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Abstract

We investigate the consequences of a peaceful shift of power from one social group to another. Theoretically, we show that an individual's decision to stay put or migrate depends on the difference between the political preferences of groups and the change in tax. Empirically, we use the case of the unexpected creation of the Canton of Jura in Switzerland, which witnessed a power shift from German to French speakers in the 1970s. We find robust evidence supporting the model's predictions using data at the municipal and individual levels. Our research sheds light on population sorting in the shadow of power transitions.

JEL-Codes: H310, H770, D720, J150.

Keywords: social identity, status displacement, migration, federalism, secession.

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1 Introduction

History is replete with examples of social groups losing their grip on power. In some cases, this process is caused by the enfranchisement of large segments of the population. For instance, in South Africa, democratization after Apartheid shifted political control away from Afrikaners and English elites (Manzo and McGowan, 1992). In other cases, abrupt changes of relative power were caused by new boundaries. This was the case, for instance, in several Central and Eastern European regions after World War I (Andreas, 2003). To take but two examples, German speakers living in present-day Hungary went from belonging to the dominant class to a linguistic minority after the breakup of the Austro-Hungarian empire (Chmelar, 1937) while the historically homogeneous French regions of Alsace and Lorraine which became German for some time were exposed to repressive policies from both nation states (Gehring, 2021). Decolonization and wars of independence belong to the same category.

How do individuals from social groups that durably lose power respond to these new conditions? Unlike losing an election, where the loss might be temporary, the kind of changes we are interested in here may last a long time. Inspired by Hirschman (1970), we hypothesize the existence of two coping strategies: an individual belonging to the former dominant group may stay where she is ('loyalty' and 'voice'), or she can migrate and leave ('exit'). In our illustrative model, two mechanisms lead to migration. One is that the new dominant group changes the political environment in a way that is congruent with its own preferences and repels the group that lost power, and thus activates a desire for homophily (McPherson, Smith-Lovin, and Cook, 2001; Dinas, Martínez, and Valentim, 2020). The political environment can here be understood broadly as the political culture (including values and norms) and the public policies that derive from it (e.g., the bundle of public goods prioritized by the government). Another is that the new dominant group increases taxes in a way that predominantly affects the displaced group.

The dilemma – staying or leaving after a power shift – occurs regularly in history. Attempts by Whites in Southern US to overturn (*de facto* when not *de jure*) Black enfranchisement after the Civil War or to redraw municipal boundaries across racial lines can be understood as illustrations of 'voicing' one's hostility to the new situation. Likewise, the 'White flight' that followed the civil rights movement in the US may be read as an 'exit' (Kruse, 2013). Similar choices had to be made by British loyalists after the American independence (Jasanoff, 2011), White South Africans after the end of Apartheid (Andrucki,

2010), the Pieds-Noirs when Algeria became independent (Shepard, 2006), and many others. We discuss later the scope conditions of our argument and how it can be extended to a wider class of cases.

Empirically assessing the effects of power shifts on population homogeneity is hard. Many changes in relative power are confounded by violence: are people forced to leave under threat? This inferential problem is compounded in autocratic countries where a lack of transparency makes it even harder to understand individual responses to a shift in power. Another problem comes from the costs of moving. Studies on the United States, for instance, show that people often express a desire to sort along ideological lines but a range of obstacles (jobs, schools, etc.) prevent them from actually doing so (Tam Cho, Gimpel, and Hui, 2013; Mummolo and Nall, 2017). In the absence of revealed preferences, it is thus hard to assess what kind of effect power shifts has.

We overcome this challenge by considering a highly peaceful case of a permanent power shift: the creation of the Canton of Jura in Switzerland, which was carved out from the Canton of Bern in 1978.[1] Bern was (and still is) populated in majority by German speakers; its Jura region, however, is in majority French speaking. While both groups are Swiss, they have very differentiated sociocultural identities that have been further deepened by two centuries of Bernese domination over large parts of French-speaking Switzerland (Brügger, Lalive, and Zweimüller, 2009).[2] The two linguistic groups differ in terms of their culture, political views, preferences over public and social policy, and attitudes over foreign affairs (Brügger, Lalive, and Zweimüller, 2009; Steenbergen, 2010; Eugster et al., 2011; Ritz and Brewer, 2013; Siroky, Mueller, and Hechter, 2015; Bernhard and Hänggli, 2018), to the point where the Jura problem has been described as an "ethnic conflict" (Mayer, 1968). After a pro-autonomy campaign that started after the Second World War and a series of votes about self-determination, the new Canton of Jura was peacefully established as a French-majority canton in the late 1970s, the first canton being added to the Swiss confederation since 1815. In line with the highly federalist organi-

[1] Cantons are Switzerland's largest subnational units (roughly equivalent to US states). All three levels of Swiss politics – federal, cantonal, municipal – determine their taxes and autonomously use these revenues. The cantonal tax burden is the heaviest. Most policies, such as education and law enforcement, are primarily set at the cantonal level.

[2] Brügger, Lalive, and Zweimüller (2009, 7) note that "the Latin [French and Italian] Swiss identity is different from the German Swiss identity. Large parts of French-speaking Switzerland have been dominated by the German Swiss oppressors from Berne during 250 years creating a desire for the French Swiss to distinguish themselves from the ruling German elites and their cultural heritage." This applies even more so for Jura, whose domination by Bern lasted longer.

zation of Switzerland, the new canton obtained wide-ranging powers about key policies shaping people's daily lives. Our questions are: how did the new minority group, the German speakers living in the area, respond? And what can we say about their motivations for moving?

The peaceful nature of this case allow us to provide lower bounds answers to these questions. Our paper presents three sets of results at two levels of analysis. First, our individual-level results show that German speakers in the Canton of Jura were about seven percentage points more likely to move to a different canton than French speakers, the new majority. In contrast, the migration probability between language groups barely differs in the rest of Switzerland and not at all in the Jura Bernois, the French-speaking neighboring region which remained part of Bern and experienced no change in power and thus a natural placebo. We show that our finding is not driven by explanations other than migration and that the linguistic differences in moving probability are only observed for people leaving the canton of Jura but not those moving within this same canton.

Second, we show that the individual migration decisions in the relevant subsample of the Swiss population lead to macro-level changes in population characteristics. Using synthetic control groups and difference-in-difference regressions, we show that the population in the Canton of Jura became more homogeneous after an unexpected pro-autonomy vote outcome. The share of German speakers in a typical Jura village was reduced by about three percentage points compared to the absence of autonomy. This represents more than one within-village standard deviation.

Third, we test whether migration patterns can be explained by tax policies. We show that income taxes became more progressive in the new Canton of Jura and that this increased the moving probability of the well-educated Jura inhabitants, which, arguably, are most affected by higher taxes. However, highly educated members of the old and new dominant group were equally likely to depart. We conclude that pocketbook considerations influenced individual migration decisions, but that social identity drove linguistic population sorting.

Finally, we consider religion which is a second cleavage in the region of interest. We show that these social identities do not reinforce each other. Note that our theoretical arguments extend to this second dimension. Protestants in the Jura became a religious minority. We can thus apply the same arguments and assumptions as in the case of social identities constructed around language.

Our paper's contributions lie at the intersection of several research agendas. First, we

add to the literature on the economics of culture, broadly defined. The dynamics of a state's population and its homogeneity (or lack thereof) has been tied to important phenomena such as polarization, ethnic conflicts, changes in political views, redistribution, and the provision of public goods (Olson, 1982; Putnam, 2001; Chen and Li, 2009; Acemoglu and Robinson, 2012). In general, this literature takes the population profile of a polity as exogenously fixed and examines its effect on public policy (Alesina, Baqir, and Easterly, 1999*a*; Habyarimana et al., 2007; Putnam, 2007). Here, we endogenize the degree of homogeneity of a jurisdiction. Our paper provides evidence that political shifts can cause observable changes in the composition of the population and lead to sorting of the kind we observe in other contexts, such as sorting along racial or political lines (Schelling, 1971; Enos, 2016; Bonica et al., 2020; Berlinschi and Fidrmuc, 2021).

We also highlight the non-material determinants of emigration. Much of the migration literature focuses on the role played by relative wages and unemployment (e.g., Harris and Todaro, 1970; Chiquiar and Hanson, 2005; Moraga, 2011). This literature tends to find small and statistically insignificant effects of adverse economic shocks on domestic migration in countries such as Germany (Dauth, Findeisen, and Suedekum, 2014), Spain (Donoso, Martín, and Minondo, 2015), and the United States (Autor et al., 2014; Autor, Dorn, and Hanson, 2016) – a useful benchmark for our findings. In rarer cases, studies have noted the role played by violence and wars (Naudé, 2010). Gibson and McKenzie (2011, 28), who examine (peaceful) migration in the Pacific region, find little evidence that wages play an important role and instead state that "more emphasis needs to be put on the non-income components of the [decision to emigrate]." Our paper does so by highlighting the importance of the political environment, broadly defined.

Lastly, we add to the literature on social status and its economic consequences (Ball and Eckel, 1998; Ball et al., 2001; Heffetz and Frank, 2011). Ball et al. (2001, 162) note that "[s]tatus is economically important because it affects the allocation of resources among individuals." We expand this by spelling out the economic implications of status displacement and show how it affects the distribution of *individuals* across jurisdictions. To do so, we draw inspiration from studies showing that threats to groups can generate fear and related psychological effects in individuals (Pratto et al., 2000; Eibach and Keegan, 2006; Sidanius et al., 2017). Our paper closely relates to Card, Dustmann, and Preston (2012), who note that hostility to immigrants is caused by their compositional effect on the local population. Here, we look at the mirror question, namely the sources of compositional changes.

2 Theory

2.1 Building Blocks

Our theoretical arguments endogenizes the composition of a jurisdiction's population composition following a shift in power. Our model is inspired by Tiebout (1956) and by Hirschman (1970), who examine individuals' responses to political and economic shocks, asking whether they will stay or leave. The Tieboutian model was developed to explain migration between local jurisdictions differing in the distribution of preferences for public goods. The self-sorting of individuals between jurisdictions, the so-called 'voting with your feet', increases preference homogeneity within communities and consequently improves the efficiency of local public goods provision.

We overlay these frameworks with social cleavages created by groups with distinct social and cultural identities. To keep things tractable and aligned with our empirical case, we consider the existence of two groups. One of the group loses its majority status and is replaced by the other group. Concretely, this mimics the effect that autonomy had on Jura, with a former German majority being replaced by a new French majority.

We construct our theory on the following building blocks. The primary actors are individuals. Their defining feature is their social identity. In the case of Jura, we consider the primary cleavage as constituted by language, with German speakers on one side and French speakers on the other. In other contexts, there may exist other dimensions that divide populations, such as ethnic identities (Acemoglu and Robinson, 2012).

Individuals belong to one of the two social groups and we assume (i) a single salient differentiator and, for simplicity, (ii) that nobody belongs to both groups. We further assume that (iii) social identity is correlated with preferences about norms, values, and policies – a standard observation in the identity and homophily literature (McPherson, Smith-Lovin, and Cook, 2001; Akerlof and Kranton, 2005; Sidanius et al., 2017). These assumptions are reasonable in our empirical case: it is widely appreciated that the French- and the German-speaking populations hold different views about centralization and the role of the state. There is evidence that linguistic affiliation in Switzerland is strongly correlated with preferences over public policies, with German speakers being more conservative and likely to support (right-wing) populist parties and French speakers supporting left-wing parties in greater proportions (Steenbergen, 2010; Siroky, Mueller, and Hechter, 2015; Bernhard and Hänggli, 2018). More generally, the two groups differ in terms of at-

titude toward work, social policy, and foreign affairs (Brügger, Lalive, and Zweimüller, 2009; Eugster et al., 2011; Ritz and Brewer, 2013). Even the genetic profile of the two populations differs (Novembre et al., 2008).

We explore the effect of a political shock in which one group's influence wanes in favor of the other group. In our case, this was triggered by a change in borders. People in the Jura region transitioned from living in a German-majority canton (grand Bern) to one in which French speakers were the majority group (new Jura). We ask: what will the population look like after that shock? Will people sort themselves as a consequence of a new majority? The key variables in a person's decision are (a) the political environment desired by the new majority, (b) the tax rate due in the two jurisdictions, and (c) the cost of moving.

The first parameter of the model are preferences over the political environment. Following standard models of spatial voting, we assume that political preferences can be reduced to a single dimension (Poole and Rosenthal, 1985). People's ideal point reflects their preferences over norms, values, and the policies congruent with them. Individuals, then, want to see their ideal political environment implemented by authorities (Downs, 1957; Hinich, 1976; Jessee, 2012). Thus, the political environment will be strongly tied with what the wishes of the newly dominant group. We assume that these preferences exist throughout, but we note that the change in status can further reinforce homophily and the desire to live with individuals who are alike. In a related study, Dinas, Martínez, and Valentim (2020) show that Catalonia's independence referendum generated concerns about outgroup threat and thus strengthened social identities.

The second parameter of the model are taxes. Utility over taxes is assumed to be decreasing, holding policy output constant. One interesting question that we will address is whether individuals who dislike the new bundles of policies and taxes will move to places that are more alike in terms of their political environment or whether they will relocate to places with lower taxes.

Finally, our model includes a third input variable: the cost of moving. Staying put is free while moving to another jurisdiction comes at a pecuniary cost. For simplicity, we assume (iv) that every individual faces the same constant moving costs.[3] We also assume

[3]Moving costs may vary depending on the distance between the jurisdictions of origin and destination. In the case of a small country like Switzerland, the variable cost is negligible as moving to a nearby village is almost as costly in monetary terms as moving further away in the country. We expect most Jura leavers to stay in Switzerland which is confirmed by the data.

that there is no uncertainty around these costs.

