Was the Joke on the Democrats Again?:
Registration, Turnout, and Partisan Choice in the 2004 Presidential Election

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Abstract:

In this paper, we explore the relationships between voter registration and turnout and between turnout and partisan outcomes using state and county level data from the 2000 and 2004 U.S. presidential elections. We find that increases in turnout were strongly associated with increases in registration, but that relationship was weaker in battleground states. We also find that increases in turnout were associated with more support for Kerry in non-battleground states, but that relationship was not evident in battleground states. Although the “joke is on the Democrats”, as DeNardo predicted, our county-level analysis shows no support for his proposition that turnout increases will benefit minority parties.

Introduction

The 2004 presidential election was a closely, and at times bitterly, fought contest. Set against the backdrops of an extraordinary controversial presidential election four years earlier, so-called culture wars at home (manifest by eleven statewide referenda on gay marriage; see Donovan et al. 2005), a divisive real war abroad, and acrimony about the military records (or lack of them) of the presidential candidates, the two major parties and their allied interest groups waged extensive and intense drives to register as many new voters as possible (Economist 2004), spending more money than ever before on a presidential election (www.opensecrets.org). As a result, a record number of voters cast ballots on Election Day (123,675,639), translating into the highest turnout rate since the adoption of the Twenty-Sixth Amendment. (See Figure 1.) Compared to the 2000 presidential election, turnout was up four points (as a percent of the voting age population) or five points (as a percent of the voting eligible population).¹

Figure 1 about here

The relatively high turnout rate in 2004 highlights two important questions for students of electoral participation. First, did increases in registration lead to increases in turnout? Second, did the higher levels of turnout advantage one of the two major party candidates? Using the state and county level data from the 2000 and 2004 elections, we argue that the increase in turnout in 2004 did largely reflect increases in registration, and that Kerry likely benefited from the increase in turnout. However, both findings appear to be weaker in battleground states.

Registration and Turnout

Although the efforts to register potential voters prior to the 2004 presidential
election were intense, they were not distributed equally across all fifty states (McDonald 2004). Figure 2 shows that a few states (Colorado, Montana, and Oklahoma) saw major declines in registration between 2000 and 2004, while most saw increases and several battleground states (including Missouri, Florida, Nevada, and New Mexico) saw significant increases in the proportions of the voting age population registered to vote.

Figure 2 about here

Even in those battleground states, there are limits to the effects that registration increases can have on turnout rates. Registration obviously places an upper limit on turnout (Jackson, Brown, and Wright 1998), in that turnout cannot exceed the proportion of citizens registered to vote. Although cross-national research has suggested that registration requirements might be one of the key reasons why turnout in the U.S. is lower than in other democracies (Mitchell and Wlezien 1995; Powell 1986; but see Franklin 1996 and Franklin 2004) and some research on the U.S. states has shown that registration and turnout are closely related (Jackson, Brown, and Wright 1998; Hill 2003), it is also the case that many newly registered people never make it to the polls (Knack 1999; Martinez and Hill 1999; Highton 2004).

Registration is a necessary step in entering the pool of potential voters in most states, but some new registrants never make it past that first step. Short term variations in turnout are the result of election specific factors, including mobilization efforts on the part of campaigns. For instance, competitive races generate greater interest among the population (Bullock, Gaddie, and Ferrington 2002; Cox and Munger 1989; Jackson 1997) and thus stimulate turnout. Close elections also stimulate the candidate and party organizations to expend resources in their efforts to win, and as a result of the greater
spending turnout levels should increase (Cox and Munger 1989; Jackson 1996; 1997), and in presidential elections, that effect should be most noticeable in battleground states (Shaw 1999; Hill and McKee 2005). Thus, we might expect that new registrants would be more likely to become new voters in battleground states.

The Partisan Consequences of Turnout

While most pundits and scholars can agree that registration is an important first step to voting, there is less agreement about the partisan consequences of higher turnout. Pundits seem to relentlessly cling to and propagate the conventional wisdom that higher turnout should help the Democrats. Since non-voters, as a group, tend to be relatively poorer and less educated than voters, as a group, the conventional reasoning suggests that bringing more of the former into the active electorate should tilt the electoral scales toward the left. Although there is some support for that notion in the scholarly literature (Radcliff 1994; Tucker and Vedlitz 1986), more recent analyses have found that the partisan effects of higher turnout are either highly variable or situationally contingent (Citrin, Schickler, and Sides 2003; Erikson 1995; Nagel and McNulty 1996; Nagel and McNulty 2000), or are very weak, having declined considerably over the last four decades (Martinez and Gill 2005).

