

Prepaid Postage

Using Pre-Stamped Envelopes to Affect Turnout Costs*

Jenny Yin[†], Thomas Willi[§], and Lucas Leemann[‡]

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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.

Keywords *Voter Turnout, Postal Voting, Voting Cost, Prepaid Postage, Switzerland*

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[†]Former MA student at the Department of Political Science, University of Zurich, Switzerland. Email: jeje.yin@gmail.com

[§]Department of Political Science, University of Zurich, Switzerland. Email: thomas.willi@uzh.ch

[‡]Department of Political Science, University of Zurich, Switzerland. Email: leemann@ipz.uzh.ch
URL: <http://www.lucasleemann.ch>.

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 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 data base 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 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 2015.¹ 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.²

¹In 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.

²The 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.

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 covariates 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).³ 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 :

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

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 τ_t and μ_i are fixed effects for ballot day and municipality, and ϵ_{it} is the error term. We follow Schelker and

³In the appendix, we also show that offering prepaid postage return envelopes is not correlated with a number of control variables (see Table A1.5).

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.

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

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 ² | 0.0003 | 0.005 |
| <i>Note:</i> | *p<0.1; **p<0.05; ***p<0.01 | |

municipality population size⁴ 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.

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 ² | 0.018 | 0.014 |
| <i>Note:</i> | *p<0.1; **p<0.05; ***p<0.01 | |

These results are in line with the claims made by many municipal managers (*Gemein-deschreiber*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

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

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.

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.⁵ 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.

⁵This 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*).

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A1 Appendix

A1.1 Summary Statistics

Table A3: Summary Statistics

| Variable | Overall | | No Prepaid Postage | | Prepaid Postage | |
|----------------------|----------|----------|--------------------|----------|-----------------|----------|
| | Mean | SD | Mean | SD | Mean | SD |
| Population Size | 2.62 | 6.53 | 2.37 | 6.28 | 7.13 | 8.94 |
| Population Density | 328.13 | 558.78 | 307.45 | 540.57 | 708.85 | 726.85 |
| Mean Income | 55898.80 | 16514.35 | 55722.30 | 16759.54 | 59475.06 | 10686.23 |
| Median Income | 46848.69 | 7906.84 | 46741.01 | 7906.45 | 49058.93 | 7500.69 |
| Median / Mean Income | 0.85 | 0.08 | 0.85 | 0.08 | 0.83 | 0.08 |
| % foreign | 10.38 | 8.23 | 10.02 | 7.96 | 17.14 | 9.94 |
| % young | 28.97 | 4.61 | 29.02 | 4.63 | 28.18 | 4.25 |
| % aged | 16.60 | 4.44 | 16.61 | 4.45 | 16.21 | 4.30 |
| Postage | 0.05 | 0.22 | 0.00 | 0.00 | 1.00 | 0.00 |
| Stamp Price Change | 0.07 | 0.25 | 0.07 | 0.26 | 0.00 | 0.00 |

A1.2 Alternative Identification Strategy (IV)

The original study by Schelker and Schneiter (2017) relies on an IV approach and leverages price changes in stamps. We do the same here and show first that the effects are smaller and second that the effect varies with municipality size.

The following table shows the evolution of stamp prices in Switzerland.

Table A4: Different Stamp Prices

| period | stamp price | source |
|--------------|-------------|---------------------------|
| 1991 - 2000 | 0.50 CHF | Schelker & Schneiter 2017 |
| 2001 - 2003 | 0.70 CHF | Schelker & Schneiter 2017 |
| 2004 - today | 0.85 CHF | Schelker & Schneiter 2017 |
| 1991 - 1992 | 0.50 CHF | Swiss Post Office |
| 1993 - 1995 | 0.60 CHF | Swiss Post Office |
| 1996 - 2003 | 0.70 CHF | Swiss Post Office |
| 2004 - today | 0.85 CHF | Swiss Post Office |

Schelker and Schneiter (2017) argue that voters are exposed to changes of postage

costs – at least in municipalities that do not prepay postage. This can be leveraged for identification, and we follow their approach here. The only difference is, again, that we rely on the full universe of cases rather than only on municipalities from one canton. We estimate a two-way fixed effects regression.

$$y_{it} = \beta_1 \text{Postage costs}_{it} + \mathbf{X}_{it}\theta + \tau_t + \mu_i + \epsilon_{it} \quad (2)$$