In summary, an individual i's decision problem is defined as the comparison between the utilities away (a) and at home (h):

$$U(\text{away})_i = -(G_i - G_a)^2 - T_{ia} - c_{ah} + \varepsilon_{ia}$$
$$U(\text{home})_i = -(G_i - G_h)^2 - T_{ih} + \varepsilon_{ih},$$

where G_i is i's ideal point over the political environment, G_a and G_h are the policies in place away and home, T are tax rates, c is the cost of moving, and ε is a random shock.

The utility functions presented above do not yet account for social identities. To implement our assumptions (i) and (iii), we write:

$$G_i \sim N(\mu_k, \sigma_k^2) \qquad \text{where: } k \in \{f\text{rench}, g\text{erman}\}$$
$$\mu_f \neq \mu_g.$$

In other words, preferences over the political environment G of an individual i belonging either to the French or German group will be drawn from a distribution in which the two groups have different means. This implements the idea that individuals from a given group (e.g. French) will have preferences that are similar and, on average, different from those of another group (e.g. German). The key components are σ_k^2, which measures within-group heterogeneity, and $|\mu_f - \mu_g|$, which captures inter-group heterogeneity.

2.2 Implications

We can now derive several conjectures regarding the effect of political autonomy (see Appendix A for the derivation of our results). Our model suggests two reasons for why people leave: preferences over the political environment and taxes. We will start with discussing the former, more involved mechanism.

For small enough values of σ_k^2 (that is, high levels of homogeneity within groups) compared to relative large values of $|\mu_f - \mu_g|$ (that is, high levels of heterogeneity across groups), a change in political control leads to a substantial shift in the median voter.[4] Thus, as long as there is a link between social identity and the preferred policy bundle,

[4]Technically, the median will shift as long as $|\mu_f - \mu_g| > 0$ (i.e., the two groups are different, on average) and the shock induces a change in relative population size. However, this change might be very small if intra-group heterogeneity is large compared to inter-group heterogeneity.

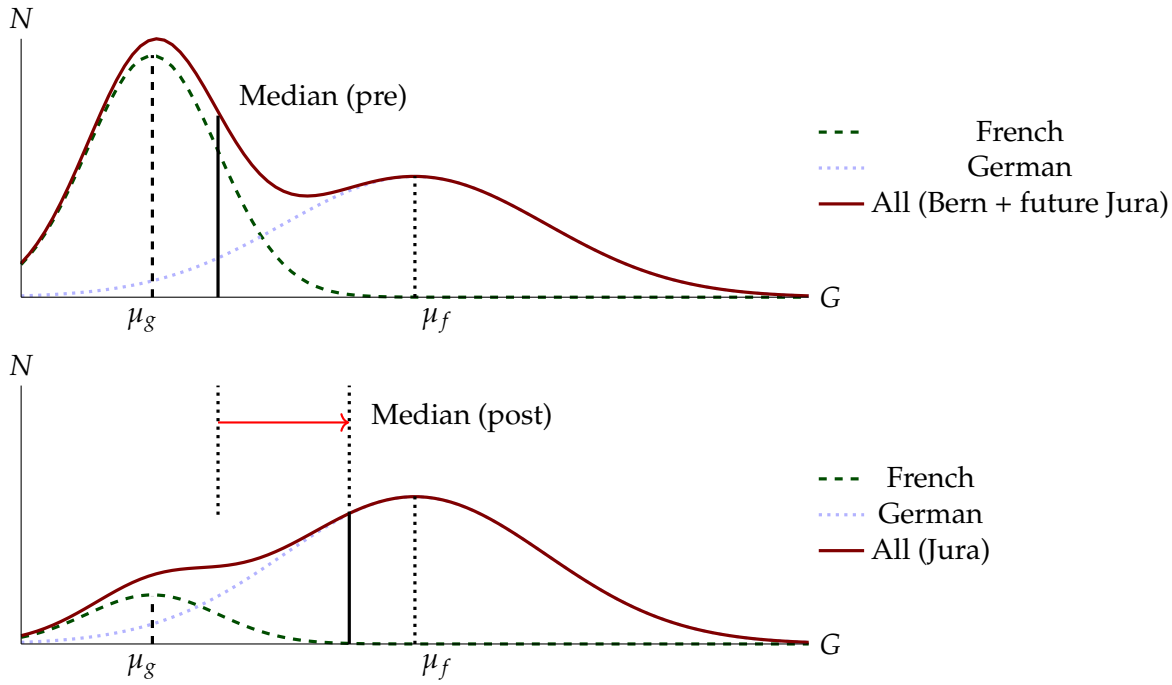


Figure 1: Hypothetical effect of Jura's autonomy on the position of the median voter. The top panel shows a hypothetical distribution of policy preferences (G) of German speakers (green dots), French speakers (blue dashes), and their sum (dark red solid line, representing the jurisdiction's aggregate population) in the Canton of Bern including Jura. The median voter is closer to the German's mean policy position. The bottom panel shows how the change in population composition (after Jura gained its autonomy) shifts the median voter toward the French mean preference (red arrow).

voting outcomes are affected. In other words, G_h will shift toward the new majority's ideal point. Figure 1 shows a hypothetical scenario of such a shift. To ensure that this is an accurate reflection of the case in Jura, our empirical case, we compare it with actual voting patterns in French and German-speaking villages in the early 1970s. Figure 2 shows that villages with a French-speaking majority were in favor of more public goods and state intervention.

The shift in the median voter and thus the political environment bundle to be provided will affect individuals' payoffs and thus their decision to stay put or leave. The new majority may hope to see policies closer to their own preferences, whereas the new minority can expect policies shift away from its ideal point. For instance, if the two groups dis-

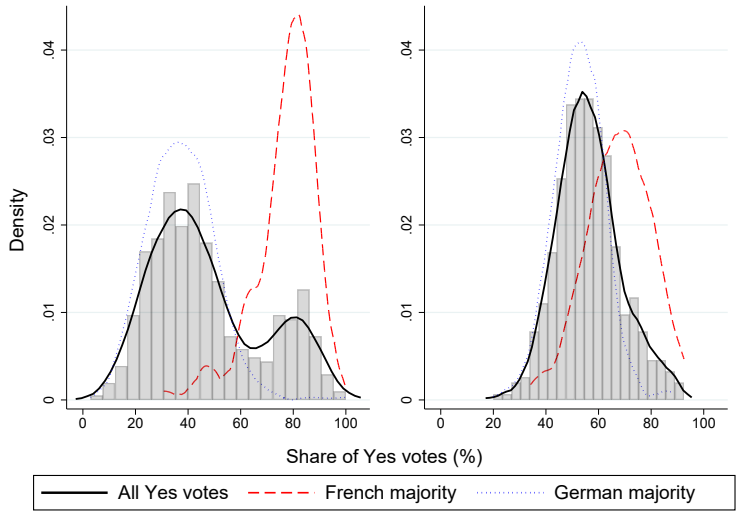


Figure 2: Share of 'yes' votes in two public good referenda at the municipal level, by linguistic majority. Sample includes all villages in the Canton of Jura and in the Canton of Bern. A municipality is considered French-speaking if more than half of the village residents in 1970 indicated French as their primary language. **Left**: share of yes-votes for the 1970 popular initiative on the "Right to Housing and Expansion of Protection for Families." **Right**: share of yes-votes for the 1972 referendum on the counter-proposal to the popular initiative "For the Promotion of Residential Construction." Distribution for German speakers (green dots), French speakers (blue dashes), and their sum (dark red solid line, representing the aggregate population). Data from BFS (2017).

agree regarding investments in schools, it is straightforward to imagine that a shift in the median voter will lead to a change in education policies. This is a standard implication of representative policymaking (Lax and Phillips, 2009).

We can now summarize the key predictions from our model regarding the first mechanism related to identity and preference, starting with the situation in Jura. On average, members of the new minority group are more likely to leave and choose so if they experience a sufficiently large loss of utility from a change in the political environment. At the aggregate level, this generates sorting along linguistic types, where French speakers stay and German speakers leave the Canton of Jura. Note that individually, some Germans will become *less* likely to move, namely those whose policy preferences are closer to the French than to the Germans. Likewise, a small number of French speakers will lose out.

Proportion of	French speakers	German speakers	Italian speakers	Other
Bern (overall)	13.8%	77.5%	6%	2.6%
Bern (w/o Jura)	8.7%	82.6%	6%	2.6%
Jura	82.1%	8.5%	6.7%	2.7%

Table 1: Linguistic split in 1970 in the Canton of Bern (overall) and its two constituent parts, Bern (without Jura) and Jura.

However, the majority of Germans will lose out, and the majority of French speakers will gain.

In contrast, the population composition barely changed in the (downsized) Canton of Bern. Because Bern was much larger, the distribution of the population shifted only marginally toward a higher share of German speakers (Table 1). Consequently, policies (and taxes) are not expected to change perceptibly. Therefore, we do not expect any sorting in the Canton of Bern. This expectation extends to Jura Bernois, the part of the historic Jura region that voted to stay with the downsized Canton of Bern.

The second channel through which autonomy may affect sorting are changes in the tax burden. Autonomy could increase per-capita taxes in the new jurisdictions for two reasons. First, a change in the economies of scale for the provision of given level of public goods increases the required financial resources (Alesina and Spolaore, 1997; Bolton and Roland, 1997). Pooling resources across a large population may also increase the incentives to strengthen political accountability and therefore reduce wasteful spending (Boffa, Piolatto, and Ponzetto, 2015; Dhillon et al., 2018). Second, jurisdictions with a population holding heterogeneous preferences over public goods provide lower levels of public goods and consequently have lower public expenditures than those with a homogeneous population (Alesina, Baqir, and Easterly, 1999*b*; Habyarimana et al., 2007, 2009). These lines of arguments suggest that taxes increase after autonomy as the size of the jurisdiction decreases and the homogeneity increases.[5]

In our model, an increase in tax rates alone does not lead to sorting. Applied indiscriminately, it increases the odds of *everyone* leaving, especially those who see their tax rates increase most. However, if changes in taxes discriminate across social groups, then it may trigger sorting. Differences in wealth or income levels might correlate with relevant

[5]The new dominant group may also simply desire more or more costly public goods. Unlike the two reasons articulated here – economies of scale and population homogeneity – this argument is entirely context specific.

social characteristics and lead to *de facto* discrimination. Consider the following example. Imagine that German speakers have higher average incomes. In that case, (French) policymakers could make income taxes more progressive and effectively shift the burden of new policies on the new minority. This would be followed by an exit of German speakers and therefore sorting.

For the tax channel to hold, then, we must establish that (a) the new German minority can be targeted by tax collectors (e.g., based on their income levels), and (b) that taxes change accordingly. Later, we test this conjecture against income tax data as well as individual census data.

To summarize: we anticipate a shift in power from one group to another to lead to population sorting along linguistic lines. In the case of Jura, we expect a decline in the share of German speakers and no change in the Canton of Bern, including Jura Bernois. The two primary mechanisms for population sorting are preferences over the political environment and taxes. In the first one, the new majority (French) shifts the political environment away from the ideal bundle of the new minority (German). In the second, the new majority places the burden of the new jurisdiction on the new minority.

Before we turn to providing more details about Jura's history, we note that our argument can be tweaked and applied to a wider range of cases. What is key in our story is a shock that signals a change in public policy toward a given social group. In the introduction, we mentioned that our theory may be applied to cases such as the end of Apartheid in South Africa. Bjørnskov, Borrella-Mas, and Rode (N.d.) discuss the case of Catalan secession and whether it created animosity among various groups but do not look at the effect it could have on sorting. We may also use this model to formulate conjectures about the effect that Catalonia's or Scotland's independence may have on their population composition. Our model could, with appropriate modifications, also be applied to Brexit. While Brexit did not change the relative size of the main social groups, it did involve a shock to EU migrants who realized that their rights might be at risk. If rights are part of foreigner's policy bundle, a vote such as Brexit would signal a regime change and increase the likelihood of emigration.

3 Historical Background

We test these hypotheses against data from the Swiss Canton of Jura. This case is ideal because (i) the outcome of the autonomy referendum was unexpected; (ii) the internal secession remained peaceful and therefore allows us to rule out confounding effects from violence;[6] (iii) its main protagonists are easy to identify: social groups were clearly delineated along linguistic lines (see also Figure 3); and (iv) the cost of moving is small. Before turning to our analysis, we provide a historical background to familiarize the reader with this case.

Jura's demands for regional autonomy date back at least to the beginning of the 20^{th} century. Figure A10 provides an overview of the key historical developments leading to autonomy. From the beginning of the 20^{th} century and in particular during the First World War, fears of the "germanization" of the French-speaking Jura fueled concerns by the local population.[7] Given the geopolitical events in the first part of the century, the dream of an independent Jura remained largely an intellectual exercise until the end of the Second World War. Yet during this period, the idea of a historic Jura sociocultural identity and its discrimination by the Bernese authorities grew and spread.

The independence movement gained steam with the "Affaire Möckli." In 1949, the cantonal legislation was tasked with electing a new executive councilor for public works (*Baudirektion*). In an unexpected move, the legislature selected the German-speaking candidate rather than the incumbent French-speaking councilor Georges Möckli of the Jura region. The latter would have been the logical candidate given the informal rule of appointment based on seniority. The vote in favor of the opposing candidate was clearly ethnic-based: the candidates differed neither in party affiliation (social-democrats) nor in their original jobs (teachers). The German language mastery of the prime candidate

[6]The run-up and the decision for the internal secession of the Canton of Jura were peaceful as international terrorism statistics confirm. Neither the Global Terrorism Database, covering 1970-2019, nor the RAND Database of Worldwide Terrorism Incidents, covering 1960-2009, mention any incidents related to Jura's autonomy movements. The arson and bomb attacks by the Front Liberation de Jura never hurt anyone but caused considerable property damage. It is nevertheless possible that locals left Jura due to fear about potentially life-threatening violence in the style of the German Red Army Fraction (RAF) or other European militant autonomy groups active during the period. Such migration would not changed our estimates in Column 1 of Table 4, because all arson and bomb attacks by the Front Liberation de Jura (FLJ) were conducted all over the historic Jura region i.e. both in the Jura Bernois and the future Canton of Jura and even elsewhere in the Canton of Bern. Fear-based outmigration would thus be observed from all parts of the historic Jura region.

