

## **Who decides?**

### **Characteristics of a vote and its influence on the electorate**

#### **Abstract**

Unequal participation is a persistent matter of concern both in electoral and direct democracy. In this contribution, we focus on direct democratic votes and investigate how vote characteristics such as overall turnout, complexity or ballot length affect participation by age and gender and reinforce or mitigate unequal participation. Empirically, the analysis is based on registered panel participation data from a Swiss city, which enabled us to trace individual turnout over several years, allowing observing at which votes citizens chose to participate and at which votes they stayed away from the ballot box, building on the concept of selective participation. The results show that a high turnout is indeed related with a higher equality both with regards to the gender and age gap in participation, and especially complex votes deter young voters from participation. However, the moderating effects do not change the strong overrepresentation of older age groups and men who participate at each vote or even increase overrepresentation.

#### **Keywords**

voting; direct democracy; turnout; participation; equality

## 1. Introduction<sup>i</sup>

Who is “the electorate” and how does its composition change with a rising turnout and other varying characteristics of votes? This question, strongly linked to the concern that low turnout rates go along with strong and persistent patterns of unequal representation (Blais et al. 2004; Verba et al. 1995), has plagued political scientists for decades. One of the main debates has centered on the theoretical argument that factors facilitating participation and individual decision-making increase turnout mainly among disadvantaged groups and thus this results in a more demographically representative electorate (Quintelier et al. 2011; Karp and Banducci 2000: 225; Lijphart 1997; Mitchell and Wlezien 1995: 181). However, empirical findings are mixed and suggest that higher turnout does not change the composition of the electorate (Wolfinger and Rosenstone 1980) or even fortifies the advantages of those who generally have higher propensities to participate (Leighley and Nagler 2014; Karp and Banducci 2000; Brians and Groffman 1999; Calvert and Gilchrist 1993).

Thus, the starting point of this study is to *ask whether characteristics of the vote affect the social stratification of those who decide at the ballot*. We focus on direct democratic ballot proposals in Switzerland, a country with notoriously low turnout rates both in elections (Blais 2014; Lutz and Marsh 2007) and direct democratic votes (Linder 2012: 307). Focusing on direct democratic ballot proposals means that the subject of research are votes on policy issues, not elections of officials/representatives. Hence, it can be well assumed that the char-

acteristics of the proposal, e.g., its perceived relevance or complexity, will affect individual turnout for a specific political decision (Blais 2000: 45; Lutz 2007). In other words, according to our central argument, we need to consider *how* a vote is perceived to understand *who* participated.

In addition to the relevance of the case under investigation, the contribution of the present study goes beyond existent research in at least three respects. *Theoretically*, we expand the previously mentioned literature on turnout and participatory equality. We consider the assumption of these studies that whatever facilitates participation increases turnout and thus equality of participation. However, whereas these studies have mostly focused on institutional features of elections and votes (i.e., compulsory voting, postal voting, regulations on voter registrations), we draw on research on direct democratic votes to argue that characteristics of the vote may not only ease, but also complicate individual decision-making and thus potentially affect turnout and the stratification of the electorate in both directions (Kriesi 2005). Second and *empirically*, we rely on a unique data set of “real,” i.e., registered, participation data for national ballot measures in the city of St. Gallen, Switzerland. The data structure at hand enables us to analyze the same citizens and their actual participation over time, and thus across varying vote contexts. We believe that such registered participation data is very valuable for learning more about who is participating and under what conditions. In contrast, a shortcoming of this kind of data is its limited availability of individual-level information. For this reason, we focus on two demographic factors in our analyses – age and gender – which have repeatedly been identified as important sources of inequality

of participation (Wattenberg 2016; Blais and Rubenson 2013; Lutz 2012; Engeli et al. 2006; Franklin 2004; Sciarini et al. 2001; Lijphart 1997; Brady et al. 1995; Dahl 1976). Last, we use the recently developed model of selective participation (Dermont 2016, Sciarini et al. 2016) to focus *conceptually* on the group of citizens that can be influenced by vote-specific factors, i.e. those who participate not always but sometimes. In contrast, citizens who always or never participate are not dependent on vote characteristics, as they per default abstain or express their opinion on every vote. This approach to participation with a perspective over time thus allows to analyze which demographics, in this contribution focusing on age and gender, are mobilized for certain vote contexts. In contrast to citizens who participate either always or never, those who do so only selectively are the ones changing the composition of the electorate and thus potentially change representativeness – focusing on those who are subjected to vote context thus allows to answer when the electorate is most representative if it is not at full participation.

The following section presents our theoretical framework where we develop and discuss the conditions under which citizens may decide to vote or abstain from a specific decision. Next, we discuss the data and methodological approach, before we report and analyze the results. Our study concludes with a summary of the results and conclusions.

## **2. Theoretical background**

### *2.1. Turnout and the social stratification of participation*

In many developed democracies, decreasing turnout levels have raised concern about the social stratification of the electorate and a potential lack of legitimacy if “disadvantaged” groups absent themselves from political decisions (Lutz and Marsh 2007; Blais et al. 2004; Verba et al. 1995). The theoretical argument supporting these kinds of concerns suggests that the higher the barriers to participation are, the lower the mobilization of disadvantaged groups. Conversely, factors that facilitate participation are expected to lead to higher turnout rates and to a demographically more representative electorate. However, empirical evidence regarding the social stratification of those who vote is controversial at best. The forerunner study in this respect by Wolfinger and Rosenstone (1980), for instance, concluded that the composition of the electorate remained largely unchanged although the liberalization of voter registration indeed increased turnout in the U.S.. Other authors have argued that easing participation through liberalized voter registration laws (Mitchell and Wlezien 1995), postal voting (Karp and Banducci 2000), or compulsory voting (Quintelier et al. 2011) increases rather than decreases the social stratification of the electorate. Hence, reforms that facilitate participation make it easier for those already inclined to turn out (Leighley and Nagler 2014: 10; see also Karp and Banducci 2000; Brians and Groffman 1999; Calvert and Gilchrist 1993).

From this research, we draw two main conclusions. First, factors that influence the barriers to participation may not only affect turnout as such, but also the social stratification of the electorate. Second, while theory and empirical findings are inconsistent with regards to whether the electorate becomes more or less demographically representative, they share the notion that the rules and

characteristics of a vote may mobilize varying groups of citizens differently (Karp and Banducci 2000). In the next subsection, we take the first argument as a starting point and discuss how the characteristics of the vote may affect the barriers to participation. Then we consider group-specific mobilization effects, which enables us to formulate our hypotheses.

## *2.2.Characteristics of the vote and the costs of participation*

While the studies discussed in the previous section mainly focus on institutional regulations regarding citizens' participation in elections, the more specific characteristics of a vote or an election may plausibly affect individual turnout for a specific political decision (Blais 2000: 45). Swiss research on popular votes proposes a broad menu of such factors (Milic et al. 2014; Lutz 2007; Kriesi 2005). By using the key argument from the literature on turnout and social stratification, we focus on the characteristics of the vote that ease or complicate participation and thus may influence the turnout level as well as—given a group-specific mobilization—the equality of participation.

What are the mechanisms to complicate or ease participation? On the one hand, one of the main obstacles to participation in direct democratic votes is information costs (Bowler et al. 1992). The effort people need to form a more or less informed decision varies not only between groups but also between proposals. While the latter importantly means that the factors related to a single proposal will “raise or lower costs associated with voting” (Bowler et al. 1992: 561; see also Fraga and Hersh 2010), the former implies that these factors may mobilize or demobilize varying groups of voters differently, and hence

affect the social stratification of the electorate. Besides this cost mechanisms, characteristics of the vote may also involve a benefit side. In particular, if an individual has a stake in an issue put to vote (due to interest, perceived relevance or affectedness), such an issue-specific mobilization can compensate to a certain degree the costs of participation.

