Voting when the stakes are high☆

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ABSTRACT

Most theories of voter behavior predict that electoral participation will be higher in elections where more is at stake. We test this prediction by studying how participation is affected by exogenous variation in local governments' financial flexibility to provide pork for their voters. Utilizing simultaneous elections for different offices, we identify a positive effect of election stakes on participation: Higher stakes at the local level increase participation at the local relative to the regional election. Survey evidence indicates that the underlying mechanism relates to citizens' acquisition of information.

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1. Introduction

A central question within political economy and political science is what determines voters' participation in elections. Presumably, a main reason for the massive attention directed to this issue is that election outcomes might influence policy. Furthermore, most models of voting behavior suggest that turnout should be higher in elections where more is at stake (Downs (1957); Tullock (1967); Riker and Ordeshook (1968)). Against this background it is surprising that little evidence on the effect of election stakes on electoral participation exists.[1] We aim to fill this void.

An election's stakes depend on how strongly the winning candidate can influence outcomes that voters care about. A key determinant of a politician's influence is the extent of fiscal flexibility that he or she will face in office, which in general cannot be taken as exogenous. Our approach to handling the endogeneity of fiscal flexibility is to utilize variation in local government (municipality) revenue in Norway from hydropower production, which is largely determined by topography. Higher revenue from hydropower production equips elected officials with more funds to distribute, and thus raises the stakes of the local election.[2]

Fig. 1 depicts the fraction of eligible voters who view the upcoming local and regional elections as "highly important", when asked in the Local Election Survey. Moving from left to right in the figure, we clearly see that the local election is perceived as more important in municipalities with high hydropower income. In contrast, for the election to the regional government, which does not enjoy the hydropower income, no such pattern is present.[3]

Our identification strategy exploits that in Norway, the election for the local and the election for the regional governments are held

[1] There is some suggestive evidence that the stakes of the election matter, particularly the fact that more people tend to vote in national than in local elections (Franklin (2004)), but this obviously does not permit claims about a causal effect. More generally, empirical studies of predictions from voter theories are mostly indirect and not constructed to uncover causality, as noted by Duffy and Tavits (2008).

[2] It is a well-known fact in Norway that hydropower can give local governments massive income streams, and that local politicians have high flexibility in choosing how to spend this money. Municipalities with high hydropower revenues are commonly referred to as "power municipalities" ("kraftkommuner") also in government white papers, see for instance http://www.regjeringen.no/nb/dep/krd/dok/nouer/2005/nou-2005-18/6/3/3.

[3] The same conclusion is drawn from probit analyses relating survey responses to hydropower income, controlling for municipal population size and settlement pattern (cf. online appendix).
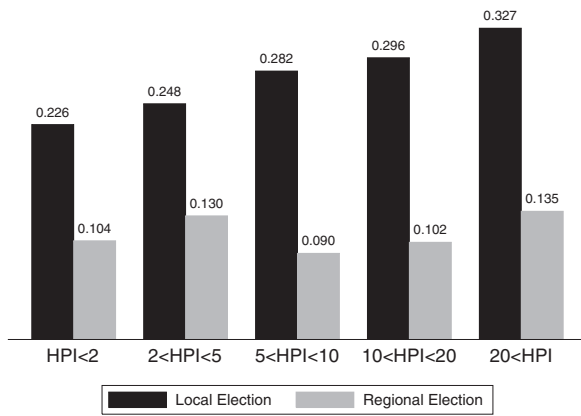
Notes: *The figure presents perceived (local and regional) election stakes across five hydropower income categories. Hydropower income (HPI) is measured at the local government level in NOK 1000 per capita. Reported are the fraction of survey respondents answering that they believe the upcoming election will be of 'high importance' for the development of the municipality/county over the next four years. Alternative responses are 'don't know', 'little or no importance' and 'some importance'. Data from the Local Election Survey (*Lokalvalgsundersøkelsen*) 2003 and 2007 (n= 4701).*

Fig. 1. Perceived election stakes.

simultaneously within the same voting booth and with identical sets of eligible voters. By focusing on the difference between participation in the local and regional elections – the *participation difference* hereafter – we obtain estimates that are unlikely to be biased by (unobserved) population characteristics. The participation difference is closely related to the concept of "roll-off", defined by Dean (1965) as the "tendency of the electorate to vote for "prestige" offices but not for lower offices on the same ballot". As Fig. 1 shows, the office that the voters perceive as more important in the context we study is the local one. This is also reflected in the fact that less than 1% of survey respondents reply that they vote in the regional election only, whereas 11% reply that they vote in the local election only.