[7]The following brief summary of the Jura conflict and the political process of the cantonal secession draws from Junker (2011) and Pichard (2004).

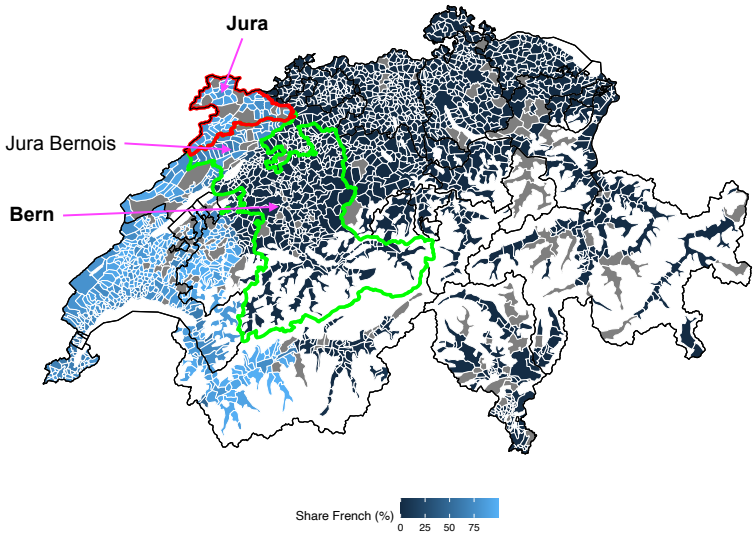


Figure 3: Map of Switzerland. Colors based on the share of French speakers in each municipality in 1970. The green area represents the Canton of Bern (minus Jura) and the purple area what would become Jura. Prior to 1978, the two areas were unified in a single Canton of Bern. White areas are unpopulated Alpine areas or lakes.

was almost perfect except for his French accent. Despite protests by legislators from the Jura region, the Bernese cantonal legislation refused to reconsider its decision. Large-scale demonstrations against this discrimination of the French minority followed and two political organizations were founded in the aftermath. The "Moutier Committee" included political representatives with diverse opinions about the future relationship between Jura and Bern while the "Jura Separatist Movement" was explicitly secessionist.

Since 1949, multiple referenda related to the "Jura question" were held in which different parts of Jura and Switzerland were entitled to vote. The first was held in 1950 and led to the recognition of the "People of Jura" in the cantonal constitution, one of the demands of the Moutier Committee. A few years later, the "Rassemblement Jurassien" (which replaced the Moutier Committee) pushed for a law paving the way to a popular vote over the separation of the Jura region. While the introduction of the law was rejected in 1959 at

the level of the Canton of Berne by a solid majority (47.30% Yes) and by a majority of the seven districts of the historic Jura, several districts of the Jura region had favorable majorities. These results led the *Rassemblement* to reconsider and envision a future Jura canton based on common language rather than common history. In the following, tensions persisted and two protest (youth) groups formed that conducted attention-grabbing actions. The actions sometimes damaged public and private property but never hurt anyone.

In 1970, the people of the Canton of Bern (including the future Canton of Jura) voted in favor of a cantonal constitutional amendment allowing for a cascade of further votes. The process was proposed by an expert commission instituted by the Federal government. Exclusively the people living in the Jurassic municipalities were allowed to vote in order to determine increased regional autonomy or, alternatively, cantonal secession. The proposal foresaw self-determination of cantonal status for districts in the historic Jura and, subsequently, for municipalities at a potential cantonal border. The secessionist forces were strengthened prior to the vote because the expert commission could not agree on a satisfactory way to allow an increased regional autonomy to the Jura region within the Canton of Bern. In 1974, the Jura municipalities voted on whether they wanted to create a Canton of Jura. Voter turnout was extremely high (90%), suggesting strong identities (Valenzueala and Michelson, 2016). The pro-autonomy result was very close (50.7% in favor). As reported in Eggly (1974), the outcome of the autonomy vote was unexpected. Based on the outcome of a similar referendum in 1959 and the absence of pre-election polls, the anti-seperatists were expected to win. This vote was also decisive: it established the creation of a new Canton of Jura – conditional only on approval by a majority of the people and a majority of the other 25 cantons of the federation.

In the following, municipalities at the cantonal border determined their cantonal affiliation. All municipalities in Jura Bernois (the southern part of the Jura region) had rejected the foundation of the new canton in 1974 and, as agreed in the 1970 process, voted again in March 1975 and decided to stay in the Canton of Bern. In September 1975, 13 municipalities at the new cantonal border voted about their respective cantonal affiliation. Four municipalities voted to stay in Bern, including – in a close vote – Moutier, one of the largest municipalities of the historic Jura region. In September 1978, an overwhelming majority of Swiss people voted in favor of the foundation of the new Canton of Jura. The Canton of Jura was formally created on January 1, 1979.

4 Data and Identification

4.1 Data

Our key hypothesis is that political autonomy, which shifted relative power from German to French speakers, led to population shorting in Jura. In line with our model, we expect sorting to be driven by an exodus of German speakers. We identify two potential mechanisms that caused this: a rejection of the new social environment and an increase in the tax burden on German speakers.

We use three primary datasets to test our hypotheses: decennial individual census data (1970-1990) in repeated cross-section format, decennial census panel data at the municipal level (1960-2000), and annual municipal panel data on local income tax rates (1970-2014). The individual data helps us identify the determinants of moving at the micro level. The municipal data shows whether individual effects are meaningful at the aggregate level. Lastly, the tax data allows us to test the financial channel linking Jura's autonomy to the decision of leaving. We next describe each dataset.

We use decennial census data from 1960 to 2000 including up to 3,007 municipalities (OFS, 2020).[8]. Our dataset consists of the municipalities that existed at the time of the 1980 census. The exact count was 3,029, but data are missing for a few villages. In 1980, the new Canton of Jura was made up of 83 municipalities. Although part of the historic region of Jura, the 49 municipalities in the Jura Bernois and the 13 municipalities in the Laufental valley voted to remain with the Canton of Bern.[9]

We start by describing the census data aggregated at the municipal level which we use to construct our two outcomes of interest. The data are summarized in Table 2. Table 1 shows the linguistic breakdown in Switzerland, Jura, and Bern in 1970 (i.e., pre-autonomy) (Figure 3). Overall, in 1970, the Canton of Bern hosted 77.5% German speakers against 13.8% French speakers. The latter were largely concentrated in the geographic area that would constitute the future Canton of Jura. Applying the borders of 1978 to census data of 1970, we find that the future Canton of Jura was predominantly French (82.6%). The share of French speakers in what would remain of Bern was 8.7%. This low

[8]Instead of continuing the decennial census, the Swiss Federal Office of Statistics started in 2010 to conduct annual structural surveys covering roughly 4% of the population

[9]Prior to 1994, Laufental was a district of the Canton of Bern. Following the autonomy of the Canton of Jura, Laufental was left as an enclave of Bern, wedged between the cantons of Jura, Solothurn, Basel-Country, and France. In 1989, the population voted to secede from Bern and join Basel-Country, which was formally done in 1994.

population share of French speakers in Bern is mirrored by the share of German speakers that stands at 8.5% in the future Jura.

In the main specifications, both the municipal- and individual-level samples use all of Switzerland but exclude the (down-sized) Canton of Bern ('CH**' sample). This sample includes the municipalities in the future Canton of Jura. We exclude the Canton of Bern because it might be affected by spillovers from political autonomy. It is unlikely to fulfill the stable unit treatment value assumption and thus should not be in the control group. The *CH*** sample also excludes municipalities in the Canton of Ticino (majority Italian-speaking), the municipality of Vellerat (which joined the Canton of Jura only in 1996), and the district of Laufental from the sample.

Our second dataset contains individual-level data for the entire population in the census years 1970, 1980, and 1990.[10] These decennial data lack individual-level identifiers which means that we are restricted to repeated cross-sectional analysis. Importantly, the data from a given census offer information about individual's migration behavior. Specifically, the data contain the residence of every respondent in the census year and five years before. This allows analyzing the individual migration response in the years following the popular vote in favor of the autonomy of Jura.

The individual-level census data also contain information on a respondent's primary language and religious affiliation as well as their educational and professional background. Finally, the census provides information on a range of socioeconomic characteristics. We reduce the sample in a number of ways to focus the analysis on our population of interest. While the census data provides us with the universe of Swiss inhabitants, we seek to ease interpretation of the coefficients to a relevant comparison group and therefore we drop non-Swiss citizens.[11] We also remove individuals which were younger than 25 years in the census year (e.g. 1980) because they were not legally adults five years prior to the census (e.g. 1975) and thus not autonomous in their choice of residence.[12] Table 3 shows statistics for the 1980 individual-level census using the sample as described above. Given the time line of political autonomy and formal creation of the Canton of Jura in 1979, we mainly use the 1980 census. Our primary outcome of interest is an indicator that is one for individuals which lived in different cantons in 1975 and 1980.

[10] This individual-level data was obtained from the Swiss Federal Statistical Office. Individual-level census data for 1960 cannot be coded from historical documents.

[11] In Switzerland, almost 950,000 individuals or 15 percent were non-Swiss in 1980.

[12] In 1980, individuals turned legally adults at age 20.

	Mean	Median	S.D.	Min.	Max	Obs.
Switzerland						
Population (municipality)	2228.7	687.5	10296.5	17	440170	14460
French Speakers (%)	27.1	1.0	39.6	0	100	14425
German Speakers (%)	56.3	84.3	42.0	0	100	14425
Number of French speakers	424.1	14.0	3155.4	0	128622	14440
Number of German speakers	1449.2	308.0	7705.8	0	384950	14441
Municipal Income Tax (CHF10k)	0.83	0.30	1.07	0	7	46128
Municipal Income Tax (CHF20k)	1.52	0.72	1.84	0	10	93572
Municipal Income Tax (CHF30k)	2.77	2.26	2.35	0	14	93572
Municipal Income Tax (CHF50k)	4.78	4.20	2.76	0	19	93572
Municipal Income Tax (CHF80k)	6.56	6.10	2.81	0	18	90246
Municipal Income Tax (CHF100k)	7.59	7.13	3.08	0	21	93572
Municipal Income Tax (CHF200k)	9.98	9.87	3.23	0	23	93572
Municipal Income Tax (CHF500k)	12.17	12.35	3.25	0	23	90246
Jura						
Population (municipality)	804.2	394.5	1509.8	33	11682	248
French Speakers (%)	88.9	91.2	11.0	4	100	248
German Speakers (%)	8.0	5.4	10.4	0	90	248
Italian Speakers (%)	1.2	0.6	1.6	0	9	248
Other Language Speakers (%)	2.0	1.3	2.6	0	26	248
Number of French speakers	707.3	346.5	1260.1	5	9574	248
Number of German speakers	41.0	23.0	69.4	0	719	249
Rest of Switzerland						
Population (municipality)	2253.5	698.0	10382.3	17	440170	14212
French Speakers (%)	26.1	1.0	39.0	0	100	14177
German Speakers (%)	57.1	85.0	41.8	0	100	14177
Italian Speakers (%)	10.9	1.9	24.9	0	100	14176
Other Language Speakers (%)	3.1	1.8	3.8	0	41	14177
Number of French speakers	419.2	13.0	3178.3	0	128622	14192
Number of German speakers	1473.9	325.0	7770.8	0	384950	14192

Table 2: Summary statistics for the municipal level data, 1960-2000. All of Switzerland.

	count	mean	sd	min	max
Geographic regions (Switzerland)					
Jura	3231962	0.011	0.104	0.000	1.000
Jura Bernois	3231962	0.009	0.095	0.000	1.000
Dependent variables (Jura)					
Cross-cantonal migrant	35076	0.06	0.24	0.00	1.00
Within-canton migrant	35076	0.08	0.28	0.00	1.00
Individual characteristics of interest (Jura)					
German-Speaking	35076	0.09	0.28	0.00	1.00
French-Speaking	35076	0.90	0.30	0.00	1.00
Italian-Speaking	35076	0.01	0.10	0.00	1.00
Other Language	35076	0.00	0.06	0.00	1.00
Catholic	35076	0.81	0.39	0.00	1.00
Protestant	35076	0.16	0.37	0.00	1.00
Other Religion	35076	0.03	0.18	0.00	1.00
Low education	34968	0.02	0.15	0.00	1.00
Medium education	34968	0.91	0.28	0.00	1.00
High education	34968	0.04	0.20	0.00	1.00
Low skill	18519	0.14	0.35	0.00	1.00
Medium skill	18519	0.63	0.48	0.00	1.00
High skill	18519	0.23	0.42	0.00	1.00
Individual level control variables (Jura)					
Male	35076	0.48	0.50	0.00	1.00
Age	35076	50.67	16.81	25.00	100.00
Children	35076	0.56	0.50	0.00	1.00
Married couple	35076	0.73	0.45	0.00	1.00
Employed	35076	0.53	0.50	0.00	1.00
Unemployed	35076	0.00	0.06	0.00	1.00
Same municipality	35076	0.37	0.48	0.00	1.00
Same canton	35076	0.13	0.33	0.00	1.00
Other canton	35076	0.03	0.17	0.00	1.00

Table 3: Summary statistics for the individual level data in the Canton of Jura based on 1980 census using CH** sample (Switzerland excl. the down-sized Canton of Bern, Canton of Ticino, the municipality of Vellerat, and the district of Laufental.) Individuals moving to or from the Canton of Jura between 1975 and 1980 are *cross-cantonal migrants* while *within-canton migrant* move between municipalities within the Canton of Jura. Table A9 describes the construction of the education and skill variables.

