Power Sharing at the Local Level: Evidence on Opting-In for Non-Citizen Voting Rights
Power Sharing at the Local Level: Evidence on Opting-In for Non-Citizen Voting Rights*

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Abstract

The enfranchisement of foreigners is likely one of the most controversial frontiers of institutional change in developed democracies, which are experiencing an increasing number of non-citizen residents. We study the conditions under which citizens are willing to share power. To this end, we exploit the unique setting of the Swiss canton of Grisons, where municipalities are free to decide on the introduction of non-citizen voting rights at the local level (a so called opting-in regime). Consistent with the power dilution hypothesis, we find that enfranchisement is less likely the larger the share of resident foreigners. Moreover, municipalities with a large language/cultural minority are less likely to formally involve foreigners. In contrast, municipality mergers seem to act as an institutional catalyst, promoting democratic reforms. A supplementary panel analysis on electoral support for an opting-in regime in the canton of Zurich also backs the power dilution hypothesis, showing that a larger share of foreigners reduces support for a regime change.

Keywords: non-citizen voting rights, opting-in, power sharing, democratization

JEL classifications: D72, D78, J15, K16

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1 Introduction

Over the last decades, international migration and mobility have led to an increase in the proportion of non-citizen residents in many democratic countries. This development has reignited a long-standing discussion about the extent of non-citizens’ formal inclusion in the democratic process, the focus being on the right to vote as a fundamental participatory aspect of democracy. In this, the primary normative questions are whether voting rights should be unbundled from the legal status of citizenship and under what conditions these rights should be granted. In this discourse, the main arguments refer to the procedural value of electoral participation rights and the democratic principles postulating that all the individuals (not just citizens) whose interests are affected by a state’s laws and policies, or who are subject to state coercion, should have a say about its rules and coercive power. A related argument emphasizes the potential benefits for political integration, as foreigners are expected to be more motivated to engage in the political discourse and to identify more with the polity of their host country if they are granted formal participation rights. The loyalty and commitment frequently associated with naturalization, however, have also been stressed as preconditions for access to voting rights in order to maintain stable communities. In contrast to the elaborate reasoning in favor of or against non-citizen political participation rights, there is a relatively poor understanding of the conditions under which the formal political inclusion of non-citizens is possible and accepted by the resident citizens, i.e. under which they are willing to share power.

In this paper, we present a corresponding positive analysis on the conditions under which citizens are willing to grant voting rights to non-citizens. We first derive and structure a set of hypotheses about the potential drivers of power sharing. We then exploit a unique context to learn about their empirical relevance in democratization at the micro level and study the determinants of the introduction of non-citizen voting rights across a set of municipalities within the same country and state (canton). Citizens in these municipalities have the constitutional right but not the obligation (opting-in clause) to extend active and passive voting rights to non-citizens. Specifically, we undertake a quantitative case study for the Swiss canton of Grisons (German: Graubünden). After a complete revision of the cantonal constitution in 2004, 208 municipalities were given the right to independently introduce local voting rights for their non-citizen resident popula-

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1 According to the latest OECD data (2016/2017), the non-citizen population amounts to, for example, 9.29% in the UK (2017), 6.60% in France (2016), 12.15% in Germany (2017), 47.20% in Luxembourg (2017), and 24.01% in Switzerland (2017).

2 There is a large literature in normative political theory which mostly argues that non-citizens should not be permanently excluded from the right to vote in democracies (see, e.g., Bauböck 2015, Dahl 1989, Miller 2008, Pettit 2012, Rubio-Marin 2000, and for reviews, Blatter et al. 2017, and Song 2009).

Reviews of these arguments are provided in Munro (2008) and Ferris et al. (2019). A recent empirical literature has tried to rigorously test the different predictions (see, e.g., Ferwerda et al. 2019 with regard to political participation or Slotwinski et al. 2017 for legal norm compliance).
This setting is attractive compared to cross-country comparisons, as it involves a rather homogeneous set of jurisdictions facing similar economic and political conditions.

We supplement this cross-sectional analysis on the actual enfranchisement of foreigners at the municipal level with an analysis of the determinants of the electoral support for a constitutional amendment that would have granted the same right to municipalities in the canton of Zurich. Citizens in the canton of Zurich voted on the introduction of an opting-in clause twice, in 1993 and in 2013. While both initiatives were rejected at the ballot box, they still offer the opportunity to study how public support for non-citizen voting rights evolved over time. In particular, the panel structure allows us to statistically account for time-invariant unobserved characteristics of the municipalities and to study how changes in municipality characteristics over time are related to changes in the support for the opting-in regime.

We address two sets of hypotheses. A first set that concentrates on citizens’ instrumental interests and the institutional context and a second set that instead concentrates on preference-based motives. With regard to the former, we study whether non-citizen voting rights are less likely to be introduced in municipalities where they would dilute citizens’ political power more. Power dilution is expected to be more pronounced in smaller municipalities, in municipalities with an assembly, and in municipalities with a higher share of foreigners. Depending on the composition of the foreign population, power sharing is also expected to be less likely where citizens might be more concerned about a potential fiscal burden when foreigners obtain formal electoral rights. Moreover, in the context of municipal mergers, previous power structures can be seen as up for negotiation; consequently, a suffrage extension is more likely to be expected. With regard to the preference-based hypotheses, we analyze whether the experience of a minority status within the canton due to religious affiliation (Protestantism), language (Romansh, Italian) or history (Walser heritage) relates to the willingness to share power. In addition, we test hypotheses that refer to citizens’ partisan, immigration, and historical power-sharing preferences and their experience or contact with mobile seasonal workers (i.e. non-resident foreigners).

In the cross-sectional analysis for the canton of Grisons, we find that by 2017 about 30% of the original municipalities had adopted non-citizen voting rights. Analysis shows that the socio-demographic composition of the municipalities in terms of age structure, education, unemployment and income do not seem to be systematically related to the introductions of local voting rights for non-citizens. The same holds for the population size of the municipalities. However, a larger foreign population is statistically significantly negatively correlated with the adoption of immigrant voting rights, with a 10 percentage point higher proportion being related to about a 9 percentage point lower probability. We do not observe that the socio-economic characteristics of the foreign population make a difference in this relationship. Municipalities involved in a municipality merger are 28 percentage points more likely to adopt non-citizen voting rights. There is
no systematic difference in this likelihood that depends on whether the municipality has a parliament rather than an assembly. Primarily Protestant municipalities, which form a minority in the mainly Catholic canton, are more likely to adopt non-citizen voting rights. In contrast, primarily Romansh-speaking municipalities, which in turn form a minority in the mainly Swiss-German-speaking canton, are less likely to enfranchise foreigners. Consistent with the preference-based hypotheses, municipalities that revealed stronger reservations towards immigration before 2004 are less likely to share power and municipalities where more citizens supported lowering the voting age to 18 from 20 are more likely to do so. Finally, a higher exposure to foreign seasonal workers (who are not directly affected by franchise extensions) is positively correlated with power sharing, with a 10 percentage point higher fraction being related to about an 18 percentage point higher probability.

An analysis of the two popular initiatives in the canton of Zurich complements the evidence for Grisons. Based on a longitudinal design, we find that an increase in the share of the young population raises and an increase in the share of the old population lowers support for the constitutional amendment. According to our results, an increase in the proportion of the foreign population by 10 percentage points reduces the vote share in favor of the opting-in clause by 3.5 percentage points. In this, the socio-economic composition of the foreign population again does not seem systematically related to the willingness to share power. The cross-sectional correlations for reservations towards immigration and the support for a lower voting age are similar to the ones in the analysis for the canton of Grisons, but quantitatively less pronounced.

Summing up, our evidence from two case studies on the drivers of power sharing in Switzerland suggests that instrumental as well as preference-based motives play a role in citizens’ willingness to enfranchise non-citizens. While we find evidence that is consistent with the power dilution hypothesis, the fiscal threat hypothesis appears to be less predictive. Preferences toward immigration seem to be strongly related to the willingness to share power. Furthermore, municipality mergers – to some extent allowing the questioning of prior power structures – seem to work as a quantitatively important catalyst for power sharing.

Our institutional context and empirical evidence complement previous qualitative as well as quantitative studies primarily focusing on the introduction of non-citizen voting rights through national parliaments. Closest to our work is a cross-country study by Toral (2015), who studies...
33 democracies between 1960 and 2010. He derives hypotheses based on incumbent governments’ incentives to adopt non-citizen voting rights to maintain political power. He documents that left-wing governments are more likely to pass relevant legislation. In a series of studies, Earnest (2006, 2015a,b) considers the role of domestic politics and national characteristics on the one hand, and transnational factors on the other. The results suggest that the former is particularly relevant for the comprehensiveness and the latter for the timing of the introduction of non-citizen voting rights. His main analyses are based on data for 25 democracies between 1975 and 2010. A common characteristic of this earlier work is that democratic inclusion is studied as a top-down process and analyzed in a cross-country setting. In our work, we study power sharing as a bottom-up process of democratization that engages individual citizens who decide about non-citizen voting rights in their municipality of residence. This allows us to analyze more directly how citizens’ interests and preferences shape their willingness to share power. Furthermore, we are able to compare jurisdictions within one country and thus within a more homogeneous institutional setting.

Our work also contributes to the positive analysis of franchise extensions in general. So far, the primary focus has been on extensions to the poor and to women (see, e.g., Aidt and Jensen 2014, and Doepke et al. 2012 for a review of the related literature). Particularly interesting for our context is recent work on power sharing related to the introduction of female suffrage at the municipal and cantonal level in Switzerland by Koukal and Eichenberger (2017). They provide evidence that power sharing was deferred because men held substantial political power in the directly democratic municipalities.

The remainder of the paper is structured as follows. Section 2 discusses the institutional and historical context, both in the canton of Grisons and in the canton of Zurich. The theoretical considerations on the drivers of power sharing are introduced in Section 3. Section 4 describes the compiled data sets and the empirical strategies for the two quantitative case studies. Sections 5 and 6 present the results of the two respective analyses. Section 7 offers some concluding remarks.

2 Institutional and historical context

Voting rights are originally and generally bound to individuals’ legal citizenship in some jurisdiction. However, in some countries voting rights are also granted to resident non-citizens, although these rights are often restricted. For example, they may require a minimum duration of residence in the country or some subnational jurisdiction, and frequently only apply to the local or

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5 This also holds for the many countries that grant non-citizen voting rights at the local level. This is most prominently the case for the voting rights of EU citizens in EU countries outside of their home country introduced as part of the Maastricht treaty in 1992.
Figure 1: Non-citizen voting rights across Europe in 2015

![Map of Europe showing inclusiveness of non-citizen voting rights](image)

**Note:** The inclusiveness of non-citizen voting rights refer to the local legislative. Higher values (darker colors) indicate more inclusive regimes.

**Data source:** ELECLAW (Schmid et al., 2019).

In Europe only Portugal, Ireland and the UK offer voting rights to special groups of non-citizens at the national level.

A detailed legal and historical description is provided in Müller and Schlegel (2017).

In the canton of Jura, non-citizens are automatically registered after at least ten years of residence in Switzerland and at least one year in the canton of Jura. In the canton of Neuchâtel, foreigners have to have lived in the canton for at least five years. Registration also occurs automatically.

In Switzerland, the country’s federal organization leaves the competence to introduce non-citizen voting rights to the cantons. As a result, the corresponding situation in Switzerland varies at the subnational level. In 2019, eight out of the 26 cantons offer either some form of non-citizen voting rights at the cantonal level or an opting-in regime allowing their municipalities to adopt relevant legislation. Figure 2 visualizes the situation in detail. Two cantons offer active non-citizen voting rights (elections and ballot voting) at the cantonal, and active and passive voting rights at the municipal level (i.e. Jura and Neuchâtel), two cantons grant active and passive voting rights at the municipal level (i.e. Fribourg and Vaud), one canton limits the extended
franchise to an active voting right at the local level (i.e. Geneva) and three cantons leave it as an option to their municipalities (i.e. Appenzell a.R., Basel-Stadt, and Grisons). This situation is the result of a large number of attempts in the different cantons to introduce non-citizen voting rights. Adler et al. (2015) document a long list of cantonal votes on popular initiatives proposing amendments to the cantonal constitutions or on referendums regarding changes in the cantonal electoral law that in most cases were rejected. Only in Geneva, was a popular initiative of 2005 successful, with 52.3% yes-votes leading to the introduction of non-citizen voting rights at the municipal level. The failed attempts to introduce non-citizen voting rights include the two initiatives in the canton of Zurich that we analyze below. In most of the successful cases, the introduction was part of a general revision of the cantonal constitution and there was no separate vote on the aspect of power sharing. This also holds for the canton of Grisons, where, in 2003, citizens approved the completely revised cantonal constitution.

