Electoral Administration and Voter Turnout: Towards an International Public Policy Continuum

ABSTRACT: *In recent years many states have reformed (or considered reforming) their electoral administration to increase turnout. This paper uses the existing international literature on electoral administration and voter turnout to construct a continuum on which electoral procedures can be classified according to whether they have 'restrictive' or 'expansive' effects on participation. This continuum is argued to be a useful heuristic device for political scientists and policy makers seeking to identify the likely effects of reforms and can help to structure future debate and research.*

Key words*: voter turnout, voter registration, electoral administration, election administration, political participation, democratic deficit.*

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Author info

Toby. S. James

E: t.s.james@uea.ac.uk

W: www.tobysjames.com

Introduction: Electoral Administration for the 21st Century

Electoral administration (hereafter 'EA'), an aspect of electoral law and practice which has often been overlooked, has been subjected to new scrutiny by politicians and practitioners. In recent years, many states have sought to reform the *administrative systems through which the electoral register is compiled, and votes are cast and counted.*[1] In some democracies, procedures have been changed for the first time since the nineteenth century. Politicians and policy-makers have often attempted to justify such reforms by an expected increase in turnout. But does EA affect turnout? This article argues that certain procedures can while others will have the opposite effect. It brings together much of the leading research on the relationship between EA and voter participation to suggest that a continuum can be devised on which electoral procedures can be placed according to their effect on turnout.

This continuum is useful and makes a significant contribution to the literature for a number of reasons. Firstly, it offers a conceptual advance by providing scholars with a classification system for electoral administration procedures. In their pioneering text on electoral laws, Massicotte et al. suggest that 'as with the study of electoral systems, scholars need to start by defining relevant dimensions and categorizing each set of rules on those dimensions' (2004: 158-159). This article makes such a categorization. Secondly, the continuum also acts as a heuristic device to inform national and international policy debate about reforming EA by identifying the likely effect of different procedures. It will therefore interest practitioners interested in reforming institutions around the world. Thirdly, it identifies areas for further research.

The article begins by remarking on the characteristics and genealogy of the literature on EA and electoral turnout before outlining the research on each aspect of EA. It then introduces the continuum and explains how this might be useful for future research and practice.

Political Science, Electoral Administration and Voter Turnout

Four characteristics are striking about the research on EA and voter turnout. Firstly, the literature has an ethnocentric bias, since studies are based almost exclusively on U.S. elections. U.S. states can largely determine their own procedures. This creates great variation between them and provides a fertile ground to research their effects on turnout (James, 2010b).

Secondly, while it has been a recent growth area, it is not as new as one might assume. Work exploring the relationship between the 'nuts and bolts' of elections and voter participation can be traced back at least as far as Gosnell (1927) and Harris (1934). However, the pioneering work is often thought to be Wolfinger and Rosenstone's (1980) study of electoral procedures in the U.S.. Interest increased in the 1990s when the National Voter Registration Act (NVRA) was passed enforcing some uniformity to registration procedures across the U.S. Before this interest had fizzled out, a new wave of enquiry took off when the 2000 U.S. Presidential election highlighted a number of problems with the EA used in Florida where it was alleged that many legitimate votes were not included in the final ballot. The effect of this was to cause policy makers to re-examine their procedures to prevent 'a repeat' of Florida (National Commission on Federal Election Reform, 2001). More recently, voting rights advocates in America have sought to question whether requiring voters to provide identification would make them less likely to vote and whether there would be a disproportionate effect on certain social groups (Sobel, 2009). This followed the introduction of these requirements in Indiana and other U.S. states which culminated in the Supreme Court case of *Crawford vs. Marion County Election Board* (2008).