Early scholarly analyses of the 2004 U.S. presidential election have even turned the conventional wisdom on its head, suggesting that higher turnout worked to the advantage of the incumbent Republican president and played a small role in his victory. For example, Campbell (2005) observes that turnout rates were higher in states that were very close (McDonald 2004) and in states where Bush received a larger share of the vote. This finding accords with Burden (2004), who also finds a positive effect of state level
turnout change on Bush’s vote share in 2004, controlling for battleground state status, the presence of Nader on the presidential ballot, and the presence of an anti-gay marriage referendum.

While these analyses are helpful in underscoring the pivotal role of the battleground states in the 2004 election, we think that an alternative specification might help us to better pinpoint the partisan effects of turnout. In particular, we’re interested in whether the effects of turnout were different in red, blue, and battleground states. DeNardo’s (1980) theoretical model suggested that the partisan advantage of higher turnout might be expected to accrue to the minority party within any given area, since higher stimulus elections would mobilize more weak and leaning partisans with a greater propensity to defect. This defection-model would predict that higher turnout should advantage Democrats most in “red” states, where peripheral Republicans (with a propensity to defect to Democratic candidates) outnumber peripheral Democrats (with a propensity to defect to Republican candidates). In “blue” states, on the other hand, the greater number of peripheral Democrats (with a propensity to defect to the Republican candidates) should work to the advantage of Republican candidates. Empirical support for this model has been mixed as well. While the predictions fit some cross-sectional analyses of state results well (Nagel and McNulty 1996; Nagel and McNulty 2000), Martinez and Gill (2005) found no evidence that higher turnout would have helped the Republicans in 1964, when the Democratic majority was at its peak.

We are also interested in whether turnout might have different consequences in battleground states than in non-battleground states. If either or both presidential campaigns focus their attention, registration drives, and general mobilization efforts in
“purple” states, we could expect to see turnout’s partisan advantages (in either direction) dissipate in states where each campaign is the most motivated to see every one of its core supporters at the polls and at the same time, most anxious about less predictable peripheral voters.

Thus, our central questions are

1. How much was the increase in turnout in 2004 attributable to increases in registration, as opposed to the mobilization of peripheral voters?
2. Was the impact of registration on turnout greater in battleground states?
3. Did turnout work to the partisan advantage of either candidate?
4. Were the partisan consequences of turnout variable across states?

Data

We answer each of these questions based on aggregate data gathered at both the state level and the county level. We acquired most of our registration and electoral data for 2000 and 2004 from Leip’s (2005) compilation of publicly available data, and we confirmed the validity of Leip’s reports of voting age population, the number of votes cast for President, and votes cast for particular candidates through spot checks with several states’ division of elections and the U.S. Census Bureau websites. Though we generally prefer to calculate turnout as votes cast as a proportion of the voting eligible population (McDonald and Popkin 2001; Martinez 2003; McDonald 2003), we are presently unaware of any calculations of the voter eligible population at the county level.

Our voter registration data reflect a number of important analytical and coding decisions. First, we exclude states that either have no voter registration (North Dakota) or have Election Day Registration (Idaho, Maine, Minnesota, New Hampshire,
Wisconsin, and Wyoming). Second, many (but not all) states’ voter registration reports distinguish between “active” and “inactive” registrants, and in those cases, we concur with Leip’s practice of reporting the number of “active” registrants in 2004. Third, at the time that we accessed Leip’s data, he did not have county level voter registration data for 2000, so we acquired voter registration data for 2000 directly from state officials or their publicly available websites (summarized in Appendix A). Finally, two states are excluded from the county level analysis, but are included in the state level analysis. Alaska does not report election data by county, and its voting regions changed substantially between 2000 and 2004. We (and Leip) were unable to obtain county level registration data from Mississippi for the 2000 election, as the state Division of Elections reported that it did not keep those data from previous elections, though they will have it for future elections after they move to a statewide registration system.

Based on our readings of the popular media (Wall Street Journal, Time, CNN, and Rassmussen) and pre-election polls, we regard the following states as battleground states in 2004: AR, CO, FL, IA, ME, MI, MN, MO, NH, NM, NV, OH, OR, PA, WA, WI, and WV.