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9Besides formal voting rights in the municipalities, various other forms of political participation for foreigners are possible at the communal level, in particular in church communities (see, e.g., Zaslawski 2016). The advisory participation of foreigners in municipal matters, for example, is provided for by statute in the constitution of the canton of Thurgau.
2.1 Non-citizen voting rights in the canton of Grisons

In the canton of Grisons, an opting-in regime for non-citizen voting rights was included in the draft of a new and totally revised constitution. The protocols of the parliamentary debate list a series of arguments for why municipalities should be allowed to adopt a more inclusive electoral law. They echo the arguments discussed in normative as well as in positive political theory. Regarding the former, offering the opportunity to vote has been seen as a duty to engage in municipal matters as much as a right. The positive reasoning of supporters and opponents either emphasized or questioned the motivational effects on integration and the intention to become naturalized.¹⁰

The new constitution was approved on May 18, 2003 with a proportion of 59.7% yes-votes. As of January 1, 2004 the revised constitution of the canton of Grisons in article 9, subparagraph 4 allows (but does not require) its municipalities to enfranchise its resident foreigners for local issues.¹¹ According to this opting-in regime, they are allowed to grant active as well as passive electoral rights and also decide on any residence requirements. Municipalities in the canton of Grisons traditionally have high autonomy, and political decision-making at the local level is important. Among other things, citizens decide on local income tax, primary and secondary education, fire protection, social assistance and local infrastructure (streets, water, sewage, etc.). Municipalities spend 42% (2016) of total cantonal expenditures. They have an elected executive and important decisions are made either in municipal assemblies and/or in elected municipal parliaments.

Of the 208 municipalities in 2004, 71 (former municipalities) had adopted non-citizen voting rights by January 1, 2017. This is not easily observable from today’s perspective, as many of the municipalities merged over the thirteen-year period. In fact, as of January 1, 2017, there were only 112 municipalities left, of which 23 offer non-citizen voting rights. We consider this important procedural and institutional aspect in the theoretical and empirical analyses below. In 13 municipalities that maintained their boundary, the franchise was extended in the context of either a partial or total revision of the municipal constitution. In 57 (former) municipalities that merged to become 10 larger municipalities, half (i.e. five) of the latter introduced non-citizen voting rights in their new constitution, although none of the earlier municipalities had had them. In the five other cases, at least one of the former municipalities had already offered non-citizen voting rights. The new municipal constitutions brought about by the many mergers in the canton did not involve non-citizen voting rights in all cases however. Figure 3 shows a map of the municipalities in the canton of Grisons that adopted non-citizen voting rights as of

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¹⁰ Appendix A states the constitutional clause in German and in English and reproduces some quotes from the official protocols.
¹¹ Moreover, municipalities are not required to engage in any legal action in response to the constitutional clause. Thus municipalities are free not to become active in this area.
Figure 3: Non-citizen voting rights in the canton of Grisons in 2017

Data source: Bureau of Municipalities of the canton of Grisons.

2.2 Popular initiatives on the introduction of an opting-in regime for non-citizen voting rights in the canton of Zurich

Citizens in the canton of Zurich decided on two very similar popular initiatives on the introduction of an opting-in regime for non-citizen voting rights in 1993 and in 2013. While both initiatives were rather clearly rejected, they still offer the possibility to analyze how citizens’ preferences for power sharing evolved over time. The first initiative of 1993, titled “for an optional voting right for foreigners at the municipal level”, was launched by a committee formed by Social Democrats and supported by the union syndicate of Zurich (German: Gewerkschaftsbund Zürich). The second one in 2013, titled “for more democracy (optional voting rights for female and male foreigners at the municipal level)”, was submitted by a non-partisan platform engaged in migration issues. Both initiatives proposed granting municipalities the right to adopt active as well as passive non-citizen voting rights. They included a minimum requirement for residency in Switzerland, and, in

12The conditions for the right to vote differ across municipalities, with, for example, the local residency requirement varying between permanent residency only (without any time requirement) and ten years (Bisaz, 2017, p. 117). A list of the municipalities with additional information is provided in Appendix B.
Figure 4: Electoral support for an opting-in regime for non-citizen voting rights in the canton of Zurich in 1993 and 2013

Note: Correlation of the vote shares supporting the introduction of an opting-in regime for non-citizen voting rights across municipalities in the canton of Zurich in 1993 and 2013.
Data source: Statistical Office Zurich.

the second initiative, also a personal application (rather than automatic registration in the voting register) [Abstimmungszeitung 1993, 2013]. The cantonal parliament recommended rejection of the initiatives in both cases, the share of no-votes being 56.3% in 1993 and 57.8% in 2013. The rejection at the ballot was even more pronounced, with 74.5% of the active voters saying no in 1993 and 75.0% in 2013. Figure 4 shows that the vote outcome across municipalities still varied substantially in the two years and also within municipalities over time. The many dots below the diagonal indicate a decline in electoral support for the proposal in many municipalities over the twenty-year time period.

3 Theoretical considerations on power sharing with non-citizens

We model the adoption (and support) of non-citizen voting rights in a politico-economic environment in which power sharing is a bottom up process. Based on an individual calculus, citizens trade-off instrumental interests and value-based reasons for why they support or reject an ex-

13 Appendix C reproduces the texts of the two initiatives both in German and in English.
tension of the franchise to foreigners. Accordingly, our theoretical framework involves two sets of hypotheses. In a first set of hypotheses, we study the conditions under which the expected costs or individually perceived risks of power sharing are expected to be higher and thus the support for non-citizen voting rights to be lower. In a second set of hypotheses, we capture preference-based conditions in terms of experiences and attitudes that are expected to affect the willingness to support power sharing with fellow resident non-citizens. Of course, a distinction between drivers from the outside and motivation from the inside is difficult and primarily serves as an organizational principle.

3.1 Citizens’ instrumental interests

In essence, citizens are expected to support power sharing less if they are concerned about losing out in the political process and in the local economy more broadly. We group these possible concerns under two general hypotheses.

**Power dilution hypothesis** – The more political influence an individual citizen has to give up, the less likely it is that a municipality will adopt non-citizen voting rights. This aspect holds in particular when municipalities are smaller or when the share of foreigners who are to be enfranchised is higher. This especially holds if foreigners are expected to hold systematically different policy preferences and to shift the median voter position. In contrast, an individual citizen loses relatively less in direct participation possibilities if decision power in many issues is already delegated to an elected municipal parliament (rather than maintained among the voters attending municipal assemblies). A corresponding argument for the extension of the franchise to women is theoretically derived and empirically tested for the support of female suffrage in Swiss cantons by Koukal and Eichenberger (2017). Moreover, voting rights empower beyond the political sphere. Accordingly, the more unemployed and less educated people there are among the citizenry, the more reluctant they are to strengthen the relative position of foreigners. Finally, the additional loss in political influence of granting non-citizen voting rights is lower when citizens decide to merge municipalities in the first place. In addition, municipal mergers

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14 These arguments also hold when non-citizen voting rights are primarily introduced (and perceived) as an invitation (or even an obligation) to take on responsibility in the municipality, i.e. we still expect that they affect the trade-off, but just at a higher level of general support.

15 The reverse reasoning arises if a lack of qualified people who can serve in the municipal executive or in some other political body motivates the adoption of non-citizen voting rights (see Adler et al. 2015 for a relevant argument in favor of institutional reform), as this situation might be more of an issue in small municipalities. A prominent case is documented for the neighboring canton of Appenzell a.R., where one municipality made use of the opting-in regime to then elect a Dutch resident as mayor (p. 28).

16 A corresponding analysis for female suffrage and the emancipation of women in Switzerland is provided by Slotwinski and Stutzer (2018).

17 An empirical test of this hypothesis is difficult however, as the same groups of disadvantaged citizens might support non-citizen voting rights to strengthen their electoral clout.
generally require or at least invite a total revision of the municipal constitution. In this context, non-citizen voting rights get on the political agenda more easily, so that municipal mergers act as a catalyst for institutional reforms.

**Fiscal threat hypothesis** – Depending on the economic status of foreigners compared to that of resident citizens, foreigners - if they were to have the right to vote - would support a different bundle of publicly provided goods and services as well as a different level of social welfare spending (see, e.g., Vernby [2013]). A specific prediction can be derived based on the median voter model for redistributive taxation by Meltzer and Richard (1981). If the extension of the franchise leads to a situation in which the new median voter is relatively poorer, a higher level of welfare spending is implemented. A similar argument can be derived for additional spending for public services. Due to this fiscal threat, citizens are less likely to grant non-citizen voting rights if many citizens have high incomes or if there is a relatively higher welfare risk among the resident foreigners. In related evidence for member countries of the European Union, Fauvelle-Aymar (2014) shows that more educated citizens harbor stronger reservations towards immigrants from poor countries when the latter have the right to vote.

### 3.2 Four preference-based hypotheses

Apart from instrumental considerations, we would expect that an individual’s norms and attitudes are an additional important driver of the willingness to share power and will shape an individual’s perception of the cost of implementing non-citizen voting rights. We formulate a series of hypotheses about why, based on their experiences and attitudes, citizens are more or less likely to support their introduction.

**Hypotheses related to minority experience and minority status** – There are at least two countervailing forces motivating minority support for non-citizen voting rights. On the one hand, experiencing and personally knowing the situation of belonging to a cultural minority within a larger jurisdiction increases the understanding of and sympathy for members of other minorities (a mechanism captured in the rejection-identification model in social psychology going back to Tajfel [1978]). On the other hand, minorities are in an even weaker position when the pool of decision-makers is increased. In this case, minorities in power in some lower level jurisdiction are reluctant to share power with minority out-groups.

In the context of the canton of Grisons, the latter argument is particularly relevant, as cultural policy is at least partly a competence of the municipalities. In municipalities with a strong presence of the two language minorities Romansh and Italian (the majority language in the canton is Swiss German), power sharing is therefore less likely. In other cultural dimensions local identity is probably less threatened in terms of status vis-à-vis the rest of the canton and
the previous argument matters relatively more. This holds for religious affiliation (i.e. the Protestant religious minority in the canton of Grisons), or ancestry (i.e. the historical origin of population groups like the Walser).

**Contact hypothesis** – Beliefs about the consequences of sharing power with foreigners might be partly nurtured by prejudices concerning the preferences of these fellow residents. In this situation, more intensive contact between citizens and non-citizens could reduce relevant prejudices. This is the basic hypothesis of Allport’s (1954) intergroup contact theory. A rich literature has studied this aspect for attitudes towards immigrants (see, e.g., Green et al. 2016, 2019 and Paluck et al. 2019 for a review).

Intergroup contacts might thus be a counterforce to the fear of power dilution discussed above, making the extension of the franchise to non-citizens more likely with a higher proportion of foreigners in the municipality. The two forces can at least partly be separated when non-resident foreign seasonal workers are considered. Their presence makes encounters between foreigners and resident citizens more likely. However, they are not eligible to vote even with non-citizen voting rights as these are generally restricted to resident non-citizens. Thus power sharing is expected to be more likely with a larger share of non-resident foreign seasonal workers, given any level of resident foreigners in the municipality. To pin down the contact argument with non-resident foreigners empirically is, of course, difficult, as their presence is higher in more touristic municipalities, which might differ from other municipalities in many other ways.

**Hypotheses related to attitudes and ideology** – For ideological and strategic reasons (i.e. electoral support from the newly enfranchised), political parties on the left of the political spectrum tend to be more favorable towards immigrants and non-citizen voting rights (see, e.g., Howard 2010). The opposite holds true for parties on the right. In municipalities with a stronger support of left parties, the introduction of non-citizen voting rights is thus expected to be more likely and vice versa for right of center parties. More generally, with a larger fraction of citizens harboring reservations towards immigration and immigrants - almost tautologically - the adoption of non-citizen voting rights is less likely. Conversely, with a larger proportion of citizens supporting the idea of political inclusion, power sharing with foreigners is also expected to be more likely. Preferences for political inclusion have been historically revealed in popular votes on the introduction of female suffrage and the lowering of the voting age to 18 (rather than 20).

4 **Data and empirical strategies**

Based on a series of different data sources, two data sets for the cantons of Grisons and Zurich are compiled to empirically study the determinants of power sharing. In the following, we briefly explain these data sets as well as the empirical strategies we apply in analyzing them.
4.1 Data for the canton of Grisons

In order to analyze the determinants of power sharing, we define the base sample to be the set of municipalities as they existed on January 1, 2004, i.e., when the new constitution came into force. Our estimation sample thus consists of 208 observations (municipalities). For each of these jurisdictions, we collect information about their characteristics as of the beginning of 2004, capturing the variables put forward in the theoretical hypotheses. We thus focus on statistical measures that are not themselves potentially affected by the new constitution (or more specifically the introduction of non-citizen voting rights) but are predetermined. Moreover, we record whether the original jurisdictions as in 2004 adopted non-citizen voting rights by January 1, 2017.

Dependent variable: adoption of non-citizen voting rights

Data on the introduction of non-citizen voting rights is primarily from the Bureau of Municipalities of the canton of Grisons (German: Amt für Gemeinden). This data is supplemented with additional information about which municipalities introduced non-citizen voting rights before, with or after a municipal merger based on a list compiled by Avenir Suisse (2015) as well as from individual municipalities’ constitutions and webpages. The dependent variable is defined as an indicator set to 100 if the respective municipality introduced non-citizen voting rights prior to January 1, 2017, and to zero otherwise. This simplifies the reading of the coefficients in the empirical analysis in terms of percentage points. In our sample, 71 of the 208 municipalities adopted non-citizen voting rights by 2017.