Let us now move to the characteristics of the vote more specifically and how they may complicate or ease participation. One obvious driver of the costs of participation is the *complexity of a proposal*. When citizens encounter complex questions to which they do not have an immediate answer, one possible reaction is to rely on heuristics (Milic et al. 2014: 24ff; Kriesi 2005; see also Boudreau and MacKenzie 2014). However, all these strategies only apply when a citizen already has decided to cast a vote. Since many citizens often refrain from participation, the “ultimate shortcut” and default option in the context of difficult decisions is not to participate at all (Kriesi 2005: 138).

A second factor influencing the costs of participation is the *ballot length*, i.e., the number of proposals to at stake on the same day. While on some occasions only one issue is on the ballot, the ballot length can also range to a dozen of proposals (typically including national, cantonal, and even local ballot proposals). Earlier research from both the U.S. and Swiss context has demonstrated that a high number of simultaneous decisions negatively affects turnout (Lutz 2007). This finding is attributed mainly to high information costs and “voter fatigue” (Blais 2014; Freitag and Stadelmann-Steffen 2010; Bowler et al. 1992). The more proposals that are at stake, the more demanding it is to make

an informed decision on all the proposals. This situation leads to a lower turnout in general and a higher likelihood of rejecting a proposal, i.e., to defend the known status quo (Selb 2008). On the other hand, however, if a broad menu of different questions put to vote, the likelihood that they find one interesting or important or are affected by a proposal increases (Uebersax 1991). This benefit side of a ballot day may make participation more probable, despite the costs of information.

Whereas the first two factors are related to how difficult it is for citizens to form an opinion, two further factors concern the willingness to do so. It has been argued that the motivation to engage in decision-making and to eventually cast a vote depends on whether a person has a specific interest in a particular proposal (Smith 2009; Qvortrup 2002). Thus, a high *perceived relevance* is expected to increase the likelihood that individuals participate in a vote by compensating for the costs of participation. Similarly, and based on a classical argument from electoral research (e.g., Geys 2006; Matsusaka 1993), the motivation to engage with a proposal and to participate is contingent on the *expected tightness* of the vote, i.e., the expectation that one's vote "counts".

Whereas sometimes one or more very contested and important proposals could motivate and mobilize a lot of citizens, at other instances only rather uncontested or second-order issues are at the ballot, which may reduce the likelihood of participation.

A fifth factor which may influence the costs but also benefits of participation is the *political campaign* prior of direct democratic votes. Political campaigns

can be considered as source of information provided by political actors with the intent to convince voters (e.g., Bernhard 2012; Kriesi 2012; Sciarini and Tresch 2011; Brady and Johnston 2006; see also Holbrook and McClurg 2005). In the context of the present study, we are not interested in the persuasive effects (i.e., whether voters cast a yes or a no-vote) of political campaigns; rather, we focus on the mobilizing effects of these campaigns (i.e., raising turnout) (Holbrook and McClurg 2005). Most studies – not least in the context of Swiss referendum votes (Nai 2013; Kriesi 2005) – have concluded that campaign activity increases participation by reducing information costs and by creating interest in a vote (see also Holbrook and McClurg 2005: 690). Due to an intense campaign, voters may feel the issue at stake is important and that be part of the decision generates a (substantial or at least procedural) benefit. In contrast, other authors have argued that campaigns may also demobilize voters by activating cross-pressures or increasing feelings of alienation (Converse 1962; Berelson et al. 1954).

### *2.3. Who is affected by vote-specific factors?*

Both strands of studies previously discussed have emphasized that the effect of institutional and vote-specific factors on turnout may differ by societal groups. While the empirical inconsistencies regarding the effects of institutional factors on the electorate already have been mentioned, research on vote-specific factors has surprisingly little to say about the effects of group-specific mobilization. The few studies that have explicitly considered this issue are

concerned with campaign effects. In this vein, Holbrook and McClurg (2005) have found that intense (presidential) campaigns most strongly affect partisans, while the mobilization of independents is much more difficult. This result tends to support the view that electoral campaigns mostly increase the participation of those who already have some intention to participate, meaning that the composition of the electorate will not change much. In contrast, Tolbert et al. (2009) have concluded that initiative campaigns have the potential to increase particularly the participation of the lower educated, which would thus imply a more equal political participation.

Against this background, we argue that the factors influencing the costs and benefits of participation can be expected to mobilize varying groups of the electorate differently, and therefore have the potential to affect the composition of the electorate. We focus on two demographic factors, which have repeatedly been identified as important sources of inequality of participation, namely gender and age.

In order to formulate specific hypotheses regarding the factors that influence the costs of participation, we have to discuss which groups will most likely be affected by varying costs of participation. In this vein, we rely on previous research suggesting that systematic differences in individual decision making but also in general propensities to participate exist between women and men, but also between age groups:

*Gender differences:* Lately, research has suggested that the gender-gap of participation is reducing or vanishing (Engeli et al. 2006; Sciarini et al. 2001; Schlozman et al. 1994), but especially older women still participate less (Dermont 2016). Moreover, women still exhibit lower levels of political interest, which may be related to a lower motivation to engage in decision-making. Furthermore, Lipsitz et al. (2005) show that women are more skeptical towards controversial debates, which may hinder women to listen to and consider arguments mentioned in the campaign. Hence, overall the expectation is that factors decreasing or compensating for the costs of participation for a voting day should affect women's participation more strongly than men's propensity to vote.

*Age differences:* As previously mentioned, the propensity to vote tends to increase as an individual ages, reasons being that older individuals exhibit higher levels of political interest and knowledge, but also more strongly perceive political participation as a civic duty (Wattenberg 2016; Blais and Rubenson 2013; Franklin 2004; Lijphart 1997; Brady et al. 1995; Dahl 1976). Older age contributes to increasingly fixed preferences (Lipsitz et al. 2005) and more developed party affiliations. As a result, this group might often be able and willing to rely on (party) heuristics to make their decision (Dalton 1984: 273, 275) and are less dependent on changing context. These factors imply that participation as well as decision making is more stable in older cohorts, while factors influencing information costs should only be of limited importance. The opposite is expected for young people, who show lower levels of political interest and participation, as well as less developed and stable party affiliations,

meaning that this group will be less inclined to vote based on cues (Dalton 1984: 273, 275). Moreover, they tend to be cognitively mobilized (Dalton 1984), implying that the specific vote (i.e., the issue, but also its complexity and perceived relevance) may strongly affect the likelihood of participation. The complexity of proposals, and thus the difficulty to make a choice, has been identified as one of the main reasons why young people often abstain from the ballot (Lee Kaid et al. 2007). Hence, we conclude that the likelihood that a young person casts a vote is more strongly dependent on vote-specific factors.

However, we could also propose a contrasting view by assuming that younger people are actually better able to handle increased information costs due to longer ballots, since they are able to handle a greater number of different issues at the same time. While younger individuals tend to be cognitively mobilized (Dalton 1984), the oldest age groups may be most strongly affected by an overload mechanism (Freitag and Stadelmann-Steffen 2010).

Moreover, besides effects of aging, generational cohort effects are possible: depending on the experiences of a certain generation, the relation with politics and/or participation are different, which does not simply relate to the age a person has (Tawfik et al. 2012). One possible such generational effect is described by Dermont (2016) relating to gender: citizens who still experienced a time where women were disenfranchised in Switzerland (until 1971) might have a different experience of politics, and especially women who were excluded from political participation still exhibit lower participation rates in older age groups due to this cohort effect. Indeed, in reality, individuals can

be assigned to a group regarding both age and gender, raising the question of what happens, for instance, if gender (i.e., being male) suggest a low relevance of vote-specific factors, while age (i.e., being young) speaks in favor of a strong contingency on these characteristics of the vote. In the following, we assume therefore that the two mechanisms add to each other, meaning that for instance a young women will react even more strongly to vote-specific factors than a young man.