Methods

We estimate how much increases in turnout are attributable to increases in registration from the following equation:

$$\frac{VotesCast_{2004}}{VAP_{2000}} = \alpha + \beta_1 \frac{VotesCast_{2000}}{VAP_{2000}} + \beta_2 \frac{(RegisteredVoters_{2004} - RegisteredVoters_{2000})}{VAP_{2000}} + e$$

The Weighted Least Squares estimate of $\beta_2$ is our estimate of how much of the increase in turnout 2000 and 2004 can reasonably be attributed to the mobilization of new voters.
registrants, controlling for the secular increase in turnout (captured by the intercept and the estimate of $\beta_1$). Our use of the VAP$_{2000}$ as the denominator on both sides of the equation reflects both a limitation of the data availability at this time (the Census Bureau has not yet released county-level estimates of the Voting Age Population in 2004), and our desire to estimate the proportion of new votes that were attributable to new registrations, regardless of the increases in population size.

We test for the possibility that registration effects were different in battleground states by a Weighted Least Squares estimate of

$$\frac{VotesCast_{2004}}{VAP_{2000}} = \alpha + \beta_1 \frac{VotesCast_{2000}}{VAP_{2000}} + \beta_2 \frac{(Re\,gistered\,Voters_{2004} - Re\,gistered\,Voters_{2000})}{VAP_{2000}} + \beta_3\,Battleground + \beta_4\,Battleground \times \frac{(Re\,gistered\,Voters_{2004} - Re\,gistered\,Voters_{2000})}{VAP_{2000}} + e$$

In this equation, $\beta_2$ represents the proportion of the increase in the vote that is attributable to increases in registration in non-battleground states, and $\beta_4$ represents the difference in that effect for battleground states.

We follow the same approach in estimating the effects of turnout on partisan outcomes, estimating the following equation with Weighted Least Squares:

$$\frac{BushVotes_{2004}}{VotesCast_{2004}} = \alpha + \beta_1 \frac{BushVotes_{2000}}{VotesCast_{2000}} + \beta_2 \left( \frac{VotesCast_{2004}}{VAP_{2004}} - \frac{VotesCast_{2000}}{VAP_{2000}} \right) + e$$

A positive $\beta_2$ coefficient would indicate that, on average, Bush benefited from higher turnout, and a negative $\beta_2$ coefficient would indicate that the Democrats benefited from higher turnout.
We test whether the effects of turnout on partisan outcomes was significantly different in battleground states by our Weighted Least Squares estimate of

\[
\frac{\text{BushVotes}_{2004}}{\text{VotesCast}_{2004}} = \alpha + \beta_1 \frac{\text{BushVotes}_{2000}}{\text{VotesCast}_{2000}} + \beta_2 \left( \frac{\text{VotesCast}_{2004}}{\text{VAP}_{2004}} - \frac{\text{VotesCast}_{2000}}{\text{VAP}_{2000}} \right) + \beta_3 \text{Battleground} + \beta_4 \text{Battleground} \times \left( \frac{\text{VotesCast}_{2004}}{\text{VAP}_{2004}} - \frac{\text{VotesCast}_{2000}}{\text{VAP}_{2000}} \right) + e
\]

Again, a significant \( \beta_4 \) coefficient would indicate that the partisan effects of turnout were different in battleground states than in non-battleground states.

At this writing, the Census Bureau has not yet released the county-level VAP estimates. Thus, we estimate the following equation to estimate the impact of increased turnout on partisan choice at the county level.

\[
\frac{\text{BushVotes}_{2004}}{\text{VotesCast}_{2004}} = \alpha + \beta_1 \frac{\text{BushVotes}_{2000}}{\text{VotesCast}_{2000}} + \beta_2 \left( \frac{\text{VotesCast}_{2004}}{\text{VAP}_{2000}} - \frac{\text{VotesCast}_{2000}}{\text{VAP}_{2000}} \right) + e
\]

Did Increases in Registration Lead to Higher Turnout?

The first step in our analysis is a simple scatterplot of the change in turnout between 2000 and 2004 by the change in the percentage of a state’s population registered to vote. Figure 1 shows, as one would expect, that the change in registration levels between 2000 and 2004 varied a great deal. There were significant increases in registration (as a percent of the voting-age population) in several states, and quite large increases in the battleground states of Missouri, Florida, New Mexico, and Nevada. In contrast, there were marked declines in registration in Colorado, Montana, and Oklahoma. Although other states and counties may have also taken steps to reduce “deadwood” on their registration rolls, it appears that these three states were especially aggressive in doing so between 2000 and 2004. Thus, for the remainder of the
registration-turnout analysis, we exclude these three states as outliers. Across the remaining states considered in this analysis, Figure 2 shows that increases in registration rates are associated with higher levels of turnout.