A third observation about research on EA is that it has frequently been implicitly or explicitly premised on rational choice theory. Wolfinger and Rosenstone explicitly referenced the Downsian approach to claim that 'we find it useful to think in terms of the benefits and costs

of voting to the individual… The easier it is for a person to cast a ballot, the more likely he is to vote' (Wolfinger and Rosenstone, 1980: 6-8). From this point onwards a range of scholars have sought to examine the effects of procedures on participation. Not all of this literature explicitly uses the rational choice model and some scholars might be ardently opposed to many of its assumptions about human behaviour. However, broadly speaking a consensus emerged that to a greater or less degree, these different procedures could impact on electoral turnout by making it more or less difficult to vote. Fourthly, studies are almost exclusively quantitative.

Electoral Administrative Procedures and Voter Participation

Which procedures affect participation at the ballot box? Voting is a two stage process. An elector's name appearing on the register is a necessary, but not sufficient condition for voting since being on the register does not guarantee participation.[2] Nonetheless, some procedures make it less likely that a citizens' name will be on the registration list, which in turn, can lead to a reduction in turnout. These are discussed first.

Poll taxes and literacy tests

Procedures which force citizens to pay a poll tax or pass a literacy test to be eligible to vote are amongst the most restrictive forms of EA and a number of scholars chart how these have depressed electoral participation, often deliberately (Filer, et al., 1991; Kousser, 1974; Piven and Cloward, 1988). For example, Rusk and Stucker (1978) studied the barriers that were introduced in the U.S. Southern States from the 1890s. They claimed that the rate of turnout decline increased by an average of 15 percentage points after poll taxes were adopted, and by 9 percentage points when they adopted literacy tests.[3] Filer et al. (1991) developed a range of regression models to analyse the impact of the 1965 Voting Rights Act on participation in America. Their models suggested that on average imposing a poll tax of $1.99 lowered the

probability of voting by 13 percentage points (*ibid* p.377).[4] The removal of a poll tax will cause turnout to rise but it may take some time for this to take full effect. Their analysis of turnout in all U.S. counties 1948-1980 suggested that literacy tests altered the probability of voting by 8.1 percentage points (*ibid* p.378). This was as much as a 15 percentage point change in probability for the 1948 election. However, the literacy test became less important over time. By 1960 its effect was insignificant because education levels had improved (*ibid* p.382). The impact of literacy tests therefore depends on their difficulty level proportionate to education levels.[5]

Registration procedures

A plethora of research identifies how registration procedures can affect participation. Rosenstone and Wolfinger (1978; 1980) compared registration practices to levels of participation in the U.S. states to calculate the changed probabilities of an individual voting. They suggested that, depending on the existing probability that an individual would vote, imposing a 30-day registration deadline could reduce the probability by between 3 to 9 percentage points. A 50-day deadline reduced the probability by around 17 percentage points, for those who previously had a 40 to 60 percent likelihood of going to the polls. Irregular Registrar office hours (defined as less than a forty hour week) made a 2 to 4 percentage point difference. Where offices were closed on a Saturday and a weekend the probability was 2 to 6 percentage points lower. If absentee registration procedures are not provided, the chances of voting are reduced by between 2 and 4 percentage points. If procedures used in all U.S. states were as liberal as they were in others then the turnout at the 1972 general election would have been 9.1 percentage points higher. Some 6.1 of these percentage points would have been accrued just from the elimination of registration closing deadlines.

Mitchell and Wlezien (1995) extended Rosenstone and Wolfinger's analysis with expanded datasets. They found statistically significant relationships between voting and the registration

closing dates, the frequency of registration list purges and the presence of extended registration hours (*ibid* p.185-6). They estimated the increase in voter turnout probabilities which would result from each procedure. The national average for closing registration dates was 3.8 percentage points, registration purges was 2.1 and extended registration hours was 1.9. If all procedures were liberalised, voter turnout would increase by around 7.6 percentage points (*ibid* p.191).[6]

Research on the effects of registration procedures was developed by a number of studies on the 1993 "Motor Voter" Act. This forced U.S. states to provide registration facilities at public agencies, introduce universal mail registration, allow citizens to register at the same time as applying for/renewing a driving licence and prohibited officials from purging electoral registers of non-voters. As such it reduced the need for citizens to make a separate trip to register and thereby reduced the cost of participation. A number of studies predicted that this could have an indirect positive effect on participation by increasing registration levels (Knack, 1995). Franklin and Grier (1997) analysed the relationship between turnout and motor voter laws across U.S. states in 1992 and 1996. They suggested that motor voter procedures increased registration by 2.3 percentage points and turnout by 2.1 percentage points (*ibid* p.111). Wolfinger and Hoffman (2001) also found that NVRA had a positive effect and that this was higher than some sceptics predicted. Piven et al. (2009) suggested that the impact of NVRA could have been much greater had the Department of Justice been more proactive at enforcing it.