### *2.1. Hypotheses*

Based on the previous discussion we derive two main hypotheses:

H1: Characteristics of the vote influence voter turnout: While long ballots and complex proposals reduce the likelihood that selective voters participate, an intense campaign increases the propensity to cast a vote.

H2: Characteristics of the vote moderate the social stratification of the electorate, since younger people's and women's selective participation is more strongly related to the costs of participation than the propensity to vote of elderly and male selective voters.

## **3. Data and Method**

To test our hypotheses, we use the data from the city of St. Gallen, which registers individual participation since 2010 for all its citizens and for each voting or election day. We moreover rely on the concept of selective participation, which is interested in the frequency of participation by citizens over time (Dermont 2016; Sciarini et al. 2016). In a participatory context like Switzerland a

citizen has many possibilities per year to participate in elections and ballot measures. While roughly half of the population either participates always or never (Dermont 2016), the other half of the electorate participates sometimes, i.e. they decide vote-by-vote whether to cast a vote or not. Against the background of our research question, this group of selective participants is most relevant. In fact, changing contexts of votes can be expected to affect those individuals who participate selectively, whereas the turnout of those who always or never participate is per definition independent of these vote-specific factors. Hence, our focus on *selective participants* improves conceptual clarity, i.e., the fit between our hypotheses and the empirical implementation. Based on the frequency of participation over time, individuals are therefore classified into three groups: *always*, *never*, and *selectively* participating citizens (Linder et al. 1991; Dermont 2016), whereby only the latter group is used in the analyses.

It is empirically difficult to capture selective participation, since ideally, we need information on the “true”, i.e., registered participation of the same individuals over time. This kind of data is available only for a few entities in Switzerland, most importantly for the canton of Geneva (Sciarini et al. 2016; Tawfik et al. 2012) and for the city of St. Gallen (Fachstelle für Statistik 2010–2018; Dermont 2016), the latter serving as empirical basis for the present contribution. Whereas the focus on just one city limits the generalization of results, St. Gallen is a rather moderate city: politically neither especially progressive nor conservative, and embedded in the rural canton of St. Gallen. Thus, the relationships between characteristics of votes and individual behavior can be expected to be similar also in other contexts of Switzerland (please refer to the

supplementary material for more information on the case). In the data set, every individual has a numerical identification, which enables us to track her/his participation over time, but not how he/she voted (or, in cases where several proposals were on the ballot, whether a citizen cast a vote on all of them or not). The data set includes 34 votes and elections over the time span of 9 years (2010–2018). Our initial dataset includes 67'360 individuals with up to 34 observations.

We use the full data set to generate an individual *participation record*. Based on 34 observations, including elections and votes on all three federal levels of Switzerland, we compute a lagged count of participation for each individual. Citizens who gain or lose the right to vote within the time frame of data collection are included as soon as they have a record of at least ten consecutive votes and elections. We consider a vote record of 0 and 1 as 'never' participating citizen, and 9 and 10 as 'always' participating citizen, following Dermont (2016) to not overrate a one-time participation or a once-missed vote. Individuals with between 2 and 8 participation events out of ten, are considered as selective participants.

Our dependent variable is whether an individual participates at a given voting day (1) or not (0). Thus, we consider *individual participation events*, but only for national votes. We thus reduce the sample to the 26 national votes, for which we also have the contextual information with regards to the characteristics of the vote. Based on the participation record, we select and focus on citizens who participate selectively. The first 5 national votes drop out of the analysis, as we

don't yet have a record of participation for those votes due to the lagged approach, reducing the sample to 21 national. From these remaining observations, a random sample of 2'000 individuals with a total of 23'533 individual participation events is drawn. We work with a sample due to the large dataset and the cross-nested structure we apply for considering contextual effects both by vote and by individual, which push the limits of computational powers even with cluster computers. In the analysis, the results thus reflect estimations for  $n = 23'533$  observations,  $N_{id} = 2'000$  individuals and  $N_{votes} = 21$  federal votes. This random sample does not significantly differ from the larger one in terms of socio-demographic factors and turnout.

At the individual level our key explanatory variables are a persons' age (five categories: 18-30, 31-45, 46-60, 61-75, 75+) and gender. Control variables at the individual level include the available socio-demographic variables, i.e., civil status, residential stability, and religious denomination.

It is important to mention that our design implies that we analyze the mobilization effect *on top* of the turnout baseline (i.e., the roughly 23 per cent who always cast a vote). In other words, by focusing on the selective voters, we investigate who joined the always participating in a particular vote. With respect to a representative electorate, the baseline is the group of always participating citizens in which men and older age cohorts are systematically overrepresented (Dermont 2016; Sciarini et al. 2016). To attain a more representative electorate, a vote needs to particularly mobilize women and young citizens among its selective participants.

The operationalization and summary statistics of the variables are documented in Table A1 in Appendix I.

The main interest is on the contextual level where the 21 observations are federal ballot measures. Every observation can also comprise decisions on other levels or elections, but at least one federal vote (referendum or initiative) is included. Central explanatory factors are characteristics of the voting day. First, the *number of proposals* (per observation, i.e., voting day) and the *turnout rate* (measured for the whole electorate in St. Gallen) are included. Furthermore, the perceived *complexity* of a vote and its perceived *relevance* is measured based on post-votes polls and the expected *tightness* based on trend surveys.<sup>ii</sup> Regarding the campaign, the number of articles on an issue is used as an indicator of *campaign intensity* (see Table A2 in Appendix I and supplementary material for detailed information on data sources).

Since observations are nested within different time points (i.e., the different participation events) and also within individuals (i.e., each individual was observed several times), cross-classified random intercept models are applied (Steenbergen and Jones 2002). The random intercept for individuals captures varying participation propensity, the random intercept for time accounts for varying participation at certain votes. A random slope for time furthermore captures individual trends in participation. The time variable is counted as 0 at the first observation, and exactly a year later would account to a 1, therefore metrically represent the time which has evolved since the start of the data

collection. Finally, since the dependent variable is dichotomous, individual participation was transformed to a logit structure.

A Bayesian estimation approach is applied (for further model specifications, please refer to the supplementary material). For an easy interpretation of the Bayesian estimation results, the mean and the standard deviation of the posterior distribution are presented, which can be interpreted similar to a standard regression situation – the mean is the average effect of an independent variable on the outcome variable. Moreover, the 95 per cent credible intervals are provided, which are the Bayesian equivalent to confidence intervals in a standard regression context. If this interval does not include zero, a given “effect” can be considered as systematic, i.e., “significant.” The empiric procedure is documented in the supplementary material.

