Unions, Voter Turnout, and Class Bias in the U.S. Electorate, 1964-2004

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Abstract

This paper uses indiviudal level data to examine the impact of unions on turnout and assesses the consequences of dramatic changes in union strength and in the composition of union membership since 1964 for the composition of the U.S. electorate. We first estimate individual-level models to test for the distinct effects of union membership and union strength on the probabilities of members and non-members voting, and then test whether the effect of individual union membership and overall union strength varies across income levels. We find that unions increase turnout of both members and non-members. By simulating what turnout would be were union membership at its 1964 level, we show that the decline in union membership since 1964 has affected the aggregate turnout of both low- and middle-income individuals more than the aggregate turnout of high-income individuals. However, while class bias has increased as a consequence of the decline, the change is surprisingly small.

Recent scholarship on political participation has increasingly emphasized the importance of mobilizing institutions in structuring both electoral and non-electoral participation. 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 about how political institutions *other than political parties* mobilize electoral participation and about 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, but are unclear as to *whose* turnout unions mobilize: members or non-members, individuals in particular income groups, or some combination of members or non-members in particular social classes (see, for example, Radcliff 2001; Radcliff and Davis 2000; Rosenstone and Hansen 1993; Sousa 1993; Verba, Nie and Kim 1978; Verba Schlozman and Brady 1995). And without knowing *who* unions mobilize, it is impossible to know how the decline in union strength over the past several decades has affected class bias (i.e., the over-representation of high-income individuals relative to low-income individuals) in the electorate. The lack of empirical evidence regarding who unions mobilize is particularly striking given the dramatic decline in union strength from 1964 to 2004, when union membership declined from 29.3% to 12.6% of the workforce (Hirsch, et al. 2001; Hirsch and Macpherson 2006).

Just as striking, though often overlooked, is the fact that the class composition of the union workforce has changed notably as well. Between 1971 and 2004 the proportion of union members in the poorest third of the nation's income distribution *decreased* from 17.5% to 9.7%, while the proportion of union members in the top third of the income distribution *increased* from 40.0% to 49.4%, and the proportion of union members in the middle third of the income distribution remained about the same (42.6% to 40.9%).[2] Related to these income differences are occupation- and sector-specific changes in union

membership over the past two decades. For example, the proportion of blue collar workers among union members declined from 50% in 1983 to 38% in 2000, and union members today are much more likely to be employed in the public sector than were union members a generation ago (17% in 1973 versus 46% in 2003).[3]

These class-related compositional changes in union membership underscore the importance of systematically documenting who unions mobilize. Historically, unions have been assumed to mobilize lower-income and working-class individuals (more than upper-income individuals), with the presumption that they have thus helped to counter the over-representation of the wealthy in the electorate. But if unions now mobilize higher-income individuals at greater rates, they may instead exacerbate class bias in the electorate.

Scholarly inattention to understanding the electoral consequences of these changes is all the more puzzling in light of the prominence that the decline of unions is given by the American Political Science Association's Task Force on Inequality and American Democracy, which asserts that "For many decades, unions drew large numbers of low-income Americans into the political process, but the future role of unions in fostering citizen involvement depends on reversing recent declines in union membership" (APSA 2004a: 19; see also APSA 2004b).

That unions weakened at a time when most argue that voter turnout declined suggests indeed that union strength matters. But even Rosenstone and Hansen's (1993) analysis of the decline in electoral involvement since the 1960's does not explicitly test for the role of union strength, *despite* the fact that they conclude that electoral mobilization accounts as much for the decline as do citizens' personal characteristics and resources (i.e., education, age, social involvement, feelings of efficacy, attachment to parties).

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? And for scholars who have concluded that class bias has not increased over the past several decades (Leighley and Nagler 1992b, Shields and Goidel 1997), did the composition of the electorate remain the same despite the collapse of a mobilizing institution typically thought to be critical in mobilizing lower-class individuals?