Further research has pinpointed the effects of the registration purges that NVRA was designed to prohibit. In some countries registration lists are purged of those who do not vote and/or re-register each year. In contrast, other countries do not purge their registers at all. Groarke (2008) documented how some U.S. states have used a number of mechanisms for removing electors from the register to 'mop up errors', often for partisan reasons. One study of turnout in 1987 suggested that removing the purge would have increased turnout by 2 million voters

nationally (Committee for the Study of the American Electorate, 1987). Groarke reports a preliminary estimate that between 1995 and the end of 2006, more than 71.4 million voters' names have been removed from the registration rolls (Groarke, 2008: 9). Mitchell and Wlezien's (1995) analysis suggested that voting purging had a significant impact on registration levels but only altered the probability of voting by 2.09 percentage points. Its effects are stronger on infrequent voters. Davidson et al. (2008), however, suggest that voter registration purges are also targeted at those whose legal entitlement to vote is 'dubious' and that its effects might be much more significant at a local level.

Continuous registration was introduced to the U.K. in 2001. Prior to this, some eligible voters might be prevented from participating because they would have to wait until the next annual register to be included on the new register. James (2011, forthcoming) notes that analysis by the Electoral Commission suggested that continuous registration did not increase net registrations greatly but did increase the accuracy of the electoral register. He also noted that a change from household registration to individual registration (which was introduced in Northern Ireland) appeared to shrink the register by approximately 10%. However, no estimation of the effect on turnout has been attempted.

When citizens are concerned about how the register is used by the government their propensity to register may be affected. Knack (1993) reported that living in a U.S. state which selects jurors from the registration list reduced the probability of being registered to vote in the 1988 election by about 9 percentage points and voting by up to 7.9 percentage points (*ibid* p.105). Knack's (2000) study of the 1990 election supported this. There is also some anecdotal evidence that when the register was combined with the social security system in Northern Ireland, some individuals working in the 'black economy' avoided registering (Electoral Commission, 2003: 52).

There are other aspects of the registration process which remain under researched. For example, we would expect compulsory rather than voluntary registration to increase turnout. We would also expect that putting statutory responsibility on the government, rather than the citizen, to register would increase participation. However, further studies are required to clarify this.

Postal voting

While initial attention may have privileged how registration procedures can affect turnout, there is also a considerable academic literature on how post-registration procedures – those by which individuals cast their ballot and it is counted – can affect turnout.

In many countries voters are required to attend a polling station in person to cast their vote, but many also offer the opportunity for them to cast their vote via another means. For example, in some countries the citizen can cast their vote via the post. Sometimes this option is provided just to those who meet certain categories (i.e. they are ill, or on holiday). However, when postal-voting on demand[7] is in place, any citizen can cast their vote through the post, although they usually have to apply for a postal vote first. The measure does not appear to be that effective at increasing turnout. Oliver (1996) studied the effects of various postal voting laws in the U.S. states on turnout. He found that 'expanded' eligibility, where the elderly were automatically able to vote by post, increased turnout by around 2 percentage points (*ibid* p.508-10). However, universal eligibility did not by itself. Only when procedures were in place which enabled parties to mobilize supporters, such as the availability of registered voter lists, did turnout increase. According to him 'liberalized state absentee requirements do not uniformly correlate with an increased likelihood of voting absentee; rather absentee voting is partially dependent upon the involvement of political mobilizers' (Oliver, 1996: 506). Universal absentee postal voting was introduced in the U.K in pilot form in local elections and then on a permanent basis from 2001 in all elections. James (2011,

forthcoming) suggested that the pilots in 2000 appeared to bring about a mild increase in participation, although definite conclusions were difficult. Rallings et al. (2010) suggested that the liberalisation of postal voting procedures led to a substantial rise in postal voting at the 2005 general election. However, it had a 'broadly neutral effect' on overall turnout. The effect may be more pronounced in low-salience elections. In short, the procedure appears to have a marginally expansive effect.

