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VATT Institute for Economic Research
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Abstract

This paper studies voters' preferences on municipal borders in a setting with cohabiting linguistic communities. It takes advantage of unique data from referendum results in the Canadian province of Quebec in 2004, which allows a direct investigation of voter preferences. I find that differences in income and language affect the likelihood of secession. Notably, I also find that these effects are interdependent, suggesting that the support for a local secession is affected to some degree by out-group aversion. Finally, I find that voters are willing to pay additional taxes to live in their jurisdiction of choice.

Key words: Secession; Diversity; Voter Behaviour; Municipal Mergers.

JEL classes: D72, H73, H77

1 Introduction

To promote greater efficiency in the delivery of local public goods, some form of municipal consolidation took place in many countries in recent years. However, voters may oppose such mergers for at least two reasons. First, there is a trade-off between economies of scale and heterogeneity of preferences (see, e.g., Alesina and Spolaore, 1997). Larger jurisdictions can provide public goods more efficiently, but there might be a better match between the preferences of voters and public goods in smaller jurisdictions.

Second, voters might inherently dislike living in heterogeneous jurisdictions and interacting with people of different groups. In fact, Putnam (2007) argues that people in diverse neighbourhoods "hunker down;" they have lower trust in others and fewer friends. Several researchers[1] have shown that the co-existence of different ethnic groups in municipalities or communities can lead to public goods of lower quality (Alesina et al., 1999; Algan et al., 2016), to lower spending on social welfare (Luttmer, 2001), or lower redistribution (Freier et al., 2016; Dahlberg et al., 2012). Similarly, increased diversity on municipal councils can lead to less public spending (Beach and Jones, 2017). Wong (2013) also finds, using data from Singapore, that people prefer living in neighbourhoods with people of their own ethnic group. This aversion to heterogeneity, however, may come at the cost of productivity and social welfare (Ottaviano and Peri, 2005; 2006). That being said, other researchers have also challenged the idea that increased diversity leads to local public goods of lower quality (e.g., Hopkins, 2011; Lee et al., 2016), suggesting a need for further research on the topic.

With respect to municipal borders specifically, this second argument was briefly evoked by Alesina, Baqir, and Hoxby (2004) in their study of the determinants of local borders in U.S. counties. Similarly, Brasington (2003) shows that for school districts in that country, differences in racial composition decrease the probability that district boards approve consolidations. Notably, in the case of whiter communities, consolidations with darker communities are less likely to be approved by the board as income differences (whether richer or poorer) between the two communities increase. In an earlier paper, Austin (1999) looks at the role of race in municipal annexations in the United States, suggesting that cities used annexations to dilute the voting power of the non-white population.

In this paper, I study the preference of voters over municipal borders, using results from a large number of simultaneous referendums. I explore the role of socio-economic differences between the voters or different cities, as well as public finance aspects. I also explore whether socio-economic differences affect support for secession only through a preference channel, or if out-group aversion also plays a role. The setting of this paper affords substantial advantages over previous studies.

First, the setting allows the analysis of voter preferences directly, instead of relying on the choices of local government officials. Indeed, previous studies looked at choices made by elected officials, which might reflect the preferences of voters, but also those of officials themselves. For example, Hyytinen, Saarimaa, and Tukiainen (2014) find that in Finland, politicians may vote

[1] See reviews by Alesina and La Ferrara (2005) and Stichnoth and Van der Straeten (2013). This literature is also related to the one in experimental economics (e.g., Chakravarty and Fonseca, 2014) and psychology (e.g., the social identity literature introduced by Tajfel and Turner (1979) and discussed in the context of economics by Akerlof and Kranton (2000))

for or against mergers based on career considerations, instead of voter preferences. Sorensen (2006) finds similar results in Norway.

Second, my setting allows an analysis of whether out-group aversion sways the border preferences of voters. Indeed, voters from the two main linguistic groups in Québec (French and English) often live in separate towns, and for many of them, the mergers changed the linguistic composition of their municipality of residence. These two groups have a history of conflict, and some resentment persists to this day.[2] Previous analyses of local jurisdiction borders often looked at the effect of racial composition, especially in the United States. Combined with the usage of direct voter preferences, my analysis provides a deeper understanding of the role of ethnic differences in the preferences for local borders, and how it generalises to sources of ethnic differences other than race.

