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# Prepaid postage using pre-stamped envelopes to affect turnout costs<sup>☆</sup>

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## ABSTRACT

Voter participation in elections is important for representational reasons but also because it helps to support the legitimacy of the election outcome. In a recent paper, Schelker and Schneiter (2017) show with data from only one Swiss canton that a small policy intervention (return envelopes with prepaid postage) can lead to substantially increased voter turnout rates. We revisit this finding and extend the analysis to all cantons that allow municipalities to offer free return postage. We find that a credible estimate of the effect is somewhat smaller but still positive and significant. We also document that this effect is not constant but stronger for larger municipalities than for smaller municipalities. Our interviews point to a likely mechanism. These results show that return envelopes with prepaid postage are an effective policy to increase participation, but mostly for large municipalities.

## 1. Introduction

Electoral participation is of central importance as it connects the *demos* with the representative system that governs the *demos*. Electoral participation is neither random nor exogenous to a political system, but is directly affected by public policies and political institutions in a polity. Understanding what affects voters in their decision to participate (or not) allows us to better understand how institutions and policies affect their decision. To this end it is helpful to think of the costs that potential voters face. Blais et al. (2019) break the costs down into *direct* costs stemming from the actual voting act and *indirect* costs due to the decision-making process. In this research note, we focus on *direct* costs and how very small changes to these direct costs affect aggregate turnout.

Past research suggests that allowing citizens to vote by mail increases turnout (Luechinger et al., 2007). Interestingly, in Switzerland, this mobilizing effect seems to be fairly homogeneous — not leading to differential turnout patterns in favor of certain political parties (Bechtel and Schmid, 2020). Nevertheless, voting-related policies may exert a differential effect on turnout across social groups (see e.g., Ansolabehere, 2012).

In this research note, we revisit this question and re-assess the size of the effect and whether this effect is homogeneous. We extend

the sample from one canton to all five cantons where municipalities can decide to offer prepaid postage. We replicate the result and find somewhat weaker yet positive and significant effects. In addition, we also show that this effect is heterogeneous and is bigger and significant in larger, i.e., more populous municipalities and villages, whereas it is absent in smaller villages.

In what follows, we present first a re-analysis of the same question but with a larger database based on all cantons that allow their municipalities to provide voters with prepaid envelopes to return their mail-in ballots. We first present the data and empirical strategy and then walk through the empirical results.

## 2. Data and estimation strategies

Switzerland is a decentralized country, where many decisions lie within the authority of its cantons. Cantons have strong regulatory power as well as responsibility for determining expenditures (Linder and Vatter, 2001). Examples of its federalism include the co-existence of different electoral systems (Glaser, 2018) as well as differences across direct democratic institutions (Leemann and Wasserfallen, 2016). The federal structure also applies to certain details of national ballot voting. While some cantons regulate this at the cantonal level, others leave the specific design to the communities. One such feature is whether the

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voting ballots come with a return envelope with prepaid postage or whether voters have to buy a stamp to mail back their ballots. This introduces systematic differences in the *direct* costs associated with voting and can affect turnout.

In this research note, we analyze the effect of prepaid postage on voting turnout in national ballot votes in all Swiss cantons where the decision to provide prepaid envelopes is left to the municipalities. This restricts our analysis to five cantons: Bern, Lucerne, Fribourg, Thurgau, and the Canton of Ticino. Our sample covers 676 municipalities during the period of 2000 to 2015.<sup>1</sup> Data on voter turnout at the municipal level come from the Federal Statistical Office. All votes at the national level during the period of interest are included. Our main variable of interest is voter turnout. We want to estimate the effect of prepaid postage. To that end, we directly collect information on prepaid envelopes from each community in all of the five cantons via e-mail and phone calls where e-mails were not answered.<sup>2</sup>

We follow Schelker and Schneiter (2017) and control for average municipal income as well as the ratio of median to mean income as a measure of inequality (data obtained from the Federal Tax Administration). Further controls include population size and population density, the share of foreigners, and the share of young and old people in a community (data from the Federal Statistical Office). We use the same set of co-variables as do Schelker and Schneiter (2017), including variables that change over time. We provide a table with summary statistics in the appendix (see subsection A1.1). We also allow for the possibility of sub-national elections influencing national turnout if the two votes happen to take place on the same day. Hence, we add a binary indicator that takes on the value of 1 if a ballot vote day coincides with sub-national elections. Finally, in the appendix, we also provide the results of an alternative identification strategy used by Schelker and Schneiter (2017), and the results are in line with what we present here (see subsection A1.2). In the first step we replicate the overall effect on the full sample and then illustrate how the effect size varies across municipalities.