.

The third dataset contains municipal-level tax rates (Parchet, 2019).[13] The Swiss income tax rates varies for different classes of natural persons. Namely, different tax rates apply on married and non-married co-habiting couples and to people with or without children. Although the data starts in 1970, the only tax rate available before 1983 is the rate imposed on married taxpayers without children.[14]

4.2 Identification Strategy and Models

Our identification strategy relies on the assumption that treatment with autonomy is exogenous to individuals. The autonomy decision is an unexpected outcome as reported in Eggly (1974). Given the close majority in the 1974 vote and a rejection of a similar vote fifteen years earlier, individual migration decisions before the autonomy vote in 1974 can not be attributed to expectations about autonomy and policy changes. Finally, we note that the autonomy decision is clearly exogenous to the individual as an individual's vote is neither decisive nor can she self-select into living in a treated or untreated municipality within the historic Jura region.

4.2.1 Individual level

We start our analysis by discussing the propensity to move at the individual level. We estimate:

$$\Pr(\text{Move canton between t and t-5})_i = \sum_z \gamma \text{Language}_i + \delta \mathbf{X}_i + \kappa_p + \varepsilon_i \tag{1}$$

where i denote individuals, m municipality at time t, and p municipality at time $t-5$. Our dependent variable equals 1 if the individual moved to a different canton in the five years preceding the census. We are interested in the coefficients on the language vector $Z \in \{German, Italian, Other\}$ with *French* speakers being the baseline category in most specifications. Our parsimonious model includes the age and a dummy for male in the vector of individual-level controls $\boldsymbol{X_i}$. We further control for origin-village fixed effects κ_p. Standard errors are robust and clustered at the level of the village of origin, i.e.

[13] Note that the data prior to 1983 are imputed and might not be perfectly accurate, especially for tax rates on low incomes. Data for the year 1984 are missing.

[14] Following Parchet (2019), we abstract from the (low) head tax applicable to all individuals independent of taxable income. This is minor problem for all income levels and becomes marginal for higher income.

individuals' residence five year prior to the census.[15]

Our main results use data from the 1980 census and thus model whether an individual moved between 1975 and 1980. We use the various samples described above. When we pool all observations, we include an interaction effect between an individual's language and an indicator that flags if she lived in the Jura region in 1975.

Regarding the channels underlying the individual decision to migrate, our theory suggests preferences and taxes as drivers of individual migration along the relevant socio-economic characteristics. To disentangle these channels, we add a variable capturing the individual's financial incentives to leave and interact it with the other variables of interest. According to the model, the individual-specific source of financial utility is a change in taxes.[16] Empirically, we focus on income taxes.[17] If the cantonal share of income taxes increases equally for all tax brackets (or over-proportionally for high incomes), individuals with high incomes see their tax bill increase by higher absolute amounts (and marginal rates) than individuals with low incomes. All else being equal, increasing taxes and individual pocketbook motives should result in a higher propensity for high income individuals to leave the newly autonomous region. To test whether the financial moving incentive differs by social identity, we add an interaction between the income proxy and the language dummy to Equation 1. We also include the income level directly to control for the possibility that high-income individuals have a higher propensity to move across cantons in general. Equation 1 thus becomes:

$$\begin{aligned}\Pr(\text{Move canton between t and t-5})_i = &\sum_z \gamma \text{Language}_i + \zeta\ \text{IncomeLevel}_i \\ &+ \sum_z \eta\ \text{Income Level}_i \cdot \text{Language}_i + \ \mathbf{X_i}\ \boldsymbol{\delta} + \kappa_p + \varepsilon_i\end{aligned}$$

4.2.2 Municipal level

The municipal level analysis allows to examine the effect of individual migration decisions on the composition of the population. At the municipal level, we primarily use

[15] Table A17 shows that clustering at the level of destination-fixed effects does not alter our results.

[16] Remember from the theoretical model that we assume constant moving costs for individuals.

[17] In Switzerland, income taxes are levied by all three levels of governments. For the vast majority of tax payers, the cantonal income taxes weigh heaviest in absolute amounts. Federal taxes do not vary within Switzerland.

a difference-in-difference (DiD) setup, which we augment with variants of the synthetic control method. The outcomes of interest are the share of French and of German speakers living in a given municipality. In our main results, we use two time periods: 1970 and 1980. Among all 3,000 Swiss municipalities, the 83 municipalities in Jura experienced treatment (i.e. autonomy) in 1978, while the rest of Swiss municipalities (minus Bern and Ticino) is the control group. As such, this setup lends itself well to a DiD specification. In robustness tests, we limit the sample to cantons with a French-speaking majority, with no noticeable difference in effects (Table A24).

Our key model is:

$$\text{French speakers (\%)}_{m,t} = \alpha_m + \tau_t + \beta \text{Jura}_{m,t} + \Gamma \mathbf{X}_{m,t} + \varepsilon_{m,t}, \tag{2}$$

where m denotes municipalities and t time. The dependent variable is sometimes replaced by the share of German speakers. The exogenous treatment variable *Jura* takes value one in municipalities that joined Jura in 1978 and is zero before. The parameter of interest is β, which our model predicts to be positive for French speakers and negative for German speakers. The parameter α captures municipality fixed effects. In the main specification, τ is a dummy for the 1980 census whereas in models with more periods, we expand the set of census-year fixed effects accordingly. Standard errors are clustered by municipality.

No long and high-frequency time series is available prior to treatment. As such, it is difficult to assess the plausibility of the parallel trend assumption by checking parallel pre-trends. To check the reliability of our findings, we thus use recent developments in (re)weighting-based models for causal inference (Abadie, Diamond, and Hainmueller, 2010; Robbins, Saunders, and Kilmer, 2017; Hazlett and Xu, 2018). These methods have the advantage of reducing pre-existing differences in outcomes between our non-random treatment and control groups and attempt to eliminate the influence of (unobserved and time-varying) confounders. We report the trajectory balancing approach of Hazlett and Xu (2018, 4) because it does not require long pre-treatment time series. In the appendix, we report the more classical extension of synthetic control models developed by Robbins, Saunders, and Kilmer (2017), extending the work of Abadie, Diamond, and Hainmueller (2010).

5 Results

We now turn to the results about population homogenization following the unexpected political autonomy of the Swiss Canton of Jura. Using individual level data, we first show that the migration propensity from the exogenous treatment of autonomy differs by linguistic identity. We then apply our DiD framework to the municipal panel data and use synthetic control villages to show that population sorting was noticeable at the macro-level. Finally, we analyze the channels driving population segregation by making use of tax data and socioeconomic characteristics available in the individual census level.

5.1 Individual Migration Responses

Our theory predicts that individuals belonging to the new minority group are more likely to leave. In the case of Jura, we therefore expect a higher propensity of German speakers leaving, *ceteris paribus*. We mainly use the 1980 census data which contains information about the individual's residence in 1975 and in 1980. This five-year period covers exactly the first five years after the most important regional vote with the unexpected pro-autonomy outcome. The period was dominated by imagining and debating the agenda of the new Canton, the nation-wide constitutional referendum for the creation of a new canton in 1978, and the first implementations steps of the new Canton of Jura.

Table 4 provides systematic evidence: the probability to emigrate from the Canton of Jura "in the making" differs between French- and German speakers.[18] We find German speakers to be more likely to leave Jura than French speakers, our baseline category. Quantitatively, we find German speakers in Jura to be seven percentage points more likely to move to another canton than their French peers using the sample of all Swiss municipalities (Column 1). Compared only to French speakers in the canton of Jura, German speakers are nine percentage points more likely to leave (Column 2 as in Equation 1). The propensity for German speakers to leave the Canton of Jura is thus almost twice as large than the five percent leaving probability for French speakers (see second to last row in Table 4). Column 3 suggests that German speakers in the remainder of Switzerland have a two percent likelihood of moving across cantonal borders between 1975 and 1980. As hypothesized, there is no statistically significant difference between language groups in the probability to leave the Jura Bernois where taxes and policies barely changed. Tak-

[18] Table A10 shows the full estimation results.

Moving to a different canton: 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German	0.07***			
	(0.01)			
German-Speaking	0.01	0.09***	0.02**	-0.01
	(0.00)	(0.01)	(0.01)	(0.01)
Controls	✓	✓	✓	✓
Origin Village FE	✓	✓	✓	✓
Observations	2716369	35076	2681293	29941
Adj. R2	0.07	0.05	0.07	0.04
Outcome Mean French	0.04	0.05	0.04	0.08
Outcome French std. dev.	0.21	0.22	0.21	0.26

Table 4: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus down-sized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker and other language speaker are included. Village fixed effects based on location in 1975. The CH** sample excludes individuals living 1975 in municipalities in Bern, Ticino, Laufental, Vellerat as well as non-Swiss nationals, and those below 20 years of age in 1975. Standard errors are clustered by 'origin' municipality five years prior to the census. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

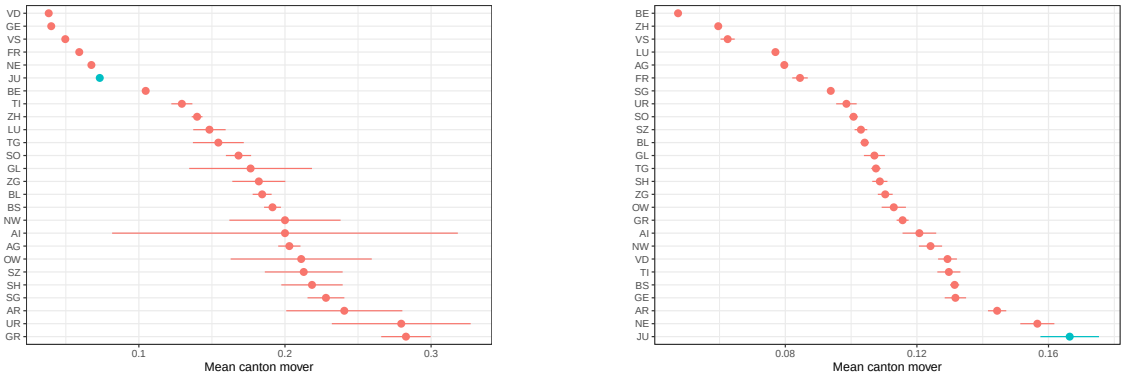


Figure 4: Likelihood of (a) French-speaking or (b) German-speaking adults to leave a canton between 1975 and 1980. Coefficient plots based on a regression of the indicator for inter-cantonal migration on the 26 cantonal fixed effects. JU refers to the new Canton of Jura and BE to the (downsized) Canton of Bern.

ing these results together, we find that German speakers in the Canton of Jura are much more likely to leave their canton than German speakers elsewhere in Switzerland and than French speakers in the Canton of Jura.

The difference in migration probability by language group are shown graphically in the two panels of Figure 4. We regress indicators for the 26 Swiss cantons on the propensity to move to another canton between 1975 and 1980 separately for French speakers and German speakers. The coefficient plot on the left-hand shows that the emigration propensity for German speakers is highest for the new Canton of Jura (JU) while the probability for French speakers to leave the Canton of Jura is among the lowest.

We confirm our main results in a number of sensitivity analyses. First, we focus on the working age population, which arguably is more likely to stay put because of their careers. At the same time, these individuals are more likely to move for economic opportunities. We define the working population as individuals that are between 30 and 60 years in the census year.[19] Table A11 shows a slightly larger effect than for the full sample: a German speaker in the Canton of Jura is eight to nine percentage points more likely to leave the canton of Jura than a French speaker (Columns 1 and 2) whereas there are barely any linguistic difference in inter-cantonal migration in Jura Bernois and the remainder of Switzerland.

Second, we systematically assess whether our results are driven by differences in the

[19] Remember that we already exclude all individuals below 25 years in 1980 from the sample.

distribution of social characteristics between French and German speakers. For example, more French-speakers might have a family and couples with children might be more likely to stay put than a young single person commuting out of the canton for work. We include three sets of additional individual-level covariates in our specification to mitigate such concerns. Specifically, we add indicator variables for the type of household (children, married), for labor market status (employed, unemployed), and commuting pattern (work place in the same municipality, the same canton, or another canton). Our baseline category is the unmarried child-less French speaker that lives alone and does not work, arguably one of the more mobile individuals.[20] Although several covariates in Table A12 are statistically significant at the one-percent level in all four columns, the point estimates for German speakers in the Canton of Jura are the same as in our main Table 4. In line with our expectations, married couples with children are less likely to move than singles.

Third, we analyse moving patterns *within* cantons as placebo test. Our model predicts no linguistic difference in the propensity of moving within cantons. We redefine the dependent variable as 1 if an individual moves between municipalities within a canton and zero otherwise. Our placebo regression shows almost no difference in linguistic moving probability within cantons. German speakers are one percentage points less likely than French speakers to move between municipalities within the Canton of Jura while there is no difference between linguistic affiliation in other Swiss cantons (Table A13). Within Jura Bernois, intra-cantonal migration is three percent more likely for German than for French speakers following the autonomy of the canton of Jura.[21]

Fourth, we use randomization inference to analyze the robustness of results (Young, 2019). While such tests are commonly used with randomized experiments, there is a growing literature that applies them to other designs such as difference-in-differences (MacKinnon and Webb, 2020). Our p-values remain similar to the ones reported in Column 1 of Table 4 (Figure A12).[22]. Finally, we run a probit model as robustness analysis for the binary outcome variable. Table A20 confirms the result of German speakers' higher

[20] Individuals are not considered working if they are retired, in training, or do unpaid work in the household.Given their labor market status, non-working individuals do not commute as per the definition of commuting.