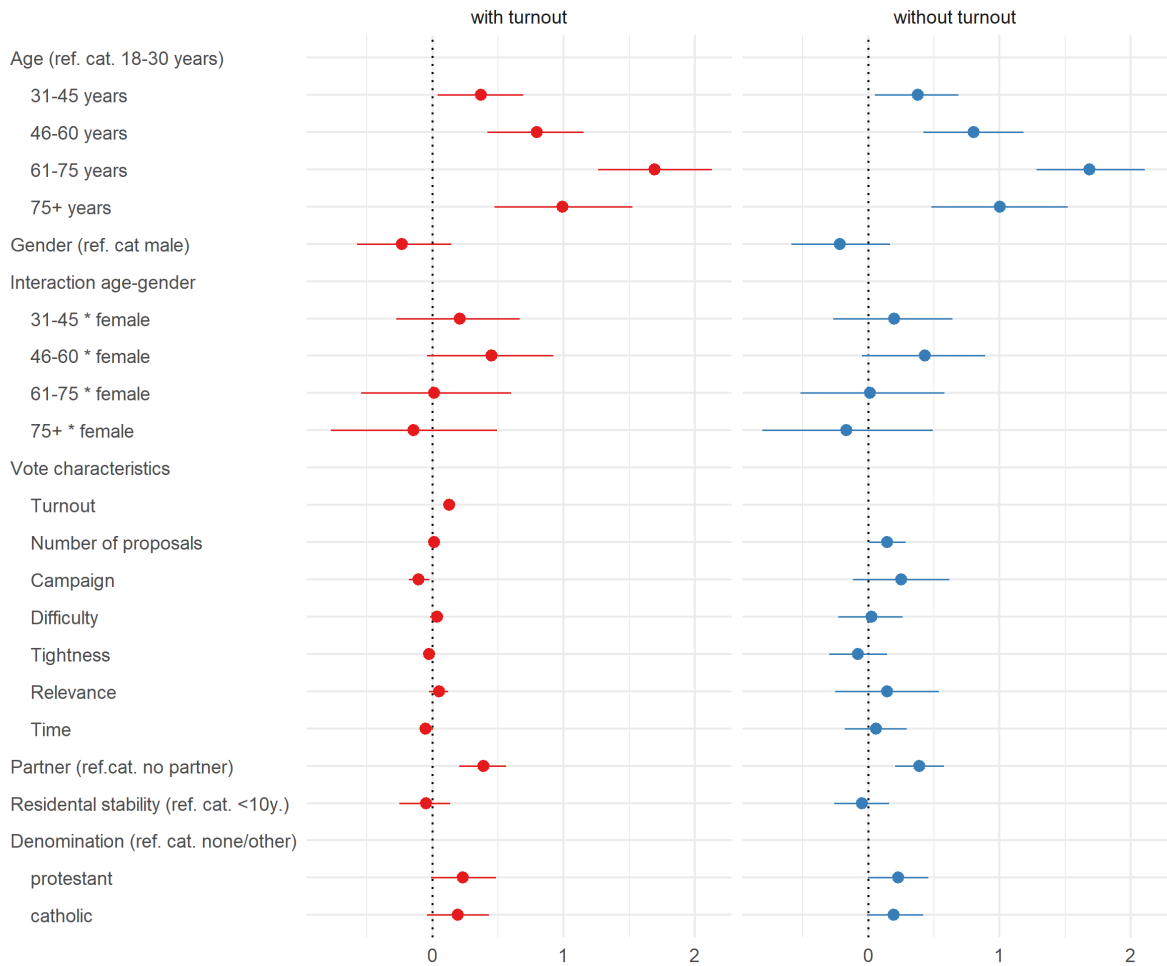
#### **4. Empirical findings**

In a first step, we estimated a basic model with all individual-level variables, as well as our four vote-specific factors. This model provides a first idea of whether individual participation systematically varies between different voting days in general and between different vote characteristics more specifically. In view of the individual characteristics, Fig. 1 reveals that individual participation systematically differs especially for age. Confirming previous results, the age category of 61 to 75 years is most likely to participate in ballot decisions, while we see an aging effect: participation propensity increases with age, but drops again for the most senior citizens. Interestingly, the main effect for gender is

not systematic, speaking for no difference of participation for young women compared to young men in the group of selectively participating citizens. Indeed, within the group of selective participants, also the interaction effects for each age category with gender are not systematic, arguing for the absence of a gender gap in this part of the electorate (see also Fig. 1A in den Appendix). These findings imply that the traditional Swiss gender gap suggesting lower participation of women is nowadays inexistent with regards to citizens participating selectively. While these results are in accordance with recent findings from urban contexts suggesting that the gender gap may have vanished (Stadelmann-Steffen and Dermont 2016; Tawfik et al. 2012), it is important to mention that our results concern only selective participants. As previously mentioned, among the always-participating individuals, women are underrepresented, meaning that the overall composition of the electorate is still not gender-balanced (Engeli et al. 2006; Lutz 2012).<sup>iii</sup>

Concerning the vote-specific factors in general, the turnout rate is – not surprisingly – significantly related to a higher individual probability to participate (Model 1). This variable seems to capture most other vote-specific factors (excluding a negative effect of mentions in traditional media, i.e., campaign intensity), meaning that it corresponds to our theoretical assumptions that factors influencing the cost-benefit ratio of participation will eventually affect overall turnout. For this reason, and to better understand what lies behind the turnout effect, we exclude the turnout rate in Model 2. In this model, the number of votes is systematically associated with individual turnout: the more proposals appear on a ballot, the more likely were selective participants to cast a

vote. For all other tested variables, no systematic main effect is observable in a model with all vote characteristics included.



**Fig. 1:** Determinants of individual participation over time (mean and 95% credible interval). *Note:* For illustrative purposes the coefficient and credible interval of campaign intensity has been multiplied by 100 (e.g., corresponds to the number of articles in hundreds) and the coefficient and credible interval of the perceived difficulty and tightness has been multiplied by 10. Full results are available in the Appendix in Table A3.

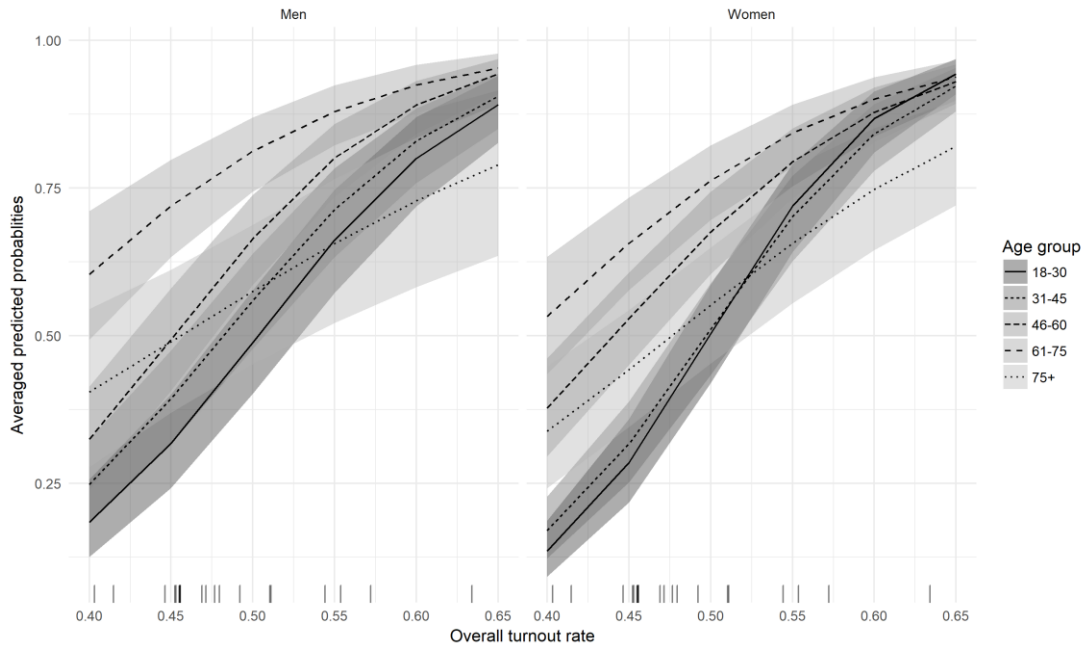
We proceed to investigate whether these vote-specific variables could mobilize age and gender specifically among the selective participants, and thus eventually moderate the composition of the electorate. For this purpose and

building on the second model, further models that include interaction effects between the six vote-specific factors, gender and age, have been estimated.

