathe-

matically it is much easier to work with $X_i\hat{\beta}$ than to work with \hat{P}_i^* . So, we compute the standard deviation of $X_i\hat{\beta}$ for the 2000 NES. And for any state, we compute $\overline{X_{k,i}\hat{\beta}}$ as the inverse-scobit transformation of $\overline{P_{k,s}^*}$. We assume that for any state, $X_{k,i}\hat{\beta}$ is distributed as: $\mathbf{N}(\overline{X_{k,i}\hat{\beta}}, \sigma_{X_i\hat{\beta}, nes}^2)$.

Now, to compute the estimated change in turnout of a given income group for a given state (thus the s subscript is suppressed in the notation) given the change in union density from the state's 1964 level to its 2000 level, we:

1. Draw 10,000 values of $X_{k,i}\hat{\beta}$ from $\mathbf{N}(\overline{X_{k,i}\hat{\beta}}, \sigma_{X_i\hat{\beta}, nes}^2)$: this gives us a representative sample of respondents from each state.
2. Adjust each value of $X_{k,i}\hat{\beta}$ as follows:
 - Changing the value of union-density for the nation from union-density(2000) to union-density(1964), multiply this by $\hat{\beta}_{national_union_density}$ and add this to $X_{k,i}\hat{\beta}$.
 - Changing the value of union-density for the state from union-density(s,2000) to union-density(s,1964), multiply this by $\hat{\beta}_{state_union_density}$ and add this to $X_{k,i}\hat{\beta}$.
 - Assign a random number of respondents to be union members such that the proportion of union members in the state matches the 1964 proportion of union members. Add $\hat{\beta}_{union_member}$ to each such respondent's value of $X_{k,i}\hat{\beta}$.
3. This gives us new values, $\tilde{X}_{k,i}\hat{\beta}$ for each hypothetical respondent in the state.
4. Compute $\hat{P}_{k,i}^*$ corresponding to each adjusted value of $X_{k,i}\hat{\beta}$ ($\tilde{X}_{k,i}\hat{\beta}$) from the step above.
5. Compute the mean of $\hat{P}_{k,i}^*$.

This gives us change for each income group within each state. We then simply sum over the states, weighting by the state's share of voting age population to get national change.

Notes

1. An important exception to this observation is Verba, Schlozman and Brady (1995), who focus almost exclusively on non-political institutions such as work, church and voluntary associations.
2. We are using the term ‘mobilize’ broadly here, in this case members are mobilized through the participatory acquisition of skills - not through direct effort of the union to stimulate turnout. Following Verba, Schlozman and Bradys usage, we refer to the latter as recruitment.
3. We assume that this effect is much smaller for higher status individuals, who might be motivated by the perceived threat of candidates representing lower status interests, but even if it is not, one result is the same: higher voter turnout in the electoral district.
4. In addition, Radcliff’s individual-level analyses do not include state-specific fixed effects in the pooled, cross-sectional models. If union strength is correlated with other unmeasured attributes of states that affect turnout, the model estimates will reflect a serious omitted variables bias.
5. Since union strength scales perfectly with union membership, it is both theoretically meaningless, and empirically impossible, to see if mobilization of union members is dependent upon union strength beyond arguments of economies of scale. The ratio of union members to union members is always 1, and so we would not expect contextual mobilization of union members to vary.
6. We measure competitiveness of elections as the log of the the reciprocal of the difference in

two-party vote shares (`competitiveness = ln(1/|dem_vote_share - rep_vote_share|)`).

For cases with no election, which represent the complete absence of competitiveness, we set the value of closeness to -7 as the values observed were as low as -5.5. We experimented with several alternatives, and the results were completely insensitive to changes in this value from -5.5 to -7.0.

7. See Greene (1999) or Wooldridge (2002) for an exposition on fixed effects models.
8. As Nagler (1994) shows, logit is actually nested within scobit. Thus if the logit sensitivity assumption is correct, we would simply capture the logit estimates.
9. The estimate of α , the parameter distinguishing scobit from logit, is .74 for on-year elections and is statistically significantly different from 1. This suggests that scobit is to be preferred to logit. The value of probability for which respondents are most sensitive to changes in any independent variable is .47, rather than .50 as is assumed with logit.
10. The NES occupation categories are: professional, clerical or sales, service, labor, farming, and homemaker.
11. Standard errors for all quantities of interest are computed by drawing 1000 values of the model parameters from their estimated distribution, and computing the associated probabilities from the Scobit model. Estimates were computed in STATA, version 8.0, and the values were drawn using STATA's 'drawnormal' procedure. See King, Tomz and Wittenberg (2000) for details on such calculations.
12. The standard errors on these estimated figures are 2.3, 2.0, and 1.2 percentage points, respectively.
13. We could estimate reported state turnout using the Current Population Survey. However,

while the CPS and NES both give measures of reported turnout – obviously they are turnout as reported to two very different surveys. To maintain consistency, we use state numbers that are comparable to the data we used to estimate the parameters of the model.