[21] Descriptive analyses reveals that almost half of French speakers that move are leaving Jura Bernois. More than one-third of inter-cantonal French movers leave for the Canton of Jura. In contrast, a larger share of German speakers moves within Jura Bernois.

[22] Specifically: $\beta_{\text{Jura}} = 0.07$, $p<0.01$ in Figure A12. We use the sample of German speakers in the CH** data (1980 census) census and regress the indicator for cantonal mover on an indicator for Jura residency in 1975, age, and gender and cluster-robust standard errors.

propensity to leave Jura.

Is it possible that there are alternative explanations for the observed statistical patterns? We can rule out competing explanations based on mortality and similar statistical artifacts. All individual-level information used in the main individual-level specifications are collected through the same questionnaire on the same date in 1980. The collection process of the census data thus rules out that people indicate a different primary language, move abroad, or die during the sampling period (e.g. between 1975 and 1980). In other words, only individuals that are alive and live in Switzerland will indicate their primary language in the census year as well as their residence in the census year and five years prior to the census.

Likewise, we can rule out that the effect is caused by arrivers to the canton of Jura. Be reminded that our theory does makes no predictions about who arrives from outside the jurisdiction that splits in two. We analyze arrivers by redefining the dependent variable, i.e by focusing on the population living in Jura in 1980 (rather than 1975 as in Table 4) and include destination-village rather than origin-village fixed effects. While we find no linguistic differences in the probability to move to the Canton of Jura (Column 1 in Table A14), German speakers are more likely to arrive in the Canton of Jura than what the baseline composition of the Jura population would suggest (Column 2). In other words, German speaking arrivers are over-represented among arrivers. In absolute numbers however, French speakers are by far the majority.[23] We therefore continue to expect population homogenization in the Canton of Jura. More precisely, we expect that regional autonomy increases the share of French speakers.

Finally, we examine the role of religion as a second cleavage. The Canton of Bern and the Jura region differ not only by language majority but also by the dominant religion. Our evidence suggests that religion does not predict whether individuals leave the Canton of Jura. In census data from 1980, the correlation between being Protestant and being German-speaking is 0.31 for Jura stayers and 0.27 for Jura leavers. Using a triple interaction for protestant German speakers in Jura, we do not find them more likely to leave than catholic German speakers or Protestants who speak other languages (Column 1 in Table A15). The finding that German-speaking protestants are not more likely to leave the canton of Jura than French-speaking catholics holds when we limit the sample to the Canton of Jura (Column 2).

[23] Of the 1783 arrivers to the Canton of Jura between 1975 and 1980, 1,452 are French, 291 German and 40 Italian or other language speakers.

Average effect of autonomy on linguistic population share

	Share French (%)		Share German (%)	
	(1) 1970-80	(2) 1960-2000	(3) 1970-80	(4) 1960-2000
Jura	2.89***	3.28***	-3.40***	-4.12***
	(0.45)	(0.51)	(0.40)	(0.53)
Year FE	✓	✓	✓	✓
Village FE	✓	✓	✓	✓
Observations	4499	11218	4499	11218
# Villages	2250	2251	2250	2251
R^2	0.05	0.05	0.06	0.01
Pre-treatment mean	32.49	32.59	55.51	56.09
Std. dev. (within)	1.61	2.77	1.97	4.69

Table 5: Standard errors are clustered by municipality. Dependent variable: linguistic share of a municipality's population (listed at the top of each column). CH** sample minus Bern. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

5.2 Population sorting at the municipal level

We next examine whether political autonomy changes the composition of the population systematically along linguistic lines at the village level. We test whether the differences in individual migration propensities level are substantively meaningful at the aggregate level.

We report the difference-in-difference estimates following Equation 2 in Table 5. The first two columns model the percentage of French speakers, and the last two models do the same for German speakers. Models 1 and 3 use data from two years: 1970 and 1980 (that is, the years right before and after the vote on autonomy). Models 2 and 3 use all available data from the census (i.e., 1960, 1970, 1980, 1990, and 2000).

We find that the average share of French speakers in Jura villages was 2.9 percentage points higher than secular trends in the rest of Switzerland. The effect is statistically significant and robust to unit and time fixed effects. Taking a longer time view, the magnitude of the effect increases somewhat to 3.3 percentage points (Model 2). Mirroring the increased share of French speakers and reflecting the different base level for German speakers, the share of German speakers in Jura declines but by a larger magnitude: 3.4 percentage points immediately after autonomy, and 4.1 percentage points if we take the

longer time series (Model 4). These estimates are all substantively meaningful. They are larger in all but one case to the within-village standard deviation in population shares. Thus, these effects go beyond ordinary changes in population dynamics.[24]

We verify whether these results are driven by trends in Figure 5 (full results in Table A21). We interact the treatment assignment with years to examine whether municipalities that eventually joined Jura behaved differently before autonomy. The year 1960 serves as the baseline. As we can see, there was a small increase in the share of French speakers and a correspondingly small decrease in the share of Germany speakers, suggesting some pre-autonomy sorting. These effects, however, are much smaller compared to what happened after autonomy, suggesting that the latter played a critical role.

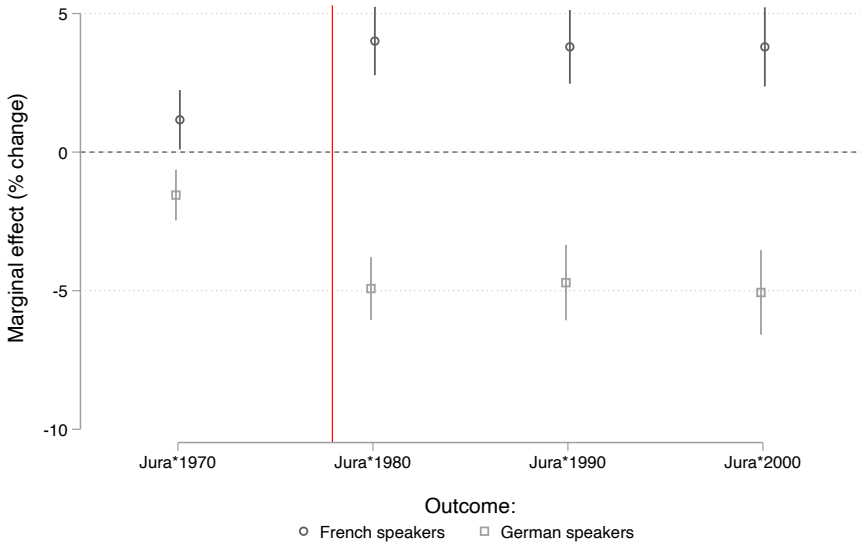


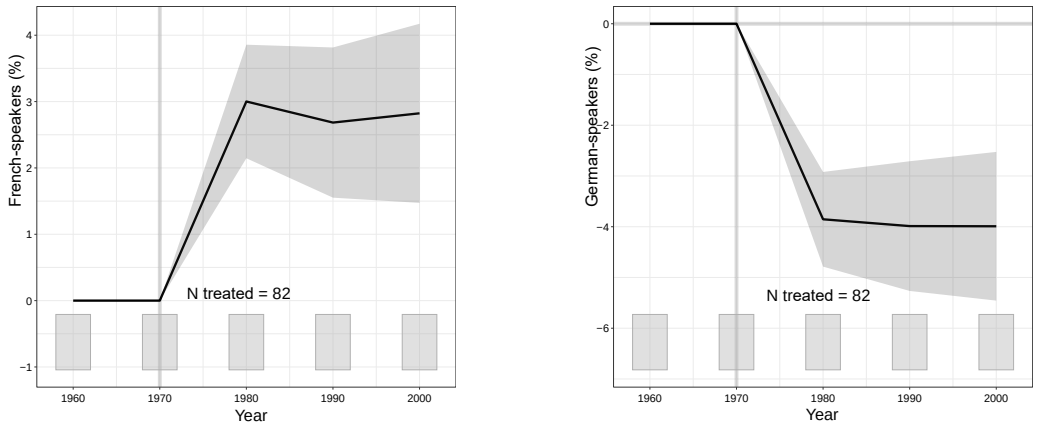
Figure 5: Marginal effect over time (1960 serves as baseline). The red line marks the 1978 autonomy vote. Full estimates reported in Table A21.

One concern regarding our main results is the choice of samples. Given the large variation in the relative share of German and French speakers across Switzerland, the construction of an adequate control group is not self-evident. The results reported above use the entire universe of Swiss villages (minus those located in Italian-speaking Ticino).

[24] A randomization test at the village level provides further evidence for the results. Specifically: p=0.02 for Table 5, model 1; p=0.06 for Table 5, model 2.

We verify the robustness of our findings in two ways. First, in the appendix, we limit the sample to villages located in French-speaking regions. These villages are most similar to the Jura villages that eventually obtained autonomy. We find that the coefficients barely differ for the share of French speakers but that coefficients are slightly smaller for German speakers (Table A24).

A second concern is covariate imbalance between treatment and control which recent developments in synthetic matching help to reduce (Robbins, Saunders, and Kilmer, 2017; Hazlett and Xu, 2018).[25] In Figure 6, we report the treatment effect on the share of French (left panel) and German (right panel) speakers. We note that the treatment effect is similar in magnitude to our earlier estimates. This reduces our concerns regarding the confounding effects of differences in baseline covariates.



(a) Share of French speakers

(b) Share of German speakers

Figure 6: The figures shows the treatment effect on the share of French and German speakers over time and, for each census year, number of treated municipalities. Estimates based on trajectory balancing (Hazlett and Xu, 2018).

In sum, we observe substantial sorting along linguistic lines in the aftermath of the autonomy vote. The relative decline within Jura in German speakers and increase in French speakers are large in magnitude compared to fluctuations experienced elsewhere in the country. Thus, the micro level effects we discussed in the previous section have material

[25]The results are based on trajectory balancing (Hazlett and Xu, 2018). In the appendix, we verify the robustness of this approach using a generalization of the original synthetic control approach suggested by Robbins, Saunders, and Kilmer (2017). In both cases, the sample now includes the Italian-speaking Canton of Ticino; we let the synthetic algorithm decide how units will be weighted to generate a counterfactual.

implications at the macro level.

5.3 Sorting Mechanisms

In line with the theoretical predictions, we find that the autonomy of Jura influences migration choices differently by language affiliation. This affects population composition in the new Canton of Jura. Our model suggests that individuals' location choice depends on the tax rate faced by the individual, moving costs, and the difference between the political environment that obtains and the individual's own ideal point. Moving costs are assumed to be constant and independent from linguistic affiliation. Thus, they cannot explain linguistic differences in moving propensity. In this section, we aim to disentangle the tax mechanism from the social identity channel affecting preferences over the political environment using triple interactions.

Linguistic sorting due to an anticipated or effective post-autonomy shift in tax burden requires that (a) German and French speakers can be targeted by tax collectors (e.g., based on differences in their income levels), (b) that tax changes increase the burden disproportionally for the new German minority, and (c) individuals facing a disproportional tax increase are more likely to leave.[26] If high-earning individuals are more likely to move independent of their primary language, this provides evidence that the tax channel is present but not mixed with social preferences for certain policy bundles. Absent a tax effect, we would conclude that the main explanation for migration are social identities and therewith policy preferences.

We start by examining whether German and French speakers can separately be targeted by taxes. Because data on income are lacking, we proxy for the ability to pay with education and skill levels. Table A9 describes the construction of these variables.[27] In the Canton of Jura, a dominantly rural canton with industry but almost no service jobs, education and skill levels are lower than elsewhere in Switzerland.[28] In the Canton of Jura, the distribution of education and skill levels among French and German speakers is similar (Table 6). The share of highly skilled is statistically different across language groups i.e. higher taxes would affect German speakers disproportionately. However, high in-

[26] Higher taxes in the newly created Canton of Jura were to be expected. As we explain above, economies of scale decreased, and new administrative and legal infrastructure was required. Moreover, voters in Jura were and are more liberal (left-wing) than the average Swiss voter (e.g., Siroky, Mueller, and Hechter, 2015) and Figure 2.

[27] Census data on skill levels are more often missing than the education level (see Table 3). Education is therefore our main income proxy.

[28] The high number of medium skilled individuals reflects the widespread Swiss apprenticeship model which is chosen by many over an academic education.

Education level	**Low education**	**Medium Education**	**High education**
German in Jura, 1975	2.9%	90.1 %	5.3 %
French in Jura, 1975	2.1%	91.5 %	4.2 %
German in CH, 1975 (excl. Bern + Jura)	3.9%	83.8 %	10.1 %
French in CH, 1975 (excl. Bern + Jura)	3.3 %	84.4%	9.9 %
Skill level	**Low skill**	**Medium skill**	**High skill**
German in Jura, 1975	18.9%	60.5 %	20.6 %
French in Jura, 1975	13.3%	63.7%	22.9 %
German in CH, 1975 (excl. Bern + Jura)	15.5%	51.8 %	32.7 %
French in CH, 1975 (excl. Bern + Jura)	15.4 %	51.7%	32.9 %

Table 6: Likelihood of high earners by language group and place of residence. Summary statistics for skill and education levels by linguistic affiliation. Location defined by place of residence in 1975. Table A9 describes the construction of the education and skill variables.
CH refers to Switzerland.

come German speakers are far fewer in numbers than high income French speakers so that most of the tax burden would be shouldered by French speakers. Given these distributions, we deem it difficult for tax collectors to target German and French speakers with different taxes.

We continue by examining the evidence for tax changes in the Canton of Jura. We find a significant increase in taxes for all incomes above thirty-thousand Swiss Francs (Figure 7 based on the coefficients in Table A22). Tax increases are highest for highly educated individuals. We therefore expect a higher migration propensity of highly educated individuals in the Canton of Jura compared both to less educated people in Jura and, more importantly, compared to highly educated individuals elsewhere in Switzerland. We know from the migration literature that highly educated and qualified individuals are more mobile. As tax targeting by language seems unlikely, we further expect that the migration propensity among the highly educated does not differ by language, that is, beyond the linguistic migration differences in the rest of population.