Our primary goal is to assess the consequences of the decline of union strength and changes in the class composition of union membership over the past several decades for the class bias of the electorate. 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; Shields and Goidel 1997; Wolfinger and Rosenstone 1980). Yet, aside from studies of voter registration and election administration (e.g., Berinsky, Burns and Traugott, 2001; Nagler 1991; Stein 1998; Wolfinger and Rosenstone 1980), no existing research has documented the institutional basis for such bias. To the extent that unions successfully mobilize lower-class individuals, independent of their union membership status, declining union strength over the past several decades should be associated with a notable increase in class bias in turnout. However, if unions mobilize middle- and upper-income individuals more than lower-income individuals, then the decline of unions over time may be associated with a *decrease* in class bias.

Union Mobilization: Mechanisms, Consequences, and Evidence

We begin with a discussion of our theoretical expectations regarding who and how unions mobilize. One 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. 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. 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 electorate.

The civic voluntarism argument thus suggests that, ceteris paribus, union members are expected to participate 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 see Asher, et al., 2001 and Sousa 1993).

A second mechanism linking unions with higher turnout is the existence of non-member effects. Union mobilization of non-members may result from either the strategic implementation of voter mobilization campaigns or, more generally, from unions providing citizens and political candidates additional information about the electoral context. 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. The assumption, of course, is that unions will recruit individuals with political (i.e., class-based) interests similar to union members as a means of increasing electoral support for pro-union candidates. Following this logic, strong unions are likely to recruit individuals with interests similar to union members (regardless of their membership status) and these recruitment efforts should be associated with greater turnout relative to individuals with dissimilar interests. Historically, this likely resulted in greater turnout of lower- and working-class individuals. Whether this remains true today is not known.

Similarly, a strong union presence in electoral politics might increase the likelihood that candidates or parties adopt policy positions that represent union members, 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 union members and those with similar interests, whether such individuals were union members or not and whether they were directly recruited by unions or not.

An alternative scenario to these interest-based consequences of union strength is based on the recognition that implementation of interest-based strategies is not perfect (Huckfeldt and Sprague 1992). 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 may not successfully discriminate on the basis of shared political interests. Also possibly dampening the class-based effects associated with strategic mobilization campaigns is the increased turnout that might result from changes in the information or behavior of opposition candidates or their supporters. For example, high levels of union activity may indicate competitive electoral contests, and it is possible that opposing candidates will respond to union activity through mobilization activities directed toward their own supporters. Strong unions might also signal to individuals with interests contrary to union members that it is in *their* interest to turn out in opposition to a pro-union candidate. To the extent, then, that class-based mobilization is either imperfect or triggers a competitive response from those with policy interests opposed to unions, strong unions may be associated with higher overall turnout, regardless of class (or political interests).

Radcliff (2001) and Radcliff and Davis (2000) offer the most recent and comprehensive evidence of the impact of unions, and their decline, on turnout. Their central substantive conclusion indicates that strong unions are associated with higher voter turnout, yet their analyses ignore the critical question of whether such effects vary across socioeconomic

groups. Moreover, their evidence is limited by several analytical shortcomings. That the individual-level analyses (based on pooled American National Election Study data from 1952 to 1992) in Radcliff (2001) rely solely on national-level union membership as a measure of union strength introduces several important conceptual and methodological problems.

Radcliff's individual-level analyses do not include geographic (i.e., 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. And 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. As unions have recently shifted to an emphasis on targeted individual contact over nationally-broadcast media buys, we have all the more reason to believe that strength at the sub-national level must be included in any model of union mobilization (Greenhouse 1998).[4]

In part to address these concerns regarding model specification, we estimate the membership and class-related effects of unions on voter turnout using individual-level models that include union membership and state 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 operationalized using the proportion of the state workforce 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 to vote by unions in states with stronger unions, as well as individuals reacting to unions as a salient feature of the electoral environment. Our measure of union strength, then, encompasses the non-membership effects discussed above.