The outcome y_{it} is voter turnout in municipality i on ballot day t . We include the same controls and fixed effects as in strategy I (see section 2.1). We then go on and explore possible channels through which postage costs may influence turnout. We estimate three different specifications for the instrumental variable models, where y_{it} is the nominal or the real postage costs of a municipality i for time t .

$$\text{1st stage: } y_{it} = \beta_1 \text{PrepaidPostage}_{it} + \beta_2 \text{Stamp price}_{it} + \mathbf{X}_{it}\theta + \tau_t + \mu_i + \epsilon_{it} \quad (3)$$

The outcome y_{it} represents the price of a stamp. We estimate both real and nominal prices. As above, *Prepaid postage* is a dummy variable, indicating that postage is prepaid or not, and *stamp price* indicates if an increase in stamp prices is introduced. \mathbf{X}_{it} includes our controls, τ_t and μ_i are vote day and municipality fixed effects, respectively, and ϵ_{it} is the error term.

The second stage regresses turnout in municipality i at time t onto the instrumented estimate (as well as controls):

$$\text{2nd stage: } z_{it} = \beta_2 \hat{y}_{it} + \mathbf{X}_{it}\theta + \tau_t + \mu_i + \epsilon_{it} \quad (4)$$

A1.3 IV Regression Results

The first stage includes a binary indicator whether a municipality introduced prepaid envelopes (or not) and if the Swiss post office introduced a higher price for a stamp

during the period of investigation, in terms of both real and nominal prices. As Schelker and Schneiter (2017) note, variation, therefore, has three potential sources: a) introduction of prepaid envelopes, b) rise in costs, and c) through inflation (measured as stamp price in real terms).

Table A5 refers to nominal prices and Table A6 to real prices. Column one presents the two-way fixed effects regression described in 2. Columns 2–4 present results from estimations relying on different instrumental variables.

Table A5: Estimation of Turnout on Nominal Postage Costs (All Municipalities)

| Dependent Variable: | - | Prepaid Postage | Turnout Stamp Price | Prepaid Postage, Stamp Price |
|------------------------|--------------------------------|-----------------------|----------------------|------------------------------|
| Instrumental Variable: | (1) | (2) | (3) | (4) |
| | <i>Second Stage Regression</i> | | | |
| Nominal Postage Costs | -0.016** (0.008) | -0.017** (0.008) | -0.082* (0.046) | -0.017** (0.008) |
| | <i>First Stage Regression</i> | | | |
| Postage | | -81.138*** (1.070) | | -80.890*** (1.091) |
| Stamp Price Change | | | 12.113*** (2.346) | 4.406*** (0.255) |
| Controls | ✓ | ✓ | ✓ | ✓ |
| Municipal FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Observations | 31,393 | 31,393 | 31,393 | 31,393 |
| R ² | 0.005 | 0.005 | 0.003 | 0.005 |

Note:

*p<0.1; **p<0.05; ***p<0.01

Table A6: Estimation of Turnout on Nominal Postage Costs (All Municipalities)

| Dependent Variable: | - | Prepaid Postage | Turnout Stamp Price | Prepaid Postage, Stamp Price |
|------------------------|--------------------------------|-----------------------|----------------------|------------------------------|
| Instrumental Variable: | (1) | (2) | (3) | (4) |
| | <i>Second Stage Regression</i> | | | |
| Real Postage Costs | -0.021** (0.010) | -0.021** (0.010) | -0.087* (0.048) | -0.022** (0.010) |
| | <i>First Stage Regression</i> | | | |
| Postage | | -63.542*** (0.510) | | -63.240*** (0.516) |
| Stamp Price Change | | | 11.403*** (1.813) | 5.378*** (0.118) |
| Controls | ✓ | ✓ | ✓ | ✓ |
| Municipal FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Observations | 31,393 | 31,393 | 31,393 | 31,393 |
| R ² | 0.005 | 0.005 | 0.003 | 0.005 |

Note:

*p<0.1; **p<0.05; ***p<0.01

Our results go in the same direction as those from Schelker and Schneiter (2017), but the magnitudes of the effects differ. Relying on the full sample leads to a reduction of turnout by about 0.016 percentage points (nominal terms) and 0.021 percentage points (real terms). Both estimates are smaller than Schelker and Schneiter (2017) report for the canton of Berne.