Explanatory and control variables

Several of the proposed determinants of non-citizen voting rights refer to the socio-demographic characteristics of the Swiss and foreign population in each municipality. As we want to understand the decision-making of the citizens vis-à-vis their fellow non-citizen residents, we capture their characteristics in separate variables, if available. The general variables on education and unemployment therefore refer to Swiss citizens only, and separate variables measure the education, professional skills, language skills (i.e. the fraction that speaks at least one of the municipality’s main languages) and unemployment of foreign residents. Information about the proportion of the population in two age categories (up to 34, 65 and older) and the share with a high-income is only available for the whole municipality. Other municipality characteristics involve the population size (in logarithmic terms) and the percentage of foreigners. Table 6 at the end provides an overview of the descriptive statistics.

Table D.2 in Appendix D offers separate descriptive statistics for municipalities that did and did not adopt non-citizen voting rights. For the former group, the average municipality has a population of 421 inhabitants, of whom 6 percent are foreigners. For the latter group without non-citizen voting rights, municipalities, on average, have 1,146 inhabitants and a share of foreigners of 9 percent.

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A municipality’s legislative body either takes the form of an assembly, a parliament or an assembly combined with a parliament. The indicator municipal parliament takes a value of one in the latter two cases. In 2004, 15 out of the 208 municipalities had a municipal parliament. Three of them were involved in a merger. By 2017, the number only slightly increased to 17 municipalities with either a municipal parliament or a combination of parliament and assembly.

The variables we use to approximate minority experience include the proportion of Protestants, as the canton of Grisons is primarily Catholic, the fraction of Italian- and Romansh-speaking citizens, as Swiss German is the majority language, as well as an indicator variable for the municipality’s Walser origin, a historical ethnic minority with a distinct cultural heritage.\(^{19}\)

Attitudes and political preferences are measured based on voting behavior in elections and on particular popular votes. A number of referendums on the naturalization of specific groups of foreigners, citizenship rights, the asylum law, and the regulation of immigration allow us to infer preferences towards immigration and immigrants in general on a local level. Specifically, we conducted a principal component analysis based on the vote outcomes of 13 popular initiatives and referendums on the topics mentioned.\(^{20}\) Citizens’ political preferences are more broadly approximated by the fraction of votes for the Social Democratic Party (on the left) and for the Swiss People’s Party (on the center-right) in the election for the Swiss National Council in 2003. Preferences for political power sharing in general are captured by the proportion of voters supporting female suffrage in 1971 as well as the proportion of people who voted in favor of lowering the voting age to 18 in 1991.\(^{21}\)

Since 2004, following a number of municipality mergers, the number of municipalities in the canton of Grisons significantly decreased from originally 208 to 112 in 2017. As a consequence, the 71 earlier jurisdictions that introduced non-citizen voting rights over time corresponded to 23 municipalities in 2017. They can be classified into three groups: (i) municipalities that introduced non-citizen voting rights via a legislative decision (this can either be municipalities that were not involved in any merger (13 cases) or merged municipalities, where non-citizen voting rights were introduced after the merger (no case so far)); (ii) municipalities that introduced non-citizen voting rights in conjunction with a merger, whereby none of them had any non-citizen voting rights before (5 cases); and (iii) municipalities which adopted the non-citizen voting rights following a merger, whereby at least one of the municipalities already had non-citizen voting rights before (5 cases). Overall, 58 out of the 71 former jurisdictions with non-citizen voting rights by 2017

\(^{19}\)The Walser (Rhaeto-Romanic Gualsers) are an Alemannic ethnic group in the Alpine region. Coming from the Upper Valais they moved, from the late High Middle Ages onwards, South but primarily East and settled in various higher valleys in what became the canton of Grisons. Particularly in regions where the local language was Romansh or Italian, they maintained their distinct culture over centuries.

\(^{20}\)Specifics regarding the loadings of the various propositions are described in Appendix D when individual variables are described.

\(^{21}\)A complete list of the variables, the corresponding coding, and the data sources are provided in Appendix D.
were involved in a municipality merger after 2004. Not every merger led to the introduction of non-citizen voting rights however. To study the link between municipality mergers and power sharing, we define an indicator variable set to one for jurisdictions which were involved in a municipal merger between 2004 and 2017.

4.2 Data for the canton of Zurich

For the canton of Zurich, we collect, whenever possible, the same variables as listed for the canton of Grisons. Due to the panel setting, we do this for 1993 as well as for 2013, or years just before, for example, in the case of partisan support. The data refer to the 155 municipalities of the canton for which a complete set of control variables is available. No mergers occurred during our observation period.

Dependent variable: support for non-citizen voting rights

The support for non-citizen voting rights is measured based on the yes share for the two popular initiatives on a range of 0 to 100 percent. As stated above, both initiatives were rejected, leaving us with an unweighted mean for the average yes share across the two popular votes of 20.82. Figure 4 above shows that there is still quite some variation in support within municipalities over time, i.e., for the same level of support in 1993, say 20% yes, the yes share varies between 11% and 20% in 2013.

Explanatory and control variables

The variables are defined as described above for the canton of Grisons. National election results capturing partisan preferences in the population refer to the elections in 1991 and 2011. For reservations towards immigrants and immigration, results for the first principal component for the same set of votes are considered and allow a comparison with the results for the canton of Grisons. An overview with descriptive statistics is provided in Table 7 at the end.

4.3 Empirical strategies

Two different strategies are applied to study the determinants of power sharing in the two cantons. A cross-sectional approach based on a multiple regression analysis is chosen for the canton of Grisons. We estimate a series of linear probability models using heteroskedasticity-robust standard errors. As we have to exploit variation across municipalities, we cannot control for

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22 The municipal structure refers to January 1, 2018, when there were 166 municipalities. For eleven of these municipalities there are missing data for the socio-economic composition. This occurs if the number of people sharing some characteristic is below some threshold, as the corresponding number is then not published.

23 As no data for the fraction of non-resident foreigners is available before 2010 at the municipal level, we cannot consider the respective variable.
unobserved time-invariant municipality characteristics, thus increasing the risk of an endogeneity bias. In order to reduce any omitted variable bias, we adopt a control strategy that involves a set of basic control variables in each specification. Specifically, a baseline specification including the proportion of foreigners in the municipality is expanded with different sets of additional explanatory variables related to the different hypotheses. However, with this strategy, due to possible sorting of foreigners into municipalities, we might also underestimate the effect of the proportion of foreigners on the adoption of non-citizen voting rights. This issue arises, for example, if reservations towards foreigners affect both the residency choice of foreigners across municipalities as well as the introduction of non-citizen voting rights (see Slotwinski and Stutzer 2019 for direct evidence on immigrant sorting due to resident citizens’ attitudes). Please note, however, that we address this latter aspect by explicitly adding a proxy measure for citizens’ policy preferences regarding immigration as an additional explanatory variable in Table 3. Still, our analysis remains correlational and the results should be interpreted with caution. Alternative, more experimental settings in which power sharing can be studied quantitatively, however, are likely to remain scarce. Our analysis comparing the correlates for municipalities in the same institutional setting should thus be compared with cross-country studies.

A panel approach is applied for the case of the canton of Zurich as we observe two votes for the same municipalities on rather similar propositions. This allows us to control for time-invariant municipality characteristics, reducing the concerns about omitted variable bias. In this case, we thus exploit within-municipality variation over time. Obviously, we are not observing actual introductions of non-citizen voting rights though. We estimate least squares models with the fraction of yes votes as the dependent variables conditioning on municipality fixed effects and clustering standard errors at the municipal level. We deviate from this strategy for explanatory variables which do not vary over time. In this case, we again exploit the variation across municipalities.

5 Results for the case of the canton of Grisons

The estimation results are presented in two steps. First, we concentrate on the factors that capture the instrumental considerations of citizens. Second, we focus on the preference-based motives related to power sharing.

5.1 Instrumental determinants of power sharing

Table 1 shows the partial correlations between the likelihood of having have adopted non-citizen voting rights by 2017 and measures approximating citizens’ instrumental interests, in particular
related to power dilution, conditioning on a series of baseline control variables.

Table 1: Power dilution and non-citizen voting rights in Grisons

| Dependent variable                        | Voting right for foreigners adopted by 2017 [0/100] |
|-------------------------------------------|---------------------------------------------------|
|                                           | (1)   | (2)   | (3)   | (4)   | (5)   |
| Frac. foreigners                          | –115.168** | –96.063** | –104.715** | –88.261* | –141.008*** |
|                                           | (49.739) | (47.900) | (50.480) | (48.423) | (43.026) |
| Municipality merger                       | 28.761*** | 28.152*** | 13.896**  |         |         |
|                                           | (6.908)  | (6.878)  | (6.935)   |         |         |
| Municipal parliament                      | –20.329** | –15.959*  | –9.478    |         |         |
|                                           | (8.153)  | (8.325)  | (7.678)   |         |         |
| Ln(population size)                       | –6.561** | –4.071    | –4.224    | –2.289  | –2.185  |
|                                           | (3.172)  | (3.207)  | (3.828)   | (3.856) | (3.637) |
| Frac. age 0 to 34                         | –67.263 | –51.018   | –78.063   | –59.841 | –85.220 |
|                                           | (98.075) | (97.842)  | (98.520)  | (98.607) | (95.162) |
| Frac. age 65+                             | –77.587 | –55.559   | –77.525   | –55.977 | –60.099 |
|                                           | (97.699) | (100.072) | (97.292)  | (99.813) | (88.248) |
| Frac. low educated                        | –20.948 | –25.333   | –15.317   | –20.819 | –58.623 |
|                                           | (43.837) | (41.986)  | (44.034)  | (42.540) | (40.246) |
| Frac. unemployed                          | –143.981 | –28.957   | –142.979  | –30.606 | 50.510  |
|                                           | (199.620) | (177.381) | (189.186) | (176.469) | (174.238) |
| Frac. high income                         | 19.587 | 50.001    | 10.650    | 42.340  | 29.994  |
|                                           | (69.824) | (64.559)  | (70.848)  | (65.667) | (69.843) |
| Constant                                  | 131.167** | 82.346    | 121.814** | 76.037  | 103.898* |
|                                           | (58.204) | (58.149)  | (58.368)  | (58.121) | (53.509) |

| No. of observations                       | 208   | 208   | 208   | 208   | 183   |
| Adj. $R^2$                                | 0.04  | 0.11  | 0.04  | 0.11  | 0.07  |

Notes: Demographic characteristics education and unemployment refer to Swiss citizens. Standard errors are heteroscedasticity-robust. The sample in specification (5) excludes municipalities that adopted non-citizen voting rights in the context of a local governmental reorganization involving at least one municipality that had adopted such rights before. Significance levels: * $0.05 < p < 0.1$, ** $0.01 < p < 0.05$, *** $p < 0.01$.

Data sources: Swiss Federal Statistical Office, Bureau of Municipalities of the Canton of Grisons.

Across all the specifications in Table 1, the proportion of foreigners is negatively related to the adoption of non-citizen voting rights. The coefficient in specification (4) indicates that in municipalities with a 10-percentage-point higher fraction of foreigners, the probability of introducing non-citizen voting rights is 8.8 percentage points lower. This observation is consistent with the hypothesis that citizens are more reluctant to share power when relatively more people were to be newly enfranchised. This relationship persists independently of whether we include indicators for municipality merger and for parliament as additional explanatory variables.

\[24\] For indicator variables, the estimated coefficients of the linear probability model can be interpreted as differences in percentage points (as the dependent variable takes a value of 100, if a non-citizen voting right is in place, and zero otherwise). For variables capturing fractions of the population, the estimated coefficients indicate the difference in percentage points when the fraction changes from 0% to 100%. For continuous variables, the coefficients measure the difference in percentage points for a one unit change of the explanatory variable.
According to specification (1) there is a negative relationship between the adoption of non-citizen voting rights and municipality size as measured in natural log terms. Specification (2) suggests that this is at least partly driven by the fact that small municipalities are more likely to be involved in a merger and thereby also adopt non-citizen voting rights. If a municipality is part of a merger during the sample period, it is about 29 percentage points more likely to adopt non-citizen voting rights by 2017. This also holds in specification (5) if we exclude municipalities that have adopted non-citizen voting rights in the context of a local governmental reorganization involving at least one municipality that had adopted such rights before. The differential decreases, however, and amounts to about 14 percentage points. The observation for municipal mergers is in line with the hypothesis that they work as catalysts of power sharing. The presence of municipal parliaments is another factor partly explaining why larger municipalities are less likely to introduce non-citizen voting rights. Municipal parliaments are more prevalent in larger municipalities and their presence seems to be negatively correlated with non-citizen voting rights at least in the full sample covered in the specifications (3) and (4). There is thus no support for the hypothesis that power sharing is more likely where citizens have already delegated some political power to representatives.