### 2.1. Identification strategy

The identification strategy follows Schelker and Schneiter (2017).<sup>3</sup> In this section, we identify the causal estimate of the effect of prepaid postage on turnout. We rely on a panel setup and estimate a two-way fixed effects model that regresses turnout in municipality  $i$  in time  $t$  on a binary indicator for whether municipality  $i$  provided prepaid postage return envelopes at time  $t$ :

$$y_{it} = \beta_1 \text{PrepaidPostage}_{it} + \mathbf{X}_{it}\theta + \tau_t + \mu_i + \epsilon_{it} \quad (1)$$

Here,  $y_{it}$  is voter turnout of municipality  $i$  in time  $t$ . Controls, denoted by  $\mathbf{X}_{it}$ , include the same variables that are used in the original study. Parameters  $\tau_t$  and  $\mu_i$  are fixed effects for ballot day and municipality,

<sup>1</sup> In the canton of Ticino, unconditional postal voting was not introduced until the 15th of April 2005. We therefore restrict our sample to the ballots held after this date for the communities of Ticino. We follow Schelker and Schneiter (2017) and exclude communities that merge during the period of analysis.

<sup>2</sup> The data collection process varied by canton. For example, the canton of Lucerne provided a list indicating which municipality implemented a policy change and when this occurred. For the other cantons, the data collection was more cumbersome: we first sent an e-mail to each municipality asking about the policy change. We dealt with non-responses by first sending out a reminder and additionally calling the administrative office of each municipality that did not respond to our reminder. In addition, we called various municipalities to verify the information we received. We learned that municipal staff answering phone calls are not always well informed, but that the municipal managers (*Gemeindeschreiber\*innen*) are very well informed.

<sup>3</sup> In the appendix, we also show that offering prepaid postage return envelopes is not correlated with a number of control variables (see Table A11).

and  $\epsilon_{it}$  is the error term. We follow Schelker and Schneiter (2017) and use clustered standard errors at the municipal level.

This strategy yields causal effects if there are no relevant unobserved time-varying differences among units. An example of such a factor could be the share of population that is politically interested in a municipality. If people moving to and from a municipality differ in their general interest even after conditioning on income and age it is possible that the estimates are biased.

### 2.2. Effect heterogeneity

Here, we deviate from prior work and show that there is treatment effect heterogeneity. In the course of gathering detailed data on when municipalities changed their rules and started or ended the provision of prepaid envelopes, we spoke to many town managers (*Gemeindeschreiber\*innen*). These interactions alluded to a potential heterogeneity.

Voters can send the ballot via postal mail or they can drop the envelope in the town government's mailbox themselves. In large towns it is much easier to mail a letter than to go to the town government's mailbox, but in smaller towns, the post office or the postal mailbox is often at a central location. Town government buildings are also located in the town square. Many town managers explained that there is no need for prepaid postage since it does not make participation easier — the town government's mailbox is as central as the postal mailbox. Based on these exchanges and claims that came up independently several times, we decided to empirically test whether the effect of prepaid postage is constant across town size or whether it can be shown that there is a lesser effect for small towns, as was indicated by town officials.

To explore this potential heterogeneity, we replicate the analysis according to the baseline models but explicitly account for community size. For the estimation strategy described in 2.1, we allow heterogeneous effects of prepaid postage by including an interaction in our model. Finally, the original paper also relies on changes in postage pricing and uses that for IV regression models. We do the same here but relegate IV models for effect estimation as well as effect heterogeneity to the appendix (see subsection A1.2).

## 3. Results

In this section, we present the empirical results. In all three empirical strategies, we can see an effect for prepaid postage on voter turnout. However, the estimates we find on the full sample are only about half as big as the ones reported in the original study. In addition, we can show that this effect is not constant but likely only exists in larger municipalities.

### 3.1. Estimating effect size

Table 1 presents the effects of prepaid postage on voter turnout. Column 1 displays the estimate for prepaid postage on turnout without including any controls. Column 2 shows the estimation results for the full model specification including all control variables. These replication results show an effect size varying between 1.1 and 1.3 percentage points of higher voter turnout. Like Schelker and Schneiter (2017), we find a positive and significant effect of the treatment, however, this effect is somewhat smaller than the original estimate (which varied between 1.8 and 2.1 percentage points). This difference is due to the larger sample that we examine by including municipalities in four more cantons.