Turnout levels are more than merely a function of registration, however. They are also affected by short term campaign forces, as well as structural factors such as state demographics. Table 1 presents the Weighted Least Squares estimates of turnout in 2004 regressed on turnout in 2000 and the difference in registration levels between 2000 and 2004 for both the county and state levels. In both models, the coefficient on the lagged turnout term is near 1.0, confirming that state and county patterns of turnout in 2004 strongly resemble the patterns observed in 2000. Moreover, the significant positive intercepts show the surge in turnout that was not attributable to changes in registration patterns (almost 4 points in the state level model, and 2.5 points in the county level model). The state level model in Table 1 indicates that a one percentage point increase in a state’s registered population resulted in a roughly 6/10 of one percentage point increase in turnout, when controlling for turnout in 2000. In other words, for every 100 additional voters registered at the state level, an additional 60 voters turned out to vote. In the county level analysis, a one point increase in registration levels is associated with approximately 4/10 of a percentage point increase in turnout. Both these models are in agreement with Jackson et. al.’s (1998) observation that increases the size of the registered electorate produce substantive changes in turnout.

We hypothesized that the intensity of the campaign in battleground states might result in a greater turnout of new registrants in those states. Table 2 shows the estimated regression, including a dummy variable for whether or not a state was considered to be
battleground or swing state in the 2004 campaign, as well as a slope dummy term (the interaction between battleground status and registration change). The coefficient on the battleground variable in both models indicates, as one would expect, that turnout is noticeably higher in battleground states than in non-battleground states (approximately three points difference for a state with no change in registration). However, contrary to our expectations, the efficiency of converting new registrants into voters appears to have been weaker in battleground states. In the estimated models reported in Table 2, the main effect of registration rate change suggests that a ten point change in registration rates in non-battleground states results in a four to four and half point change in turnout rate. However, the negative slope dummy coefficient indicates that the effect of registration on turnout is lower in battleground states (about three points in both models).

The bottom panel of Table 2 presents a slightly different estimation of the campaign effects model. In this model, the twenty-two non-battleground states that Bush carried are denoted as “red”, the twelve non-battleground states carried by both Gore and Kerry are denoted as “blue”, and the seventeen battleground states (including the three states that changed partisan hands in the Electoral College between 2000 and 2004) are the residual category. The coefficients on the dummy variables suggest, as one would expect, that turnout in both blue and red states was lower than in battleground states (with no change in registration rates), although the difference in turnout between blue states and battleground states was more three points larger than the difference between red states and battleground states. The impact in battleground states is captured by main effect of registration rate change, which suggests that a one percentage point increase in registration levels resulted in a one-third of a percentage point increase in turnout. The
interaction terms indicate the difference between the effect in battleground states and the effects in “red” and “blue” states. In the state level analysis, it appears that the effect of registration on turnout was higher in the Democratic stronghold states than in either the battleground or red states. In the county level analysis, it appears that the effect of registration on turnout was highest in the red states.

Did Increased Turnout Help Bush?

We begin our answer to the “higher turnout - so what?” question by examining a simple scatterplot of the change in the percent of the vote that Bush received between 2000 and 2004 by the change in the VAP turnout rate by state. Figure 3 shows that states’ rates of turnout change varied a great deal. A number of states had sharp increases: the battleground states of Florida, Ohio, New Mexico, and Nevada all had increases greater than 9 percent, though the largest increase (of nearly 11%) was in South Dakota, site of an intense campaign for a U.S. Senate seat that resulted in the defeat of Tom Daschle, the minority leader. In contrast, Connecticut, New York, Alaska, Vermont, and Rhode Island had increases of less than 3 percent. In general, we see a negative relationship between the change in voter turnout and the change in the Bush vote. For examples, in South Dakota, which had the nation’s largest turnout increase, Bush’s share of the vote declined less than half a percent, while in Rhode Island, which had the nation’s second smallest turnout increase, Bush’s share of the vote increased 6.8%. Bush carried the eight states that had the largest turnout increase (South Dakota, Florida, Ohio, New Mexico, Nevada, Arizona, Georgia, and Colorado) and Kerry carried six of the eight states with the smallest turnout increases (Massachusetts, California, Connecticut, New York, Rhode Island, and Vermont, but not Montana or Alaska), but it appears that on the
whole, higher turnout tended to work in Kerry’s favor.