The estimates presented in Table E.1 in Appendix E, taking into account foreigners’ characteristics, do not indicate that the relationship of power sharing and the fraction of foreigners is systematically moderated by whether foreigners are more or less educated, skilled or unemployed. For this empirical test, we define variables indicating whether a municipality has a proportion of foreigners above the median and whether the proportion of poorly educated, low skilled and unemployed foreigners is above the median. We include these measures of foreigners’ characteristics together with interaction terms with the indicator for an above-median foreigner share in separate specifications. Overall, no clear pattern emerges, thus providing little systematic evidence for the fiscal threat hypothesis related to the welfare risk among foreigners.

The variables included as controls, capturing the socio-economic composition of the citizenry in terms of age, education, unemployment and income across municipalities in Grisons do not seem to be systematically related to the adoption of non-citizen voting rights. Thus, the results do not indicate that less-educated or disadvantaged citizens particularly oppose non-citizen voting rights.

5.2 Preference-based determinants of power sharing

In this section, we explore whether preference-based determinants are predictive for the adoption of non-citizen voting rights. For these analyses, we add separate variables for municipality mergers, the size of the population as well as the share of local foreigner to the set of baseline controls.
Table 2, specification (1) shows that in municipalities with a large exposure to non-permanent resident foreigners, non-citizen voting rights are more likely to be adopted. Compared to the permanent population, a ten-percent increase in this group of primarily seasonal workers in the service industry is related to an 18-percentage-point higher probability of non-citizen voting rights in a municipality. This is consistent with the idea behind the contact hypothesis. However, caution is warranted, as the risk of a misinterpretation looms large. Because there are more seasonal workers in municipalities with a large tourist industry, the variable might also pick up other local characteristics related to a more open stand regarding non-citizen voting rights. When we statistically consider the fraction of non-permanent resident foreigners, we also observe that the negative partial correlation for the fraction of resident foreigners becomes larger. A ten-percentage-point increase then relates to an approx. -14-percentage-point (rather than -8.8-percentage-point) lower probability that a municipality will introduce non-citizen voting rights.

Table 2: Minority experience and non-citizen voting rights in Grisons

| Dependent variable | Voting right for foreigners adopted by 2017 [0/100] |
|--------------------|---------------------------------------------------|
|                    | (1)      | (2)      | (3)      | (4)      |
| Frac. temp. foreign. | 177.896*** | (48.843) |
| Frac. Protestants   | 19.863*  | (11.031) |
| Frac. Italian speaking | –16.679 | (12.484) |
| Frac. Romansh speaking | –32.374*** | (11.451) |
| Walser municipality | 3.426    | (8.628)  |
| Frac. foreigners    | -129.700*** | (48.043) | -100.956* | -96.792*** | (48.788) | (52.616) | (48.411) |
| Municipality merger | 26.669*** | 28.842*** | 30.360*** | 28.267*** | (6.912) | (6.908) | (7.352) | (7.020) |
| Ln(population size) | -2.749 | -2.549 | -2.578 | -4.046 | (3.221) | (3.285) | (3.259) | (3.223) |
| Socio-economic composition incl. incl. incl. incl. | 61.289 | 63.851 | 69.938 | 80.423 | (55.306) | (57.735) | (56.525) | (58.154) |
| No. of obs.        | 208      | 208      | 208      | 208      |
| Adj. $R^2$         | 0.14     | 0.12     | 0.14     | 0.10     |

Notes: Frac. temp. foreign. is the fraction of non-permanent residents, i.e., foreigners with a residence permit under 12 months. Standard errors are heteroscedasticity-robust. Significance levels: *, .05 < p < .1; **, .01 < p < .05, *** p < .01.

Data sources: Swiss Federal Statistical Office, Bureau of Municipalities of the Canton of Grisons.

According to specification (2), municipalities with a primarily Protestant population are more...
likely to adopt non-citizen voting rights. Within the canton, Protestants form a religious minority. This does not seem not to hinder, but rather to foster, their willingness to share power. However, as with the other characteristics, an interpretation has to be undertaken with the usual caution, given the cross-sectional nature of the analysis and the potential misattribution of the relationship, as variables like the fraction of Protestants could also be proxies for other factors (also known as the ecological fallacy). For example, the Protestant church in the area of Grisons has allowed foreigners to participate in the local church congregation since the Reformation.\footnote{Furthermore, Protestants have also been shown to differ along other dimensions like educational norms which might drive the observed differential (see, e.g., Becker and Woessmann (2009)).}

For municipalities with strong language minorities (specification 3), we find ceteris paribus lower probabilities to adopt non-citizen voting rights of between 16 percentage points (not statistically significant) for Italian speaking municipalities and 32 percentage points for Romansh speaking municipalities. Language minorities thus seem reluctant to share power with non-citizen co-residents who might not well speak the local language or instead speak the majority language, i.e. Swiss German. This might reflect a particular concern regarding the maintenance of their specific culture that is closely tied to their language. In specification (4), for municipalities with a Walser heritage, we do not observe that they are more or less likely to adopt non-citizen voting rights.

In Table 3, political attitudes and preferences are considered as additional explanatory variables. Specification (1) shows that non-citizen voting rights are more likely in municipalities where a large fraction of the voters supported the Social Democratic Party in the last national elections before 2004. This is consistent with the hypothesis that parties on the left expect to benefit more from expanding the franchise to non-citizens. Contrary to this hypothesis, a positive partial correlation for the vote share of the Swiss People’s Party is also observed, a party which at the national level holds strong reservations regarding immigration. While the issue of a potential ecological fallacy looms large, the result might also reflect that the candidates of the Swiss People’s Party of the canton of Grisons pursued rather centrist positions and partly joined a new centrist party (the Conservative Democratic Party) in 2008.

When including a measure capturing reservations towards immigrants and immigration in specification 2, we observe a strong and statistically significant negative correlation with the adoption of non-citizen voting rights. For a one standard deviation increase in the measure based on previous national votes (i.e. 0.2), we calculate a roughly 11-percentage-point lower probability. This finding is consistent with the hypothesis that local norms and attitudes play a role in individuals’ decision making, also when conditioning on the share of local foreigners.

In municipalities where historically a large percentage of the male population supported female suffrage, we do not observe a higher probability of adopting non-citizen voting rights (specifica-
Table 3: Political and power sharing preferences and non-citizen voting rights in Grisons

| Dependent variable                              | Voting right for foreigners adopted by 2017 [0/100] |
|-------------------------------------------------|---------------------------------------------------|
|                                                 | (1)      | (2)      | (3)      | (4)      |
| Frac. Social Democratic Party                   | 31.686   | (36.667) |          |          |
| Frac. Swiss People’s Party                      | 46.559** | (22.406) |          |          |
| Reservation towards immigration                 | –56.808*** | (18.279) |          |          |
| (1st PC of PCA)                                 |          |          |          |          |
| Frac. female suffrage (1971)                    | –5.508   | (24.685) |          |          |
| Frac. voting age 18 (1991)                      |          |          | 73.632** | (32.731) |
| Municipality merger                             | 29.477*** | 24.036*** | 28.779*** | 27.924*** |
| (7.053)                                         | (7.073)  | (6.930)  | (7.014)  |          |
| Frac. foreigners                                | –97.821** | –119.139** | –91.540* | –102.308** |
| (48.090)                                        | (45.916) | (50.156) | (45.986) |          |
| Ln(population size)                             | –1.214   | –2.363   | –4.156   | –1.919   |
| (3.438)                                         | (3.204)  | (3.212)  | (3.347)  |          |
| Socio-economic composition incl. incl. incl. incl.|          |          |          |          |
| Constant                                        | 36.050   | 115.112** | 86.535   | 10.400   |
| (60.747)                                        | (57.840) | (62.036) | (66.562) |          |

| No. of observations                             | 208      | 208      | 208      | 208      |
| Adj. $R^2$                                      | 0.12     | 0.14     | 0.10     | 0.13     |

Notes: Party vote shares refer to the federal elections for the National Council 2003. PCA calculated based on 13 votes from 1982 to 2004. Standard errors are heteroscedasticity-robust. Significance levels: * .05 < p < .1, ** .01 < p < .05, *** p < .01.

Data sources: Swiss Federal Statistical Office, Bureau of Municipalities of the Canton of Grisons.

However, for municipalities where in 1991 a larger fraction of the citizenry supported the reduction of the voting age to 18, we observe a higher probability of adopting non-citizen voting rights (specification 4). For a one standard deviation higher support (i.e. about 0.1), the probability is about 7 percentage points higher.

Finally, the estimates in Table 3 show that the relationship with the fraction of foreigners in the municipality remains persistently negative and that with municipality mergers persistently positive, independently of the additional variables included.

6 Results for the case of Zurich

Tables 4 and 5 present partial correlations from least squares estimations, with the share of votes in percent supporting an opting-in regime of non-citizen voting rights as the dependent
variable. We apply two different basic control strategies. On the one hand, there are results from estimations pooling two observations for each municipality, exploiting the variation across municipalities as well as over time. This strategy is adopted whenever the explanatory variable of interest does not vary over time and would be absorbed by municipality fixed effects. As before, we include baseline controls for the socio-demographic characteristics of the citizens and the size of the municipality. On the other hand, we include results from specifications with municipality fixed effects, thus effectively controlling for all the time-invariant municipality-specific factors related to the yes share. These specifications exploit the within municipality variation over time. In addition, we include a year fixed effect to control for a level shift over time. As this latter approach reduces omitted variable bias, we concentrate the presentation of the results on the fixed effects specifications when appropriate. It is important to keep in mind, though, that with a focus on the variation over time, any bias due to self-selection of citizens and non-citizens into municipalities is given relatively more weight in the estimation of the partial correlations.

6.1 Instrumental determinants of power sharing

Table 4 presents the specifications (1) without and (2) with municipality fixed effects. Consistent with our findings for the canton of Grisons, a larger fraction of foreigners is related to a lower support of an opting-in regime. The yes share is predicted to be 3.5 percentage points lower with an increase in the foreign population of 10 percentage points. If foreigners were more likely to move into municipalities that became relatively more open over time, the estimated partial correlation is a lower bound. This result again suggests that instrumental considerations about power dilution play a role in citizens’ support of non-citizen voting rights. In contrast, there is no clear evidence for the fiscal threat hypothesis as we do not find changes in the composition of the foreign population in terms of education, skills and unemployment to be related to popular support for an opting-in regime (see Table E.2 in Appendix E).

As there is no change over time in the presence of municipal parliaments, the partial correlation for the latter variable can only be measured in the cross-section. According to specification (1), there is a 2.4-percentage-point higher yes share in municipalities with a parliament conditioning on the population size. This finding is consistent with the hypothesis that the enfranchisement of additional groups is less costly for citizens if they have already delegated some power to an elected parliament.

Based on the second specification, we find for the basic variables capturing the socio-demographic composition of the municipalities that popular support of non-citizen voting rights is higher if there are more households with three and more people and if a larger fraction of the population is younger than forty. In contrast, a larger proportion of people 65 and older reduces support. The positive correlation for the young amounts to a 2.4-percentage-points higher yes share if
Table 4: Power dilution and non-citizen voting rights in Zurich, 1993 and 2013

| Dependent variable | Yes share [0/100] |
|--------------------|------------------|
|                    | (1)              | (2)              |
| Frac. foreigners   | -7.793           | -35.034***       |
|                    | (7.501)          | (8.946)          |
| Municipal parliament| 2.370**           |                  |
|                    | (1.084)          |                  |
| Frac. households 3+| 2.626            | 18.904**         |
|                    | (9.333)          | (7.993)          |
| Frac. age 0 to 39  | 6.843            | 23.872**         |
|                    | (13.838)         | (10.074)         |
| Frac. age 65+      | 0.984            | -31.073**        |
|                    | (13.106)         | (14.962)         |
| Frac. low educated Swiss | -19.118*     | -12.863          |
|                    | (9.986)          | (11.535)         |
| Frac. high income  | 3.207            | 7.460            |
|                    | (7.175)          | (9.680)          |
| Unemployment rate  | -130.411         | -42.033          |
|                    | (89.043)         | (73.776)         |
| Ln(population size)| 1.451***         | -4.827**         |
|                    | (0.549)          | (2.099)          |

|                     | No               | Yes              |
| Municipality FE     |                  |                  |
| Year FE             | Yes              | Yes              |
| No. of observations | 310              | 310              |
| No. of clusters     | 155              | 155              |
| Adj.$R^2$           | 0.34             | 0.72             |

Notes: The mean of the dependent variable is 20.82. Standard errors are clustered at the municipality level and are reported in parentheses. Significance levels: * .05 < $p$ < .1, ** .01 < $p$ < .05, *** $p$ < .01.

