Voting by Mail and Turnout: A Replication and Extension[1]

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Paper presented at the 2007 Annual Meeting of the American Political Science Association

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Abstract

In a widely cited result, Southwell and Burchett report that Oregon's much noted innovation of fully vote by mail elections increased turnout by 10%. In this paper, we attempt to replicate this finding; extend the analysis to additional years in order to test whether the estimated effect is due to "novelty" effects of the first three voting by mail elections; and broaden the geographic scope of the study to include Washington state (a unique that has adopted voting by mail county by county over a decade long period). When relying on the analytical techniques suggested by the original authors, we find no discernible impact of voting by mail on turnout, although we can replicate their results using an alterative methodology. Extending the time series to include ten additional years of voting by mail elections decreases the size of the estimated impact substantially. We conclude that any findings of increased turnout in Oregon due to voting by mail is a result of the novelty of the new voting method and the unique circumstances surrounding the first three vote by mail elections. However, we do find a discernible impact of voting by mail on turnout in Washington state.

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[1] We would like to acknowledge the support of the Michael Levine Foundation and the Dean's Summer Fund at Reed College for support of this research. Priscilla Southwell generously shared data and provided comments on analyses. All responsibility for interpretations lie with the authors.

Introduction

Voting by mail (VBM) is a popular reform adopted to solve the problem of low voter turnout. Supporters of reforms designed to provide early access to the ballot often claim benefits of higher rates of voter participation, more accurate ballot counts, reduced administrative cost to the taxpayer and ultimately a more informed, thoughtful electorate.[2] One oft-cited work on the turnout effect of VBM is a 2000 article by Priscilla Southwell and Jason Burchett. Southwell and Burchett report a 10% increase in participation among Oregon voters, following the passage of a vote by mail initiative in 1998 (Southwell and Burchett 2000). Given the relatively weak results found in other studies of convenience voting reforms on turnout (e.g. Fitzgerald 2005; Berinsky 2005; Gronke et al. 2007) and the modest impact attributed to other administrative reforms such as later closing dates for registration or day of election registration (Highton 2004; Demos: A Network for Ideas and Action 2006; Nagler and Alvarez 2007; Knack 2001), such a substantial boost in turnout would be highly significant, and would be a strong argument in favor of relaxing absentee balloting requirements nationwide.[3] Advocates such as Adam Smith of the Vote by Mail Project (http://votebymailproject.org) and Secretaries of State Sam Reed of Washington and Bill Bradbury of Oregon have cited the Southwell and Burchett result as an argument in favor of fully vote by mail elections.

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[2]As we report elsewhere (Gronke et al. 2007), there is weak evidence that many early voting reforms do increase turnout. We suspect that most of these reforms are adopted primarily for reasons of administrative convenience.

[3]Two pieces of legislation under consideration by Congress, the "Holt Bill" and the "Ballot Integrity Act of 2007" mandate no-excuse absentee balloting for all Federal elections.

There are two reasons to worry about the generalizability of this result. Oregon has always been a high turnout state. The average level of turnout in Oregon, considering all elections (general, primaries, special, etc) rose from 58.6% in 1990-1996 to 61.2% from 2000-2006. Average turnout in the general election rose from 73% in the earlier period to 76.6% after.[4] These are noticeable increases, of course, but only one-third of the 10% estimate. Second, unique political circumstances surrounding two of the three first voting by mail elections–detailed below–call into question their generalizability to other contexts and other elections.

Before any major policy reform, such as voting by mail, is adopted, it is critical that we understand as fully as possible both the costs and the consequences of reform. Consequently, this paper seeks to replicate Southwell and Burchett's findings, to extend the original analysis to the 2006 general election, and to broaden the scope of the original analysis to Washington state elections during the same period.

A Brief History of Voting by Mail in Oregon and Washington

Oregon adopted voting by mail first as a local option in 1987. By 1996, debates over voting by mail were in full-force, but state legislators were wary of changing the rules of the game—not surprising, since these same rules were the ones that had placed them in office! For elections officials, such as Oregon's

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[4] As noted in the text, voting by mail was adopted on an experimental basis for two special elections in 1995 and for a presidential preference primary in 1996. In 1998, voting by mail was adopted statewide by referendum. The figures reported here are for 1990-1996 for "before adoption" and 2000-2006 for "after adoption." The magnitude of the change is similar if calculated for other periods.