We test these predictions by regressing the income proxy and its interaction with language on the indicator *cantonal mover*. Column 1 of Table 7 shows that, ceteris paribus, highly educated German speakers in the Canton of Jura are not more likely to leave than either highly educated French speakers or less educated German speakers. We confirm our previous results that German speakers have a higher propensity to leave. In line with

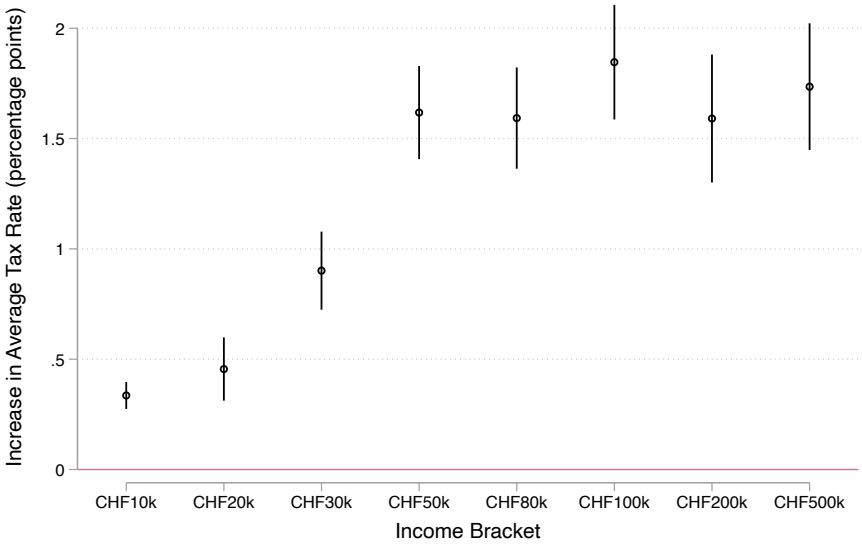


Figure 7: Marginal effect of autonomy on Jura municipalities tax rates, by tax brackets (with 95% confidence intervals). Income taxes at the municipal level for a married individual without children. Full estimates reported in Table A22.

the migration literature, we find that highly educated individuals are more mobile everywhere in Switzerland. The highly educated in the Canton of Jura have an even higher likelihood to move. Focusing on the sample of Jura residents in 1975, Column 2 confirms our previous results. Highly educated individuals have a nine percentage points higher likelihood to leave the Canton of Jura than medium educated individuals, which is much higher than elsewhere in Switzerland (Column 3). However, there are no statistically significant linguistic differences in moving propensity by education level. There are at least two interpretations for this result. The social identity of highly educated French speakers in Jura might be weaker than that of less educated French speakers i.e. a high-income French speaker has a policy ideal point that is closer to the political environment preferred by German speakers, so that autonomy decreases her utility through the political environment channel and through the tax channel. Alternatively, the policy bundle offered in Jura is closer to the ideal point of the highly educated French speaker than it used to be in pre-autonomy Bern but the disutility from the tax increase cannot be compensated by the improvement in the political environment.

Heterogeneity of migration propensity depending on education level, 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German x High education	-0.03			
	(0.03)			
Jura x High education	0.06***			
	(0.02)			
Jura x German	0.07***			
	(0.01)			
German x High education	0.01*	-0.01	0.01*	-0.02
	(0.01)	(0.03)	(0.01)	(0.02)
High education	0.04***	0.10***	0.04***	0.09***
	(0.01)	(0.01)	(0.01)	(0.01)
Controls	✓	✓	✓	✓
Origin Village FE	✓	✓	✓	✓
Observations	2634478	34230	2600248	29374
Adj. R2	0.07	0.05	0.07	0.05
Outcome Mean French	0.04	0.05	0.04	0.07
Outcome French std. dev.	0.20	0.22	0.20	0.26

Table 7: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French and medium education. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus down-sized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker and other language speaker are included as are interactions between the language and, respectively, high and low education levels. Model (1) further includes triple interactions between the Jura dummy, language, and the education level. Village fixed effects based on location in 1975. The data excludes municipalities in Ticino and Laufental, the village Vellerat and non-Swiss nationals, and individuals below 20 years of age in 1975. Standard errors are clustered by 'origin' municipality five years prior to the census. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

The education results with the triple interaction suggest that social identity influences migration post-autonomy independently through both the tax channel and the social identity channel. We confirm the social identity but not the tax channels for the skill level as alternative proxy variable for income. The point estimate on the triple interaction between highly skilled, Jura resident in 1975, and German speaker is very small and statistically insignificant (Column 1 in Table A16). In line with the social identity channel, we find that German speakers are eight percentage points more likely to leave the Canton of Jura.

We thus conclude that that emigration of high-income individuals is driven independently by social identity and, according to the results for the education by not for the skill variable, also by taxes.

Our next step is to explore the model's proposition that individuals choose their residence by comparing the "policy-tax" package offered at different locations. We do not have information about the universe of relevant policies so we have to rely on indirect evidence. To learn about the relevance of the tax-side of the package, we provide descriptive evidence about taxes in the destination locations of Jura leavers. Table 8 shows that both the average German-speaking and the average French-speaking Jura leavers move to places with lower tax rates for all income brackets except the two lowest. While all leavers face lower taxes than they used to in the Canton of Jura (*Jura stayer*), French speaking Jura leavers seem to tolerate higher taxes in their destination locations than the German-speaking Jura leavers.

Finally, we analyze how social identity may play out at the intra-household level. We define four main types of households by their language composition. In mono-linguistic households, all members speak either French or speak German. We further distinguish between French-German mixed households and all other households (including other linguistically mixed households and mono-linguistic households speaking other languages than German and French). Mono-linguistic French households are the baseline category. Columns 1 in Tables A18 (and A19 without single households) show that German-speaking housholds are sixteen percentage points more likely to leave Jura even though German-speaking households are less mobile in the rest of Switzerland. French-German households are still three percentage points more likely to leave Jura than French-speaking households. Columns 2-4 confirm these results. We interpret the strong effect of household composition on residence choice as further support for the social identity channel.

Destination village: average tax rate per tax bracket

Type / Characteristics	CHF10k	CHF20k	CHF30k	CHF50k
German-speaking Jura leavers	1.46	2.38	4.62	8.43
French-speaking Jura leavers	1.38	2.37	4.45	8.56
Jura stayer	0.89	2.22	5.04	9.81
Tax brackets (continued)	**CHF80k**	**CHF100k**	**CHF200k**	**CHF500k**
German-speaking Jura leavers	12.41	14.40	19.45	24.41
French-speaking Jura leavers	13.09	15.08	20.10	25.16
Jura stayer	14.40	16.27	21.26	27.02

Table 8: Average (cantonal and municipal) income taxes in destination villages of Jura leavers by tax bracket, weighted by the number of arrivers from the Canton of Jura during 1975-1980.

6 Conclusion

Many if not most countries are populated by social groups with diverging views about public policy. This paper contributes to our understanding of the consequences of a (peaceful) shift in power from one group to another. Our theory develops the trade-offs faced by individuals that belong to a social group losing power to opt out via emigration or choose to stay where they are. We identify three key parameters that explain how members of the former dominant group decide between the two options: the difference of median policy preferences between the old and the new dominant group, the financial burden of paying for new policies, and the cost of moving. To test our model, we take a classical case of a power shift: an redrawing of (subnational) borders. Using the creation of Jura, a new subnational jurisdiction with wide-ranging policy competences created in Switzerland in 1979 following an unexpected vote outcome in mid-1974, we show that (1) German speakers (the new minority) were considerably more likely to leave the new Canton of Jura; (2) the effect was large enough to be noticeable as sorting at the macro (village) level; and that (3) pocketbook considerations explain part of the leaving decision, but as Germans of all income groups departed much more often than French speakers of the same income group, we conclude that social identity and associated policy concerns were at least as important as purely financial factors.

Our paper speaks to a wide class of events. Regional autonomy is in high demand across the world, as recent events in Catalonia, Scotland, Kashmir, or in the Kurdish ter-

ritories illustrate. The implications of successful claims for independence or autonomy are often discussed in policy circles, but with little evidence to bear regarding the actual consequences one may expect. Our paper shows that autonomy triggers a reinforcement of population sorting towards greater homogeneity. Members of the former dominant groups are likely to leave. We note that there are several historical cases in which members of a group that loses power (or at least forms of legal protection) exit, such as South Africa. Our model could also be expanded in ways that help make sense of the migration effects of Brexit, where large number of EU citizens left; rather than a change in majority, Brexit signaled to EU members that their rights might be curtailed in the future, decreasing foreigners' utility with the policy bundle offered by the Brits.

Beyond this, our paper speaks to current debates in many Western countries: what happens when a social group that held power for decades or centuries starts to lose its control over political institutions? Studying the case of the US, Kydd (2021, 3) writes: "When a formerly dominant group is in decline, it may fear that in the future it will lack the bargaining power to maintain the status quo, and so resort to violence to prevent decline, or lock in present advantages." One of the implication of our paper is that institutions can help preclude such a scenario. In Switzerland, the ability of German-speaking elites to lock in their control over Jura was limited by the long-held Swiss tradition of using (repeated) referendums to break political deadlocks (often due to elites) by revealing citizens' preferences. Participatory democracy thus makes it harder for declining social groups to obstruct peaceful power transitions.

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Appendices

A Appendix Model

Players. We consider two types of players i. Players are individuals. To fit our analysis, we define them based on their socio-economic identity, namely their language ($i \in \{\textbf{F}\text{rench}, \textbf{G}\text{erman}\}$).[29] A player's identity is correlated with a wider set of policy preferences. For instance, one of the two types prefers more liberal policies. Alternatively, the types may differ in the type of public goods that they wish to see produced by the government.

[29] Note that in the regression models, we refer to the relevant socio-economic characteristic as z of individual i. In the theoretical model, $i == z$

Aside from their type, players are also defined by the jurisdiction j in which they live. This jurisdiction is tasked with the provision of public policy and taxation that affects players' payoff. To simplify, we define $j \in \{\textbf{H}\text{ome}, \textbf{A}\text{way}\}$.

Strategies. Each player has to make a decision over whether to stay or to leave the jurisdiction in which she lives. For simplicity, we boil this down to staying at home or moving away (i.e. to another canton).

Payoffs. Players' utilities of staying at home or moving have the following structure.

$$U_i(\text{home}) = -(G_i - G_h)^2 - T_{ih} + \varepsilon_{ih}$$
$$U_i(\text{away}) = -(G_i - G_a)^2 - T_{ia} - c_{ah} + \varepsilon_{ia}$$

We start with the utility from staying at home. The primary component consists in $-(G_i - G_h)^2$. G_i can be interpreted in two ways. Broadly, it represents i's image of an ideal society. Narrowly, it consists in i's desires for the quantity and type of public goods (which we simply to be located on the real line). In that sense, G_i captures the person's ideal level of investments in schooling, social welfare protection, policing, and so forth. The broader interpretation adds elements such as the jurisdiction's norms and cultural identity.

The level of G in i's jurisdiction j is captured by G_h. This represents the realized production of public goods and, more generally, the state of society. A player's utility, then, declines as the gap between the two increases. We assume that it decreases symmetrically and increasingly around her ideal point. This yields the utility representation of $-(G_i - G_h)^2$.

To fund public goods, an individual i faces a tax burden that depends on herself (e.g. because of her income level) and on where she lives. This is $-T_{ih}$. A person's utility is declining linearly in their tax exposure.

Finally, we include a component (ε_{ih}). For now, let us just say that it is a stochastic variable that captures every bits of utility not included in the other components.

Next comes the alternative: moving to a different jurisdiction. In addition to the same terms as before, we add a cost of moving c that depends on the distance between home and away. (This cost exists also in the utility function of staying home, but it is set to zero.) Furthermore, there is a stochastic term in this equation as well (ε_{ia}). This term captures individual-specific unobservables like job satisfaction or commuting distance that affect their payoff. The only restriction we impose is that both random terms are distributed identically.

An individual will leave if and only if:

$$U_i(A) - U_i(H) > 0$$

This is the same as writing:

$$-(G_i - G_a)^2 - T_{ia} - c_{ah} + \varepsilon_{ia} > -(G_i - G_h)^2 - T_{ih} + \varepsilon_{ih}$$

Manipulating things a bit:

$$\underbrace{(G_i - G_h)^2}_{\text{push factor}} - \underbrace{(G_i - G_a)^2}_{\text{repel factor}} + \underbrace{T_{ih} - T_{ia}}_{\text{tax differential}} \quad -c_{ah} > \varepsilon_{ia} - \varepsilon_{ih}$$

We can simplify this. We assume that for both **F** and **G**, there exist other places where public policy tends to coincide perfectly with the individual's own preferences. This ideal place will have a G that equals (or almost equals) G_i. Perhaps that is Bern for German speakers and Geneva for French speakers. But it can be individual-specific, so that some French speakers will prefer Lausanne over Geneva. We assume that such a place – an imagined political 'paradise' – exists and that people compare the option of staying home to this alternative. Thus, we don't compare two fixed choices (for instance, Delémont vs. Zurich), but the home place against this best alternative (Delémont vs. dream location). Note that this fixes k. We can then assume that this great place has a repel factor of zero:

$$(G_i - G_h)^2 + (T_{ih} - T_{ia}) - c_{ah} > \varepsilon_{ia} - \varepsilon_{ih}$$

We can also assume that taxes away (T_{ia}) are fixed. In that sense, this term simply scales the pain inflicted by home taxes. We can rewrite:

$$(G_i - G_h)^2 + T^*_{ih} - c_{ah} > \varepsilon_{ia} - \varepsilon_{ih}$$

where $T^*_{ih} = T_{ih} - T_{ia}$ is the standardized tax burden for individual i.
We further define the difference between the two error terms.

$$(G_i - G_h)^2 + T^*_{ih} - c_{ah} > \varepsilon_i,$$

where $\varepsilon_i = \varepsilon_{ia} - \varepsilon_{ih}$.
Thus:

$$Pr(Leave = 1) \equiv Pr\left[(G_i - G_h)^2 + T^*_{ih} - c_{ah} > \varepsilon_i\right]$$

At this stage, the final steps depend on our assumptions about ε_{ih} and ε_{ia}. Most commonly, they are assumed to be distributed either normal or extreme value (Train, 2009). In the former case, the difference (ε_i) is distributed normal, giving raise to the probit model. In the latter case, we obtain the logit model. The choice does not matter for our comparative statics.