Table 3 shows the Weighted Least Squares estimate of the effects of turnout change on the Bush vote in 2004, controlling for secular changes and the Bush vote in 2000. Our estimate of the state level equation suggests that a one percent increase in turnout is associated with a mild (0.16 percent) decrease in aggregate support for Bush, controlling for the overall partisan swing (represented by the positive and significant intercept). Our estimate of the county level equation shows similar results: a one-percent increase in turnout corresponds, on average, to a 0.14 percent decrease in aggregate support for Bush. In our view, this aggregate analysis of the 2004 election tracks recent individual level analyses of other elections (Martinez and Gill 2005) that show a modest pro-Democratic effect of higher turnout, though the estimated effect is slightly greater than individual level estimates based on the 2000 election. Controlling for the actual partisan swing in the 2004 election and with the heroic assumption of linear effects, Kerry would have needed a turnout rate of over 64% of the voting age population (as opposed to the actual turnout rate of 56%) to overcome Bush’s partisan advantage among actual voters. That said, at first glance it appears that Bush won his second term in spite of, rather than because of, the increase in turnout.

However, if we conceptualize the presidential election as a triage of states, where the campaigns concentrate their efforts in the battleground states that are most likely up for grabs, different patterns emerge from both the state and county data. In Table 4, we reestimate the effects of turnout on partisan outcomes, this time with controls for battleground state status and an interaction between battleground status and turnout change. The estimated partisan swing in a hypothetical battleground state with no turnout
change is captured by the battleground dummy, and is about 2.2 to 2.3% less Republican than in other states. But the effect of higher turnout in battleground states is faintly pro-Republican. The sum of the main effect of turnout change (.043) and the coefficient of the interaction term (+.101) suggests that a one-point increase in turnout in a battleground state, on average, netted Bush an advantage of 0.144 percent over his 2000 vote. The county-level analysis suggests that a one-point turnout increase in a non-battleground state translated into a Kerry advantage of 0.155 percent, but the sum of the main effect and the interaction term (-.155 + .152 = -.003) indicates that advantage vanished in the battlegrounds.

A slightly different estimation of the model (shown in the bottom panel of Table 4) shows the same result from another perspective. In this model, the twenty-two non-battleground states that Bush carried in both elections are denoted as “red”, the twelve non-battleground states carried by both Gore and Kerry are denoted as “blue”, and the seventeen battleground states (including the three states which Bush lost in one election but carried in other) are the residual category. Thus, the impact of turnout on Bush’s vote in battleground states is represented by the main effect of the turnout change variable. In the state level analysis, that effect is mildly pro-Bush, signaled by the positive coefficient (0.168), while in the county level analysis, that effect is essentially zero (-.015). Again, the large negative coefficients on the interaction terms in the state level equation show that the total effect of increased turnout was flat in non-battleground “red” states (the sum of the main effect and the red interaction term is -.001), and faintly pro-Kerry in non-battleground “blue” states (the corresponding sum is -.014). At the county level, the main effect of turnout change in the battleground states is faintly Democratic (-.015), but
the large negative coefficients on the interaction terms show that Kerry’s benefits from higher turnout were greater in the “red” states and much greater on his home “blue” turf.

Taken together, these findings show that the increase in turnout between 2000 and 2004 helped Kerry’s national showing a little, but it helped him hardly at all where it mattered the most. Republicans’ mobilization efforts were more efficiently concentrated in the key states that ultimately determined victory in the Electoral College.

Finally, our county level data provide an additional test of DeNardo’s (1980) prediction that higher turnout should work to the benefit of the minority party within a political setting. DeNardo argued that the peripheral voters, those who abstain in lower stimulus elections but are enticed to the polls in high stimulus elections, also tend to be more likely to defect to the opposing party in any given race. Since heavily Democratic districts would tend to have more peripheral Democrats willing to defect to Republican candidates (and *vice versa*), DeNardo hypothesized that turnout increases would work to Bush’s benefit in Democratic counties and to Kerry’s benefit in Republican counties. We classified 2234 counties that Bush carried with at least 52% of the two-party vote in both 2000 and 2004 as “red”, 289 counties where Bush had less than 48% of the two-party vote in both elections as “blue”, and 216 others as “purple”. Table 4 shows the estimation of the basic turnout-partisan outcome model, with interactions between turnout change and “red” / “blue” status. The negative main effect of turnout change (denoting the effect in the omitted “purple” counties) is mildly pro-Democratic. Turnout worked even more to the Democrats’ advantage in Democratic counties, as shown by the small but significant negative coefficient on the “blue” interaction term. In Republican counties, the relationship between turnout-change and partisan outcomes was virtually
Thus, increased turnout appears to have helped Kerry the most in heavily Democratic counties, helped him somewhat in competitive counties, and helped hardly at all in Republican counties. While DeNardo was insightful about the role that defections play in limiting the partisan effects of turnout, we do not find support for his prediction that turnout should work to the advantage of the minority party (Martinez and Gill 2005; Tucker and Vedlitz 1986).