Our main finding is that higher tax revenues from hydropower production increase participation at the local election relative to the regional election. This finding is remarkably robust. It is visible in the raw data, and it does not disappear as we gradually control for an extensive list of local characteristics known from the literature to affect voter behavior. Quantitatively, our estimates suggest that a one standard deviation increase in hydropower revenue (about USD 1000) stimulates the participation difference with about 0.7 percentage points, or, alternatively, that raising this income from its minimum to its maximum observed level will increase the participation difference by as much as 6 percentage points.

We extend our analysis with an instrumental variable approach, using topography as an instrument for hydropower income. The results corroborate our main findings. We also extend our analysis by studying preferential votes, which voters may cast for specific candidates in the elections we consider. Election stakes seem to stimulate this dimension of voter activity too: the higher are the hydropower revenues, the more do voters alter the parties' lists of candidates.

To facilitate interpretation of our results we first explore how hydropower revenue actually is spent. We show that these revenues are used not only to marginally improve the quality of core public services, but also to provide new goods that benefit narrower parts of the population.[4] This spending pattern supports the assumption that hydropower income raises the stakes of the local election. In addition, we focus on the leading mechanism emphasized in the roll-off-literature, namely that individuals are averse to participate in elections

where they have limited information about the candidates. Two different types of evidence indicate that this mechanism might lie behind our main results: (i) Survey evidence on voter activity reveals that the higher is the hydropower income, the better informed are the citizens about local relative to national politics. (ii) Hydropower income affects the participation difference primarily in those local governments where the sets of available party lists differ between the local and regional elections, which might reflect that some citizens are triggered to gather local political information and vote for independent lists at the local election, and then abstain from the regional election where this information is irrelevant.

Our study relates to key questions in the vast literature on voter behavior, surveyed by for instance Dhillon and Peralta (2002). Several studies have suggested that even though instrumental motives to vote cannot alone explain high turnout *levels* in mass elections, such motives might still matter on the *margin* (examples are Blais (2000), Dowding (2005) and Geys (2006)). Our results are consistent with that hypothesis. Also, our study relates to the literature on selective abstention and roll-off, where prominent theories emphasize information costs as determinant of electoral participation (for instance, Matsusaka (1995) and Feddersen and Pesendorfer (1996, 1999)). Our findings suggest that greater fiscal flexibility at the local level motivates citizens to gather information about local politics, and this raises their propensity to vote at the local rather than at the regional election. This effect points to a mechanism that has not yet been explored by theory: voters may be instrumentally motivated to gather information and thereby participate in elections. Interestingly, such a mechanism would be consistent also with the recent study by Charles and Stephens (2013), who find that employment reduces electoral participation and suggest that the reason is a negative effect of employment on time available for information acquisition.

In addition our study relates to the vast literature on the politics of pork barrel spending, where seminal contributions include Ferejohn (1974) and Mayhew (1974). Central findings here have been that political parties reward their voters by targeting spending toward districts where they have a strong position, and that pork barrel spending is rewarded by voters in recipient districts (Levitt and Snyder, 1995, 1997, Martin, 2003). Our results contribute by showing that fiscal flexibility to pursue pork barrel spending affects electoral participation.

The paper is organized as follows. Section 2 presents the institutional setting and the role of hydropower revenue for Norwegian municipalities. In Section 3 we explain our empirical strategy. Section 4 gives our main results for electoral participation. Section 5 explores their robustness. Section 6 documents how hydropower revenues are spent, while Section 7 discusses information costs and roll-off. Section 8 concludes.

2. Institutional setting and hydropower income

In Norway there are three layers of government: the central government, the regional governments (19 counties) and the local governments (431 municipalities). The local governments are multipurpose authorities responsible for the provision of welfare services like schooling, elderly care, and child care. The regional governments have more limited tasks. Their primary responsibilities are providing upper secondary education, regional roads, and transportation. Together, the local and regional levels of government account for about 18% of mainland GDP.

2.1. Political system and electoral participation

The local and regional governments are headed by councils elected through open-list proportional representation.[5] Voters can affect the election outcome both by voting for a party list, and by casting

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[4] Hydropower-rich municipalities systematically down-prioritize the two core welfare services provided by local governments (education and elderly care), relative to non-core expenditure categories such as local roads and industry support. According to the methodology of Levitt and Snyder (1995, 1997) the latter expenditure categories are identified as pork.

[5] The mathematical formula used to translate votes into seats in Norwegian elections is the modified Sainte-Laguë method.