To assess the class consequences of union strength, we estimate individual-level models of voter turnout that include interactive terms for income level, union membership and union strength. These analyses indicate whether the mobilizing effects of unions vary across social class (i.e., have a greater impact on lower, middle or upper-income individuals), and thus reveal the consequences of union decline for class bias in the electorate. These results 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.

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- and individual-level analyses. For our purposes, the critical limitation of aggregate analyses is an ecological inference problem: we simply cannot reliably learn about individual behavior from aggregate-level data, whether using national or state-level measures (Achen and Shively 1995, King 1997, Robinson 1950). Moreover, such analyses cannot distinguish between membership and non-membership effects and instead reflect the total effect of union membership *and* union strength on turnout.

The primary advantage to using individual-level data is that with the appropriate specification we can determine who is affected by unions: 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 contextual measures of union strength would incorrectly attribute the mobilizing affect of unions to membership in the union.

Instead, we specify an individual's probability of voting as:

$$Pr(\textbf{Turnout}_\textbf{i}) \;\; = \;\; \textbf{F}(\alpha_{10} \;+\; \beta_{11}\, \textbf{union\_member}_\textbf{i} \;+\; \beta_{12}\, \textbf{union\_strength}_\textbf{i,s,t}$$
$$+\; \beta_{13}\, \textbf{X}_\textbf{i,s,t} \;+\; \epsilon_i)$$

where:

- **union_member$_\textbf{i}$** indicates whether the respondent is a union member.
- **union_strength$_\textbf{i,s,t}$** is the union density in the state s for the ith respondent at year t.
- **X$_\textbf{i,s,t}$** are other individual and state characteristics.

This allows us to identify two distinct effects of unions: the individual effect of union membership (β_1), and the contextual effect of living in a state with a high density of union members (β_2).

If instead we specified an aggregate model that excluded the individual-level union member term so that:

$$Pr(\textbf{Turnout}_\textbf{s,t}) \;\; = \;\; \textbf{F}(\alpha_{20} \;+\; \beta_{22}\, \textbf{union\_strength}_\textbf{s,t} \;+\; \beta_{23}\, \textbf{X}_\textbf{s,t} \;+\; \varepsilon_i)$$

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

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 2004. In each of these years we use a standard set of demographic characteristics that are included as predictors of individual turnout: education, age, marital status, race, gender, and family income. 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).

Union membership is the respondent's self-report of belonging to a union. We also include a series of dummy variables representing the respondent's occupation type because, as noted above, the rate of union membership varies across occupation types (e.g., professionals and managers vs. laborers). Thus, omitting respondents' occupation could result in our estimates of the effect of union membership being contaminated by omitted-variable bias.[5]

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, and regularly updated on their website (Hirsch and Macpherson 1993, 2003, 2006). We supplement this individual-level and contextual union data in each year with measures of the presence and competitiveness of presidential, gubernatorial and senate elections in the state.[6]

Estimation and Results

We estimate a pooled model with fixed effects for states and years, but estimate the model separately for on- and off-year elections. These separate analyses allow us to assess the possibly distinctive effects of union mobilization in the different information environments of on- and off-year elections. Since turnout varies across election years independent of union strength, we include year dummies in each model to pick up unmeasured year-specific effects. Since numerous characteristics of states – political culture, competitiveness of the party system, etc. – could account for the varying propensities of individuals in different states to vote, we also include state-specific dummy variables.[7]

Since the dependent variable is dichotomous one would typically estimate the model with logit or probit.[8] 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. Thus we estimate the model with scobit.[9]

The results for the on- and off-year models for the period 1964-2004 are reported in the first two columns of Table 1. As expected, we find that being a member of a union has a significant effect on turnout. With the on-year coefficient being over twice the estimated value of the off-year coefficient, the results for this model suggest that being a union member has a greater effect on individuals' probabilities of voting in on-year elections than in off-year elections. In addition, the difference between the estimates is significant at the 99% level.[10] We also find that state-level union strength has a statistically significant effect on turnout (at the 90% level). *Ceteris paribus*, individuals who reside in stronger union states are more likely to vote than those who live in weaker union states.