In contrast, all mail elections can have a major effect on turnout. In such elections votes can only be cast by mail: the option to vote in person at a ballot box is removed entirely. For example, in Oregon, USA, all elections are held via all-postal elections since a citizen initiative was passed in 1998.[8] There is considerable evidence that this type of election can increase turnout significantly. Magleby (1987) used multivariate regression linear probability models and logit probability models on the turnout rates of all-postal elections in U.S. states in the 1970s and 1980s. He estimated that, holding other factors constant, all postal elections increase turnout by 19 percentage points. Studying Oregon, Southwell and Burchett estimated 'that the all-mail format is a major stimulus to voter participation, second only to the impact of a presidential contest', noting that it increased turnout by 10 percentage points (Southwell and Burchett, 2000). Subsequent to this, Southwell (2004) surveyed citizens in Oregon, five years after the first election for a state legislator by all-postal elections and found that the system was still popular. Moreover, 29.3% of respondents said that they were more likely to vote under postal voting. Only 4.1% claimed that they were less likely (Southwell, 2004).[9] Outside the US, Luechinger et al. (2007) analysed the effects of postal voting in Swiss canton elections between 1970 and 2005. Postal voting was introduced at different times in the cantons because of a decentralised constitutional system. They estimated that the effect of postal voting on turnout was approximately 4.1 percentage points. James (2011, forthcoming) notes how experiments with all-postal in the UK 2000-4 all led to a considerable effect on turnout. Participation rose by at least 50% in most local election pilots, and in one case by as much as 137%.

Some research is more sceptical. For example, Christopher Hamner (2009) is much less convinced of the effects of postal voting on participation. Gronke and Miller (2007) studied the effects of postal voting in Oregon over a longer period than Southwell and Buchett (2000) and suggested that they significantly overstated the effects. Likewise, Gronke et al. (2007) undertook a meta-analysis of all-postal voting experiments and suggested that it increases turnout by only 4.7 percentage points in Presidential elections and by 4.4 in mid-term elections. Southwell and Burchett's findings, according to them, were outliers. Karp and Banducci's (2000) study of the Oregon reforms suggested that postal-voting only increases participation amongst those already pre-disposed to vote. Wilks-Heeg (2009) suggested that increases in turnout resulting from all-postal voting experiments in the U.K. may have leveled off in the long term (*ibid* p.104). Nonetheless, despite these studies, the balance of research strongly suggests that all-postal elections are significantly expansive procedures.

Internet Voting

Internet voting (I-voting) schemes allow citizens to vote using a PC from the comfort of their own home. They differ from electronic voting (e-voting) schemes which simply use electronic terminals instead of paper ballots in polling stations: the cost of physically having to come to the poll is not removed. A third variety of electronic election allows citizens to cast a vote using a digital TV box (Alvarez and Hall, 2008).

There have been many experiments with I-voting around the world. Krimmer et al., (2007) for example, located 104 electronic elections between 1996 and 2000. One I-voting scheme to have received much attention was the Arizona Democratic Party primary election in 2000. Citizens were able to vote either by post, in person, or over the internet. Gibson (2001) suggested that the election strengthened the claims that internet voting could increase turnout.

Most votes were cast via the internet and the election saw a record rise in turnout, especially amongst the young. The high turnout was notable for the fact that Al Gore's main rival, Bill Bradley dropped out of the race, two days before internet-voting opened. However Gibson compares this to the experience in the Republican Alaskan primary in January 2000. Here, only 35 internet votes were cast out of 3,500 who registered (*ibid* p.576).