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Table 1: **Basic Individual Level Model of Turnout: NES 1964-2000**
SCOBIT Estimates: Dependent Variable is Probability of Voting

	On-Year	Off-Year
Union Member	0.357** (3.14)	0.234** (2.56)
Union Density - State	0.016** (2.95)	0.029** (2.75)
Union Density National	0.025** (3.11)	0.021** (2.05)
Family Income - Middle Third	0.361** (5.51)	0.297** (9.92)
Family Income - Top Third	0.750** (7.22)	0.439** (7.16)
Education	0.496** (10.16)	0.407** (16.03)
Age	0.118** (7.61)	0.129** (8.23)
Age ²	-0.001** (5.27)	-0.001** (5.94)
Male	-0.001 (0.01)	0.035 (1.08)
Black	0.054 (0.84)	0.017 (0.21)
Married	0.420** (5.81)	0.297** (5.27)
Gov Election Dummy	-0.666* (2.02)	0.049 (0.19)
Sen Election Dummy	-0.086 (0.53)	0.030 (0.36)
ln(Pres Close)	0.012 (0.36)	–
ln(Sen Close)	-0.001 (0.03)	0.028 (1.40)
ln(Gov Close)	0.124 (1.71)	0.002 (0.07)
Occupation - profman	0.418** (4.90)	0.201** (2.12)
Occupation - clerical/sales	0.431** (3.77)	0.219** (2.97)
Occupation - service	0.014 (0.16)	0.009 (0.10)
Occupation - laborer	0.067 (0.68)	-0.116 (0.81)
Occupation - farmer	0.232* (2.03)	-0.026 (0.18)

Table 1 (cont): Basic Individual Level Model of Turnout: NES 1964-2000
SCOBIT Estimates: Dependent Variable is Probability of Voting

	On-Year	Off-Year
Year:1964	0.194** (3.44)	
Year:1972	-0.140* (2.12)	
Year:1976	-0.263** (4.56)	
Year:1980	-0.303** (6.87)	
Year:1984	0.024 (0.40)	
Year:1988	-0.218** (3.43)	
Year:1992	0.213** (9.24)	
Year:2000	-0.173** (4.01)	
Year:1974		-0.036 (1.87)
Year:1978		-0.015 (1.13)
Year:1982		0.163** (11.49)
Year:1986		0.032 (1.26)
Year:1990		-0.226** (8.45)
Year:1994		0.157** (4.94)
Constant	-3.495** (5.58)	-5.863** (12.49)
α	.7396	.7705
$\sigma_{\hat{\alpha}}$	(.1230)	(.1558)
P^*	46.88	47.33
Percent Voted	74.50	55.93
Percent Correctly Predicted	77.58	69.37
Pseudo LL	-7359.041	-7006.244
Observations	15393	12069

Entries are scobit coefficients. t-statistics in parenthesis, except for $\hat{\alpha}$ - which has its standard error in parenthesis. State specific fixed effects included, coefficients not reported.

Table 2: **Interactive Model: Union Measures X Income, NES 1964-2000**
SCOBIT Estimates: Dependent Variable is Probability of Voting

	On-Year	Off-Year
Union Member - Bottom Income	0.340*	0.382**
	(2.13)	(4.25)
Union Member - Middle Income	0.447**	0.240*
	(3.45)	(2.23)
Union Member - Top Income	0.261	0.126
	(1.36)	(1.03)
State Union Density - Bottom Income	0.013*	0.032**
	(2.42)	(4.06)
State Union Density - Middle Income	0.015**	0.047**
	(2.94)	(6.86)
State Union Density - Top Income	0.030**	0.037**
	(2.79)	(4.03)
Natl Union Density - Bottom Income	0.050**	0.004
	(3.80)	(0.49)
Natl Union Density - Middle Income	0.064**	0.011*
	(5.68)	(2.13)
Natl Union Density - Top Income	0.03	0.02
	(1.85)	(1.19)
Income - Middle Third	0.035	-0.131
	(0.15)	(0.75)
Income - Top Third	0.843**	0.082
	(3.58)	(0.22)
Occupation - profman	0.442**	0.205*
	(4.85)	(2.10)
Occupation - clerical/sales	0.449**	0.218**
	(3.63)	(2.87)
Occupation - service	.016	0.013
	(0.17)	(0.16)
Occupation - laborer	0.077	-0.127
	(0.73)	(0.91)
Occupation - farmer	0.242*	-0.037
	(2.02)	(0.25)

Table 2 (cont) : Interactive Model: Union Measures X Income, NES 1964-2000
SCOBIT Estimates: Dependent Variable is Probability of Voting