<div align="center">[**Table 1 Here**]</div>

The parameter estimate which distinguishes scobit from logit is the value for α. If $\alpha = 1$, then scobit is exactly the same as logit. If α is less than 1 then respondents with low probabilities of voting are more sensitive to changes in the independent variables; if α is greater than 1 then respondents with higher probabilities of voting are more sensitive to change. Thus, with the α parameter we test for whether or not the parameter is different than 1. The estimate of α in Table 1 is 0.72 for on-year elections and is statistically significantly different from 1, which suggests that scobit is preferable to logit. A value of α of .72 suggests that respondents with probabilities of voting of .47 are most sensitive to changes in any independent variable, rather than .50, as is assumed with logit.[11]

To better appreciate the magnitude of the effects of union membership and union strength

we computed the predicted changes in the 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 is a "homemaker." 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). Our hypothetical voter lives in California, which had a union density of 16.7 in 2004.[12] For this hypothetical "average" individual, being a union member rather than a non-member increases the probability of voting by .07. Thus the effect of being a union member, independent of the contextual effects of union strength, is quite substantial: if 100 such persons joined a union, seven more votes would be cast.

To illustrate the impact over time of the drop in union strength we computed the predicted probability of voting for a typical respondent in California, which experienced a 16.3 percentage point drop in union density from 1964 to 2004. This drop in union strength of almost 50% (from 33.0% to 16.7%) results in a predicted decrease in the probability of turnout for our modal respondent of .049. Assuming that the entire population responds as does our modal respondent, overall aggregate turnout would have been approximately 4.9 percentage points higher in 2004 had union strength remained at its 1964 level. However, when we consider a model that disaggregates voters based on income, this estimate is reduced somewhat. We discuss this below.

To test whether the effects of union membership vary by income, we next include three separate interaction terms between union membership and dummy variables indicating whether the respondent was in the bottom, middle, or top third of the income distribution. To determine whether union strength as a contextual factor varies across income groups, we also include three separate interaction terms between state-level union strength and the three income groups. The results for this model, again estimated separately for on-year and off-year elections and with state fixed-effects, are reported in columns three and four of

Table 1.[13]

The estimated coefficient for union membership is smaller for those at the top of the income spectrum in both on- and off-year elections. Although in on-year elections the largest estimated coefficient is for those in the middle of the income distribution, the three coefficients for union membership are not statistically distinguishable from one another across the income categories at traditional levels of significance. In off-year elections we see a pattern more in line with a view of unions as providing a greater boost for those at the bottom of the income distribution. The largest estimated coefficient for membership is for those respondents in the bottom of the income distribution, and the smallest estimated coefficient is for respondents in the top of the income distribution.

All three estimated coefficients of union density are positive for on-year elections, but we note that the coefficient of union density for those in the bottom of the income distribution does not reach statistical significance at conventional levels. For off-year elections all three coefficients are positive and significantly different from zero. Comparing the magnitude of the coefficients across on- and off-year elections suggests that union mobilization has a bigger impact in off-year than on-year elections.

Finally, the estimate of the scobit parameter α is again below 1, and the difference is again statistically significant. The estimates suggest that in on-year elections it is voters with estimated probabilities of voting of .46 who are most sensitive to change in any of the independent variables.

To interpret the magnitude of the effects of the interactive model for on-year elections reported in Table 1 we estimated a series of counterfactuals since the estimated coefficients of the scobit models are not directly interpretable in meaningful units. We postulated a set of three hypothetical 'typical respondents,' one from each level of the income distribution, and then estimated how the probabilities of these respondents voting would change under

different conditions of individual union membership and union strength. Our first simulation contrasts the two possibilities for union membership: either a respondent is a member or they are not. We follow this with two simulations considering two different changes in the level of union strength: A) a 1 percentage point increase in state union strength; and B) a change in state union strength from the median in 2004 to the median in 1964. This last scenario demonstrates how much more likely a respondent would have been to have voted in 2004 had union strength *not* declined from its 1964 levels.