**Table 1**  
Difference-in-differences estimation of turnout on prepaid postage.

	Turnout	
	(1)	(2)
Prepaid postage	1.072* (0.607)	1.345** (0.652)
Mean income		-0.00001*** (0.00000)
Mean/Median income		-1.688 (1.522)
Population		-0.343 (0.238)
Population density		-0.004** (0.002)
% foreigners		0.130*** (0.041)
% young		0.111** (0.050)
% aged		0.155*** (0.058)
Dummy cantonal election		-0.518*** (0.145)
Municipal FE	✓	✓
Vote Day FE	✓	✓
Observations	31,693	31,393
R <sup>2</sup>	0.0003	0.005

Note:  
\*p < 0.1.  
\*\*p < 0.05.  
\*\*\*p < 0.01.

### 3.2. Testing for effect heterogeneity

As mentioned above, while talking to municipal managers (*Gemeindeschreiber\*innen*), we learned that for some municipalities, providing a return envelope with prepaid postage may not affect the *direct* costs. We test this qualitative argument and estimate different effects in large and small municipalities. We do so by introducing municipality population size<sup>4</sup> in two different ways. First, we add a binary indicator for municipalities with a population size of more than 5000. The second way of adding this information is by just adding the population size in units of 1000 people. **Table 2** reports these results that rely on the difference-in-differences estimation strategy.

These results are in line with the claims made by many municipal managers (*Gemeindeschreiber\*innen*) and show that the positive treatment effect for prepaid postage is not constant across municipality size. From the model in the left column of **Table 2**, we see that there is no treatment effect for small municipalities and that it is only present for larger municipalities. The second specification, presented in the right column, shows that the treatment effect increases with population size and is not significant for small municipalities.

This is in line with the expectation that this policy has unequal effects depending on whether it actually provides an easier way to participate in a ballot vote or not. In small towns, people can post their voting materials directly into the postbox of the local government building, which is often in close proximity to the local postal box where they could also post it. Providing prepaid postage does not affect the direct costs, and the analysis supports this as there is no effect for small municipalities.

<sup>4</sup> See subsection A1.6 in the appendix for a discussion of whether population density or population size is the superior measure.

**Table 2**  
Difference-in-differences estimation of turnout on prepaid postage.

	Turnout	
	(1)	(2)
Prepaid postage	0.257 (0.637)	-0.577 (0.669)
Large population	-1.435** (0.725)	
Population		-0.868** (0.397)
Prepaid postage* large population	2.265** (1.102)	
Prepaid postage* population		0.241*** (0.055)
Controls	✓	✓
Municipal FE	✓	✓
Vote Day FE	✓	✓
Observations	31,393	31,393
R <sup>2</sup>	0.018	0.014

Note:  
\*p < 0.1.  
\*\*p < 0.05.  
\*\*\*p < 0.01.

### 4. Conclusion: Policy-relevant refinement

This replication builds on the work by [Schelker and Schneider \(2017\)](#). We replicate their main finding, and the estimates based on a larger sample show a positive and significant effect of providing a return envelope with prepaid postage. We find the increase in participation to be about 1.1 to 1.3 percentage points, which is slightly smaller than the original estimates. To put this into context, we can look at effect size of automatically registering voters in the US. [McGhee and Romero \(2019\)](#) find an increase of 2.1 percentage points. Another comparison can be made with the results by [Brady and McNulty \(2011\)](#). They analyzed the decrease in participation when polling places are changed and people have to search for them first. Overall, they find a net effect of -1.8 percentage points.

The second part of this research note highlights that if the direct costs are not affected homogeneously, the effects may be heterogeneous. In small villages, with a small population, the postal service may only provide one place to deposit letters, and this often happens to be a central location. Municipality offices are also located centrally, and this leads to the two possible deposit locations being right next to each other. Since one can submit the voting ballots directly to the municipality mailbox, providing free return envelopes does not affect costs. The consequence is that this intervention will only affect participation in larger municipalities where there are more mailboxes, and it actually reduces the burden of the voting act. Keeping this policy in small municipalities may be ineffective, and the resources could potentially be put to better use.

These results show that, on average, small municipalities should probably invest these resources in another project aimed at increasing participation. However, for each individual municipality, there may be differences from these average effects. Ideally, municipalities would make evidence-based decisions and, for example, run an experiment on whether the introduction of this policy has an effect or not.<sup>5</sup> Some small municipalities may likely benefit from keeping this policy. This evidence-led policy making can avoid throwing the baby out with the bath water.

<sup>5</sup> This has been proposed in the past. In the municipality of Muri, in the Canton of Berne, it was suggested in 2013 that the municipality run an experiment to decide whether it has an effect or not (*Motion Wenger/Kempf, August 20, 2013*).

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Appendix A. Supplementary data

Supplementary material related to this article can be found online at <https://doi.org/10.1016/j.electstud.2021.102405>.

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