Secretary of State Phil Keisling, however, administering a "two-track" election system had become an administrative headache. Well over 80% of Oregonians were already voting via the absentee ballot, and Keisling (among others) saw no reason not to switch to a fully vote by mail system. The announced retirement of Senator Bob Packwood under the cloud of an ethics scandal gave Keisling the opportunity he needed, and he ruled by administrative decree that the statewide elections to replace Packwood (first the primary elections, then the general election) would be conducted entirely by mail. In addition, since the 1996 presidential primary in Oregon was a "beauty contest" that did not allocate delegates, Keisling also had the authority to administer this election by mail. Thus, the first three full vote by mail elections in Oregon were the primary to select Senate candidates in December 1995, followed by a special Senate election in 1996, and a presidential preference contest in March 1996. Voting by mail was not adopted for all elections until the citizenry passed it in a statewide referendum in November 1998.

Washington followed a different path that makes it uniquely suited to test previous results. Washington first allowed VBM in 1983 for non-partisan, special elections. As in Oregon, Washington citizens voted with their feet, choosing no-excuse, and eventually permanent, absentee balloting in large numbers. By the early 2000's, well over 70% of Washington voters cast their ballots absentee (over 90% in some counties). In 1993, VBM was expanded to include non-partisan odd-year primary elections, and after 1996, counties could adopt VBM for any election. Since that time all but three counties have migrated to VBM, but at different times.

Methodologically, this means that we have variability in the mode of balloting in Washington counties during the same election. Therefore, we can

control for election effects on turnout in Washington to a degree that we are unable to in Oregon. For example, by the 2000 election, both Oregon and Washington had been identified as "battleground" states by the respective national parties. This meant that citizens in these states would be subjected to intense levels of campaign advertising and mobilization efforts. This makes it difficult to compare turnout in Oregon following 2000 to turnout prior to 2000, because changes may be attributed to an administrative change (voting by mail) that are actually due to campaign effects. In Washington, we have a greater ability to control away these differences.

Voting by Mail and Turnout: A Review of the Literature

Reform advocates and supporters of voting by mail argue that VBM increases turnout and produces a more reflective, thoughtful electorate while also cutting administrative costs and producing a more accurate ballot count (Hamilton 1988). The claims of increased procedural integrity are sustained by other analysis (Alvarez and Hall 2004; Hanmer and Traugott 2004; Traugott 2004). Oregon has estimated a savings of 17% by transitioning away from polling places. The claim that voting by mail has an enlightening component is more difficult to capture, but it is clear that Oregon voters report a high level of satisfaction with VBM (Southwell 2004; Southwell and Burchett 1998, 1997). The nationwide opinion on the matter is more divided. A 2006 poll found that 28% favored or strongly favored replacing voting booths with voting by mail, while 64% were opposed or strongly opposed.[5]

[5]Pew Research Center Poll, October 4, 2006. 1804 sample of a national adult population.

But what of the impact of VBM on turnout? It is suggested that reducing the "costs" involved in the act of voting will naturally increase turnout, as voters previously unable or unwilling to travel to a polling place on Election Day will take advantage of absentee voting and cast a ballot by mail. Oliver (1996) finds a positive turnout effect in cases of liberalized ballot eligibility restrictions, also finding that this effect is in part dependent upon party mobilization.

A meta-analysis of the extant literature on VBM and voter turnout shows that the finding reported by Southwell and Burchett is an outlier. For example, previous work by the authors (Gronke et al. 2007) that considered all types of early voting reforms estimated that VBM increased turnout by 4.7% in Presidential and midterm elections in the time frame 1980-2006. Other studies quantifying the effect of VBM have found proximate values which also suggest the original study is worthy of reconsideration. While it was once true that VBM was an "uniquely American form of election administration"[6] VBM is being adopted has been used in other nations, with a very similar impact on turnout. An innovative study of Swiss voters by (Luechinger et al. 2007) finds a turnout effect of similar magnitude: 4.1% for the years 1970 to 2005. Even in the one study where VBM is found to decrease turnout, the effect is small. Kousser and Mullin analyze results from two general elections in California and find that voting by mail *decreases* turnout by 2.6-2.9% in general elections (Kousser and Mullin 2007). These studies reinforce the claim that liberalized ballot access leads to a marginal change in turnout.[7]