We constructed our hypothetical voters by setting all variables to their modal or mean values. Thus our hypothetical voters are 45-year-old white women who are married. In our simulation of the effect of union density, our hypothetical voters are not union members. There is no governor's election, but there is a senate election. Our hypothetical voters again live in California.

As shown in Table 2 our estimates for these simulated effects suggest that union membership is more valuable for lower- and middle-income respondents than it is for upper-income respondents. The estimated increase in the probability of voting based on union membership is approximately the same size for low- and middle-income respondents (.068 and .073 respectively), but substantially smaller (.043) for high-income respondents.[14] However, the difference between these estimates is not statistically significant at traditional levels.

[**Table 2 Here**]

In Table 3 we report the change in probability of a respondent reporting voting based on a 1 percentage point increase in state union strength. While these estimates suggest that lower-income respondents might be less sensitive to union contextual effects than are middle- and high-income individuals, they are quite close to one another and are statistically indistinguishable from one another.

[**Table 3 Here**]

Since most states have had decreases in union strength of much more than 1%, we also look at the probabilities of a respondent reporting voting under two different scenarios: union strength at its 2004 levels, and union strength at its much higher 1964 levels. We then estimate the impact of union decline by taking the difference of those probabilities for our hypothetical voters in each of our three income groups.

Results of these calculations are reported in Table 4. With union strength at its 2004 level (16.7%) in the state our three modal respondents had reported probabilities of voting of .689, .745, and .800, respectively. Based on our model, had state level union strength been at its 1964 level (33.0%), the same respondents would have had reported probabilities of voting of .721, .788, and .843, respectively. Thus the contextual change in union strength is associated with a drop in turnout of between three and four-and-one-half percentage points for the typical voter. Most striking is the fact that the estimated effect for low income individuals (.032) is smaller than the estimated effect for both middle (.043) and high (.043) income individuals.

[**Table 4 Here**]

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 focus on the overall effect of the decline of unions on aggregate turnout, and the distribution of that decline across income groups. 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 attributable to the decline of unions 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 the methodological appendix posted on the *Journal of Politics* Website.

As reported in Table 5 we find that under 1964 levels of union strength, the turnout of the bottom third of the income distribution would have increased by 3.5 percentage points, the turnout of the middle third would also have increased by 3.5 percentage points, and the turnout of the top third of the income distribution would have increased by only 2.5 percentage points over 2004 levels.[15] Thus the change in union strength has had an impact on class bias in the electorate, though perhaps less than what one might expect given typical scenarios regarding unions as mobilizing institutions oriented toward low- or working-class individuals. Were unions as vibrant and strong in 2004 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 one percentage point, and aggregate turnout would be increased by approximately three percentage points.

[**Table 5 Here**]

Conclusion

Scholars have paid little systematic attention to the political consequences of union membership, even as this important institution of mass mobilization has declined

dramatically in size, and as the composition of the unionized workforce has changed in notable ways. We offer the first quantitative analysis that specifies a model rich with both an appropriate contextual measure of union strength and measures of individual respondent characteristics. Our analyses thus provide a more direct and systematic assessment of how unions as mobilizing institutions have influenced voter turnout and the nature of class bias in the electorate over the past several decades.

We find that individual union members are significantly more likely than non-union members 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. At the same time, individuals living in states with stronger unions are more likely to vote, and this is true controlling for other aspects of campaign mobilization and demographic characteristics. These empirical findings show that unions indeed play, or have played, an important role in stimulating electoral participation in the U.S. Our estimates indicate that turnout would have been approximately three percentage points higher in 2004 had unions remained as strong as they were in 1964.