Third, by using referendums on *de-mergers* instead of decisions on *mergers*, I can circumvent much of the difficulties encountered by other researchers studying municipal mergers. Saarimaa and Tukiainen (2014) explain these difficulties in depth. In summary, the difficulty results from i) the two-sided nature of the decision, such that each partner must agree for researchers to observe a merger; ii) the fact that each city has many potential merging partners, but we only observe one sub-set of them; iii) the possibility of mergers that involve many partners, and not only two; and iv) the spatial inter-dependency of mergers, such that a realised merger changes the set of possible mergers for all adjacent municipalities.[3] With data from *de-merger* referendums instead, the analysis is much simpler. Voters are asked to express their opinions, choosing between only two alternatives: accept the merger, or secede from the consolidated town. While few papers previously used referendums on municipal consolidations before, their analysis was limited by data availability or by the context under study.[4]

More specifically, I use data from a set of municipal referendums in the Canadian province of Quebec. After the provincial government unilaterally enforced a wave of municipal mergers starting in 2001, public opposition led to the organisation, in 2004, of simultaneous public consultations in the 213 cities that were part of the forced merger wave. In this consultation process, voters were asked if they wanted their pre-merger town to secede from the consolidated municipality. Using local data from the Canadian Census just before the mergers, I analyse which factors affect support for municipal secession, and eventually the decision to secede.

[2]For historical context on language and identity in Quebec, see Taylor, Bassili and Abboud (1973) and Thompson (1995). A more general treatment on the role of language in the formation of identity is provided in Edwards (2009). In Spain, for example, language is a strong differentiator between Catalonia and the rest of the country. In that region, Clots-Figueras and Masella (2012) find that individuals who had greater exposure to the Catalan language in school had a greater probability to support regional parties. These results support the idea that language is important in the formation of group identity. In Quebec, the French-speaking majority actually organised two secession referendums in 1980 and 1995, from Canada as a whole.

[3]Researchers can overcome these difficulties in different ways, such as using structural methods (e.g., Weese, 2015; Gordon and Knight, 2009) or conducting the analysis at the merger level instead (Saarimaa and Tukiainen, 2014). Di Porto et al. (2017) instead look at choices to cooperate on specific local goods, instead of outright mergers, using novel discrete choice methods.

[4]Brink (2004) uses data from public consultations in Swedish municipalities, but her dataset only includes few observations over 20 years, and only in cities that officially requested one. Tanguay and Wihry (2008) also use data from the referendums in Quebec, but they asbtract from discussions on the role of out-group aversion. Moreover, they use only a limited sample in their main analysis, and focus on only one of the possible outcomes. Finally, Miyazaki (2014) uses data from referendums in Japan regarding the approval of mergers. However, in contrast to the current paper, these Japanese referendums were organised locally, and thus not uniform. In addition, they were voluntary and non-binding.

My results first show that differences in socio-economic characteristics (including income and language) between a town and its merger partners increase the probability of that town opting for secession. Moreover, richer and more English-speaking towns show greater support for secession. These effects are robust to the inclusion of a number of additional control variables, including differences in political preferences, and previous economic integration with the merger.

Notably, I find these results even though some degree of cooperation in the provision of local public goods remains between merger partners after a secession. This suggests that the effect is not only due to differences in preferences. To explore potential mechanisms, I conduct additional analyses using interaction terms between income and language differences. These show that differences in language composition alter the effect of income differences. More specifically, the effect of income differences is significantly larger when language differences are larger. Put differently, the decision to secede from a merger is affected to some degree by out-group aversion. This result is robust to the inclusion of additional variables and to the choice of specification. It is also in line with some of the previous literature finding that diversity negatively affects public goods provision. In fact, secession may give voters the opportunity to create a more homogeneous jurisdiction in which to provide local public goods.

In addition, I show that the probability to secede is lower when voters expect a tax increase following the re-constitution of the old town.[5] However, even among towns that did secede, taxes were, on average, expected to increase. In other words, voters are actually willing to pay to avoid being merged with towns of different average socio-economic characteristics.