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[6] Hamilton, 1988, pg. 860

[7] Another outlier study is that of David Magleby, who conducted one of the first studies of VBM, and found a turnout effect of 19% (Magelby, 1987). We surmise the Magleby's work, which compares turnout from 1980-1984 in Oregon, Washington, and California may provide insight into how voting by mail, and by

Other studies develop a more nuanced claim: that voting by mail does increase turnout, but by retaining wavering, infrequent voters rather than motivating new voters to participate (Berinsky et al. 2001; Karp and Banducci 2000). According to this line of argumentation, there is a segment of the population, which—for whatever reason—will not turnout to vote. VBM does not induce these voters to participate, but does shift occasional voters into frequent voters. In conclusion, a review of the existing literature, and a meta-analysis of the estimated impact of vote-by-mail reforms on turnout, indicates that voting by mail increases turnout between two and five percent. A ten percent effect is outside the boundaries of reasonable expectation.

Data and Methods

We aim to do three things in this paper. First, we replicate, as closely as possible, Southwell and Burchett's original findings. Second, in order to test for potential "novelty" effects and to control for the unique characteristics of the 1995-6 elections, we extend the time series to include 10 additional years of Oregon elections. Third, we present an identical set of analyses on election data collected from Washington state, applying the same turnout model to a case which did not uniformly adopt VBM.

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implication, other convenience voting reforms, interact with campaign intensity to affect turnout. The only elections in which voting by mail was legal during this period was for some local and special (ballot measure) elections, so essentially Magleby is comparing apples and oranges—voting by mail in local and ballot measures to turnout in federal elections where voting by mail was not allowed. In order to precisely estimate the effect of voting by mail on, say, a local election, we need to compare a federal election and a local election, both of which are administered under voting by mail.

Southwell and Burchett limit their analysis to 46 statewide elections, excluding ballot measure elections. Of these elections, three are conducted by mail: the two special elections to replace Senator Packwood after his resignation and the 1996 Presidential Preference Primary. The authors include independent dummy variables to control for the type of election (primary or general), the races included in the election (Presidential, Senatorial and Gubernatorial) the use of VBM and a measure of competitiveness.[8]

To demarcate those elections with a high rate of absentee voting (>50%) before the statewide adoption of VBM, the original authors also included a dummy variable for these "mixed" elections where the state was effectively running two voting systems in parallel: a system of polling places for voters who chose to vote on Election Day, and an absentee by mail system for voters opting to mail their ballot to the elections offices around the state. In our analyses, these mixed elections serve as the excluded category for our regressions.

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[8]Following Southwell and Burchett, we calculate a competitiveness measure based on the race with the most ballots in each election:

$$Competition = \frac{V_1 - V_2}{B}$$

where V_1 and V_2 are the vote totals for the winner and runner-up, respectively and B is the total ballots cast in the given race. For primary elections, we adapt the above formula to account for intraparty competition:

$$Competition = \frac{\frac{V_{D1} - V_{D2}}{B_D} - \frac{V_{R1} - V_{R2}}{B_R}}{2}$$

Where the D and R subscripts apply to the Democratic and Republican candidates, respectively. Competition is scaled from 0 to 1; 0 indicates an electoral result where the vote was evenly split between two candidates or issues and 1 indicates a case where one candidate or ballot measure captured every vote.

We have adopted a different process for case selection in our updated study. Firstly, we are interested in testing whether the turnout effects of voting by mail is higher in ballot measure elections (thus testing in some respects Magleby), so we include special, non-candidate elections in our dataset. Our expanded data includes 70 elections from 1960-2006[9] . We also added the number of ballot items appearing in each election, as initiatives have been shown to modestly increase turnout (Tolbert et al. 2001; Gronke et al. 2007).

In their original study, Southwell and Burchett use a Beach-MacKinnon FGLS estimation method in order to control for autocorrelation in the data (Beach and MacKinnon 1978). We employ Prais-Winsten in our study, which is analogous to Beach-MacKinnon and is available in the current version of Stata. [10] However, advancements in computational power have rendered techniques such as Beach-MacKinnon and Prais-Winsten obsolete. Instead, full information maximum likelihood procedures are more methodologically appropriate (Choudhury et al. 1999).

In order to remain as true to the original study as possible, but also use the appropriate methodology, we employ three different estimation techniques. These are:

1. Models estimated via ordinary least squares
2. Models estimated via Prais-Winsten (AR(1))

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[9]There is one case of an election in the period which is not included in our analysis. A June 1963 special election is excluded from our analysis because data on voter participation is not available.