In any case, we can add scaling parameters β, γ and λ and write:

$$Pr(Leave = 1) \equiv Pr\left[\beta(G_i - G_h)^2 + \gamma T^*_{ih} - \lambda c_{ah} > \varepsilon_i\right].$$

Finally, to simplify notation, we can rewrite the squared difference between i's ideal point over public policy and actual policy output as the distance D, with larger values denoting the quadratically increasing disagreement between i's policy preferences and the policy output at home.

$$Pr(Leave = 1) = Pr\left[\beta D_{ih} + \gamma T^*_{ih} - \lambda c_{ah} > \varepsilon_i\right].$$

From here, we can look at several comparative statics.
Adverse political shock at home. A departure from i's ideal policy situation *increases* the probability of leaving:

$$\frac{\partial Pr}{\partial D_{ih}} > 0 \Leftrightarrow \beta > 0$$

Adverse tax shock at home. An increase in i's tax burden will increases the probability that she leaves:

$$\frac{\partial Pr}{\partial T^*_{ih}} > 0 \Leftrightarrow \gamma > 0$$

Cost of moving. An increase in the cost of moving reduces the probability of moving. While this is a trivial result, we note that this cost is fixed not at the individual level, but at the jurisdiction level. For instance, the cost of moving between Jura and Lucerne is assumed to be the same for everybody inside Jura. Thus, any changes in this parameter would be absorbed by jurisdiction fixed effects.
Adverse political shock away. It does *not* matter if there is a political shock away. This is because there is always some place away that will have an optimal policy mix. For instance, if Bern changes some of its policies, there will be some other place (Basel) that offers the (new) best policy mix for i.

We map these predictions to our case in the following way. Political autonomy, which flipped power from German to French speakers, represents a shock on several dimensions. First, it increases D for German speakers and reduces it for French speakers. The desire of self-determination by the French population reveals a desire for a redirection in public good spending. From this angle, then, autonomy should lead to a realignment in public policy that moves closer to French speakers' ideal point.

By symmetrical logic, autonomy should move away from German speakers' preferred G. Since they hitherto had control over political process, we may assume that public policy was conducted in a way that satisfied their preferences. To the extent, then, that G_h (the provision of public policy) was near G_g, we may safely expect that any departure

from the pre-autonomy status quo will lead to a decline in utility for German speakers.

Our toy model also reveals an important scope condition for our argument. Suppose that political autonomy comes with both a political shock and a tax shock. In such a case, we can only make predictions as to the direction of the effect if autonomy simultaneously worsens (or improves) taxes and public policy. In cases when they run into opposite direction, the reduced form prediction would be ambiguous. This would be the case in a situation in which, for instance, public policy worsens but tax rates decline. In these cases, our model cannot make firm predictions as to the effect of autonomy; it would depend on the relative strength of each effect.

B Appendix figures

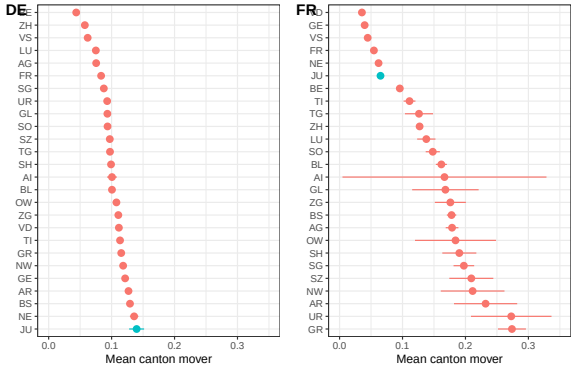

Figure A8: The plot shows the coefficients from cantonal fixed effects on the propensity of German-speaking (left) and French-speaking (right) adults to move to move between cantons between 1975 and 1980. JU refers to the newly created Canton of Jura.

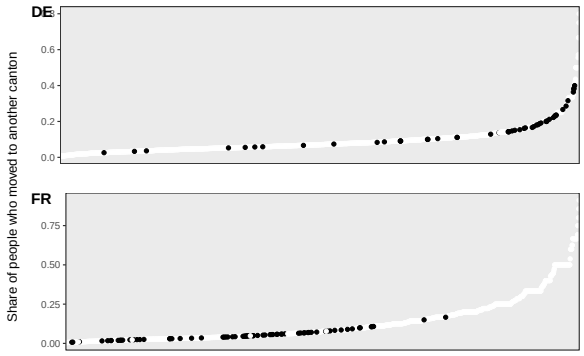

Figure A9: The plot shows the coefficients from municipal fixed effects on the propensity of German-speaking (left) and French-speaking (right) adults to move to move between cantons between 1975 and 1980. The white dots indicate municipalities in the future Canton of Jura.

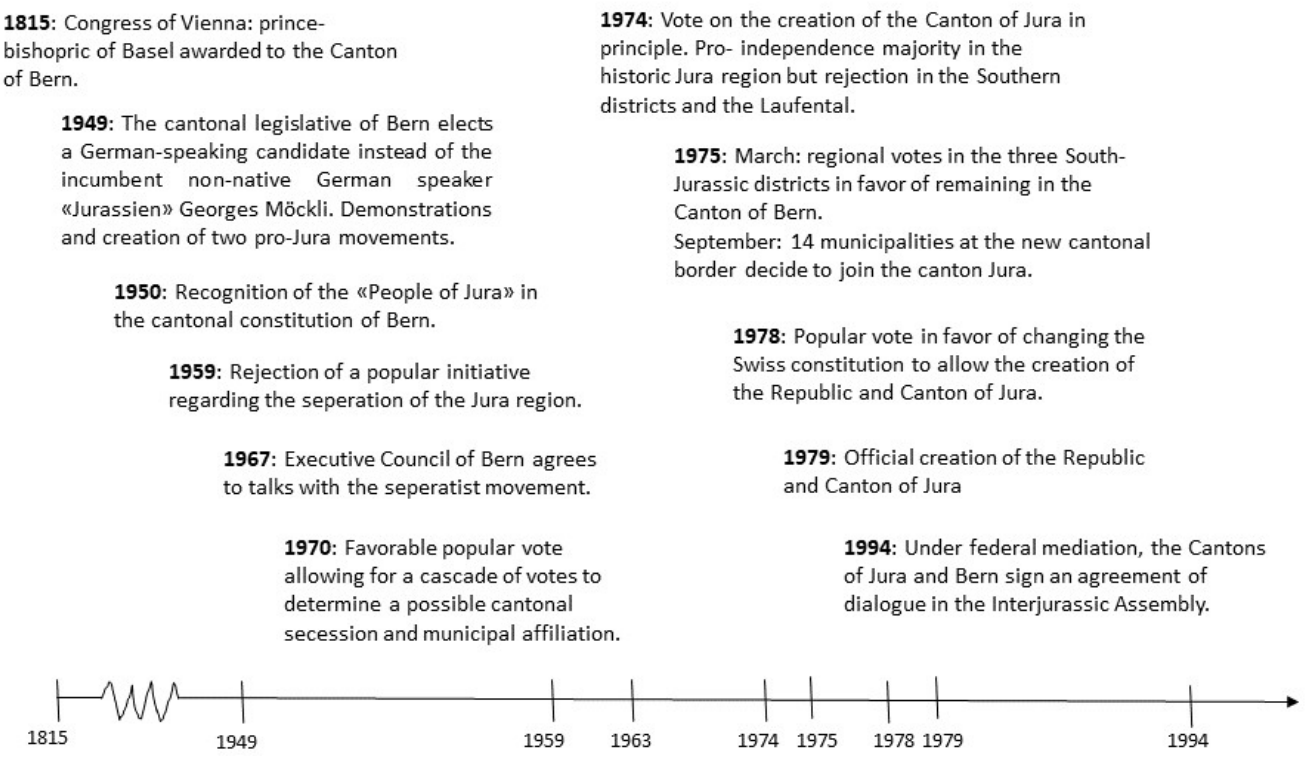

Figure A10: Timeline of the Jura conflict.

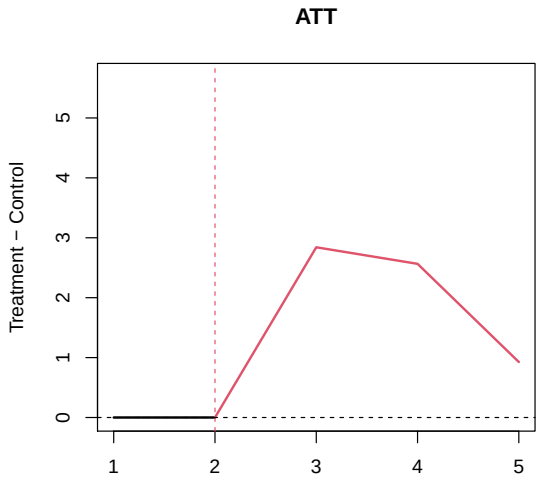

Figure A11: Treatment effect on the share of French speakers over time. Village-level census data. Estimates based on micro synthetic control (Robbins, Saunders, and Kilmer, 2017).

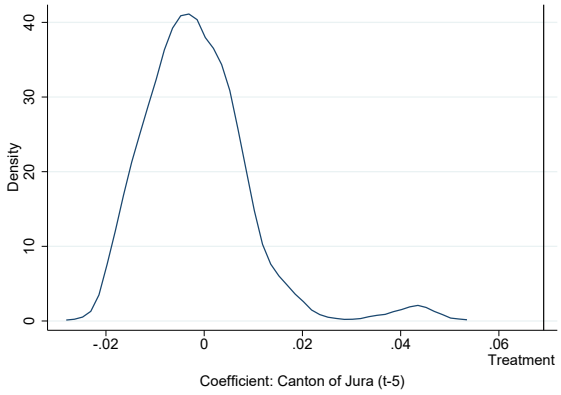

Figure A12: Randomization inference at the individual level using the 1980 CH** census minus Bern for all German-speakers. An indicator that is one for German-speaking cantonal movers is regressed on an indicator that is one for Jura residency in 1975, controlling for age and gender. Robust standard errors clustered by 'origin' municipality.

C Appendix tables

Variable	Definition	Source
High skill	Definition of ISCO 88 standard. by first digit ISCO code: 1: Legislators, senior officials and managers; 2: Professionals; 3: Technicians and associate professionals	Harmonized individual level census data, Swiss Federal Statistical Office (non-public).
Medium skill	Definition of ISCO 88 standard. By first digit ISCO code: 4: Clerks; 6: Skilled agricultural and fishery workers; 7: Craft and related trades workers; 8: Plant and machine operators and assemblers.	Harmonized individual level census data, Swiss Federal Statistical Office (non-public).
Low skill	Definition of ISCO 88 standard. By first digit ISCO code: 5: Service workers and shop and market sales workers; 9: Elementary occupations.	Harmonized individual level census data, Swiss Federal Statistical Office (non-public).
High education	Tertiary education, International Standard Classification of Education (ISCED) 5 and 6. Classification as in Beerli, Indergand, and Kunz (2017).	Harmonized individual level census data, Swiss Federal Statistical Office (non-public).
Medium education	Secondary education. ISCED 3 and 4.	Harmonized individual level census data, Swiss Federal Statistical Office (non-public).
Low education	Less than secondary education. ISCED 0, 1 and 2. In the Swiss data: completed education; other education; education not indicated.	Harmonized individual level census data, Swiss Federal Statistical Office (non-public).

Table A9: Construction of the education and skill variables from the individual census.

Individual level results

Full estimation results for Table 4

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German	0.07***			
	(0.01)			
Jura x Italian	0.02			
	(0.01)			
Jura x Other	0.06*			
	(0.04)			
German-Speaking	0.02**	0.09***	0.02**	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Italian-Speaking	-0.02**	0.00	-0.02**	-0.03***
	(0.01)	(0.01)	(0.01)	(0.01)
Other Language	0.02**	0.09**	0.02**	0.04
	(0.01)	(0.03)	(0.01)	(0.03)
Male	-0.00**	0.00**	-0.00**	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Age	-0.00***	-0.00***	-0.00***	-0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Origin Village FE	✓	✓	✓	✓
Observations	2716369	35076	2681293	29941
Adj. R2	0.07	0.05	0.07	0.04
Outcome Mean French	0.04	0.05	0.04	0.08
Outcome French std. dev.	0.21	0.22	0.21	0.26

Table A10: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus downsized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Standard errors clustered by 'origin' municipality five years prior to the census. $*: p < 0.1$, $**: p < 0.05$, $***: p < 0.01$.