In all of the specifications, an increase of 1 cent (CHF) in nominal terms reduces voter turnout by about 0.016 to 0.082. The same increase in real terms reduces turnout by 0.021 to 0.087. While we still find a reduction in turnout, it is less pronounced in all specifications except when we instrument stamp price (nominal and real). Here we found a stronger reduction of turnout compared to that reported by Schelker and Schneiter (2017).⁶ Column 3 reports effects that are driven by stamp price changes by the Swiss post. The intuition for this specification is that we compare turnout in municipalities where increases in stamp price have no effect to the turnout in municipalities where envelopes are not prepaid; therefore, increases in prices should exhibit an effect.

The first stage regressions in column 2 show that introducing prepaid envelopes reduces nominal postage costs by about 81 cents (real costs: 64 cents). Overall, the coefficients are relatively stable, smaller in magnitude compared to those reported by Schelker and Schneiter (2017) with the exception for the third IV specification in column 3.

⁶This might be a result from the fact that we rely on different stamp prices than Schelker and Schneiter (2017) (see Table A4 in the Appendix).

A1.4 Large and Small Municipalities: IV IV Identification Strategy and Effect Heterogeneity

Additionally, we re-estimate the IV regressions described in A1.2. This time we split our sample into small and large municipalities. For both scenarios, real and nominal terms, costs are not significantly correlated with turnout for small municipalities (except in the third scenario, where we instrument costs with a change in stamp prices).

Table A7: Estimation of Turnout on Nominal Postage Costs (Small Municipalities)

| Dependent variable: | Turnout | | | |
|------------------------|--------------------------------|-----------------------|----------------------|-------------------------------|
| Instrumental Variable: | - | Prepaid Postage | Stamp Price | Prepaid Postage & Stamp Price |
| | (1) | (2) | (3) | (4) |
| | <i>Second Stage Regression</i> | | | |
| Nominal Postage Costs | 0.006 (0.007) | 0.004 (0.007) | -0.460*** (0.089) | 0.003 (0.007) |
| | <i>First Stage Regression</i> | | | |
| Postage | | -84.995*** (0.013) | | -84.982*** (0.022) |
| Stamp Price Change | | | 5.106*** (0.855) | 4.229*** (0.011) |
| Controls | ✓ | ✓ | ✓ | ✓ |
| Municipal FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Observations | 7,603 | 7,603 | 7,603 | 7,603 |
| R ² | 0.006 | 0.006 | 0.0003 | 0.006 |

Note:

*p<0.1; **p<0.05; ***p<0.01

Table A8: Estimation of Turnout on Real Postage Costs (Small Municipalities)

| Dependent Variable: | Turnout | | | |
|------------------------|--------------------------------|-----------------------|----------------------|-------------------------------|
| Instrumental Variable: | - | Prepaid Postage | Stamp Price | Prepaid Postage & Stamp Price |
| | (1) | (2) | (3) | (4) |
| | <i>Second Stage Regression</i> | | | |
| Real Postage Costs | 0.010 (0.009) | 0.005 (0.009) | -0.392*** (0.060) | 0.004 (0.009) |
| | <i>First Stage Regression</i> | | | |
| Postage | | -65.193*** (0.028) | | -65.176*** (0.023) |
| Stamp Price Change | | | 6.015*** (0.651) | 5.343*** (0.009) |
| Controls | ✓ | ✓ | ✓ | ✓ |
| Municipal FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Observations | 7,603 | 7,603 | 7,603 | 7,603 |
| R ² | 0.006 | 0.006 | 0.001 | 0.006 |

Note:

*p<0.1; **p<0.05; ***p<0.01

This changes when we only look at large municipalities (see Table A9 and Table A10). Here, nominal and real postage costs are significantly correlated with turnout. Depending on the given specification, prepaid envelopes are associated with a turnout that is roughly 1.5 percentage point higher compared to large municipalities that do not use prepaid envelopes. Interestingly, instrumenting costs with a change in stamp prices does not yield a significant effect.