Data sources: Federal Statistical Office, Statistical Office Zurich.

there are 10 percentage points more young people in the municipality, the corresponding negative relationship for the older population amounts to -3.1 percentage points. A higher fraction of less-educated Swiss is negatively correlated with the yes share. However, the estimated coefficient is not statistically significant once unobserved municipality characteristics are considered. The fraction of high income residents and the rate of unemployment are not systematically related to the share of yes votes. While population size (in natural log terms) is positively correlated in the cross-section, a higher population over time, i.e. population growth, is negatively related to the yes share. The effect of a 10 percent population increase is small, though, and amounts to
**Table 5**: Political and power sharing preferences and non-citizen voting rights in Zurich, 1993 and 2013

| Dependent variable | Yes share [0/100] |
|--------------------|------------------|
|                    | (1)              | (2)       | (3)       | (4)       |
| Frac. Social Democratic Party | 15.356         |           |           |           |
|                     | (11.672)        |           |           |           |
| Frac. Swiss People’s Party | -11.823*       |           |           |           |
|                     | (6.383)         |           |           |           |
| Reservations towards immigrants (1st PC of PCA) | -26.856*** |           |           |           |
|                     | (2.233)         |           |           |           |
| Frac. female suffrage (1971) | 19.340*** |           |           |           |
|                     | (5.159)         |           |           |           |
| Frac. voting age 18 (1991) | 42.817*** |           |           |           |
|                     | (8.204)         |           |           |           |
| Frac. foreigners    | -34.093***      | -3.716    | -17.762** | -11.337* |
|                     | (8.715)         | (4.026)   | (7.088)   | (6.308)   |
| Ln(population size) | -4.203**        | 0.354     | 1.418**   | 1.681***  |
|                     | (2.059)         | (0.337)   | (0.582)   | (0.489)   |
| Socio-economic composition incl. incl. incl. incl. |            |           |           |           |

| Municipality FE | Yes | No | No | No |
| Year FE         | Yes | Yes| Yes| Yes|
| No. of observations | 308 | 310 | 310 | 310 |
| No. of clusters | 154 | 155 | 155 | 155 |
| Adj.R²          | 0.74 | 0.69 | 0.37 | 0.44 |

Notes: Standard errors are clustered at the municipality level and are reported in parentheses. Significance levels: * .05 < p < .1, ** .01 < p < .05, *** p < .01.

Data sources: Federal Statistical Office, Statistical Office Zurich.

only about -0.5 percentage points.

**6.2 Preference-based determinants of power sharing**

Table 5 in specification (1) shows that changes in the fraction of voters with particular partisan preferences are correlated with changes in the yes share in support of an opt-in regime for non-citizen voting rights over time. For a 10-percentage-point higher support for the right-wing Swiss People’s Party (i.e., about a change by one standard deviation), the share of yes votes is reduced by 1.2 percentage points. The Swiss People’s Party in the canton of Zurich follows the national party line, taking a critical stance towards immigration and immigrants. The results for the party vote shares is consistent with the negative correlation between general reservations towards immigrants, as expressed in national popular votes and the share of yes votes on the specific amendment to the cantonal constitution in specification (2). For one standard deviation
of more pronounced reservations (i.e. 0.148), the yes share is 3.9 percentage points lower.

In municipalities that previously showed higher support for power sharing vis-à-vis women and the young, we also observe higher support for the opting-in regime regarding an enfranchisement of foreigners. The corresponding correlations in specifications (3) and (4) amount to 2.2 percentage points for one standard deviation (i.e. 11.2 percentage points) of greater historical support for female suffrage in the early 1970s and 1.8 percentage points for one standard deviation (i.e. 4.3 percentage points) greater support for the voting right after the age of 18 in the early 1990s. Variation in political attitudes and preferences more generally and in related domains thus correlate in meaningful ways with popular support for an opting-in regime for non-citizen voting rights in the canton of Zurich.

7 Conclusions

The enfranchisement of foreigners is an important frontier in current institutional change in democracies. Normative questions arise not only regarding the why but also the how. While there is a rich exchange on the moral reasons for and against non-citizen voting rights, there is much less discussion on the rules that should be applied to adopt non-citizen voting rights. We want to contribute to the debate on these important normative questions with a positive analysis of the determinants of power sharing in a particular institutional context, i.e. an opting-in regime in which the citizens of individual municipalities decide on the introduction of active and passive voting rights for resident foreigners. Such a rule was introduced in the Swiss canton of Grisons with the totally revised constitution of 2004, allowing us to study democratic reforms within a uniform setting.

Over thirteen years, about 30% of the original municipalities adopted non-citizen voting rights in some form. We are not aware of any media coverage about pressure to introduce such rights, nor of negative experiences with the formal involvement of foreign residents. So far, no municipality has disenfranchised foreigners again. The adoption of non-citizen voting rights seems to be at least partly understood as an invitation and obligation to participate and to take on responsibility in municipal politics characterized by a strong militia system (an organizational principle according to which public functions are usually carried out part-time). Consistent with the power dilution hypothesis, we find that enfranchisement is less likely with a larger share of resident foreigners. Our analysis also reveals that the adoption of non-citizen voting rights is more likely in municipalities that are involved in a local reorganization. Municipal mergers seem to act as a catalyst in an institutional context that offers the flexibility for democratic reforms. Furthermore, we find that municipalities with a large language/cultural minority are less likely to formally involve foreigners. This observation substantiates the normative appeal of an opting-in
rule that acknowledges the basic principle of self-rule in a context with many minorities (see also Eisenberg 2015). Finally, we observe that preference-based determinants seem to have additional explanatory power. In municipalities where people hold generally favorable attitudes towards power sharing, non-citizen voting rights are more likely to be adopted, while they are less likely to be adopted where citizens have expressed stronger reservations towards immigration in popular votes.

In a supplementary panel analysis, we study the electoral support for an opting-in regime for non-citizen voting rights directly. In the Swiss canton of Zurich, citizens decided on relevant initiatives twice in 1993 and 2013. In line with the evidence for Grisons – and in this case conditioning on time invariant municipality characteristics – municipalities with a higher share of resident foreigners show lower support for constitutional amendment. Furthermore, exploiting the cross-sectional variation in Zurich, higher support is observed in municipalities where a larger fraction approved the reduction of the voting age to 18 and lower support where reservations concerning immigration were stronger.

Overall, politico-economic forces along with political preferences seem to shape the evolution of democratic institutions along the important dimension of non-citizen participation in politics. The constitutional arrangement of an opting-in regime for non-citizen voting rights seems to offer the institutional flexibility that supports peaceful reforms and acknowledges the autonomy of citizens in organizing their municipalities.
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Table 6: Descriptive statistics for the canton of Grisons

| Dependent variable                                      | Mean  | Std. dev. | Min  | Max  |
|--------------------------------------------------------|-------|-----------|------|------|
| Voting right for non-citizens adopted by 2017 [0/100]  | 34.13 | 47.53     | 0    | 100  |

|Independent / control variables                        |       |           |      |      |
|--------------------------------------------------------|-------|-----------|------|------|
| Socio-economic composition                             |       |           |      |      |
| Frac. age 0 to 34                                       | 0.412 | 0.059     | 0.198| 0.536|
| Frac. age 65+                                           | 0.187 | 0.062     | 0.059| 0.426|
| Frac. low educated                                     | 0.350 | 0.104     | 0.161| 0.727|
| Frac. unemployed                                        | 0.018 | 0.017     | 0    | 0.094|
| Frac. high income                                      | 0.145 | 0.072     | 0    | 0.372|

| Power dilution                                         |       |           |      |      |
| Ln(population size)                                     | 5.875 | 1.258     | 3.135| 10.381|
| Frac. foreigners                                       | 0.079 | 0.068     | 0    | 0.321|
| Municipality merger                                     | 0.587 | 0.494     | 0    | 1    |
| Municipal parliament                                    | 0.072 | 0.259     | 0    | 1    |

| Characteristics of foreigners                           |       |           |      |      |
| Frac. foreigners                                       | 0.079 | 0.068     | 0    | 0.321|
| Frac. foreigners high, D_t                             | 0.500 | 0.501     | 0    | 1    |
| Frac. low educated                                      | 0.386 | 0.271     | 0    | 1    |
| Frac. low educated f. high, D_{ledu}                   | 0.500 | 0.501     | 0    | 1    |
| Interaction D_t x D_{ledu}                              | 0.317 | 0.467     | 0    | 1    |
| Frac. unemployed f.                                     | 0.040 | 0.088     | 0    | 0.750|
| Frac. unemployed f. high, D_{ue}                       | 0.452 | 0.499     | 0    | 1    |
| Interaction D_t x D_{ue}                                | 0.337 | 0.474     | 0    | 1    |
| Frac. low skilled f.                                   | 0.140 | 0.154     | 0    | 1    |
| Frac. low skilled f. high, D_{lskill}                  | 0.500 | 0.501     | 0    | 1    |
| Interaction D_t x D_{lskill}                            | 0.356 | 0.480     | 0    | 1    |
| Frac. f. speak local lang.                              | 0.403 | 0.312     | 0    | 1    |
| Frac. f. speak local lang. high, D_{lang}              | 0.500 | 0.501     | 0    | 1    |
| Interaction D_t x D_{lang}                              | 0.332 | 0.472     | 0    | 1    |

| Minority experience                                     |       |           |      |      |
| Frac. temp. foreigners                                  | 0.035 | 0.057     | 0    | 0.358|
| Frac. Protestants                                      | 0.510 | 0.326     | 0    | 0.980|
| Frac. Italian speaking                                 | 0.108 | 0.270     | 0    | 0.948|
| Frac. Romansh speaking                                 | 0.265 | 0.322     | 0    | 0.956|
| Walser municipality                                     | 0.197 | 0.399     | 0    | 1    |

| Political and power sharing preferences                 |       |           |      |      |
| Frac. Social Democratic Party                          | 0.209 | 0.102     | 0.027| 0.561|
| Frac. Swiss People's Party                            | 0.361 | 0.162     | 0.064| 0.789|
| Reservations towards immigrants (1st PC)              | 0.886 | 0.194     | 0.369| 1.563|
| Frac. female suffrage (1971)                           | 0.505 | 0.154     | 0.100| 0.889|
| Frac. voting age 18 (1991)                             | 0.756 | 0.100     | 0.453| 1    |

Note: The observations refer to the 208 municipalities in the canton. The detailed variable definitions can be found in Section D in the Appendix.

Data sources: Swiss Federal Statistical Office, Bureau of Municipalities of the Canton of Grisons.
Table 7: Descriptive statistics for the canton of Zurich

|                                                      | No. of obs. | Mean   | Std. dev. | Min    | Max    |
|------------------------------------------------------|-------------|--------|-----------|--------|--------|
| **Dependent variable**                               |             |        |           |        |        |
| Yes share voting rights [0/100]                      | 310         | 20.822 | 5.019     | 6.84   | 43.42  |
| **Independent / control variables**                  |             |        |           |        |        |
| **Socio-economic composition**                        |             |        |           |        |        |
| Frac. households 3+                                  | 310         | 0.387  | 0.069     | 0.198  | 0.566  |
| Frac. age 0 to 39                                    | 310         | 0.495  | 0.056     | 0.368  | 0.641  |
| Frac. age 65+                                        | 310         | 0.144  | 0.038     | 0.054  | 0.256  |
| Frac. low educated Swiss                             | 310         | 0.231  | 0.045     | 0.14   | 0.368  |
| Frac. high income                                    | 310         | 0.402  | 0.097     | 0.172  | 0.686  |
| Unemployment rate                                    | 310         | 0.014  | 0.006     | 0.001  | 0.039  |
| **Power dilution**                                   |             |        |           |        |        |
| Ln(population size)                                  | 310         | 8.196  | 1.064     | 6.038  | 12.855 |
| Frac. foreigners                                     | 310         | 0.156  | 0.078     | 0.01   | 0.453  |
| Municipal parliament                                 | 155         | 0.081  | 0.273     | 0      | 1      |
| **Characteristics of foreigners**                    |             |        |           |        |        |
| Frac. foreigners high, $D_f$                         | 310         | 0.532  | 0.5       | 0      | 1      |
| Frac. low educated f. high, $D_{ledu}$                | 310         | 0.523  | 0.5       | 0      | 1      |
| Frac. unemployed f. high, $D_{u}$                    | 310         | 0.51   | 0.501     | 0      | 1      |
| Frac. low skilled f. high, $D_{skill}$               | 310         | 0.523  | 0.5       | 0      | 1      |
| Frac. German speaking high, $D_{germ}$               | 310         | 0.484  | 0.501     | 0      | 1      |
| **Political and power sharing preferences**          |             |        |           |        |        |
| Frac. Social Democratic Party                        | 308         | 0.172  | 0.046     | 0.054  | 0.313  |
| Frac. Swiss People’s Party                           | 308         | 0.366  | 0.092     | 0.169  | 0.64   |
| Reservations towards immigrants (1st PC)             | 310         | 1.391  | 0.148     | 1.063  | 1.759  |
| Frac. female suffrage (1971)                         | 310         | 0.574  | 0.112     | 0.299  | 0.815  |
| Frac. voting age 18 (1991)                           | 310         | 0.691  | 0.043     | 0.553  | 0.802  |

*Note:* The municipal structure refers to January 1, 2018 when there were 166 municipalities. For eleven of these municipalities there are missing data for the socio-economic composition. This occurs if the number of people sharing some characteristic is below a certain threshold, as the corresponding number is then not published. This leaves us with 155 municipalities and a main dataset of 310 observations. In addition, there is no information for the electoral result in Wiesendangen in 1993. This reduces the number of observations when including political party preferences to 308. Whenever applicable, the variable definitions follow those for the canton of Grisons described in Section D in the Appendix.