Discussion

In this paper we have addressed two broad questions related to turnout in the 2004 presidential election. First, we asked how much increases in registration rates were associated with higher levels of turnout, and whether that was amplified in battleground states. Second, we asked whether turnout increases were associated with an advantage to either the Democratic or Republican candidates, and whether those effects varied by the strategic place of the state in the presidential campaign. Consistent with other recent works on turnout and campaigns, our findings demonstrate the importance of considering the strategic importance of states in analyzing presidential campaigns.

Turnout increased more in battleground states (on average) than in non-battleground states, but the effects of registration on turnout were flatter in battleground states. We take this result as evidence that the major party campaigns and their allied (but legally unconnected) advocacy groups were relatively more successful in registering new voters in battleground states, but less efficient in turning the new battleground-state registrants out at the polls. These results suggest to us that increases in battleground-state turnout rates were likely the result of more efficient mobilization of
“peripheral voters” (registered voters who came to the polls in 2004 after sitting out the 2000 election) and less the result of the efficient mobilization of new registrants.

The relationship between turnout and partisan outcomes was also muted in battleground states. While increases in turnout appeared to work to Kerry’s advantage in the reddest of the red states and the bluest of the blue states, that effect disappeared in the purple states, which were of course, the ones that mattered. This result suggests perhaps that the Bush campaign and its allies were more strategic than the Kerry campaign and its allies, or more likely, the Republicans were just more efficient in mobilizing their supporters in the key states. Although our evidence does not support one of DeNardo’s propositions (that higher turnout should help the minority party in a given area), 2004 appears to offer another twist in his “joke on the Democrats.”
Figure 1: Turnout in Presidential Elections

Figure 2
Registration and Turnout
Figure 3

Partisan Effects of Turnout

Change in Turnout 2000-2004

Change in Bush Vote 2000-2004

WV  WI  WA  PA  OR  NV  NH  CO  FL  NM  MI  MN  MI  IA  WI  WV  AR  MO  MN  WI  IA  WI  FL  CO  AR  ME

-2  0  2  4  6  8  10  12

0  2  4  6  8
### Table 1: Effects of Registration Changes on Turnout 2004

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<tr>
<td>(Constant)</td>
<td>3.989</td>
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<td>Turnout 2000</td>
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<td>R(^2)</td>
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WLS estimates (weighted by Voting Age population 2000)

State level analysis excludes ND (no registration), ID, ME, MN, NH, WI, and WY (EDR)
- CO, MT, OK (outliers; negative change in registration)

County level analysis also excludes AK and MS
### Table 2: Effects of Registration changes on turnout 2004 by Battleground Status

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<td>Constant</td>
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<td>Turnout 2000</td>
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<td>Δ Reg (00-04)</td>
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| Number of Cases         | 40     | 2529   |
| R²                      | 0.90   | 0.90   |

### WLS estimates (weighted by Voting Age population 2000)
State level analysis excludes ND (no registration), ID, ME, MN, NH, WI, and WY (EDR)
CO, MT, OK (outliers; negative change in registration)
County level analysis also excludes AK and MS
Table 3: Effects of Turnout changes on Bush Vote

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<td>2.545</td>
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<td>Bush Vote 2000</td>
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<td>Δ Turnout (2000 to 2004)</td>
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WLS estimates (weighted by Voting Age population 2000)
Table 4: Effects of Turnout changes and Battleground Status on Bush Vote