In the following, we present the averaged predicted probabilities for these interaction effects, while the full results can be found in the Appendix in Tables A.4a and A.4b. With this procedure, we simulate for each individual with its distinct characteristics how the propensity to vote as predicted by the model would look like with all possible combinations of age group, gender, and contextual variable level.

As Fig. 2 shows, all groups exhibit a higher probability to participate in a high turnout context. Younger age categories are most affected by a rise in turnout, i.e., mobilized if turnout is higher. The mobilization effect is systematically lower for citizens over 75 years compared to the youngest generation of 18 to 30 years. Also, a gender gap shows: including an interaction effect between gender and turnout shows that participation is systematically lower for women in general, but systematically catches up in higher turnout situation. However, in the age group of 46 to 60 years women react negatively to higher turnout than their male peers, whereby women within this age group are systematically less mobilized than men if turnout rises. The results reveal the importance to combine age and gender effects: visually and systematically, the mobilization effect is strongest for younger age groups and for women (Fig. 2), which counters the overrepresentation of older age groups and men. Overall, these initial findings corroborate our first hypothesis: we expected that

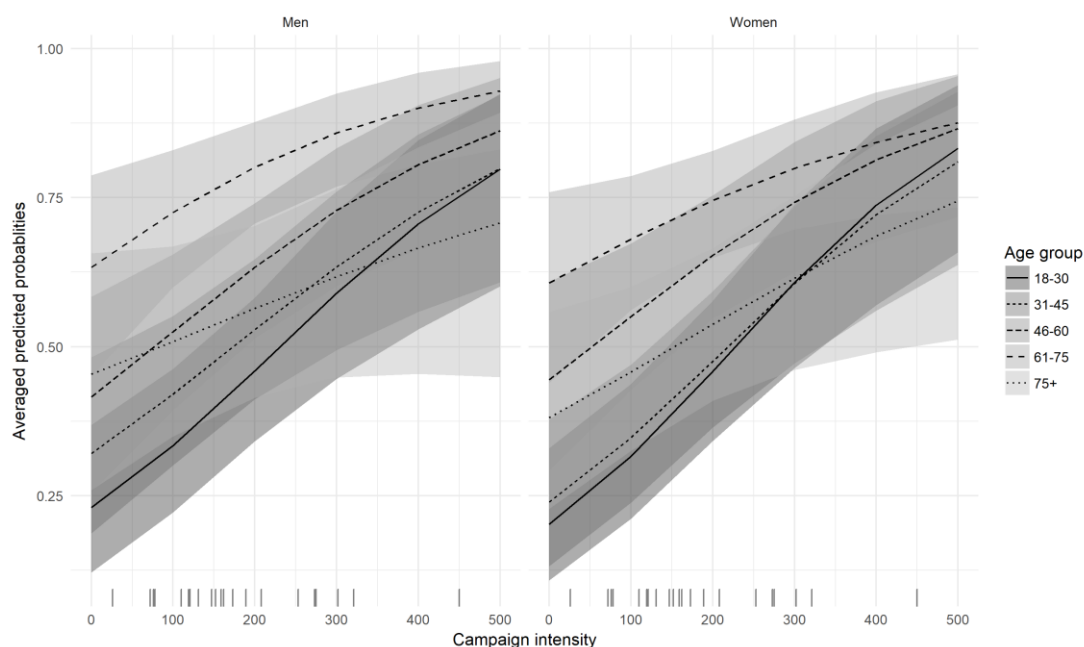
high turnout is associated with a more representative composition of the electorate, which is confirmed both for age and gender. This only refers to the group of selectively participating citizens, where we see a catch-up effect both for gender and age – which does however not change the overrepresentation of old men in the group of those who always participate.



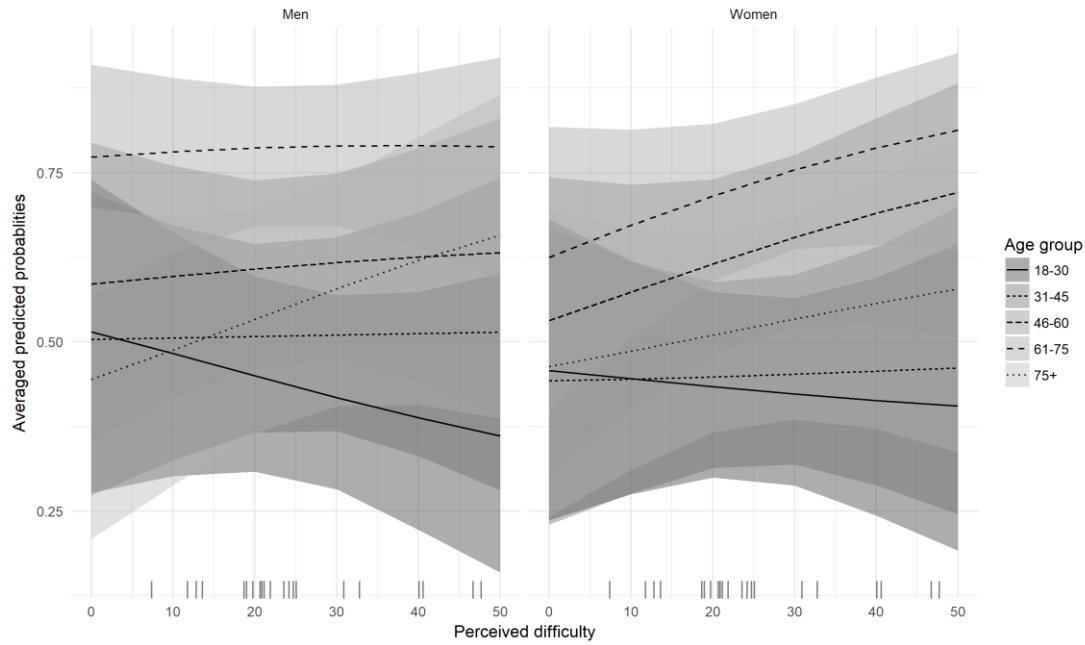
**Fig. 2:** Averaged predicted probabilities for participation by age, gender and turnout. Full results are available in the Appendix in Table A4a. The rug on the bottom of the figure shows actual values of turnout.

The results concerning *campaign intensity* are similar to those just presented, whereby high campaign intensity is systematically associated with higher probabilities to participate in general. However, Figure 3 illustrates no distinct differences by age or gender. Only the oldest age group of 75+ years is systematically affected by a stronger campaign leading to a lower participation propensity. Overall the findings imply that an intense campaign is an important driver for participation in general, and not specifically for a certain group of

age and/or gender. This speaks to the argument that intense campaigns provide information to citizens, which facilitates decision making and thus increases turnout (Kriesi 2005; Tolbert et al. 2009), could however also be linked with a higher perception of the vote as such and it being perceived as an important decision where they want to partake. Our hypothesis that campaign intensity would moderate participation propensity for certain groups needs however to be rejected.



**Fig. 3:** Averaged predicted probabilities for participation by age, gender and campaign intensity. Full results are available in the Appendix in Table A4a. The rug on the bottom of the figure shows actual values of campaign intensity.



**Fig. 4:** Averaged predicted probabilities for participation by age, gender and perceived difficulty of a vote. Full results are available in the Appendix in Table A4a. The rug on the bottom of the figure shows actual values of perceived difficulty.

For the *perceived difficulty of a vote*, the most interesting group to look at is the age group of 18 to 30 year olds, i.e., those who gained political rights latest. Fig. 4 demonstrates that the propensity to vote drops for the youngest age groups with rising difficulty, which is in contrast to the other age groups (and systematically different from the age groups of 46-60 and 75+ years). Although the individual interaction effects for gender and age are not systematic, the slopes of the averaged predicted probabilities in Fig. 4 exhibit a tendency that men are more affected by difficulty, with young men being deterred from participation and women less prone to be demobilized with higher difficulty.