The substantively large impact of the decline of unions on aggregate turnout 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 and 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. Yet estimates of the effects of these governmental reforms suggest they have increased turnout far less than expected, and some scholars have argued that the increased turnout actually results from increased turnout

rates of high-status and partisan individuals, i.e., those who are already most likely to vote (Berinsky, Burns and Traugott 2001, Knack 1995, Oliver 1996, Rhine 1995, Stein 1998). Our evidence indicates that all of these well-intentioned reforms have in some sense been counteracted by the collapse of a non-governmental institution that has played a key role in encouraging the turnout of voters.

Our evidence regarding the effect of the decline of unions on class bias in the electorate is rather surprising in light of standard views of labor unions and voter mobilization. Labor unions may mobilize and therefore represent workers, but we show that they do not necessarily mobilize low- or middle-income individuals at the expense of high-income individuals. Moreover, the (contextual) effects of union strength are slightly *greater* for middle- and high-income individuals than they are for individuals in the bottom third of the income distribution. This suggests that when mobilizing individuals, either unions do *not* target people at the bottom of the income distribution, or that people at the bottom of the income distribution do not respond as strongly to union appeals as do people at the top of the income distribution. Our aggregate-level simulations based on these individual-level estimates suggest that the dramatic decline of unions over the past four decades has resulted in a surprisingly small increase in class bias. Considering both membership and contextual union-strength effects, the decline of unions from 1964 to 2004 is associated with a one percentage point change in turnout rates between individuals in the bottom two thirds of the income distribution and individuals in the top third of the income distribution.

These findings speak to central issues of democracy and representation in the U.S. and elsewhere. The APSA Task Force on Inequality and American Democracy emphasized the importance of labor unions in creating a more democratic and representative politics in the U.S. today:

> While business interests have gained new antagonists – as well, of course, as

new allies - - in the public interest community, their traditional adversary (organized labor) has become progressively weaker, both politically and economically, over the past half century, a development with significant consequences for the political representation of the interests of less affluent Americans. (APSA 2004b: 48)

Clearly the *"political representation* of the interests of less affluent Americans," is facilitated by various institutions and linkage processes, and so our empirical evidence on the electoral representation of less affluent voters with respect to the class bias of the electorate is only one aspect of representation. On this important point we have demonstrated that the collapse of unions has had a rather small impact on the representation of less affluent Americans *among voters.* We must emphasize, however, that unions today likely do what they have always done, and that is to represent the interests of their members. To assess the political implications of the decline of organized labor scholars must also acknowledge changes in whom unions represent. Members of labor unions today are more likely to be in the top two-thirds of the income distribution than in the bottom third of the income distribution. Thus, while unions have virtually collapsed in the U.S., class bias in the electorate has increased, but by far less than conventional wisdom would have predicted.

However, the political implications of union decline are certainly not limited to changes in class bias in the electorate. Unions do indeed mobilize "beyond their membership." Presumably this mobilization targets pro-union non-members across income groups, and thus results in substantial changes in the partisan composition and vote choices of the electorate, i.e., weaker unions are likely to mobilize fewer Democrats. These changes may have greater political consequences than what we have observed with respect to class bias. Thus, we expect more broadly that the fortunes of labor unions over the next decade will indeed have important consequences for the nature of public policy and political representation in the U.S.

Notes

1. See Verba, Schlozman and Brady (1995) for a focus on the role of non-political institutions.

2. Computed by the authors from the 1971 and 2004 March Current Population Survey.

3. Figures are calculated by the authors from data provided by Barry T. Hirsch and David A. Macpherson, and available at http://www.unionstats.com. See Hirsch and Macpherson (2003) for additional documentation.

4. State union strength also has the advantage of being independent from any temporal shifts in party behavior over this period which might confound the interpretation of our results. And as a practical point, state-level measures of union strength are the only sub-national data that exist for the entire time period we are interested in.

5. The categories are: professional, clerical or sales, service, labor, farming, and homemaker.

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. While measuring all such attributes and including them as predictors would be ideal, estimating their independent effects are not central to our research question. Hence, the use of a fixed effects model using the state dummy variables is appropriate. The state fixed effects pick up any variation in the state-context affecting individuals' propensity to vote

across states that is constant over time. While *some* cross-state variation is not constant over time, we think that the cross-state variation here swamps the component that varies over our time period. Changes in year to year competitiveness of elections are not picked up by such fixed effects, so such short run items are included as independent variables. See Greene (1999) or Wooldridge (2002) for an exposition on fixed effects models.