Only Estonia has used internet voting for a binding national parliamentary election. In 2007, 3.4% of eligible voters cast their ballot this way (Alvarez, et al., 2009: 501). Experiments in 2002 and 2003 with internet voting in U.K. local elections also reported low-take up rates of internet voting. However, James (2011, forthcoming) reported that internet voting was significantly higher when the scheme was not combined with all-postal voting and internet voting was available until the close of the 'normal' poll. Internet voting schemes are therefore still relatively new and research therefore remains relatively thin.[10] Moreover, their impact on participation could vary substantially depending on how the scheme is implemented.

Extension of voting hours

In some countries voting hours are limited to a weekday (such as Thursday in the UK). In others, states may hold elections at the weekends or on holidays. Moreover, some countries allow voters to cast their vote before the election or have the election lasting several days. It should also be noted that absentee and postal voting are also forms of early voting.

Wolfinger et al. (2005) included the polling hours in their study of the effects of post registration laws on voter turnout in the U.S.. They noted that 12 of the 42 U.S. states in their study offered early voting (defined as before 7.00am) and suggested that turnout was approximately 2 percentage points higher in these states. Likewise, in the 19 states in which polls were open after 7.00pm the turnout was higher. Overall, they estimated that longer

hours would increase turnout by 2.8 percentage points but black turnout by 3.3 and Latino by 4.3 (*ibid* p.17). This is supported by Fitzgerald's (2005) findings which show that early voting increases turnout by just below 2 percentage points. Analysis by Franklin (2006: 158-159) has suggested that Sunday voting could alter turnout by as much as 6.8 percentage points.

Neely and Richardson (2001), studying one Tennessee County, provide a more sceptical finding. They found that the 'target population', amongst whom early voting aimed to increase turnout, did not vote more frequently during the early hours than the rest of the population. They are therefore sceptical that it will increase turnout much. Instead, they suggested that it would only make it more convenient for those who already voted.[11] James (2011, forthcoming) noted that U.K. experiments with early voting appeared to have only a mild effect at best since only 1% of the electorate used the early voting hours. Surveys conducted by the Electoral Commission also suggested that voters who used them were likely to have voted anyway.

Identification Requirements

As mentioned above, a considerable public debate has taken place in the U.S. on the effects of requiring voters to present photographic id at the polling station. According to proponents of the measure, identification is important to prevent voter fraud. However critics have claimed that it is an additional barrier to voting.

Vercellotti and Anderson (2006) looked at the effects of the many voter identification requirements introduced in the U.S. as a result of the Help America Vote Act. They attempted to assess the effects on the 2004 Presidential election and found that signature matching, non-photographic and photographic identification requirements all had negative effects on participation by reducing the probability of voting by 3-4 percentage points.

Alvarez et al. (2008a) used data from a range of elections to chart the difference. They found no effect at the aggregate level, however with the individual level data from the Current Population Survey Voter Supplement they found that the strictest requirements (involving the presentation of an identification card and matching a signature on this to one on file) did affect participation when compared to the most liberal procedures (of simply stating one's name). They also found that the stricter procedures have a disproportionate effect on the less educated and lower income populations. Further studies agree that voter identification laws can disproportionately reduce participation amongst racial and ethnic minority groups (Ansolabehere, 2009; Barreto, 2007; Barreto, et al., 2008). However, Vervellotti and Anderson (2009) suggest that a learning curve may lessen the impact over time. Meanwhile, Mycoffe et al. (2009) suggest that ID laws have not had an impact on participation *yet*.