Finally, the interaction models regarding the *ballot length*, *tightness of a vote* and the *perceived relevance* do not lend support for the hypothesis of group-specific modification (see supplementary material).

## 5. Conclusion

In this present study, we asked whether the characteristics of a vote affect selective participation and – due to group-specific mobilization – the social stratification of those who decide at the ballot. We theorized that vote-specific factors such as turnout rate, campaign intensity, complexity of a proposal, and ballot length may have the potential to moderate costs and benefits of participation and therewith the social composition of the electorate. Conceptually in contrast to earlier studies, we focused on the group of selective participants – i.e., those voters who decide from time to time whether to cast a vote or abstain – since theoretically, only this group’s participation can be sensitive to vote-specific factors.

Our results show that vote-specific factors are indeed systematically associated with selective participation. The findings corroborate the expectation that intense campaigns improve the cost-benefit ratio of participation through information provision and mobilization, and therefore increase participation. Similarly, more issues at stake and on the ballot lead to a higher participation propensity, possibly as the likelihood rises of having an interesting issue at stake, or an issue which concerns an individual. The cost argument with an information overload is thus rejected. On the other side, complex ballots are not generally associated with greater abstention of selective voters.

Moreover, we find that the social stratification of the selective voters indeed is partly associated with vote-specific factors, in particular with the general turnout level and perceived difficulty. While a higher turnout seem to equalize

participation by age and gender to a certain extent, the (group-specific) mobilization is not able to compensate for the underrepresentation of younger people and women among those who always participate and, thus, of the electorate as a whole. In the case of perceived difficulty, higher complexity of the issue at stake negatively affects young citizens, illustrating the necessity to provide accessible information so as not to deter young citizens to participate at political decisions and further enhance the age gap.

Overall, the present study supports findings from previous research that higher turnout rates are not necessarily and generally related to more equal participation. The mobilization effect is not changing the electorate to an extent which is large enough to compensate overrepresentation by older men, notably (Calvert and Gilchrist 1993; Brians and Groffman 1999; Leighley and Nagler 2014; Karp and Banducci 2000; Wolfinger and Rosenstone 1980). We differentiate this conclusion based on mechanisms of group-specific mobilization. Hence, high turnout situations indeed mobilize underrepresented groups more strongly. (More) equal participation is however not simply achieved with mobilizing underrepresented groups in key votes with controversial issues. Rather, more equal participation is reached by considering the frequency of participation, as a high turnout from time to time does not compensate the generally higher propensity to vote of old men in votes with low turnout situations. Equal participation is thus most likely achieved if citizens are stimulated to participate constantly rather than only in situations with a high perception in the public.

One approach for fostering turnout in general could be to bundle more ballot decisions on the same day. Given that selective participants have the choice from several possibilities to participate and the number of votes apparently helps to raise participation, instead of having national votes four times a year those could be bundled together to one big voting day each year which likely has lots of attention – however possibly evoking other negative sides of numerous campaigns trying to reach voters at the same time and on a multitude of issues. Nevertheless, with less selection *when* to participate, it could be expected that more citizens participate at such big voting days as they are known, e.g., in California. More targeted on young citizens (and likely with less negative side-effects) is the approach taken by ‘easyvote’.<sup>iv</sup> This approach wants to lower the hurdle to participation by providing citizens with less complex, technocratic information about votes to motivate young citizens to participate in politics more often. In general, the strategy to continuously and neutrally supporting citizens with information provision – generally and young citizens and female specifically – exhibits a possible path to more equal participation by lowering the demands towards forming an opinion. In general, while those who always participate have the biggest say in politics as they regularly express their opinion, our contribution suggests to focus on the different group. If turnout and representation are key for broadly legitimized political solutions, citizens who participate only selectively should be scrutinized more closely and be in the focus of research on voting behavior and participation. Changes to the way how votes work – e.g., electronic voting – should

thus also target the group of selective participants, if such a measure should raise participation.

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## Appendix I: Variables and descriptive statistics

Table A1: Variables and Operationalization

VARIABLE	OPERATIONALISATION	VALUES
<b>Participation</b>	0 = abstained, 1 = participated	54% participated
<b>Age</b>		
18-30		20%
31-45		25%
46-60		25%
61-75		18%
75+		12%
<b>Age</b>		
Men		45%
Women		55%
<b>Civil status</b>	0 = single/divorced/ widowed, 1 = married/living in partnership	43% married/living in partnership
<b>Residential stability</b>	0 = less than 10 years, 1 = longer than 10 years	74% longer than 10 years
<b>Religion</b>		
Other		32%
Evangelic/Protestant		27%
Catholic		40%
<b>CONTEXTUAL VARIABLES</b>		
<b>Time</b>	continuous	min = 2.28, max = 7.99
<b>Turnout</b>	continuous	min = 40%, max = 63%, mean = 48%
<b>Number of votes</b>	continuous	min = 1, max = 11, mean = 5
<b>Campaign intensity</b>	continuous	min = 26, max = 450, mean = 180
<b>Complexity</b>	continuous	min = 7%, max = 48%, mean = 25%
<b>Tightness</b>	continuous	min = 1%p, max = 45%p, mean = 19%p
<b>Relevance</b>	continuous	min = 3.71, max = 7.79, mean = 6.02

*Note:* The sample of 23'533 observations and 2000 individuals is considered.

*Source:* Fachstelle für Statistik (2010-2018).

Table A2: Campaign intensity measured by earned media

VOTE (GERMAN TITLE OF MAIN VOTE)		KEYWORDS	HITS
07.03.2010	Volksinitiative "Gegen Tierquälerei und für einen besseren Rechtsschutz der Tiere (Tierschutzanwalt-Initiative)"	Tierschutzanwalt\$, Tierquälerei	12
26.09.2010	Arbeitslosenversicherungsgesetz	AVIG, Arbeitslosenversicherung\$	135
28.11.2010	Ausschaffungsinitiative	Ausschaffungsinitiative, für die Ausschaffung krimineller Ausländer, kriminelle Ausländer	315
13.02.2011	Volksinitiative "Für den Schutz vor Waffengewalt"	Initiative für den Schutz vor Waffengewalt, Waffengewalt\$	109
11.03.2012	Volksinitiative "6 Wochen Ferien für alle"	Ferieninitiative, 6 Wochen Ferien für alle, Sechs Wochen Ferien für alle	83
17.06.2012	Änderung vom 30.9.2011 des Bundesgesetzes über die Krankenversicherung (KVK) - Managed Care	Managed care, Krankenversicherung\$, KVG	147
23.09.2012	Volksinitiative "Schutz vor Passivrauchen"	Schutz vor Passivrauchen, Passivrauch\$	121
25.11.2012	Tierseuchengesetz	Tierseuche\$	26
03.03.2013	Volksinitiative "gegen die Abzockerei"	Abzocker\$, Minder Initiative	275
09.06.2013	Volksinitiative «Volkswahl des Bundesrates»	Volkswahl\$, Volkswahl des Bundesrates, Bundesratswahl	78
22.09.2013	Volksinitiative «Ja zur Aufhebung der Wehrpflicht»	Wehrpflicht\$, Militärdienst	173
24.11.2013	Volksinitiative «Für gerechte Löhne»	1:12\$, Für gerechte Löhne, Lohninitiative	273
09.02.2014	Volksinitiative «Gegen Masseneinwanderung»	Masseneinwanderung\$, Zuwanderung\$	450
18.05.2014	Volksinitiative «Für den Schutz fairer Löhne (Mindestlohn-Initiative)»	Mindestlohn\$, Für den Schutz fairer Löhne	253
28.09.2014	Volksinitiative «Für eine öffentliche Krankenkasse»	Einheitskasse\$, öffentliche Krankenkasse, Einheitskrankenkasse\$, Krankenkassen-Vorlage	162
30.11.2014	Volksinitiative «Stopp der Überbevölkerung – zur Sicherung der natürlichen Lebensgrundlagen»	Ecopop\$, Überbevölkerung\$	321
08.03.2015	Volksinitiative «Familien stärken! Steuerfreie Kinder- und Ausbildungszulagen»	Kinderzulagen, Ausbildungszulagen, Familieninitiative	119
14.06.2015	Volksinitiative «Millionen-Erbenschaften besteuern für unsere AHV (Erbschaftssteuerreform)»	Erbschaftssteuer\$	159