The next section provides some context on the municipal organization in Quebec, and the policies that led to these referendums. Section 3 presents the data and the variables included in the analysis. Section 4 presents the main empirical results, while Section 5 considers the more sophisticated models that offer a deeper exploration of how linguistic differences affect the choice of de-merger. The last section concludes.

2 Institutional Context: Municipalities in Quebec and the Rules Governing the Referendums

To put the referendums into context, this section first offers a brief overview of municipalities in Québec, followed by a discussion of the merger process that preceded the referendums, in 2001. In 2000, there were around 1300 municipalities[6] in the Canadian province of Quebec. Municipalities in Quebec are responsible for a range of local public services.[7] These services include police and fire protection, local roads, water treatment and waste management, libraries, parks, cultural events, urbanism, public transport, and local economic development. To provide these services, municipalities collect property taxes as well as service fees (e.g., for public transport). They

[5] Before the consultations took place, the government asked private consultants to estimate the tax impact of re-constitution on a typical family in each individual town. This information was publicly available to all voters.

[6] Municipalities in Quebec include towns, cities, villages, etc. In this paper, I will use these terms interchangeably, as my focus is not on the differences between these categories.

[7] This is in contrast to Brasington (1999, 2003) and many others in the literature, who examine the preferences on borders of jurisdictions, such as school districts, which provide only specific goods such as schooling. In fact, Alesina, Baqir, and Easterly (1999) argue that "ethnic groups can have polarized preferences even over a seemingly neutral public good like highways." For this reason, it is worthwhile to study jurisdictions who offer a broad range of local public goods.

may also receive transfers from higher levels of government, although those do not represent a large share of most municipalities' revenues. Out of the 1300 municipalities in 2000, only five counted more than 100,000 inhabitants, while 552 included less than 1,000. The Census Metropolitan Agglomeration (CMA)[8] of Montreal, the largest city in the province, included over 100 municipalities (with about half of the provincial population). In that CMA, but also across the province, one concern of the provincial government was the disparity in tax rates between the core city and the periphery ones. In their *White Book* that preceded the reform, the provincial government writes that in the core city of Montreal, property taxes amounted to 2.12 dollars per 100 dollars of property evaluation, while they amounted to 1.88 dollars on average in the periphery municipalities (Government of Quebec, 2000).

Politicians in Quebec (both at the municipal and provincial levels) had been discussing the possibility of municipal mergers in order to provide public services more efficiently. While some municipalities willingly merged, the provincial government decided to forcibly merge other municipalities. In particular, starting in 2001, it created 42 new municipalities out of 213 towns.[9] The mergers ranged from only 2 towns to 26 of them in Montreal, and from about 600 individuals to over 1.8 million in population.[10]

Since the mergers were done without public consultation, a number of voters were unhappy with the government's decision. Keen to capitalize on that public anger, the opposition party decided to campaign, in the 2003 provincial elections that followed, on the idea of organizing referendums in every town merged without consultation. They eventually won the election, and a year later, conducted these consultations simultaneously for every town in the merger wave.

Consultations were organised in two stages, and the rules were as follows. To have a referendum, ten per cent of the voters registered in the previously-existing town had to sign a public register. Out of the 213 municipalities included in the merger wave, 89 met that condition. Then, for the referendum to be successful, at least 35 per cent of registered voters had to cast a vote in favour of secession (minimum participation criterion). Furthermore, for separation to occur, a majority of expressed votes had to be in favour of separation. Out of the 89 referendums organized in the province, 31 met both criteria and were re-constituted.[11] If there had been no minimum participation criterion, almost twice as many towns would have seceded (58 of them voted in favour of secession including those in which turnout was too low).

The consultations also outlined rules for a new governance structure in agglomerations where there was at least one re-constitution: an agglomeration council composed of representatives from the central and re-constituted towns. Therefore, a positive answer to the referendum did not lead to a complete severing of the ties between the reconstituted town and the agglomeration. The agglomeration (through the central municipality) is responsible for services including police,

[8] A CMA is a statistical area defined as the main city along with all fringe municipalities to which it is closely integrated.