Compulsory Voting

The claim that turnout is higher where voting is compulsory appears to be a truism. In her book on compulsory voting Birch (2009) noted that where it has been introduced the result is usually a considerable increase in turnout. The average turnout change following its introduction is 13.7 percentage points and 17.6 percentage points where sanctions are applied to non-voters (*ibid* p.85). Conversely, removing compulsory voting appears to reduce turnout by around 7.6 percentage points (*ibid* p.88). Other studies broadly agree. Tingsten (1963 [1937]) compared turnout between Swiss cantons during the period 1919 and 1931. Those which had compulsory voting in place were reported to have turnout levels between 5.4 and 9.8 percentage points higher. An analysis of variations in Austrian laws found the difference to be between 20 and 25 percentage points. By comparing election laws and turnout across democracies, Jackman (1987: 415) suggested that mandatory voting laws increase turnout by 13 percentage points. Hooghe and Pelleriaux (1998: 420) analysed data from a Belgian election survey and noted that 30% of voters said that they would not cast their ballot without the compulsion to do so.[12]

Compulsory voting can therefore dramatically increase turnout. But this is only the case if it is implemented with appropriate sanctions to non-voters. In those instances where sanctions were not applied there was virtually no effect (Birch, 2009: 85). This is significant because there is considerable variation in the range of sanctions that are applied against non-voters (Electoral Commission, 2006; Gratschew, 2002).

Ballot Paper Design

Spurred on by the events surrounding the 2000 Presidential election, a number of scholars have researched the effects of ballot design. Wand et al. (2001), for example, show that the particular ballot design used in the Palm Beach County, in Florida, in the 2000 U.S. Presidential election (the 'butterfly ballot'), caused over 2,000 voters to mistakenly vote for Pat Buchanan. This was larger than the Bush majority and effectively decided the election. A significant number of ballot papers were also rejected at the 2007 Scottish Parliament election as a result of poor ballot design. This affected confidence in the democratic process and may reduce future participation (Denver, et al., 2009).

Reynolds and Steenbergen (2006) surveyed 134 ballot designs over a ten year period in 107 countries and suggested that elaborate and costly ballots do not reduce spoilt voting or are used by illiterate voters. Further literatures assess the impact of adding photographs to ballot papers (Darcy, 1998; Lijphart and Lopez-Pinter, 1988) and the ordering of the candidates on the list (Lutz, 2010). These are often shown to have an effect on which candidate the voter casts their vote for, especially in low-information elections, but they do not necessarily alter turnout anyway.

Voting Centres

Voting centres are polling stations located in publicly convenient places such as supermarkets. Rather than being assigned to a specific polling station, citizens can vote at any voting centre. An electronic database of registered voters which can be updated during polling day is a pre-requisite for such a voting centre. Stein and Vonnahame (2008) evaluated the effects of voting centres in Carimer County, Colorado from 1992-2004. They found them to have 'positive and substantial effect on individual participation' (p.495) and increased the probability of voting by around 2.6 percentage points. In contrast, Juenke and Shepherd (2008) found no relationship between the use of vote centres and voter turnout in their county level study of Colorado in the 2006 general election.

Other factors

A range of other procedures have also been investigated. Wolfinger et al. (2008: 10) compared election laws in U.S. states with voter turnout to assess the effects of sending sample ballot papers and polling place information to registered voters. In the nine U.S. states where registrants were sent information about the location of their polling place turnout was 2.5 percentage points higher than the other 33 U.S. states. Similar effects were reported for sample ballots but these varied considerably across populations within the electorate. They also considered whether granting citizens time off work on election day would increase their likelihood of voting. When time was granted off work, turnout was 0.2 percentage points higher amongst public sector employees, but, by 'an anomalous result', 2.0 percentage points lower amongst private sector employees (*ibid* p.8-9). In short, this made no difference. Gimpel and Schuknecht (1973) and Taylor (2007) assessed the importance of distance from the polling station to turnout, showing this to be important. Cain et al. (2008) examined the procedures used to allow overseas voters to cast their ballots. They reported that overseas military personnel found it difficult to vote from overseas and that the electronic availability of information and voting facilities was viewed favourably by these potential voters,

Electoral administration procedures – a public policy continuum

Having mapped out the contours of the literature on EA and voter participation, this article claims that it is possible to construct continuums of procedures as presented in table 1 and table 2. Different forms of EA can be placed onto this continuum according to whether they have an *expansive* or *restrictive* effect on turnout. As well as modelling the directionality of these effects we can also estimate their magnitude using the predicted changes in voting probabilities from existing research.