[10]Beach-MacKinnon is unavailable in any current statistical program with which we are familiar.

3. Models estimated via FIML (AR(1))

Furthermore, to make certain that we are estimating the same model using the same data, as well as to test our main hypotheses, we report estimates for five different variations of the data. In addition to reporting Southwell and Burchett's original estimates, we provide:

1. A replication of these results from 1960-1996
2. An extension, from 1960-2006
3. An extension from 1960-2006, excluding the first three VBM elections
4. An extension from 1960-2006, including a dummy variable for the first three VBM elections
5. An extension from 1960-2006, including special elections and the number of ballot items

While these variations are relatively elaborate, we think these are essential in order to fairly replicate the original analysis, as well as to isolate any potential "novelty" effects of the voting by mail system.

Replication Results

VBM and Turnout in Oregon, 1960-2006

The findings of Southwell and Burchett and our replication of the 1960-1996 and 1960-2006 datasets are shown in Table 1. The most direct comparison, we believe, is between columns one and two—Southwell and Burchett's Table 1 and our OLS estimates for the same period. Our estimates are the same sign, but sometimes of radically different magnitude than those of Southwell and

Burchett.[11] In brief, we estimate lower turnout in primaries, and higher turnout in elections where there is a presidential (32%) and a gubernatorial race (22%), and smaller boost to turnout during Senatorial contests (6%). Most importantly, we estimate that the implementation of voting by mail boosted turnout in Oregon by 8.5%.

As reported in the third column of Table 1, however, our conclusions change dramatically when we assume an autoregressive error structure in the data. Using the Prais-Winsten estimator, most of our coefficients are of the same sign and significance level except for the estimated impact of voting by mail. The estimated effect falls by more than two-thirds, from 8.5% to 2.5%, and is no longer statistically significant. When we employ the appropriate FIML estimator (column 4), we once again find no effect of voting by mail on turnout.

What is the appropriate estimator for these data? The empirical results are clear: assuming an AR(1) error structure reveals no estimated impact of voting by mail on turnout. The diagnostic indicators are on the margins; the upper bound of the critical value for the Durbin-Watson statistic with five or more independent variables and 50 cases is 1.77; our Durbin Watson is 1.74, indicating likely autoregressive error structure. In subsequent analyses, when we "dummy out" the first three VBM elections and when we extend the data set to the present, there is no indication of autoregressive qualities in the time series.

[11] We attempted to replicate the Southwell and Burchett results as closely as possible. We differed with the authors on the number of elections during this period, and have been unable to resolve this difference at this juncture. We have been unable to obtain the original dataset.

Table 1: Original Findings and Replications

	1960-1996			
	Original Findings	OLS	Prais-Winsten	FIML
Primary election	-21.89***	-18.35***	-17.94***	-17.95***
	(3.215)	*(3.556)*	*(3.112)*	*(3.679)*
Presidential election	17.62***	32.8***	30.02***	30.06***
	(4.521)	*(4.111)*	*(3.804)*	*(3.733)*
Senatorial election	0.39	5.96*	5.87*	5.890
	(2.214)	*(3.134)*	*(3.257)*	*(3.847)*
Gubernatorial election	7.11	22.17***	19.68***	19.71***
	(4.729)	*(4.29)*	*(4.047)*	*(4.471)*
Voting-by-Mail	10.169**	8.63**	2.53	2.67
	(4.904)	*(5.011)*	*(5.45)*	*(6.135)*
Mixed election	-0.132	-1.17	-2.43	-1.70
	(2.39)	*(7.35)*	*(6.918)*	*(8.352)*
Election competitiveness	1.01	1.01	-1.72	-2.37
	(6.986)	*(6.986)*	*(8.4)*	*(7.199)*
Constant	61.35***	42.25	45.63***	45.56***
	(5.835)	*(3.729)*	*(3.832)*	*(3.927)*
Adjusted R-square	0.784	0.661	0.706	
Wald Chi-square				108.170
Observations	48	53	53	53