	On-Year	Off-Year
Gov Election Dummy	-0.718* (2.21)	-0.157 (0.63)
Sen Election Dummy	-0.075 (0.44)	0.053 (0.59)
Ln(Pres Closeness)	0.011 (0.34)	
Ln(Senate Closeness)	-0.004 (0.12)	0.025 (1.19)
Ln(Gov Closeness)	0.132 (1.88)	0.003 (0.08)
Education	0.518** (9.47)	0.407** (14.43)
Age	0.122** (7.22)	0.128** (7.78)
Age ²	-0.001** (5.06)	-0.001** (5.69)
Male	0 (0.00)	0.035 (1.13)
Black	0.053 (0.81)	0.018 (0.22)
Married	0.432** (5.85)	0.296** (5.23)

Table 2 (cont) : Interactive Model: Union Measures X Income, NES 1964-2000
SCOBIT Estimates: Dependent Variable is Probability of Voting

	On-Year	Off-Year
Year:1968	-0.179** (3.31)	
Year:1972	-0.294** (7.71)	
Year:1976	-0.373** (5.38)	
Year:1980	-0.379** (6.97)	
Year:1984	0.064 (1.85)	
Year:1988	-0.125* (2.44)	
Year:1992	0.343** (7.07)	
Year:1996	0.166** (3.65)	
Year:1974		-0.037 (1.59)
Year:1978		0.007 (0.63)
Year:1982		0.170** (9.51)
Year:1986		0.039 (1.43)
Year:1990		-0.218** (9.03)
Year:1994		0.156** (5.10)
Constant	-6.443** (6.16)	-5.093** (9.46)
α	.6950	.7729
$\sigma_{\hat{\alpha}}$	(.1224)	(.1655)
P^*	46.18	47.36
Percent Voted	74.48	55.93
Percent Correctly Predicted	77.51	69.34
Log Likelihood	-7351.713	-6996.847
Observations	15378	12069

Entries are scobit coefficients. t-statistics in parenthesis, except for $\hat{\alpha}$ - which has its standard error in parenthesis. State specific fixed effects included, coefficients not reported.

Table 3: **Effect of Union Membership on the Probability of an Individual Voting**

	Probability Difference
Low Income	.06 (.03)
Middle Income	.08 (.02)
High Income	.04 (.02)

Entries are first differences, the difference in predicting probability of reporting voting based on whether a single hypothetical respondent (or 3 such respondents) whom we describe in the text was a union member or not. Standard errors are in parenthesis.

Table 4: **Effect of 1% Change in State, National, and Both Union Strength on the Probability of an Individual Respondent Voting**

	State Union-Strength	National Union-Strength	State and National Union-Strength
Low Income	.0025 (.0025)	.0047 (.0031)	.0073 (.0024)
Middle Income	.0030 (.0025)	.0070 (.0033)	.0098 (.0026)
High Income	.0039 (.0019)	.0007 (.0032)	.0051 (.0024)

Entries are first differences, the difference in predicting probability of reporting voting for a single hypothetical respondent (or 3 such respondents) whom we describe in the text depending upon the level of: state union-strength, national union-strength, or both state and national union-strength. Standard errors are in parenthesis.

Table 5: **Effect of Change from 2000 to 1964 Union Levels: Median and Mean**

	2000 Union-Strength	1964 Union-Strength	Difference
Low Income	.604 (.049)	.709 (.049)	.105 (.032)
Middle Income	.652 (.045)	.783 (.040)	.131 (.030)
Low Income	.753 (.038)	.826 (.034)	.073 (.029)

Entries in the first two columns are the predicted probability of reporting voting for a single hypothetical respondent (or 3 such respondents) whom we describe in the text depending based upon: 1) 2000 levels of state and national union strength; 2) 1964 levels of state and national union strength. The third column gives the difference, or the effect the drop in union strength has had on the probability of each respondent voting. Standard errors for all quantities are in parenthesis.

Table 6: **Effect of Change from 2000 to 1964 Union Levels:
Largest State Change, National Mean**

	2000 Union-Strength	1964 Union-Strength	Difference
Low	.611 (.047)	.731 (.052)	.121 (.039)
Middle	.660 (.044)	.804 (.040)	.145 (.034)
High	.765 (.036)	.859 (.032)	.094 (.030)

Entries in the first two columns are the predicted probability of reporting voting for a single hypothetical respondent (or 3 such respondents) whom we describe in the text depending based upon: 1) 2000 levels of state and national union strength; 2) 1964 levels of state and national union strength. The third columns gives the difference, or the effect the drop in union strength has had on the probability of each respondent voting. Standard errors for all quantities are in parenthesis.

Table 7: **Aggregate Effect of the Decline in Union Membership on Turnout:
By Income Group**

	Turnout Difference
Low Income	10.3 (2.3)
Middle Income	10.0 (2.0)
High Income	3.0 (1.2)

Entries are aggregate effects of the decline of union membership from 2000 to 1964 on turnout for each income group. Standard errors are in parenthesis.