*Data sources:* Swiss Federal Statistical Office, Statistical Office Zurich
Power Sharing at the Local Level: Evidence on Opting-in for Non-Citizen Voting Rights

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November 13, 2019

Supplementary Material

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A  Non-citizen voting rights in the canton of Grisons

As there are no official translations into English, we provide our own excerpt of the constitution and some related sections of the parliamentary protocols.

A.1  Clause on non-citizen voting rights in the constitution of the canton of Grisons

Article 9, point 4

4 In accordance with municipal law, the municipalities may grant Swiss nationals abroad and foreign nationals the right to vote and the right to stand as a candidate in municipal matters.

Artikel 9, Ziffer 4

4 Die Gemeinden können nach Massgabe des kommunalen Rechts Auslandschweizerinnen und Auslandschweizern beziehungsweise Ausländerinnen und Ausländern das Stimmrecht sowie das aktive und passive Wahlrecht in Gemeindeangelegenheiten erteilen.
A.2 Example quotes from the official protocols of the parliamentary debate on non-citizen voting rights

The debate took place in the cantonal parliament (Grosser Rat) in the capital Chur on June 18, 2002.

Arquint: “We are thus de-dramatizing the problem of citizenship. We can use it to introduce intermediate stages in which families who have lived here for at least ten years can become involved in public affairs with the right to vote and decide like anyone else. They pay taxes, like everyone else, and they share responsibility for the welfare of this municipality and of the canton. What would make more sense than to give them voting responsibility as well?”

Arquint: “Wir entdramatisieren damit das Problem der Staatsbürgerschaft. Wir können damit Zwischenstufen einlegen, in dem sich Familien, die seit mindestens zehn Jahren hier wohnhaft sind, sich mit dem Stimm- und Wahlrecht in die öffentlichen Angelegenheiten einmischen können wie jede und jeder andere auch. Sie bezahlen Steuern, wie jeder und jede andere auch, sie sind mitverantwortlich an der Wohlfahrt dieser Gemeinde und auch des Kantons. Was wäre sinnvoller, als sie dann eben auch in Pflicht zu nehmen.”

Arquint: “In addition, 35 percent of the foreign resident population are young people under the age of 25. And what could be better as an integration model than making them discharging their duties, in which we grant them the right to vote.”

Arquint: “Dazu kommt, dass 35 Prozent der ausländischen Wohnbevölkerung Jugendliche unter 25 Jahren sind. Und was gibt es hier diesen gegenüber besseres als Integrationsmodell als die “In-Pflichtnahme”, in dem wir ihnen das Stimm- und Wahlrecht gewähren.”

Luzi: “The municipality knows its situation regarding the integration of foreign women and men; it can determine and no one else. I ask you to really support this proposal. You will thus also relieve the pressure on naturalization a little bit.”

Luzi: “Die Gemeinde kennt Ihre Situation bezüglich Integration der Ausländerinnen und Ausländer, sie kann bestimmen und niemand anders. Ich bitte Sie diesen Vorschlag wirklich zu unterstützen. Sie nehmen damit auch den Druck auf Einbürgerungen ein bisschen weg.”

Walther: “What is the foreigner’s motivation to become a citizen if he can have these rights in another way?”
Walther: “Was hat denn der Ausländer noch für ein Willen, Bürger zu werden, wenn er die Rechte auch sonst haben kann.”

Feltscher: “Felsberg made a total revision of its constitution a year ago. In its new constitution, Felsberg has postulated voting rights for foreign residents in such a way that we could introduce them as soon as the cantonal constitution permits. This was undisputed in our municipality and was decided at a municipal assembly and - mind you - not at the ballot box.”

Feltscher: “Felsberg hat vor einem Jahr eine Totalrevision der Verfassung gemacht. Felsberg hat in seiner neuen Verfassung das Stimmmrecht für niedergelassene Ausländer so postuliert, dass wir es einführen könnten, so bald die Kantonsverfassung dies zulässt. Das war umstritten in unserer Gemeinde und ist an einer Gemeindeversammlung und –wohlverstanden – nicht an einer Urne beschlossen worden.”

Zindel: “I believe that the active right to vote and participate in politics, in addition to the right to pay taxes, which foreigners also have, is a very important achievement of integration. We must certainly step up naturalization. But in this way, we must also involve those who have settled down in our country in local responsibility.”

Zindel: “Ich meine einfach, dass das aktive Stimm- und Wahlrecht, neben den Rechten wie Steuern zu bezahlen, die die Ausländer auch haben, eine ganz wichtige Integrationsleistung darstellen. Wir müssen sicher die Einbürgerungen forcieren. Wir müssen aber auch auf diesem Weg, Menschen in die Verantwortung einbinden, die bei uns sesshaft geworden sind.”

Member of the governing council Widmer-Schlumpf: “It is obviously a need of different communities to have more room for manoeuvre in this area.”

Regierungsrätiin Widmer-Schlumpf: “Es ist offensichtlich ein Bedürfnis verschiedener Gemeinden, dass sie in diesem Bereich einen grösseren Handlungsspielraum bekommen.”

Cahannes Renggli: “If we look at the consultation process, we can see that there is general agreement on this paragraph 4. Davos was not the only one to express a positive opinion on this; 64% of the municipalities voted in favor of paragraph 4.”

Cahannes Renggli: “Wenn wir die Vernehmlassung anschauen, sehen wir, dass zu diesem Absatz 4 eine generelle Zustimmung besteht. Nicht nur Davos hat sich positiv dazu geäußert, sondern 64 Prozent der Gemeinden haben ihre Zustimmung zu diesem Absatz 4 gemacht.”
B  List of municipalities in the canton of Grisons that adopted non-citizen voting rights (NCVR) by January 1, 2017

**Albula/Alvra:** Introduced in 2015 as per the merger of the seven former municipalities Alvaneu, Tiefencastel, Mon, Surava, Brienzer/Brinsauls, Stierva and Alvaschein. None of these municipalities had NCVR before. *Source:* [Avenir Suisse (2015, 19)](https://www.avenirsuisse.ch/infokasten/ncvr) and email correspondence with municipality of Albula/Alvra.

**Arosa:** Introduced in 2013 as per the merger of the nine former municipalities Arosa, Castiel, Calfreisen, Lüen, Molinis, Peist, Langwies, Puggig and St. Peter. Calfreisen already had NCVR. *Source:* [Avenir Suisse (2015, 19)](https://www.avenirsuisse.ch/infokasten/ncvr), Eidgenössische Kommission für Migrationsfragen EKM (2010) as well as email and mail correspondence with the municipality of Arosa.

**Bever:** Introduced in 2006. *Source:* [Avenir Suisse (2015, 19)](https://www.avenirsuisse.ch/infokasten/ncvr) and amendment to the constitution of Bever on December 12, 2005.

**Bonaduz:** Introduced in 2005 via municipal assembly. *Source:* [Avenir Suisse (2015, 19)](https://www.avenirsuisse.ch/infokasten/ncvr) and minutes of the municipal assembly No. 01/05 on March 7, 2005.

**Bregaglia:** Introduced in 2009/10 as per the merger of the five former municipalities Bondo, Soglio, Castasegna, Vicosoprano and Stampa. *Source:* [Avenir Suisse (2015, 19)](https://www.avenirsuisse.ch/infokasten/ncvr) and Reformiert - Bündner Kirchenbote (2015, Nr.5, p.4).

**Casti-Wergenstein:** Introduced in 2012. *Source:* [Avenir Suisse (2015, 19)](https://www.avenirsuisse.ch/infokasten/ncvr)

**Cazis:** Introduced in 2012 as per the merger of the five former municipalities Cazis, Tartar, Sarn, Präz and Portein. Portein and Cazis already had NCVR. Tartar had previously declined an NCVR vote. *Source:* [Avenir Suisse (2015, 19, 29)](https://www.avenirsuisse.ch/infokasten/ncvr) and Eidgenössische Kommission für Migrationsfragen EKM (2010)

**Conters im Prättigau:** Introduced via municipal assembly in 2002 as the first municipality in the canton of Grisons. It was to come into force as soon as the superordinate cantonal law allowed. *Source:* [Avenir Suisse (2015, 19)](https://www.avenirsuisse.ch/infokasten/ncvr) and municipality constitution of Conters im Prättigau, decided on March 1, 2002, commencement on March 28, 2002.

**Domleschg:** Introduced in 2012 as per the merger of the eight former municipalities Pratval, Rodels, Paspels, Almens, Feldis/Veulden, Scheid, tumegl/Tomils and Trans. None of the former municipalities already had NCVR. *Source:* [Avenir Suisse (2015, 19, 29)](https://www.avenirsuisse.ch/infokasten/ncvr)

**Donat:** Introduced in 2007. *Source:* [Avenir Suisse (2015, 19, 29)](https://www.avenirsuisse.ch/infokasten/ncvr)
Fideris: Introduced in 2005. Source: Avenir Suisse (2015, 19, 29)

Flerden: Introduced in 2012 via the municipal assembly. Source: Avenir Suisse (2015, 19, 29) and constitution of the municipality of Flerden of March 30, 2012.

Jenaz: Introduced in 2013 via the municipal assembly. Source: Avenir Suisse (2015, 19, 29) and amendment of the constitution of the municipality of Jenaz, June 13, 2013.

Luzein: Introduced in 2016 as per the merger of the former municipalities Luzein and St. Antönien. NCVR was part of the new merger contract of March 2015. St.Antönien had already had NCVR since 2012. NCVR was suggested by the interim council and accepted by the municipal assembly in accepting the merger contract. Source: Avenir Suisse (2015, 19, 27-29) merger contract between Luzein and St.Antönien, March 24, 2015 as well as correspondence with the municipality administration of Luzein.

Masein: Introduced in 2004 via the municipal assembly. Source: Avenir Suisse (2015, 19) and adjustment of the constitution of the municipality of Masein, October 22, 2004.

Safiental: Introduced in 2013 as per the merger of the former four municipalities Tenna, Safien, Valendas and Versam. Introduction implemented via acceptance of the merger contract by the municipal assembly. None of the former municipalities had NCVR before. Source: Avenir Suisse (2015, 19, 29) and email and mail correspondence with the municipality of Safiental as well as the merger contract of November 25, 2011.

Sagogn: Introduced in 2010 via municipal assembly. Source: Avenir Suisse (2015, 19) and the adjustment to the constitution of Sagogn, March 27, 2009.

Scuol: Introduced via ballot box in 2015 as part of the merger of the six municipalities Guarda, Sent, Scuol, Tarasp, Ftan and Ardez. The former municipality Ftan had already had NCVR since 2006. Source: Avenir Suisse (2015, 19, 29) as well as email and mail correspondence with the municipality of Scuol and the constitution of Scuol, approved at the ballot on August 24, 2014.

Sils im Domleschg: Introduced in 2009. Source: Avenir Suisse (2015, 19)

Sumvitg: Introduced in 2009. Source: Avenir Suisse (2015, 19)

Surses: Introduced by ballot referendum in 2016 via the merger of the nine former municipalities Salouf, Savognin, Sur, Cunter, Bivio, Tinizong-Rona, Mulegns, Marmorera and Riom-Parsonz. Source: Constitution of Surses, approved at the ballot on August 16, 2015.

Tschappina: Introduced in 2008 via municipal assembly. Source: Constitution of Surses, approved at
the ballot box on August 16, 2015. Source: Avenir Suisse (2015, 19) and constitution of Tschappina, accepted by the municipal assembly on June 9, 2008.

**Vals:** Introduced in 2015 as per the merger of Vals and St. Martin. The former municipality Vals had already had NCVR since 2012. In former Vals, NCVR was introduced by a project group, approved at the ballot box in the course of supporting the municipality’s complete constitutional revision. Source: Avenir Suisse (2015, 19, 29) and correspondence with the municipality administration of Vals as well as constitution of Vals, approved at the ballot on January 29, 2012.
C Proposed changes to the constitution of the canton of Zurich in the two initiatives on an opting-in regime of non-citizen voting rights

1993: Volksinitiative “für ein fakultatives Ausländerstimmrecht auf Gemeindeebene”

unverändert Art. 50 Abs. 1: Die politischen Rechte in der Gemeinde werden von den Stimmberechtigten ausgeübt, die in ihr politischen Wohnsitz haben. In bürgerlichen Angelegenheiten besitzen nur die Gemeindebürger, in den Kirchgemeinden nur die Angehörigen der betreffenden Kirche politische Rechte.

neu Abs. 2: Die Gemeinden sind befugt, den Ausländern, die in ihnen Wohnsitz haben und seit fünf Jahren die Niederlassungsbewilligung besitzen, die politischen Rechte in Gemeindeangelegenheiten zu übertragen.