[Insert table 1 and 2 about here]

The starting point for this continuum is that there are a set of procedures which have been considered the 'norm' in many democracies throughout the twentieth century. This is a problematic but necessary assumption so that we have a constant against which we can compare variations. As Massicotte et al. (2003) document, the procedures used around the world actually vary dramatically country by country, and sometimes even within countries. The IDEA database was used to put the most commonly used procedures in the centre of the continuum.[13] Where data was not available from IDEA, 'baseline' procedures were modelled on the U.K. Procedures around the world may not mirror those in the U.K., but it is the *relative* placement of procedures that is important. Like the cartographer drawing a map of the globe, we need to draw the map of electoral procedures around one point, even if this point is entirely arbitrary.

Procedures are then placed either to the left or the right of the 'norm' according to whether the existing literature identifies them as having an *expansive* or *restrictive* effect on participation. For example, since all postal elections is known to increase turnout, compared to in-person voting, it is placed to the right of in person voting thus indicating its expansive

effect. On each side of the 'normal' procedures five different ordinal categories are identified according to the extent of the effect that various procedures have on electoral participation, according to the international literature. For example, some research has shown that 'no-excuse postal voting' has a marginal effect on turnout. While this is still an expansive procedure, it is not as expansive as postal voting.[14]

Some procedures have been marked in the central or 'neutral' column since the research suggests that they are unlikely to have an impact on turnout compared to 'normal' procedures. For example, there is little evidence that introducing assisted voting will increase turnout.

Predicting the *exact* effect that reforms will have across different spatial-temporal contexts is very difficult for a number of reasons. Firstly, most of the literature is based on U.S. elections and it is unclear whether the effects would be exactly the same in different political and cultural settings. We might expect the same broad effects on participation in different countries but behaviour is also dependent on the cultural meanings attached to different procedures (Bertrand, et al., 2007). Previous experiences with procedures may also be important. For example, public concerns about the security of e-voting in Ireland led to it being abandoned (Commission on Electronic Voting, 2004). Schaffer (2008: xii-xiii) therefore argues, that the same reform can have different effects in different situations.

Secondly, predicting the effects of different forms of EA is also made difficult by possible interaction effects with other forms of EA. Much of the research attempts to isolate the effects of individual procedures and evaluate their contribution towards turnout. However, the relative impact of a procedure may be significantly contingent on the presence of other forms of EA. As Knack notes the potential effects of some procedures may be 'crowded-out' by other procedures. For example, the impact of introducing 'motor voting' may be significantly reduced if voters already have election day registration (1995: 809). Thirdly, the placement of different forms of EA into these continuums above should be subject to

refinement with further empirical research and the fine-tuning of these procedures through the establishment of 'best-practice'. Fourthly, the effect of a particular reform will also be subject to changes in other relevant variables identified by the political science literature.

The continuum therefore should be considered a matrix of institutional logics which affect voting behaviour. These institutional logics are invariably mediated by cultural contexts and a range of historical variables. The continuum can therefore only be a *heuristic device*. But, *ceteris paribas*, we should still expect the calculus of these institutional logics to permeate through context and affect political behaviour.

In Conclusion

A number of democracies around the world have sought to reconsider the way in which elections are administered with many of these undertaking reforms to age-old practices. The causes of the new interest in electoral administration are complex and not just about increasing participation.[15] However, this article has shown that there is considerable evidence that EA can increase turnout. It has proposed a continuum on which procedures can be considered to be either expansive or restrictive according to their effects on turnout. The continuum has numerous practical-analytical advantages. Firstly, while it has often been recognised that certain forms of EA have different effects on participation a conceptual advance is proposed. Thinking about procedures conceptually allows the researcher to identify *types* of electoral procedures in discussions of electoral institutions. Countries could be assessed using to continuum to identify whether their procedures are expansive or restrictive. Using appropriate datasources, EA could also be used as a control variable in quantitative studies of political participation.