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<td>0.936</td>
<td>0.031</td>
<td>0.000</td>
<td>1.028</td>
<td>0.004</td>
<td>0.000</td>
</tr>
<tr>
<td>Δ Turnout (2000 to 2004)</td>
<td>0.043</td>
<td>0.159</td>
<td>0.786</td>
<td>-0.155</td>
<td>0.016</td>
<td>0.000</td>
</tr>
<tr>
<td>Battleground Dummy</td>
<td>-2.195</td>
<td>2.042</td>
<td>0.288</td>
<td>-2.335</td>
<td>0.268</td>
<td>0.000</td>
</tr>
<tr>
<td>Battleground * Δ Turnout</td>
<td>0.101</td>
<td>0.280</td>
<td>0.718</td>
<td>0.152</td>
<td>0.027</td>
<td>0.000</td>
</tr>
</tbody>
</table>

|                      |          |          |          |          |          |          |
| Number of Cases      | 51      | 3111     |          |          |          |          |
| R²                   | 0.983   | 0.981    |          |          |          |          |

|                      | States |          |          | Counties |          |          |
|                      | b      | se       | sig      | b        | se       | sig      |
| (Constant)           | 5.376  | 3.397    | 0.121    | -0.513   | 0.301    | 0.089    |
| Bush Vote 2000       | 0.901  | 0.065    | 0.000    | 1.053    | 0.004    | 0.000    |
| Δ Turnout (2000 to 2004) | 0.168  | 0.244    | 0.495    | -0.015   | 0.021    | 0.473    |
| Blue State Dummy     | 2.200  | 2.344    | 0.353    | 3.120    | 0.315    | 0.000    |
| Red State Dummy      | 3.013  | 2.606    | 0.254    | 1.056    | 0.293    | 0.000    |
| Blue * Δ Turnout     | -0.182 | 0.412    | 0.661    | -0.163   | 0.039    | 0.000    |
| Red * Δ Turnout      | -0.169 | 0.330    | 0.612    | -0.090   | 0.028    | 0.001    |

|                      |          |          |          |          |          |          |
| Number of Cases      | 51      | 3111     |          |          |          |          |
| R squared            | 0.983   | 0.981    |          |          |          |          |

WLS estimates (weighted by Voting Age population 2000)
Table 5: Effects of Turnout changes and County Partisanship on Bush Vote

<table>
<thead>
<tr>
<th>Counties</th>
<th>b</th>
<th>se</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>7.383</td>
<td>0.390</td>
<td>0.000</td>
</tr>
<tr>
<td>Bush Vote 2000</td>
<td>0.958</td>
<td>0.007</td>
<td>0.000</td>
</tr>
<tr>
<td>Δ Turnout (2000 to 2004)</td>
<td>-0.265</td>
<td>0.025</td>
<td>0.000</td>
</tr>
<tr>
<td>Blue County</td>
<td>-1.968</td>
<td>0.326</td>
<td>0.000</td>
</tr>
<tr>
<td>Red County</td>
<td>-1.341</td>
<td>0.289</td>
<td>0.000</td>
</tr>
<tr>
<td>Red * Δ Turnout</td>
<td>0.204</td>
<td>0.029</td>
<td>0.000</td>
</tr>
<tr>
<td>Blue * Δ Turnout</td>
<td>-0.089</td>
<td>0.039</td>
<td>0.020</td>
</tr>
</tbody>
</table>

Number of Cases 3111

R² 0.98

In Blue Counties, Bush received at least 52% in both 2000 and 2004.
In Red Counties, Bush received 48% or less in both 2000 and 2004.

Others are the omitted baseline.

WLS estimates (weighted by Voting Age population 2000)
Appendix A

Sources of County Level Registration Data (2000 election)