8. Our off-year estimates are based on logit-estimates. We were unable to obtain convergence of the scobit model on the off-year data.

9. 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. This assumption makes it impossible to identify which individuals are most sensitive to union decline: because low income respondents are closer to having a .5 probability of reporting voting in 1964 than high income respondents, logit would *necessarily* report a larger effect for the decline in union strength on lower income voters than on higher income voters for the period 1964-2004. By making a less restrictive assumption on the distribution of the stochastic disturbances, scobit allows us to answer our substantive question without this artificial constraint. As Nagler (1994) further shows, logit is actually nested within scobit. Thus if the logit sensitivity assumption is correct, scobit's estimates are equivalent to logit estimates.

10. The inferences here between on- and off-year estimates are based on comparison of logit models. As the scobit and logit coefficients are not directly comparable, we estimated the on-year model with logit to allow for comparisons between such estimates.

11. See Nagler (1994) for the transformation of the value of α into the probability at which respondents are most sensitive to changes in the independent variable.

12. This is the median of union density for union members: in 2004 50% of union members

lived in states with union density 16.7 or above, and 50% of union members lived in states with union density below 16.7.

13. The bottom income category is the 'omitted category' in the specification, the interaction terms for union member and union density with income include all three income groups as we are postulating three separate parameters for these variables and explicitly allowing them to vary across each income group.

14. 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 9.0, and the values were drawn using STATA's 'drawnormal' procedure. See King, Tomz and Wittenberg (2000) for details on such calculations.

15. That the estimated aggregate effect is larger for those at the bottom of the income distribution may seem counterintuitive looking at the smaller coefficients estimated for that group. However, persons at the top of the income distribution are affected by a 'ceiling effect': they are already voting at such rates in 2004 that it is difficult to project their vote increasing by that much. Vote increases can only happen among *non-voters*, and there are not nearly as many non-voters among the top of the income distribution as there are among the bottom of the income distribution.

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Table 1: **SCOBIT Estimates: NES 1964-2004**
Dependent Variable is Probability of Voting

	Basic Model		Interactive Model	
	On-Year	**Off-Year**	**On-Year**	**Off-Year**
Union Member	0.385*	0.120	–	–
	(.088)	(.055)		
Union Member - Bottom Income	–	–	0.373*	0.242
			(.154)	(.116)
Union Member - Middle Income	–	–	0.453*	0.109
			(.132)	(.086)
Union Member - Top Income	–	–	0.312	0.049
			(.151)	(.086)
Union Density - State	0.018	0.035*	–	–
	(.011)	(.009)		
State Union Density - Bottom Income	–	–	0.012	0.023*
			(.012)	(.009)
State Union Density - Middle Income	–	–	0.019	0.036*
			(.012)	(.009)
State Union Density - Top Income	–	–	0.024*	0.041*
			(.012)	(.009)
Family Income - Middle Third	0.363*	0.198*	0.225	-0.029
	(.067)	(.047)	(.128)	(.102)
Family Income - Top Third	0.764*	0.311*	0.540*	-0.007
	(.109)	(.053)	(.165)	(.108)
Education	0.493*	0.264*	0.506*	0.265*
	(.056)	(.013)	(.058)	(.013)
Age	0.115*	0.077*	0.117*	0.077*
	(.013)	(.006)	(.014)	(.006)
Age^2	-0.001*	-0.0005*	-0.001*	-0.0005*
	(.0001)	(.0001)	(.0001)	(.0001)

Entries are scobit coefficients for on-year, logit coefficients for off-year. standard errors in parenthesis. State specific fixed effects and year specific fixed effects included, coefficients not reported.
*Indicates significance at 99% level. All tests 1-tail.