1993: Popular initiative “for optional non-citizen voting rights at the municipal level”

unchanged Art. 50 para. 1: The political rights in the municipality are exercised by the voters who have their political residence in the municipality. In civil matters, only the citizens of the municipality have political rights; in parishes only the members of the church concerned have political rights.

new para. 2: Municipalities are authorized to transfer political rights in municipal matters to resident foreigners who have held a residence permit for five years.

2013: Volksinitiative “Für mehr Demokratie (fakultatives Stimm- und Wahlrecht für Ausländerinnen und Ausländer auf Gemeindeebene)”

unverändert Art. 22 Abs. 1: Das Stimm- und Wahlrecht und die weiteren politischen Rechte im Kantons- und Gemeindeangelegenheiten stehen allen Schweizerinnen und Schweizern zu, die im Kanton wohnen, das 18. Lebensjahr zurückgelegt haben und in eidgenössischen Angelegenheiten stimmberechtigt sind.

neu Abs. 2: Die Gemeinden können die politischen Rechte in Gemeindeangelegenheiten ausserdem für Ausländerinnen und Ausländern vorsehen, die seit mindestens 10 Jahren in der Schweiz leben und seit mindestens 3 Jahren ununterbrochen in der Gemeinde wohnen und die es persönlich beantragen.

2013: Popular initiative “For more democracy (optional voting rights for foreigners at the municipal level)”

unchanged Art. 22 para. 1: All Swiss citizens residing in the canton who have reached the age of 18 and who are entitled to vote in federal matters have the right to vote and other political rights in cantonal and municipal matters.
new para. 2: The municipalities may also provide for political rights in municipal matters for foreign nationals who have lived in Switzerland for at least 10 years, have lived in the municipality for at least 3 years without interruption and who apply for them in person.
D  List of variables for the canton of Grisons

Demographic data regarding the year 2000 is drawn from the Swiss census in 2000 and is provided by the Swiss Federal Statistical Office. Data after 2000 is derived from ESPOP, which provides yearly updates of the census data. The latter dataset does not generally include specific demographic details on the municipal level, but only with regard to gender and Swiss nationality. As from 2010, detailed demographic information is available from the Swiss population register (STATPOP) of the Swiss Federal Statistical Office.

Municipality characteristics measured before January 1, 2004, and involving municipalities that merged by January 1, 2004, are included as a weighted sum, whereby the weights refer to the population in the year the characteristic was measured. Municipality characteristics measured after January 1, 2004, and involving municipalities that were part of a merger since the beginning of 2004 are attributed to all municipalities as they existed on January 1, 2004.

Further details regarding the specification of the explanatory variables are provided in Table D.1.

Table D.1: Description of variables

| Variable | Description |
|----------|-------------|
| Socio-economic composition | |
| Frac. age 0 to 34 (%) | People aged 34 years and younger as a percentage of the total population in 2000. Source: www.pxweb.bfs.admin.ch. |
| Frac. age 65+ (%) | People aged 65 years and older as a percentage of the total population in 2000. Source: www.pxweb.bfs.admin.ch. |

26 We use population weights in the case of absolute as well as in the case of percentage values if values correspond to a date before January 1, 2004. This is particularly relevant for data from the census in 2000. For any data concerning a year before 2000, we adopt population weights referring to the year 2000, as no population weights are available for the years before. This is relevant for the vote on women’s suffrage in 1971, where the municipality status corresponds to the year 1971.

27 In detail, this means that datasets with absolute values are population weighted by the population status in 2004. Datasets with percentage values are not population weighted for values after January 1, 2004. In this case, each municipality of the year 2004 is assigned the same value. In addition to percentage values after January 1, 2004, there is no weighting on indicator variables.
| Frac. low educated (%) | Swiss residents with a lower educational level as a percentage of all Swiss residents in 2000. To create the group of less educated Swiss residents, the originally 13 education categories were divided into 3 subgroups, i.e., "less educated" (no completed education or compulsory minimum education), "professional education" (intermediate diploma school/vocational school, apprenticeships/full time vocational school, Matura school, teaching seminar, higher vocational education, institute of higher vocational education) and "high education" (university, university of applied sciences, higher education institution). Not reported entries: school-age children, as well as those younger than school-age are excluded. **Source:** www.pxweb.bfs.admin.ch. |
| Frac. unemployed (%) | The variable represents the fraction of unemployed Swiss as a percentage of unemployed and employed Swiss in 2000. Inactive individuals as well as individuals younger than 15 years are excluded. **Source:** www.pxweb.bfs.admin.ch. |
| Frac. with high income (%) | The variable measures the fraction of individuals within the highest class of taxable income as a percentage of the individuals in all classes of taxable income. Taxation corresponds to the direct federal tax in the taxation period 2003. Special taxation cases are excluded. **Source:** www.estv.admin.ch |

**Power dilution**

| Ln(population size) | Natural logarithm of the permanent resident population as per December 2003 (status: August 2004). The data was collected via ESPOP (1981-2010). This is an updated statistic of the latest population census. **Source:** Department of Statistics at the Agency for Economic Development and Tourism, Grisons, www.awt.gr.ch. |

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Table D.1 – continued

| Characteristic | Description | Source |
|----------------|-------------|--------|
| Frac. foreigners (%) | Foreign permanent residents as a percentage of the total permanent resident population as per December 2003 (status: August 2004). The data was collected via ESPOP (1981-2010). This is an updated statistic of the latest population census. *Source:* Department of Statistics at the Agency for Economic Development and Tourism, Grisons, www.awt.gr.ch. |
| Municipal parliament (D) | The variable municipal parliament indicates whether the municipality’s legislative form is a municipal parliament (value 1) or a municipal assembly (value 0). Some municipalities with a parliament also have a municipal assembly. This type of legislative form is coded as municipal parliament (value 1). *Source:* Bureau of Municipalities, Grisons, www_afg_gr_ch. |
| Municipality merger (D) | The variable municipality merger indicates whether the municipality was involved in a merger with one or more other municipalities (value 1). In the case of no merger, the variable is set to 0. *Source:* Document "Entwicklung der Anzahl Gemeinden Graubündens", retrieved from Bureau of Municipalities, Grisons, www_afg_gr_ch. Supplemental information from the constitutions of affected municipalities. |

*Characteristics of foreigners*

| Frac. foreigners high (D) | Fraction of foreigners high is an indicator variable capturing municipalities with a high fraction of foreigners. It is equal to one if the municipality’s fraction of foreigners is higher than the median value of the fraction of foreigners of all municipalities and zero otherwise. The data was collected via ESPOP (1981-2010). This is an updated statistic of the latest population census. *Source:* Department of Statistics at the Agency for Economic Development and Tourism, Grisons, www.awt.gr.ch. |

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Table D.1 – continued

| Frac. low edu. f. high (D) | Fraction of low-educated foreigners high is an indicator variable equal to one if the fraction of low-educated foreigners, as a percentage of all foreigners in 2000, is higher than the median value of the fraction of low educated foreigners of all municipalities. Otherwise it is equal to zero. Low-educated foreigners are foreigners with low educational attainment. To create the group of foreigners with low education, the originally 13 education categories were divided into three subgroups, i.e., "minimum education" (no completed education or compulsory minimum education), "vocational education" (intermediate diploma school/vocational school, apprenticeships/full time professional school, Matura school, teaching seminar, higher professional education, institute of higher vocational education), "high education" (university, university of applied sciences, higher education institution). Not reported entries: school-age children, as well as those younger than school-age were excluded. Source: www.pxweb.bfs.admin.ch. |
| Frac. unempl. f. high (D) | Fraction of unemployed foreigners high is an indicator variable set to one if the fraction of unemployed foreigners (as a percentage of unemployed plus employed foreigners) in 2000 is higher than the median value of the fraction of unemployed foreigners of all municipalities. Otherwise it is equal to zero. Inactive persons as well as kids under age 15 are excluded. Source: www.pxweb.bfs.admin.ch. |
Fraction of low skilled foreigners high is an indicator variable set to one if the fraction of low skilled foreigners (as a percentage of all jobs of foreigners) in 2000 is higher than the median value of the fraction of low skilled foreigners of all municipalities and to zero otherwise. The fraction of low skilled foreigners is the number of "non-skilled foreigners" as a percentage of all foreigners’ socio-professional categories. The socio-professional categories include the following 12 elements: highest management, freelancer, other self-employed, academic jobs/higher management, intermediate jobs, qualified non-manual jobs, qualified manual jobs, non-skilled workers, unemployed people, inactive persons, children up to age 15 as well as workers who could not be allocated. Source: www.pxweb.bfs.admin.ch.
| Frac. f. speak local lang. high (D) | Fraction of foreigners speaking local language high is an indicator variable set to one if the fraction of foreigners who speak at least one of the municipality’s main languages (as a percentage of all foreigners) in 2000 is higher than the median value of the fraction foreigners who speak at least one of the municipality’s main languages. In all other cases it is equal to zero. A municipality can have a single main language or more than one main language. The main language is defined according to the language population percentage ratios to be found in "Botschaft der Regierung an den Grossen Rat, Sprachengesetz des Kantons Graubünden, Issue No. 2, 2006-2007" (Retrieved from: www.gr.ch/Botschaften/2006/2_2006.pdf). The default language is Swiss German. Municipalities with 20 to 49.9% of their population speaking Romansh (or Italian) are defined as their multilingual Swiss German/Romansh or Italian/Romansh municipalities (or Swiss German/Italian, Italian/Romansh). Municipalities with 50% or more of their population speaking Romansh (or Italian, Swiss German) are defined as Romansh (or Italian, Swiss German) single language municipalities. An exception arises when the historical language in the municipality is a different one (e.g., St. Moritz with 58.3% of its population speaking Italian is defined as a multilingual (Swiss German/Italian) municipality. The absolute number of foreigners who speak at least one of the municipality’s main languages is defined as follows: A Romansh speaking person is counted full (value 1) if he/she is in a Romansh municipality. If he/she is in an Italian or Swiss German/Italian multilingual municipality, he/she is counted half (value 1/2) due to the high similarity of the languages Romansh and Italian. Romansh speaking people are defined as not speaking the main language if they are in a fully Swiss German municipality (value 0). The procedure is analogous for the other languages. The fraction of foreigners who speak at least one of the municipality’s main languages is the sum of the absolute values as a percentage of all the foreigners in 2000. Source: www.pxweb.bfs.admin.ch. |

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### Table D.1 – continued

| Minority experience | Description                                                                                                                                                                                                 |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frac. temp. foreign. (%) | The variable measures the fraction of foreigners with a non-permanent residence permit as a percentage of the municipality’s total population in 2010. Non-permanent residents are foreigners holding a residence permit with a duration of less than 12 months. *Source:* www.pxweb.bfs.admin.ch. |
| Frac. Protestants (%) | The variable reflects the number of Protestants relative to the total population in 2000. *Source:* www.pxweb.bfs.admin.ch.                                                                                     |
| Frac. Italian speaking (%) | The variable corresponds to the fraction of Italian speaking Swiss people relative to the total population in 2000. *Source:* www.pxweb.bfs.admin.ch.                                                        |
| Frac. Romansh speaking (%) | The variable corresponds to the fraction of Romansh speaking Swiss people relative to the total population in 2000. *Source:* www.pxweb.bfs.admin.ch.                                                         |
| Walser municipality (D) | Walser is an indicator variable equal to one if the municipality has a Walser origin. This holds for the following municipalities Parpan, Schmitten, Grüsch, Vals, Saas, Nufenen, Castiel, Tschappina, Wiesen, St. Martin, Tenna, Safien, St. Antönien Ascharina, Hinterrhein, Medels im Rheinwald, Furna, Avers, Mutten, Malix, Sufers, Trimmis, Peist, St. Antönien, Says, St. Peter, Lüen, Langwies, Calfreisen, Arosa, Churwalden, Versam, Valzeina, Klosters-Serneus, Davos, Fanas, Molinis, Pagig, Praden, Obersaxen, Splügen, Valendas. Otherwise the value is zero. *Source:* www.pxweb.bfs.admin.ch. Supplemental information retrieved from: www.walser-alps.eu, www.myswitzerland.com, www.walserverein-gr.ch, www.gemeindearosa.ch, www.gruesch.ch, www.wikipedia.org. |
Table D.1 – continued

*Political preferences*

| Frac. Social Democratic Party (%) | The variable corresponds to the fraction of people who voted for the Social Democratic Party in the general elections for the National Council in 2003. *Source:* www.pxweb.bfs.admin.ch. |
|----------------------------------|---------------------------------------------------------------------------------------------------|
| Frac. Swiss People’s Party (%)  | The variable corresponds to the fraction of people who voted for the Swiss People’s Party in the general elections for the National Council in 2003. *Source:* www.pxweb.bfs.admin.ch. |
| Frac. female suffrage (1971) (%) | The variable corresponds to the fraction of men who voted in favor of women’s enfranchisement on the national level (German: eidgenössisches Frauenstimm- und Wahlrecht) in 1971. *Source:* www.pxweb.bfs.admin.ch. |
| Frac. voting age 18 (1991) (%)   | The variable corresponds to the fraction of people who voted in favor of lowering the voting age to 18 (German: Simm- und Wahlrechtsalter 18) in 1991. *Source:* www.pxweb.bfs.admin.ch. |