28.02.2016	Volksinitiative «Zur Durchsetzung der Ausschaffung krimineller Ausländer (Durchsetzungsinitiative)»	Durchsetzung\$, Ausschaffungsinitiative, DSI	302
05.06.2016	Volksinitiative «Für ein bedingungsloses Grundeinkommen»	Grundeinkommen	72
25.09.2016	Volksinitiative «AHVplus: für eine starke AHV»	AVHplus\$, AHV-plus\$, AHV-Abstimmung, "AVH plus"	76
27.11.2016	Volksinitiative vom 16.11.2012 «Für den geordneten Ausstieg aus der Atomenergie (Atomausstiegsinitiative)»	Atomausstieg\$	131
12.02.2017	Erleichterte Einbürgerung von Personen der dritten Ausländergeneration	Einbürgerung\$	110
21.05.2017	Energiegesetz	Energiegesetz, Energiestrategie, ES2050	208
24.09.2017	Bundesgesetz vom 17.03.2017 über die Reform der Altersvorsorge 2020	Altersvorsorge\$, AHV-Reform, AV2020	152
04.03.2018	Volksinitiative vom 11.12.2015 «Ja zur Abschaffung der Radio- und Fernsehgebühren (Abschaffung der Billag-Gebühren)»	No Billag\$, No-Billag\$, Radiogebühren, Fernsehgebühren, Billag-Gebühren	189

*Considered media:* 20min.ch, Blick, NZZ, NZZ am Sonntag, Ostschweiz am Sonntag, Sonntag, Sonntagszeitung, Sonntagsblick, St. Galler Tagblatt, Tages Anzeiger. Always considered one month before the vote, all keywords combined with OR.

*Source:* Factiva.

## Appendix II: Models

Table A3: Basic models

FACTOR		Model 1			Model 2		
		MEAN	0.025	0.975	MEAN	0.025	0.975
<b>Age</b> (ref.cat. 18-30)	31-45	0.369	0.038	0.692	0.376	0.050	0.687
	46-60	0.797	0.419	1.152	0.805	0.419	1.183
	61-75	1.693	1.264	2.132	1.685	1.284	2.108
	75+	0.992	0.473	1.526	1.002	0.480	1.522
<b>Gender</b> (ref.cat. male)		-0.231	-0.572	0.145	-0.217	-0.585	0.167
<b>Interactions</b>	female * 31-45	0.211	-0.275	0.665	0.196	-0.269	0.640
	female * 46-60	0.449	-0.041	0.924	0.430	-0.050	0.893
	female * 61-75	0.015	-0.543	0.602	0.013	-0.515	0.581
	female * 75+	-0.143	-0.771	0.491	-0.166	-0.809	0.491
<b>Partner</b> (ref.cat. no partner)		0.388	0.206	0.563	0.388	0.206	0.575
<b>Residential stability</b> (ref.cat. <10y.)		-0.048	-0.251	0.135	-0.049	-0.258	0.158
<b>Denomination</b> (ref.cat. none/other)	Protestant	0.233	-0.011	0.487	0.228	-0.003	0.457
	Catholic	0.195	-0.040	0.432	0.194	-0.010	0.418
<b>Time</b>		-0.050	-0.099	0.005	0.058	-0.179	0.293
<b>Turnout</b>		12.758	10.944	14.320			
<b>Campaign</b>		-0.001	-0.002	-0.000	0.003	-0.001	0.006
<b>Difficulty</b>		0.004	-0.002	0.008	0.002	-0.023	0.026
<b>Tightness</b>		-0.002	-0.006	0.002	-0.008	-0.030	0.014
<b>Relevance</b>		0.051	-0.025	0.120	0.144	-0.251	0.539
<b>Number of votes</b>		0.013	-0.019	0.045	0.144	0.006	0.286

Notes: Posterior distribution of log-odds (mean and 95% credible interval), all models were calculated in R using MCMCglmm (Hadfield 2010; 250'000 iterations, 200'000 burn-in, 50 thinning), no signs of non-convergence.