Table A9: Estimation of Turnout on Nominal Postage Costs (Large Municipalities)

| Dependent Variable: | Turnout | | | |
|------------------------|--------------------------------|-----------------------|----------------------|------------------------------|
| Instrumental Variable: | - | Prepaid Postage | Stamp Price | Prepaid Postage, Stamp Price |
| | (1) | (2) | (3) | (4) |
| | <i>Second Stage Regression</i> | | | |
| Nominal Postage Costs | -0.017** (0.008) | -0.018** (0.008) | -0.057 (0.045) | -0.018** (0.008) |
| | <i>First Stage Regression</i> | | | |
| Postage | | -80.834*** (1.094) | | -80.564*** (1.113) |
| Stamp Price Change | | | 12.499*** (2.420) | 4.454*** (0.269) |
| Controls | ✓ | ✓ | ✓ | ✓ |
| Municipal FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Observations | 23,790 | 23,790 | 23,790 | 23,790 |
| R ² | 0.005 | 0.005 | 0.003 | 0.005 |

Note:

*p<0.1; **p<0.05; ***p<0.01

Table A10: Estimation of Turnout on Real Postage Costs (Large Municipalities)

| Dependent Variable: | Turnout | | | |
|------------------------|--------------------------------|-----------------------|----------------------|-------------------------------|
| Instrumental Variable: | - | Prepaid Postage | Stamp Price | Prepaid Postage & Stamp Price |
| | (1) | (2) | (3) | (4) |
| | <i>Second Stage Regression</i> | | | |
| Real Postage Costs | -0.023** (0.010) | -0.023** (0.010) | -0.061 (0.049) | -0.023** (0.010) |
| | <i>First Stage Regression</i> | | | |
| Postage | | -63.417*** (0.524) | | -63.090*** (0.526) |
| Stamp Price Change | | | 11.698*** (1.871) | 5.398*** (0.125) |
| Controls | ✓ | ✓ | ✓ | ✓ |
| Municipal FE | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ |
| Observations | 23,790 | 23,790 | 23,790 | 23,790 |
| R ² | 0.005 | 0.005 | 0.004 | 0.005 |

Note:

*p<0.1; **p<0.05; ***p<0.01

A1.5 Determinants of Treatment Exposure

Table A11: Potential Determinants of Prepaid Postage

| | Schelker and Schneiter (1) | Our Data (all cantons) (2) |
|--------------------|-------------------------------|-------------------------------|
| Mean income | -0.0002 (0.001) | 0.000 (0.000000) |
| Median/mean income | 0.053 (0.067) | -0.011 (0.052) |
| Population | 0.027 (0.018) | 0.027 (0.022) |
| Population density | 0.026 (0.021) | 0.0001 (0.0001) |
| % foreigners | 0.004 (0.004) | 0.001 (0.001) |
| % young | -0.002 (0.002) | -0.002 (0.001) |
| % old | -0.001 (0.003) | -0.003* (0.002) |
| Municipal FE | ✓ | ✓ |
| Year FE | ✓ | ✓ |
| Observations | 8,450 | 10,209 |
| R ² | 0.018 | 0.014 |

Note: *p<0.1; **p<0.05; ***p<0.01

A1.6 Population Density vs Population Size

It is not evident that population size is the adequate measure. Ideally, we would have the number of postal mail boxes and how far somebody has to walk/drive to get there on average. We do not have this. Next, we would like to know how many postal mail boxes there are but we do not have this data as a time-variant measure for the years we are looking at. But, we are able to retrieve the number of postal mail boxes for 2021 and can look at how this correlates with population size and density.⁷ This allows us to see whether one of the two measures may be more suited to account for different impacts that prestamped postage may have.

Table A12: Importance of Population Density vs. Population Size, both z-transformed

| | Model 1 | Model 2 | Model 3 |
|-------------------------|----------------------|---------------------|----------------------|
| Population Size | 13.427*** (0.322) | | 14.344*** (0.367) |
| Population Density | | 7.925*** (0.913) | -2.556*** (0.523) |
| Constant | 7.267*** (0.366) | 8.188*** (0.730) | 7.123*** (0.360) |
| Observations | 494 | 492 | 492 |
| R ² | 0.780 | 0.133 | 0.790 |
| Adjusted R ² | 0.779 | 0.132 | 0.789 |

Note: *p<0.1; **p<0.05; ***p<0.01
(population size and density are -z-standardized)

The models in Table A12 present our estimations. We use the number of postal mail boxes per municipality in 2021 and regress this on the z-standardized population size variable (Model 1), on the z-standardized density variable (Model 2), and also present a model with both variables (Model 3). Using standardized variables allows us to gauge the correlation but one can also look at the R^2 measure. The results indicate that population size is the better proxy for number of postal mail boxes.

⁷This data can be found here: <https://swisspost.opendatasoft.com/explore/dataset/zugangspunkte-post/table/>.