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The variable is the first principal component of a principal component analysis over 13 votes. The respective vote outcomes are recoded such that higher shares indicate stronger reservations towards immigration and/or immigrants. Our set of vote outcomes includes the following popular votes: law on foreigners (1982, German: Ausländergesetz, pc loading: 0.2176), equal citizenship (1983, German: Gleichberechtigung im Bürgerrecht, pc loading: 0.3344), naturalization of young foreigners (1983, German: Einbürgerung junger Ausländer, pc loading: 0.3225), asylum law (1987, German: Asylgesetz, pc loading: -0.1195), restriction on immigration (1988, German: Begrenzung der Einwanderung, pc loading: 0.2793), facilitated naturalization of young foreigners (1994, German: Erleichterte Einbürgerung junger Ausländer, pc loading: 0.3723), coercive measures for law on foreigners (1994, German: Zwangsmassnahmen im Ausländerrecht, pc loading: -0.0866), asylum law (1999, German: Asylgesetz, pc loading: -0.2061), urgent measures in the area of asylum and foreigners (1999, German: Dringliche Massnahmen im Asyl- und Ausländerbereich, pc loading: -0.1728), regulation of immigration (2000, German: Für eine Regelung der Zuwanderung, pc loading: 0.3890), against abuse of the asylum law (2002, German: Gegen Asylrechtsmissbrauch, pc loading: 0.2735), facilitated naturalization of young second generation immigrants (2004, German: Erleichterte Einbürgerung junger Ausländerinnen und Ausländer der zweiten Generation, pc loading: 0.2595), citizenship by birth for third generation foreigners (2004, German: Bürgerechtserwerb durch Geburt bei der dritten Generation, pc loading: 0.3642). Source: www.pxweb.bfs.admin.ch.

| Reservation towards immigrants (1st PC of PCA) |
|-----------------------------------------------|
| The variable is the first principal component of a principal component analysis over 13 votes. The respective vote outcomes are recoded such that higher shares indicate stronger reservations towards immigration and/or immigrants. Our set of vote outcomes includes the following popular votes: law on foreigners (1982, German: Ausländergesetz, pc loading: 0.2176), equal citizenship (1983, German: Gleichberechtigung im Bürgerrecht, pc loading: 0.3344), naturalization of young foreigners (1983, German: Einbürgerung junger Ausländer, pc loading: 0.3225), asylum law (1987, German: Asylgesetz, pc loading: -0.1195), restriction on immigration (1988, German: Begrenzung der Einwanderung, pc loading: 0.2793), facilitated naturalization of young foreigners (1994, German: Erleichterte Einbürgerung junger Ausländer, pc loading: 0.3723), coercive measures for law on foreigners (1994, German: Zwangsmassnahmen im Ausländerrecht, pc loading: -0.0866), asylum law (1999, German: Asylgesetz, pc loading: -0.2061), urgent measures in the area of asylum and foreigners (1999, German: Dringliche Massnahmen im Asyl- und Ausländerbereich, pc loading: -0.1728), regulation of immigration (2000, German: Für eine Regelung der Zuwanderung, pc loading: 0.3890), against abuse of the asylum law (2002, German: Gegen Asylrechtsmissbrauch, pc loading: 0.2735), facilitated naturalization of young second generation immigrants (2004, German: Erleichterte Einbürgerung junger Ausländerinnen und Ausländer der zweiten Generation, pc loading: 0.2595), citizenship by birth for third generation foreigners (2004, German: Bürgerechtserwerb durch Geburt bei der dritten Generation, pc loading: 0.3642). Source: www.pxweb.bfs.admin.ch. |
Table D.2: Descriptive statistics of municipalities with and without non-citizen voting rights

|                          | Mean | Std. dev. | Min | Max | Mean IVR=0 | Mean IVR=100 | Diff. | P-Value |
|-------------------------|------|-----------|-----|-----|------------|--------------|-------|---------|
| **Dependent variable**  |      |           |     |     |            |              |       |         |
| Voting right for foreigners adopted by 2017 [0/100] | 34.135 | 47.531 | 0   | 100 | -          | -            | -     | -       |
| **Independent / control variables** |      |           |     |     |            |              |       |         |
| Socio-economic composition |      |           |     |     |            |              |       |         |
| Frac. age 0 to 34      | 0.412 | 0.059     | 0.198 | 0.536 | 0.414  | 0.407         | 0.008 | 0.376   |
| Frac. age 65+          | 0.187 | 0.062     | 0.059 | 0.426 | 0.185  | 0.191         | -0.006 | 0.488   |
| Frac. low educated     | 0.350 | 0.104     | 0.161 | 0.727 | 0.348  | 0.357         | -0.009 | 0.550   |
| Frac. unemployed       | 0.018 | 0.017     | 0    | 0.094 | 0.019  | 0.017         | 0.002  | 0.416   |
| Frac. high income      | 0.145 | 0.072     | 0    | 0.372 | 0.151  | 0.135         | 0.016  | 0.123   |
| Power dilution         |      |           |     |     |            |              |       |         |
| Ln(population size)    | 5.875 | 1.258     | 3.135 | 10.381 | 6.064  | 5.511         | 0.552  | 0.002   |
| Frac. foreigners       | 0.079 | 0.068     | 0    | 0.321 | 0.089  | 0.069         | 0.030  | 0.003   |
| Municipality merger    | 0.587 | 0.494     | 0    | 1    | 0.467  | 0.817         | -0.350 | 0.000   |
| Municipal parliament   | 0.072 | 0.259     | 0    | 1    | 0.109  | 0             | 0.109  | 0.004   |
| Characteristics of foreigners |      |           |     |     |            |              |       |         |
| Frac. foreigners high, Df       | 0.500 | 0.501     | 0    | 1    | 0.547  | 0.408         | 0.139  | 0.058   |
| Frac. low educated f. high, Dledu | 0.500 | 0.501     | 0    | 1    | 0.518  | 0.465         | 0.053  | 0.467   |
| Interaction Df x Dledu | 0.317 | 0.467     | 0    | 1    | 0.380  | 0.197         | 0.182  | 0.007   |
| Frac. unemployed f. high, Due | 0.452 | 0.499     | 0    | 1    | 0.511  | 0.338         | 0.173  | 0.017   |
| Interaction Df x Due  | 0.337 | 0.474     | 0    | 1    | 0.409  | 0.197         | 0.212  | 0.002   |
| Frac. low skilled f. high, Dskill | 0.500 | 0.501     | 0    | 1    | 0.533  | 0.437         | 0.096  | 0.190   |
| Interaction Df x Dskill | 0.356 | 0.480     | 0    | 1    | 0.401  | 0.268         | 0.134  | 0.056   |
| Frac. f. speak local lang. high, Dlang | 0.500 | 0.501     | 0    | 1    | 0.489  | 0.521         | -0.032 | 0.663   |
| Interaction Df x Dlang | 0.332 | 0.472     | 0    | 1    | 0.380  | 0.239         | 0.140  | 0.042   |
| Minority experience    |      |           |     |     |            |              |       |         |
| Frac. Protestants      | 0.510 | 0.326     | 0    | 0.980 | 0.468  | 0.591         | -0.123 | 0.009   |
| Frac. Italian speaking | 0.108 | 0.270     | 0    | 0.948 | 0.130  | 0.066         | 0.064  | 0.103   |
| Frac. Romansh speaking | 0.265 | 0.322     | 0    | 0.956 | 0.287  | 0.224         | 0.063  | 0.183   |
| Walser municipality    | 0.197 | 0.399     | 0    | 1    | 0.168  | 0.254         | -0.086 | 0.142   |
| Political and power sharing preferences |      |           |     |     |            |              |       |         |
| Frac. Social Democratic Party | 0.209 | 0.102     | 0.027 | 0.561 | 0.205  | 0.216         | -0.012 | 0.431   |
| Frac. Swiss People’s Party | 0.361 | 0.162     | 0.064 | 0.789 | 0.340  | 0.402         | -0.062 | 0.008   |
| Reservations towards immigrants (1st PC) | 0.886 | 0.194     | 0.309 | 1.563 | 0.915  | 0.831         | 0.084  | 0.003   |
| Frac. female suffrage (1971) | 0.505 | 0.154     | 0.100 | 0.889 | 0.513  | 0.491         | 0.022  | 0.320   |
| Frac. voting age 18 (1991) | 0.756 | 0.100     | 0.453 | 1    | 0.742  | 0.783         | -0.041 | 0.005   |

Notes: IVR indicates whether a municipality had introduced non-citizen voting rights by 2017. Zero indicates no non-citizen voting rights and 100 the introduction of voting rights. Data sources: Swiss Federal Statistical Office, Bureau of Municipalities of the Canton of Grisons.
### Characteristics of foreigners and non-citizen voting rights in the cantons of Grisons and Zurich

#### Table E.1: Characteristics of foreigners and non-citizen voting rights in Grisons

| Dependent variable | Voting right for foreigners adopted by 2017 [0/100] |
|--------------------|----------------------------------------------------|
|                    | (1)       | (2)       | (3)       | (4)       |
| Frac. foreigners high, dummy D_t                | 7.435     | 5.971     | -2.038    | 9.938     |
| Frac. low edu. f. high, dummy D_ledu            | 17.508*   |           |           |           |
| Interaction D_t x D_ledu                         | -23.948*  |           |           |           |
| Frac. unempl. f. high, dummy D_ue               |           |           |           |           |
| Interaction D_t x D_ue                           | -18.642   |           |           |           |
| Frac. low skilled f. high, dummy D_lskill       | 3.433     |           |           |           |
| Interaction D_t x D_lskill                       | -3.032    |           |           |           |
| Frac. f. speak local lang. high, dummy D_lang   |           |           |           |           |
| Interaction D_t x D_lang                         | -27.574** |           |           |           |
| Municipality merger                              | 28.712*** | 28.893*** | 29.499*** | 29.929*** |
| Ln(population size)                              | -5.252    | -3.878    | -5.543*   | -4.695    |
| Socio-economic composition                       | incl.     | incl.     | incl.     | incl.     |
| Constant                                         | 73.510    | 67.720    | 79.344    | 54.982    |
| No. of obs.                                      | 208       | 208       | 208       | 208       |
| Adj. $R^2$                                       | 0.10      | 0.10      | 0.09      | 0.12      |

**Notes:** Standard errors are heteroscedasticity-robust. Significance levels: * .05 < p < .1, ** .01 < p < .05, *** p < .01.

**Data sources:** Swiss Federal Statistical Office, Bureau of Municipalities of the Canton of Grisons.
### Table E.2: Characteristics of foreigners and non-citizen voting rights in Zurich, 1993 and 2013

| Dependent variable | Yes share voting rights [0/100] |
|--------------------|---------------------------------|
|                    | (1)    | (2)    | (3)    | (4)    |
| Frac. foreigners high dummy $D_f$ & –0.978 & –1.108 & –1.049 & –2.646* |
|                    | (1.161) | (1.202) | (1.142) | (1.397) |
| Frac. low educated f. high dummy $D_{ledu}$ & 0.227 &  &  &  |
|                    | (0.881) |  &  &  |
| Interaction $D_f \times D_{ledu}$ & –0.624 &  &  &  |
|                    | (1.183) |  &  &  |
| Frac. unemployed f. high dummy $D_{ue}$ & 0.591 &  &  &  |
|                    | (0.717) |  &  &  |
| Interaction $D_f \times D_{ue}$ & –0.501 &  &  &  |
|                    | (0.912) |  &  &  |
| Frac. low skilled f. high dummy $D_{skill}$ & 0.213 &  &  &  |
|                    | (0.818) |  &  &  |
| Interaction $D_f \times D_{skill}$ & –0.560 &  &  &  |
|                    | (1.218) |  &  &  |
| Frac. German speaking high dummy $D_{germ}$ & –1.628** &  &  &  |
|                    | (0.767) |  &  &  |
| Interaction $D_f \times D_{germ}$ & 2.367** &  &  &  |
|                    | (1.131) |  &  &  |
| Ln(population size) & –4.989** & –4.917** & –5.021** & –5.136** |
|                    | (2.266) | (2.179) | (2.238) | (2.132) |
| Socio-economic composition incl. incl. incl. incl. |  &  &  &  |
| Municipality FE Yes Yes Yes Yes |  &  &  &  |
| Year FE Yes Yes Yes Yes |  &  &  &  |
| No. of observations 310 310 310 310 |  &  &  &  |
| Adj.$R^2$ 0.70 0.70 0.70 0.71 |  &  &  &  |

**Notes:** The mean of the dependent variable is 20.82. Standard errors in parentheses clustered at municipality level. Significance levels: * .05 < $p < .1$, ** .01 < $p < .05$, *** $p < .01$.

**Data sources:** Swiss Federal Statistical Office, Statistical Office Zurich.