Table A4a: Interaction models

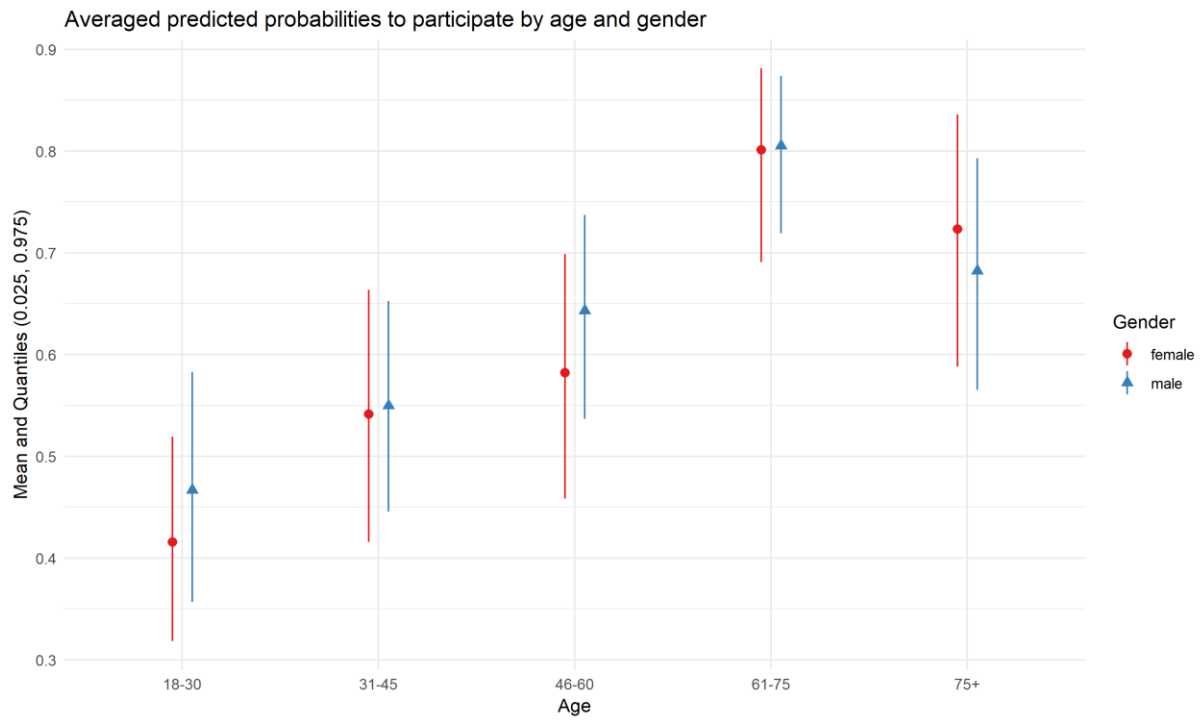
FACTOR		Model 3	0.025	0.975	Model 4	0.025	0.975	Model 5	0.025	0.975
<b>Age</b> (ref.cat. 18-30)	31-45	0.768	-1.022	2.691	0.483	-0.005	0.987	-0.051	-0.592	0.505
	46-60	0.875	-1.052	2.729	0.917	0.426	1.467	0.310	-0.270	0.905
	61-75	3.604	1.560	5.667	1.865	1.250	2.525	1.265	0.593	1.958
	75+	4.186	1.924	6.422	1.080	0.357	1.805	-0.311	-1.088	0.455
<b>Gender</b> (ref.cat. male)		-2.113	-4.057	-0.323	-0.170	-0.701	0.345	-0.250	-0.822	0.345
<b>Time</b>		0.010	-0.026	0.048	0.134	-0.016	0.289	0.112	-0.082	0.308
<b>Context</b> (Turnout, Campaign, Difficulty)		14.806	12.054	17.689	0.006	0.003	0.008	-0.014	-0.047	0.019
<b>Interactions</b>	female * 31-45	0.497	-1.966	3.086	-0.257	-0.881	0.413	-0.016	-0.740	0.729
	female * 46-60	3.091	0.628	5.619	0.297	-0.388	0.964	0.012	-0.838	0.832
	female * 61-75	1.840	-0.848	4.710	0.049	-0.694	0.833	-0.525	-1.399	0.332
	female * 75+	1.051	-1.910	3.921	-0.149	-1.035	0.792	0.337	-0.663	1.339
	Context * 31-45	-0.950	-4.890	2.638	-0.001	-0.003	0.001	0.015	-0.001	0.031
	Context * 46-60	-0.255	-4.003	3.734	-0.001	-0.003	0.001	0.018	0.001	0.036
	Context * 61-75	-4.099	-8.215	0.007	-0.001	-0.003	0.001	0.016	-0.005	0.036
	Context * 75+	-7.649	-12.466	-3.099	-0.003	-0.006	-0.001	0.033	0.009	0.057
	Context * female	4.351	0.665	8.358	0.001	-0.001	0.003	0.009	-0.008	0.027
	Context * female * 31-45	-1.517	-6.550	3.509	0.000	-0.002	0.003	-0.008	-0.032	0.013
	Context * female * 46-60	-6.196	-11.578	-1.220	-0.001	-0.004	0.002	0.004	-0.019	0.027
	Context * female * 61-75	-4.420	-10.241	1.095	-0.002	-0.005	0.001	0.010	-0.016	0.036
	Context * female * 75+	-2.421	-8.445	3.533	0.000	-0.003	0.003	-0.018	-0.050	0.011
<b>Partner</b> (ref.cat. no partner)		0.508	0.317	0.698	0.513	0.323	0.706	0.508	0.313	0.696
<b>Residential stability</b> (ref.cat. <10y.)		-0.094	-0.299	0.116	-0.096	-0.310	0.121	-0.093	-0.302	0.112
<b>Denomination</b> (ref.cat. none/other)	Protestant	0.386	0.126	0.640	0.387	0.128	0.641	0.386	0.128	0.636
	Catholic	0.375	0.143	0.615	0.380	0.159	0.607	0.373	0.150	0.600

Notes: Posterior distribution of log-odds (mean and 95% credible interval), all models were calculated in R using MCMCglmm (Hadfield 2010; 400'000 iterations, 350'000 burn-in, 50 thinning), no signs of non-convergence.

Table A4b: Interaction models

FACTOR		Model 6	0.025	0.975	Model 7	0.025	0.975	Model 8	0.025	0.975
<b>Age</b> (ref.cat. 18-30)	31-45	0.564	0.011	1.152	0.365	-0.034	0.749	0.536	-0.698	1.695
	46-60	0.715	0.123	1.347	0.778	0.308	1.252	0.479	-0.733	1.746
	61-75	1.785	1.092	2.465	1.414	0.853	1.945	2.760	1.385	4.260
	75+	0.396	-0.371	1.170	0.803	0.127	1.476	1.094	-0.666	2.868
<b>Gender</b> (ref.cat. male)		-0.102	-0.713	0.506	0.015	-0.461	0.459	-1.251	-2.530	0.054
<b>Time</b>		0.155	-0.039	0.344	0.032	-0.157	0.232	-0.046	-0.271	0.185
<b>Context</b> (No. Votes, Tightness, Relevance)		0.155	-0.019	0.337	-0.007	-0.033	0.018	0.219	-0.174	0.608
<b>Interactions</b>	female * 31-45	-0.406	-1.146	0.344	-0.076	-0.667	0.523	0.747	-1.123	2.342
	female * 46-60	0.317	-0.520	1.110	0.511	-0.155	1.130	1.135	-0.540	2.877
	female * 61-75	-0.067	-0.911	0.815	0.279	-0.456	1.027	0.248	-1.573	2.173
	female * 75+	-0.045	-1.029	0.951	-0.167	-1.009	0.711	2.065	-0.154	4.273
	Context * 31-45	-0.052	-0.149	0.039	0.001	-0.013	0.014	-0.023	-0.197	0.167
	Context * 46-60	0.007	-0.091	0.101	0.002	-0.011	0.015	0.055	-0.134	0.244
	Context * 61-75	-0.031	-0.138	0.076	0.013	-0.003	0.029	-0.170	-0.384	0.035
	Context * 75+	0.021	-0.107	0.132	0.009	-0.011	0.029	-0.014	-0.276	0.262
	Context * female	0.017	-0.074	0.105	-0.011	-0.025	0.003	0.169	-0.019	0.362
	Context * female * 31-45	0.036	-0.086	0.163	0.013	-0.007	0.032	-0.093	-0.341	0.171
	Context * female * 46-60	-0.040	-0.163	0.087	-0.004	-0.022	0.014	-0.118	-0.382	0.130
	Context * female * 61-75	-0.042	-0.188	0.097	-0.012	-0.032	0.008	-0.045	-0.342	0.226
	Context * female * 75+	-0.015	-0.158	0.137	0.001	-0.023	0.025	-0.360	-0.690	-0.029
<b>Partner</b> (ref.cat. no partner)		0.515	0.312	0.695	0.387	0.201	0.582	0.385	0.207	0.574
<b>Residential stability</b> (ref.cat. <10y.)		-0.091	-0.293	0.102	-0.049	-0.261	0.154	-0.038	-0.235	0.176
<b>Denomination</b> (ref.cat. none/other)	Protestant	0.389	0.132	0.660	0.232	-0.021	0.489	0.228	-0.021	0.481
	Catholic	0.381	0.149	0.612	0.197	-0.026	0.419	0.194	-0.032	0.420

Notes: Posterior distribution of log-odds (mean and 95% credible interval), all models were calculated in R using MCMCglmm (Hadfield 2010; 400'000 iterations, 350'000 burn-in, 50 thinning), no signs of non-convergence



**Fig. A.1: Averaged predicted probabilities for participation by age and gender.**  
*Note:* Full results are available in the Appendix in Table A3, Model 1.

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<sup>i</sup> The data used in this contribution is available from the Office of Statistics, Canton of St. Gallen, but cannot be provided by the authors. Further replication material, e.g., R Codes, are available upon request.

<sup>ii</sup> The *main proposal* was identified as the one with the highest turnout rate and the lowest proportion of empty ballots (Joye and Papadopoulos 1994).

<sup>iii</sup> 31.8 per cent of male citizens always participate, while this share is only at 28.1 per cent for female citizens, accounting to a 'baseline' gender gap of roughly 4 per cent.

<sup>iv</sup> <https://www.defacto.expert/2018/07/04/easyvote-bundesbuechlein/>, accessed 17.7.2018.