Table 1 (cont) : SCOBIT Estimates: NES 1964-2004

	Basic Model		Interactive Model	
	On-Year	**Off-Year**	**On-Year**	**Off-Year**
Male	-0.007	0.037	-0.007	0.038
	(.058)	(.036)	(.059)	(.037)
Black	0.061	0.080	0.058	0.075
	(.066)	(.049)	(.68)	(.049)
Married	0.400*	0.216*	0.409*	0.214*
	(.066)	(.040)	(.068)	(.040)
Gov Election Dummy	-0.664*	-0.156	-0.686*	-0.148
	(.263)	(.187)	(.270)	(.187)
Senate Election Dummy	-0.023	0.070	-0.022	0.062
	(.143)	(.104)	(.146)	(.104)
Ln (Pres Close)	0.013	–	0.012	–
	(.026)		(.027)	
Ln (Senate Close)	-0.011	0.013	-0.011	0.015
	(.028)	(.021)	(.029)	(.021)
Ln (Gov Close)	0.122	-0.017	0.126	-0.017
	(.054)	(.020)	(.055)	(.020)
Occupation - prof/man	0.421*	–	0.438*	–
	(.108)	(–)	(.111)	(–)
Occupation - clerical/sales	0.417*	–	0.429*	–
	(.094)	(–)	(.097)	(–)
Occupation - service	-0.007	–	-0.006	–
	(.077)	(–)	(.079)	(–)
Occupation - laborer	-0.014	–	-0.011	–
	(.156)	(–)	(.159)	(–)
Occupation - farmer	0.238	–	0.244	–
	(.149)	(–)	(.152)	(–)
Constant	-2.421*	-3.236*	-2.313*	-3.04
	(.609)	(.373)	(.626)	(.377)
α	0.7234	–	0.6967	–
$\sigma_{\hat{\alpha}}$	(0.119)	(–)	(0.115)	(–)
P*	46.88	50.00	46.1800	50.00
Percent Voted	74.84	58.04	74.84	58.04
Percent Correctly Predicted	77.57	65.24	77.69	65.26
Log Likelihood	-7708.758	-9334.7388	-7706.721	-9327.4381
Observations	16,186	14,996	16,186	14,996

Entries are scobit coefficients for on-year, logit coefficients for off-year. standard errors in parenthesis. State specific fixed effects and year specific fixed effects included, coefficients not reported.
*Indicates significance at 99% level. All tests 1-tail.

Table 2: **Effect of Union Membership on the Probability of an Individual Voting**

	Probability Difference
Low Income	.068 (.028)
Middle Income	.073 (.019)
High Income	.043 (.020)

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

Table 3: **Effect of 1% Increase in State Union Strength
on the Probability of an Individual Respondent Voting**

	State Union-Strength
Low Income	.0021 (.0021)
Middle Income	.0029 (.0018)
High Income	.0030 (.0015)

Entries are first differences, the difference in predicting probability of reporting voting for each of three hypothetical respondents whom we describe in the text depending upon the level of state union-strength. Standard errors are in parenthesis.

Table 4: **Effect of Change from 2004 to 1964 Union Levels on Individual Voting**

	2004 Union-Strength	**1964 Union-Strength**	**Difference**
Low Income	.689 (.032)	.721 (.046)	.032 (.031)
Middle Income	.745 (.027)	.788 (.037)	.043 (.025)
High Income	.800 (.024)	.843 (.029)	.043 (.021)

Entries in each row of the first two columns are the predicted probabilities of reporting voting for three hypothetical respondents whom we describe in the text based upon: 1) 2004 levels of state union strength; 2) 1964 levels of state 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 5: **Aggregate Effect of the Decline in Union Membership on Turnout: By Income Group**

	Turnout Difference
Low Income	3.5 (2.6)
Middle Income	3.5 (1.6)
High Income	2.5 (1.1)

Entries are aggregate effects of the decline of union membership from 2004 to 1964 on turnout for each income group. Standard errors are in parenthesis.