Working age population: 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German	0.08***			
	(0.01)			
German-Speaking	0.01*	0.09***	0.01*	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Controls	✓	✓	✓	✓
Origin Village FE	✓	✓	✓	✓
Observations	1638280	20451	1617829	17670
Adj. R2	0.06	0.03	0.06	0.03
Outcome Mean French	0.04	0.04	0.04	0.07
Outcome French std. dev.	0.20	0.20	0.20	0.25

Table A11: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers).Samples for individuals aged 30-60 years in 1980 (working age) in 1980: (1) CH**: Switzerland minus down-sized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker and other language speaker are included. Standard errors clustered by 'origin' municipality five years prior to the census. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Civil status, labor market integration and commuting patterns: 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German	0.07***			
	(0.01)			
German-Speaking	0.02**	0.09***	0.02**	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Children	-0.06***	-0.08***	-0.06***	-0.06***
	(0.00)	(0.01)	(0.00)	(0.01)
Married couple	-0.03***	-0.04***	-0.02***	-0.03***
	(0.00)	(0.00)	(0.00)	(0.01)
Employed	-0.00	-0.03***	-0.00	0.04**
	(0.02)	(0.01)	(0.02)	(0.02)
Unemployed	-0.00	-0.05*	-0.00	-0.03
	(0.01)	(0.03)	(0.01)	(0.03)
Same municipality	-0.03	0.01	-0.03	-0.07***
	(0.02)	(0.01)	(0.02)	(0.02)
Same canton	-0.03	0.02	-0.03	-0.05***
	(0.02)	(0.01)	(0.02)	(0.02)
Other canton	0.07*	0.02	0.07*	0.00
	(0.04)	(0.02)	(0.04)	(.)
Origin Village FE	✓	✓	✓	✓
Observations	2716369	35076	2681293	29941
Adj. R2	0.09	0.08	0.09	0.06
Outcome Mean French	0.04	0.05	0.04	0.08
Outcome French std. dev.	0.21	0.22	0.21	0.26

Table A12: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus downsized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker and other language speaker (and, for the latter two variables, their interactions with the Jura dummy in column 4) are included. Standard errors clustered by 'origin' municipality five years prior to the census. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Municipal 'placebo'				
	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
German-Speaking	-0.00*	-0.01**	-0.00*	0.03***
	(0.00)	(0.01)	(0.00)	(0.01)
Controls	✓	✓	✓	✓
Origin Village FE	✓	✓	✓	✓
Observations	2531454	32963	2498491	27785
Adj. R2	0.08	0.05	0.08	0.05
Outcome Mean French	0.13	0.09	0.14	0.09
Outcome French std. dev.	0.34	0.29	0.34	0.29

Table A13: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a *different municipality within the same canton* between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus down-sized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker and other language speaker are included. Standard errors clustered by 'origin' municipality in 1980. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Arriving in a different canton: 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German	0.04			
	(0.03)			
Jura x Italian	0.01			
	(0.03)			
Jura x Other	0.03			
	(0.06)			
German-Speaking	0.01	0.06***	0.01**	0.02***
	(0.01)	(0.01)	(0.01)	(0.01)
Controls	✓	✓	✓	✓
Origin Village FE	✓	✓	✓	✓
Observations	3231932	34746	2682424	29111
Adj. R2	0.07	0.04	0.16	0.03
Outcome Mean French	0.05	0.05	0.05	0.05
Outcome French std. dev.	0.21	0.21	0.21	0.21

Table A14: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent arrives from a different canton to the region mentioned at the top of the column between 1975 and 1980 and is zero otherwise. Baseline category: respondent's primary language is French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus down-sized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker and other language speaker are included. Standard errors clustered by 'destination' municipality in 1980. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Religious affiliation: 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German x Protestant	-0.01			
	(0.01)			
Jura x German	0.04***			
	(0.01)			
Jura x Protestant	0.06***			
	(0.01)			
Protestant x German	0.01	-0.01	0.01	0.00
	(0.00)	(0.01)	(0.00)	(0.02)
German-Speaking	0.02*	0.06***	0.02*	-0.00
	(0.01)	(0.01)	(0.01)	(0.02)
Protestant	0.00	0.06***	0.00	-0.05***
	(0.00)	(0.01)	(0.00)	(0.01)
Controls	✓	✓	✓	✓
Origin Village FE	✓	✓	✓	✓
Observations	2716369	35076	2681293	29941
Adj. R2	0.07	0.06	0.07	0.05
Outcome Mean French	0.04	0.05	0.04	0.08
Outcome French std. dev.	0.21	0.22	0.21	0.26

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Table A15: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton five year prior to the census year and zero otherwise. Baseline category: respondent's primary language is French and religion is catholic. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples are defined as follows: Models (1) and (2) CH**: Switzerland minus Bern. Model (3) Jura. Model (4) CH*: CH** minus Jura. Model (5) Jura Bernois. Controls for age, male, Italian speaker, other language speaker, the interactions between other religions and, respectively, Jura and the different language dummies, as well as the relevant triple interactions are included. Standard errors are clustered by 'origin' municipality five years prior to the census. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Heterogeneity of migration propensity depending on skill level, 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German x High skill	-0.00			
	(0.03)			
Jura x German	0.08***			
	(0.02)			
Jura x High skill	0.00			
	(0.01)			
German x high skill	0.01***	0.02	0.01***	0.01
	(0.00)	(0.03)	(0.00)	(0.01)
High skill	0.03***	0.04***	0.03***	0.05***
	(0.00)	(0.01)	(0.00)	(0.01)
German-Speaking	0.03**	0.11***	0.03**	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Controls	✓	✓	✓	✓
Origin Village FE	✓	✓	✓	✓
Observations	1508787	18519	1490268	16184
Adj. R2	0.09	0.07	0.09	0.06
Outcome Mean French	0.05	0.07	0.05	0.09
Outcome French std. dev.	0.23	0.25	0.22	0.29

Table A16: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French and medium skill. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples are defined as follows: Model (1) CH**: Switzerland minus Bern. Model (2) Jura. (3) CH*: CH** minus Jura. Model (4) Jura Bernois. Controls for age, male, Italian speaker and other language speaker are included as are interactions between the language and, respectively, high and low skill levels. Model (1) also includes triple interactions between the Jura dummy, language, and the skill level. Standard errors clustered by 'origin' municipality five years prior to the census. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Clustering at the level of the destination municipality: 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
German-Speaking	0.01	0.09***	0.02***	-0.01
	(0.00)	(0.02)	(0.01)	(0.01)
Controls	✓	✓	✓	✓
Origin Village FE	✓	✓	✓	✓
Observations	2716369	35076	2681293	29941
Adj. R2	0.07	0.05	0.07	0.04
Outcome Mean French	0.04	0.05	0.04	0.08
Outcome French std. dev.	0.21	0.22	0.21	0.26

Table A17: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus downsized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker and other language speaker are included. Standard errors clustered by 'destination' municipality in 1980. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Household composition including single households: 1975-1980

	CH*	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German HH	0.14***			
	(0.02)			
Jura x French-German HH	0.03***			
	(0.01)			
German-speaking household	-0.00	0.13***	-0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
French-German household	0.02***	0.04***	0.02***	-0.02***
	(0.00)	(0.01)	(0.00)	(0.01)
Jura x German	-0.04***			
	(0.01)			
German-Speaking	0.03***	-0.02**	0.03***	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Origin Village FE	✓	✓	✓	✓
Observations	2716369	35076	2681293	29941
Adj. R2	0.03	0.02	0.03	0.01
Outcome Mean French	0.04	0.05	0.04	0.08
Outcome French std. dev.	0.21	0.22	0.21	0.26

Table A18: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: French-speaking households where all household members speak French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus down-sized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker, other language speaker, other mixed households and, in column 1, their interaction with Jura are included. Standard errors clustered by 'destination' municipality in 1980. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Household composition excluding single households: 1975-1980

	CH**	JU	CH*	JUBE
	(1)	(2)	(3)	(4)
Jura x German HH	0.14***			
	(0.02)			
Jura x French-German HH	0.03***			
	(0.01)			
German-speaking household	0.00	0.14***	0.00	-0.01
	(0.01)	(0.02)	(0.01)	(0.01)
French-German household	0.03***	0.06***	0.03***	-0.01*
	(0.00)	(0.01)	(0.00)	(0.01)
Jura x German	-0.04***			
	(0.01)			
German-Speaking	0.02***	-0.02**	0.02***	-0.01
	(0.00)	(0.01)	(0.00)	(0.01)
Origin Village FE	✓	✓	✓	✓
Observations	2113601	28163	2085438	23862
Adj. R2	0.03	0.03	0.03	0.01
Outcome Mean French	0.04	0.04	0.04	0.06
Outcome French std. dev.	0.19	0.20	0.19	0.25

Table A19: Predicting moving decisions at the individual level. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: French-speaking households where all household members speak French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus down-sized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois. Controls for age, male, Italian speaker, other language speaker, other mixed households and its interaction with Jura are included. Standard errors clustered by 'destination' municipality in 1980. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

Probit estimation of moving to a different canton, 1975-1980

	JU	CH w/o JU+BE	JUBE
	(1)	(2)	(3)
German-Speaking	0.67***	0.20**	-0.03
	(0.06)	(0.08)	(0.04)
Controls	✓	✓	✓
Origin Village FE	✓	✓	✓
Observations	34714.00	2671118.00	29851.00
Outcome Mean French	0.05	0.04	0.08
Outcome French std. dev.	0.23	0.21	0.26

Table A20: Predicting moving decisions at the individual level using a Probit model. Dependent variable: equals 1 if the respondent left for a different canton between 1975 and 1980 and zero otherwise. Baseline category: respondent's primary language is French. *Outcome mean* and *Outcome std. dev.* are the mean and standard deviation of the dependent variable for the baseline category (i.e. French speakers). Samples: (1) CH**: Switzerland minus down-sized Bern. (2) Canton of Jura. (3) CH*: CH** minus Jura. (4) Jura Bernois.Controls for age, male, Italian speaker and other language speaker are included. Standard errors clustered by 'destination' municipality in 1980. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.

D Municipal level results

Average effect of autonomy on linguistic population share

	(1) Share French (%)	(2) Share German (%)
1970	-0.06	-0.99***
	(0.10)	(0.19)
1980	0.30***	-0.15
	(0.10)	(0.19)
1990	0.32***	-0.69***
	(0.11)	(0.22)
2000	1.26***	-0.21
	(0.12)	(0.24)
Jura*1970	1.17**	-1.55***
	(0.55)	(0.47)
Jura*1980	4.01***	-4.92***
	(0.63)	(0.58)
Jura*1990	3.80***	-4.71***
	(0.68)	(0.69)
Jura*2000	3.80***	-5.06***
	(0.73)	(0.78)
Village FE	✓	✓
Observations	11218	11218
# Villages	2251	2251
R^2	0.05	0.01
Pre-treatment mean	32.59	56.09
Std. dev. (within)	2.77	4.69

Table A21: Standard errors are clustered by municipality. Dependent variable: linguistic share of a municipality's population (listed at the top of each column). $*$: $p < 0.1$, $**$: $p < 0.05$, $***$: $p < 0.01$.

Income taxes at the municipal level

	(1) 10k	(2) 20k	(3) 30k	(4) 50k	(5) 80k	(6) 100k	(7) 200k	(8) 500k
Jura	0.41***	0.64***	1.06***	1.76***	1.59***	1.76***	1.17***	1.37***
	(0.04)	(0.08)	(0.10)	(0.12)	(0.13)	(0.14)	(0.15)	(0.15)
Year FE	✓	✓	✓	✓	✓	✓	✓	✓
Village FE	✓	✓	✓	✓	✓	✓	✓	✓
Observations	33049	68091	68091	68091	65917	68091	68091	65917
# Villages	2023	2279	2279	2279	2269	2279	2279	2269
R^2	0.77	0.83	0.86	0.86	0.84	0.82	0.75	0.60
Pre-treatment mean	2.25	5.07	6.99	9.52	11.01	11.80	13.01	13.89
Std. dev. (within)	0.82	1.52	1.83	1.99	1.96	2.06	1.97	1.68

Table A22: Standard errors are clustered by municipality. Dependent variable: tax rate by income group (listed at the top of each column). Income taxes at the municipal level for a married individual without children. CH** sample: Switzerland minus Bern. $*: p < 0.1$, $**: p < 0.05$, $***: p < 0.01$.

Average effect of autonomy on linguistic population share: French-speaking cantons

	Share French (%)		Share German (%)	
	(1) 1970-80	(2) 1960-2000	(3) 1970-80	(4) 1960-2000
Jura	2.56***	2.47***	-2.79***	-2.13***
	(0.47)	(0.54)	(0.41)	(0.53)
Year FE	✓	✓	✓	✓
Village FE	✓	✓	✓	✓
Observations	1951	4866	1951	4866
# Villages	976	976	976	976
R^2	0.06	0.08	0.05	0.19
Pre-treatment mean	74.18	74.38	19.31	19.73
Std. dev. (within)	2.43	4.19	1.82	3.15

Table A23: Sample limited to French-speaking cantons (Geneva, Vaud, Valais, Fribourg, Neuchatel, Jura). Standard errors are clustered by municipality. Dependent variable: linguistic share of a village's population (listed at the top of each column). None of the samples include Ticino. $*: p < 0.1$, $**: p < 0.05$, $***: p < 0.01$.

Average effect of autonomy on linguistic population share: French-speaking cantons

	Share French (%)		Share German (%)	
	(1) 1970-80	(2) 1960-2000	(3) 1970-80	(4) 1960-2000
Jura	2.56***	2.47***	-2.79***	-2.13***
	(0.47)	(0.54)	(0.41)	(0.53)
Year FE	✓	✓	✓	✓
Village FE	✓	✓	✓	✓
Observations	1951	4866	1951	4866
# Villages	976	976	976	976
R^2	0.06	0.08	0.05	0.19
Pre-treatment mean	74.18	74.38	19.31	19.73
Std. dev. (within)	2.43	4.19	1.82	3.15

Table A24: Sample limited to French-speaking cantons (Geneva, Vaud, Valais, Fribourg, Neuchatel, Jura). Standard errors are clustered by municipality. Dependent variable: linguistic share of a village's population (listed at the top of each column). None of the samples include Ticino. $* : p < 0.1$, $** : p < 0.05$, $*** : p < 0.01$.