	1960-2006		
	OLS	Prais-Winsten	FIML
Primary election	-18.59***	-18.59***	-18.59***
	(3.374)	*(3.167)*	*(3.714)*
Presidential election	29.91***	29.46***	29.46***
	(3.628)	*(3.573)*	*(3.799)*
Senatorial election	5.00*	4.56	4.57
	(2.867)	*(2.947)*	*(3.393)*
Gubernatorial election	18.07***	17.65***	17.65***
	(3.750)	*(3.73)*	*(4.03)*
Voting-by-Mail	2.66	2.15	2.15
	(2.881)	*(3.147)*	*(3.267)*
Mixed election	-3.82	-1.02	*-1.02*
	(6.321)	*(8.026)*	*(8.317)*
Election competitiveness	-1.50	-5.71	*-5.70*
	(7.584)	*(6.292)*	*(5.98)*
Constant	46.45***	47.65***	*47.64****
	(3.290)	*(3.35)*	(2.98)
Adjusted R-square	0.623	0.648	
Wald Chi-square			*83.53*
Observations	70	70	70

Notes: Original findings are from Table 1 in Southwell and Burchett (2000). Other results are from data collected by the authors. Details of estimation are in the text.

For the moment, we will proceed under the assumption that the OLS estimates are accurate. Is there any reason to attribute the increase in turnout to factors other than voting by mail? Consider the highly unusual circumstances of the special Senate elections: an incumbent Senator resigns and a replacement election is called using a new voting method. The 1996 Presidential preference primary is also highly unusual. In time period 1960-2006, Oregon conducted only one Presidential preference election. The standard throughout the period had Presidential primary elections at the same time as other statewide and local elections.

The bottom panel of Table 1shows some evidence supporting the claim that the observed increase in turnout is due to a novelty effect. Although the data show a significant effect of voting by mail in the 1960-1996 period, this effect is reduced by 75% across the full time series (2.66% vs. 8.63%). This suggests that somewhere in this time period, voting by mail ceased to motivate increased voter participation.

Given the unique circumstances surrounding the early use of VBM in Oregon, a dummy variable for these three elections was added to our analysis. Table 2 shows the results of first, excluding the initial elections and second, adding the dummy variable for the first three VBM contests. When we estimate the model using the full set of available data but exclude the first three elections, as shown in the top panel of Table 2, we find that voting by mail has no measurable impact on turnout (regardless of the estimation technique used). If we estimate a separate effect only those three elections, shown in the bottom panel of Table 2, the strength of the "novelty effect" is evident. The Oregon electorate turned out in great numbers for the two special elections and the presidential preference primary.

Table 2: The Novelty Effect of Voting by Mail on Turnout

	1960-2006, excluding VBM elections		
	OLS	**Prais-Winsten**	**FIML**
Primary election	-21.8***	21.69***	-21.68***
	(3.336)	*(3.249)*	*(3.910)*
Presidential Election	34.92***	34.55***	*34.54****
	(3.797)	*(3.794)*	*(4.444)*
Senate Election	1.58	1.39	1.39
	(2.926)	*(2.982)*	*(3.95)*
Gubernatorial election	23.21***	22.83***	*22.82****
	(3.862)	*(3.861)*	*(4.72)*
Vote-by-mail election	0.84	0.68	0.68
	(2.838)	*(2.958)*	*(3.12)*
Election competitiveness	1.04	0.4	*2.00*
	(6.149)	*(6.181)*	*(5.93)*
Mixed election	1.98	2	0.39
	(7.205)	*(7.398)*	*(5.67)*
Constant	44.14***	44.7***	*44.70***'
	(3.204)	*(3.238)*	*(2.73)*
Adjusted R^2	0.680	0.686	
Wald Chi-square			105.520
Observations	67	67	67

	1960-2006, Dummy Out VBM		
	OLS	**Prais-Winsten**	**FIML**
Primary election	-20.39***	-20.23***	-20.23***
	(3.339)	*(3.256)*	*(4.00)*
Presidential Election	31.51***	31.09***	31.08***
	(3.561)	*(3.538)*	*(3.75)*
Senate Election	3.63	3.55	3.55
	(2.822)	*(2.858)*	*(3.32)*
Gubernatorial election	20.34***	19.92***	(19.91)***
	(3.738)	*(3.724)*	*(4.25)*
Vote-by-mail election	0.588	0.4	0.40
	(2.91)	*(3.017)*	*(3.22)*
Election competitiveness	-2.23	-2.98	-2.98
	(6.129)	*(6.144)*	*(5.84)*
Mixed election	0.081	0.44	0.44
	(7.341)	*(7.534)*	*(6.59)*
Dummy for first three VBM elections	15.4**	15.19**	15.18***
	(6.445)	*(6.616)*	(5.68)
Constant	45.9***	46.44***	(46.43)***
	(3.18)	*(3.208)*	*(2.78)*
Adjusted R^2	0.649	0.656	
Wald Chi-square			95.11
Observations	70	70	70