Alaska does not hold elections by counties and 2000 and 2004 voting regions are different.
Recieved via e-mail from Kimberly Gardner, Election Coordinator (Secretary of State's Office)
Arkansas  http://www.ss.ca.gov/elections/or/county_10-00.pdf
Arkansas
Colorado  Received via fax from Dorothy (303-894-2200x6304)
Connecticut  http://www.sos.state.ct.us/ElectionsDivision/Lists/enroll_county.pdf
Delaware  http://www.sos.state.de.us/election/archive/elect00/r-2000.pdf, p17
District of Columbia  http://www.dcbvote.org/information/elec_2000/general_elec.shtm
Hawaii  http://www.idsos.state.id.us/ELECT/2000rslt/general/vot_stat.htm
Idaho  http://www.idsos.state.id.us/ELECT/2000rslt/general/vot_stat.htm
Kansas  http://www.ksvotes.org/votingales/00elec/2kvoterg.html
Kentucky  http://sos.ky.gov/NR/rdonlyres/0887E597-CFF0-4F27-A870-
Louisiana 4A50215A3CA2/0/2000.txt
Maine  http://www.rootsweb.com/~maine/county/county.htm
Maryland  http://www.sos.state.md.us/elec/prev_elec/2000/reg_voters.html
Massachusetts  Received via fax (617-727-2828)
Minnesota  http://www.michigan.gov/sos/0,1607,7-127-1633_8722_14689-31523--00.html
Mississippi  Data unavailable.
Missouri  http://www.elections.state.mi.us/elec/prev_elec/2000/Reg_voters.html
New Mexico  http://www.state.nm.us/avrs/vr_2000.htm
New York  http://www.elections.state.ny.us/enrollment/county/county_nov00.htm
North Dakota  Registration not required.
Oklahoma  http://www.state.ok.us/~elections/vr_1100.pdf
<table>
<thead>
<tr>
<th>State</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon</td>
<td><a href="http://www.sos.state.or.us/elections/votreg/octreg.pdf">http://www.sos.state.or.us/elections/votreg/octreg.pdf</a></td>
</tr>
<tr>
<td>Pennsylvania</td>
<td><a href="http://www.dos.state.pa.us/bcel/cwp/view.asp?a=1099&amp;q=431581">http://www.dos.state.pa.us/bcel/cwp/view.asp?a=1099&amp;q=431581</a></td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Received via fax from Kathy Placencia (401-222-2340)</td>
</tr>
<tr>
<td>South Carolina</td>
<td><a href="http://www.state.sc.us/scsec/election.html">http://www.state.sc.us/scsec/election.html</a></td>
</tr>
<tr>
<td>South Dakota</td>
<td><a href="http://www.sdsos.gov/2000/00genreg.htm">http://www.sdsos.gov/2000/00genreg.htm</a></td>
</tr>
<tr>
<td>Texas</td>
<td><a href="http://www.sos.state.tx.us/elections/historical/nov00.shtml">http://www.sos.state.tx.us/elections/historical/nov00.shtml</a></td>
</tr>
<tr>
<td>Utah</td>
<td><a href="http://www.governor.utah.gov/Lt_Gover/generalpresidential.PDF">http://www.governor.utah.gov/Lt_Gover/generalpresidential.PDF</a></td>
</tr>
<tr>
<td>Virginia</td>
<td><a href="http://www.sbe.state.va.us/web_docs/election/results/2000/nov/nov2000/n00_l">http://www.sbe.state.va.us/web_docs/election/results/2000/nov/nov2000/n00_l</a></td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Registration by municipalities, with most not requiring voter registration</td>
</tr>
</tbody>
</table>
References


Endnotes

*We appreciate the research assistance provided by MacKenzie Moritz.

1 McDonald and Popkin (2001) argue that turnout in the U.S. is artificially low because the voting age population (turnout = votes/voting age population) includes individuals who are not eligible to vote, such as legal and illegal aliens and institutionalized citizens. The authors re-estimate turnout using what they call the voting eligible population, which does not include ineligible persons and conclude that turnout in American elections is, on average, about four percentage points higher than the artificially depressed rate using the voting age population. Nonetheless, even with this new measure turnout in U.S. elections is still substantially lower than in almost all industrialized democracies. All of the data used in this paragraph are taken from Michael McDonald’s website at http://elections.gmu.edu/voter_turnout.htm.

2 We agree with Fiorina (2005) that most states are probably more “pink” and “slate” than “red” and “blue”, but we use the now conventional shorthands of “red” and “blue” to reflect recent partisan trends in the U.S. states.

3 Although an “inactive” registrant who shows up at the polls would be allowed to vote under the provisions of the National Voter Registration Act (after confirming a current address and eligibility), the majority of “inactive” registrants were probably people who had died or moved.

4 Although “purging” for non-voting is prohibited by the National Voter Registration Act of 1993, elections officials can and do clean their lists of registered voters by other means. For example, election officials may try to contact registrants through the mail,
and use mail returned as undeliverable as an indicator that the registrant is no longer qualified at that specific address.

5 The competitiveness of the presidential campaign in a state would also be a good measure for the impact of the campaign. However, data concerning the margin between candidates prior to the election are difficult to come by and therefore it is not an ideal measure. Furthermore, it is likely during hotly contested elections such as 2000 and 2004, the campaigns identify a set of competitive states where they will wage their battle for the presidency and thus a dummy variable for battleground status works well as a measure of the competitiveness of the presidential campaign (Hill and McKee 2005; see also Shaw 1999). Ideally, we would also use the total amount of expenditures in each state to gauge the total mobilization effort by the campaigns. Unfortunately, these data are difficult to aggregate. Given that the major presidential campaigns devote the bulk of their resources to relatively small group of battleground states (Hill and McKee 2005; Shaw 1999), we chose to use battleground status as a surrogate for the level of mobilization in each state.