Secondly, the continuum can be used as a heuristic device by practitioners to inform policy debate. Policy-makers in countries looking to increase participation can use the continuum to

locate possible reforms. Elklit and Reynolds (2001) have provided a general framework for assessing electoral administration, suggesting that high levels of participation and registration are important performance indicators for the health of a democracy. This continuum compliments their framework by identifying which procedures might be best placed to achieve such levels of participation.

Thirdly, the continuum is a call for further research to refine the position of certain procedures. There remains very little research on EA outside of the US. We know little about the effects of procedures such as the impact of individual versus household registration and the impact of a house-to-house canvass.

There have been concerns that some reform to EA could lead to fraud (Wilks-Heeg, 2008). This is not discussed in this article, but it is not clear that the relationship between specific procedures and incidences of fraud has been systematically proven. New methodologies have recently been developed that may allow some advances to be made in the future (Alvarez, et al., 2008b). However, what *is* clear is that there are many basic reforms to elections that governments could make if they wanted to increase participation. EA is not the only determinant of participation and cannot reverse any democratic malaise by itself. However, it can make a significant difference to levels of participation, and in some cases, the legitimacy of democratic governance.

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NOTES

[1] Here, electoral administration does not cover the *regulation* of these procedures, such as whether an electoral management board organises elections and whether this organization is independent of government. For a discussion of this area see: Elklit and Reynolds (2001) or Mozaffer (2002).

[2] Ironically, in some countries an increase in names on the voter register could cause 'official turnout' to decrease if this is calculated by dividing the number of valid votes by the number on the electoral register (as is the case in the UK). An increase in non-voting registrants will cause 'official' turnout to fall, without any decline in participation.

[3] Cited from Highton (2004: 508-509).

[4] Many studies calculate the estimated effect of a particular form of EA on the *probability* of voting. Probabilities are presented as percentage points rather than decimals in this article.

[5] Also see: Nimmo and McCleskey (1969).

[6] Also see: Fenster (1994), Fitzgerald (2001), Ansolabehere and Konisky (2004).

[7] Often also known as 'no-excuse postal voting' or 'universal absentee voting' in the U.S.

[8] See Qvortrup (1988) for further comparative historical background on its use.

[9] Also see: Hamilton (1988) and Berkinsky et al. (2001).

[10] However, also see Henry (2003).

[11] In other research Stein and Garcia Monet (1997) use aggregate data from early and election day balloting in Texas counties for the 1992 Presidential election. Early voting was found to be high amongst new voter registrants, the wealthier and Hispanic voters. They suggest that a high number of voting sites at non-traditional locations has a positive effect on turnout. They also note how the Democratic Party were effective at registering and mobilising early voters for the Clinton camp.

[12] For other studies see: Jackman and Miller (1995), Katz (1997), Franklin (1999), and Hirczy (1994).

[13] In the majority of states votes are cast via the manual marking of paper ballots (82.4%), in person, at a specified polling station (79%), voting cannot take place in advance of an election (56.8%), it is compulsory to be on the electoral register (60%), the register is continuously updated (39%), registration requires visiting a registration office in person (57%), don't conduct door to door enquiries (77%). Information from IDEA (2010).

[14] Rosenstone and Wolfinger argued that since voting is a discrete and qualitative choice it is best predicted through probit/logit and related modelling rather than OLS regression (Rosenstone and Wolfinger, 1978: 44-45). Most of the research described above used this method. The second line of table 1 and 2 therefore defines 9 ordinal categories by the predicted change in the probability of voting for each procedure. Of course, with so many different datasources being used, and many other research methods being deployed, all research findings cannot be readily converted into one precise measurement. Placing them onto continuum therefore necessarily involves on an interpretation by the author of the research findings on each procedure. This interpretation is provided in the discussion of the research on each procedure provided so far.

[15] For a discussion of the forces for change in the UK see: James (2010a)