Data from 1990-2006, collected by authors. * Indicates p<.10; ** p<.05; *** p<.01

It may be that the 15% increase bump in turnout is due to voting by mail, but it is just as possible that citizens voted in greater numbers because of the publicity surrounding the resignation of a sitting US Senator. Regardless of the causes, the results in Table 2 strongly support our hypothesis of a novelty effect. The long run impact of voting by mail on turnout is negligible at best.

We present one final table using the Oregon data. Table 3 provides an opportunity to test the hypothesis that ballot measures increase turnout across primary and general elections (c.f. Tolbert, Grummel, and Smith, 2001, Gronke et al. 2007). Our findings in Oregon do not appear to accord with previous work. Even-year primary elections and odd-year elections do not have a significant effect on turnout, though the coefficient on special elections is larger than primary election cases. Directly contradicting previous work is our finding for the effect of ballot items on turnout. The coefficient in this case is negative, but not significant.

Ultimately, we are most confident in the estimates provided in the lower panel of Table 2. They include the most years of data and they capture a clear and statistically significant novelty effect. We cannot attribute any lasting increase in turnout to voting by mail in Oregon. We now turn our attention to Washington state.

Table 3: Full Model Including Special Elections and Ballot Items

	OLS	Prais-Winsten
Primary election	4.92	5.107
	(7.322)	*(7.397)*
Special election	10.740	10.77
	(11.886)	*(11.932)*
General election	29.07***	28.9***
	(7.35)	*(7.44)*
Presidential Election	20.68**	20.34**
	(9.466)	*(9.44)*
Gubernatorial election	9.11	8.7
	(9.46)	*(9.46)*
Vote-by-mail election	1.1	1.03
	(2.658)	*(2.716)*
Election competitiveness	0.91	0.62
	(5.932)	*(5.955)*
Number of ballot items	-0.23	-.2
	(.301)	*(.302)*
Constant	33.14***	33.291***
	(12.28)	*(12.319)*
Adjusted R^2	0.687	0.691
Observations	70	70

* Indicates p<.10; ** p<.05; *** p<.01

VBM and Turnout in Washington State: 1960-2006

Up to now, we have focused on replicating and extending previous work on the turnout effects of voting by mail in Oregon. In this final portion of the paper, we expand the geographic focus of this work, by replicating the same model for the same time period in Washington. As we noted previously, the Washington state experience with vote by mail is different from Oregon. Washington state allowed counties to move to fully vote by mail systems individually. Therefore, our analysis focuses on county-level turnout. The first counties adopted VBM in the mid-1990's to ease the workload on election staff, and to aid sparsely populated counties. Adoption of VBM expanded greatly in 2005 when it was adopted by 22 of Washington's 39 counties. Currently three

counties do not provide for VBM: King, Kittias and Pierce. Both King and Kittias counties plan to adopt VBM in time for the 2008 elections, while election officials in Pierce county have not announced a date when it will adopt VBM.

Following a 1997 statewide bond issue election in which 27 counties opted to conduct by mail, then-Auditor of Thurston County Sam Reed wrote a report to the Washington State Association of County Auditors finding that VBM was largely embraced by the print media, with the occasional dissenting view. In his conclusion, Reed writes,

> *Second, mail voting significantly increases voter participation. In the stadium election, 59% of the eligible mail voters participated while 34% of the eligible pollsite voters participated. Since King County was an obvious anomaly, looking at the other 38 counties is more revealing: 56% of the mail voters participated and only 21% of the pollsite voters participated. In other words, mail voting almost tripled the turnout."*[12]

By collecting 46 years of elections in Washington state, we can test the claim that VBM has motivated higher rates of turnout, and other contextual factors that may increase voter participation.

The consequence of this method of voting reform is that we have a vastly larger cross-sectional time series data set to analyze for evidence of a turnout effect. Because these data are structured differently than the Oregon data, we report an OLS model with panel corrected standard errors.[13]

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[12]Mail Voting in the Stadium Election, July 28, 1997, page 5.

[13] Estimation was performed using the XTPCSE command in Stata 9.

Table 4: VBM and Turnout in Washington
County level data, 1960-2006

Vote-by-mail election	4.49**
	(2.11)
General election	11.29***
	(2.011)
Primary election	-10.77***
	(2.811)
Presidential Election	3.54
	(2.174)
Senatorial election	2.79*
	(1.633)
Gubernatorial election	8.13***
	(1.966)
Election competitiveness	1.06
	(2.714)
Number of ballot items	0.44**
	(0.201)
Constant	50.64***
	(1.764)
R-square	0.677
Wald Chi-square	391.36
N of Observations	2379
N of Counties	39
N of Elections	61

All estimates are OLS with panel corrected standard errors. Standard errors in parantheses. * Indicates p<.10; ** p<.05; *** p<.01.

The Washington case allows for a greater confidence in our estimates than in the case in Oregon (2309 additional data points certainly makes a difference). As shown in Table 4, voting by mail is estimated to boost turnout by 4.5, *ceteris paribus.* Even more remarkable is that this effect accords well with the meta-analysis of other studies quantifying the effect of voting by mail. Washington offers modest support to the ballot measure thesis. While significant and positive under both regression methods, the result is less than previous work would expect. Supporting our expectations, increased electoral competition (read as the

closeness of election results) has a positive but insignificant effect on turnout. Another surprising result is the small coefficient associated with Presidential elections, relative to gubernatorial races. One explanation for this may be that our model does not consider Presidential preference primaries.

The Washington results are heartening for supporters of voting by mail. Contrary to our results from Oregon, in Washington we do find a small yet statistically significant impact of voting by mail on turnout. We are additionally confident in these results because in Washington, unlike Oregon, we need not worry about possible novelty or campaign effects in the data. The imposition of voting by mail did not take place uniformly across the state, and we can estimate the effects in the midst of a natural experiment.

Discussion

Voting by mail is often proposed as a cure for voter apathy, a cost-efficient means to conduct elections, an avenue for improved democratic deliberation, and a way to have more accurate vote counts. While most studies of turnout have shown a small yet significant impact of voting by mail on participation, Southwell and Burchett (1980) reported a 10% jump, a finding that stands in stark contrast to much of the literature. In this paper, we sought to replicate the original finding, but were unable to do so using the methodological techniques suggested by the authors. We did come up with estimates in the right range using OLS, although some of the other estimates varied enormously from what they reported. We then proceeded to expand the set of elections and noted the drop in any turnout effect due to VBM. After controlling for the first three elections which used VBM, we find evidence to suggest that any increase in turnout observed in the original study was due to a novelty effect, and the turnout

boost attributable to voting by mail was of very short duration. By 2000, when VBM was adopted for all Oregon elections, it has little noticeable impact on turnout.

We applied the same turnout model to the case of Washington. Counties in Washington adopted VBM at different times, creating a natural experiment that allows us to measure the effect VBM on turnout. In the case of Washington state, we found strongly significant results which also conform to established studies on the turnout effect of VBM.

Further research is needed, however, in order to boost our confidence in these findings. Most importantly, our data for Oregon fail to consider the possibility that voting by mail increases turnout in low intensity contests, precisely the venue where many advocates suggest we will find the greatest impact.

In recent work, (Gronke and Toffey 2007), we report results that are suggestive of this sort of pattern. In this paper, we look at individual level survey data, and try to discriminate between early and Election Day voters using a battery of demographic and psychological indicators. We are successful only in midterm contests; in presidential contests, the demographic and psychological profile of voters looks the same, regardless of whether a state has liberal or restrictive early voting laws. We interpret this to mean that the role of early voting laws as institutional mediators of individual voting behavior have to be interpreted in light of other aspects of the electoral context, such as the intensity of the campaign or the level of activity of party and candidate organizations.

That is our takeaway point from this work. Voting by mail, and early voting reforms in general, area not cure-alls for low levels of voter participation in

the United States. Voting laws are just one part of the electoral puzzle, which includes many players and many institutions, as varied as newspapers, radio, and television; election administrators and elected officials; and candidates for office, political parties, interest groups, and activist organizations. All of these actors play a role in helping and harming participation. The rules of the game obviously structure the behavior of these players, but it is the actions of the players that ultimately have the greatest impact on democratic participation and democratic choice.

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