[9] The merger process also included additional changes in the functioning of municipalities. In particular, it removed the equalisation payments that were paid usually to smaller municipalities, in an effort to stop favouring smaller municipalities.

[10] These 42 mergers were decided and imposed by the provincial government. Most took effect in late 2001 or early 2002, but five of the mergers were officialised in early 2003. Over the same period, some additional mergers took place voluntarily; these mergers are not included in the analysis.

[11] When only some of the towns in a merger successfully secedes, the other towns in the same merger remain agglomerated.

fire protection, municipal courts, water purification and distribution up to the local systems, maintenance of main roads, tourism, and elimination of waste. Re-constituted towns keep local services such as libraries, the urbanism plan and delivery of construction permits, local water distribution, local waste collection, local roads, and sports and culture installations. This specificity of the re-constituting process implies that secession costs are lower than under a full secession, but benefits might also be lower. While the results of this paper should be viewed with this rule in mind, it is important to note that even with this rule, many secessions took place.

3 Empirical Strategy and Data

Most empirical analyses of municipal mergers must contend with the two-sided nature of the decision process. In the case of Quebec, the analysis is simpler: voters in the 213 towns part of the consultation process chose between one of two options (*status quo* or de-merger), and decisions were independent.[12] In short, I use data at the town level to provide a socio-economic portrait of each town as it existed prior to the mergers, and look at how these characteristics affected the support for secession, and the eventual decision to secede. To fully capture this decision, I use six dependent variables that focus on different aspects of the support for secession.[13] First, I use a binary dependent variable indicating the result of the whole consultation process, constructed as such:

$$\text{Separation} = \begin{cases} 0 & \text{if a town stayed in the merger} \\ 1 & \text{if a town seceded} \end{cases}$$

For example, if a town does not gather the 10 per cent of signatures required for a referendum, the dependent variable would be equal to 0. The definition of this variable implicitly assumes that if a town did not manage to gather the number of signatures required, the referendum would have failed if one had been held. Since turnout was a criterion in whether a town seceded or not, I also use another binary variable that simply captures whether a plurality of votes were cast in favour of secession (i.e., at least 50% of votes):

$$\text{Yes Votes}>50\% = \begin{cases} 0 & \text{if less than 50\% of votes were cast in favour of secession,} \\ & \text{or no referendum took place} \\ 1 & \text{if at least 50\% of votes were cast in favour of secession} \end{cases}$$

As in the previous case, to keep the full sample of 213 towns, if a town does not gather the 10 per cent of signatures required for a referendum, this variable equals 0.

The next two dependent variables focus on the first stage of the process: signature gathering.

[12] In reality, the decisions of voters in one town could be influenced by their *expectations* of the decisions of their neighbours. In Appendix E, I provide robustness checks using spatial econometrics methods to capture these expectations.

[13] The raw electoral results are publicly available from Quebec's General Director of Elections.

First, I use a binary variable indicating the organisation of a referendum:

$$\text{Referendum} = \begin{cases} 0 & \text{if a town did not gather enough signatures for a referendum} \\ 1 & \text{if a town gathered enough signatures} \end{cases}$$

Second, I use a continuous variable that measures the support for municipal secession in the first stage of the process, defined as the number of signatures gathered in the registers, as a share of registered voters (this number had to reach at least 10% for a referendum to be organised).

The last two dependent variables focus on the second stage of the process: referendums. For that reason, they are only defined for the 89 municipalities that actually had a referendum.[14] First, I estimate the equations using the *Separation* variable as defined above, but conditional on a referendum taking place. Second, I use the actual results of the referendum, defined as the share of votes for secession, out of the number of ballots cast.

Before diving deeper in the definition of the independent variables, a short discussion on the empirical strategy is warranted. The nature of the data offers a number of advantages compared to other studies on the topic. First, I observe decisions for every town possibly involved in the merger process. In contrast to most analyses of mergers, where only the final outcome is observed, and usually only the collective decision, I observe the decisions of every individual towns instead of collective decisions. In other words, I can clearly observe and measure each town's preference for de-merger. Second, the votes in my data are direct indications of voter preferences, instead of a mixture of voter preferences and politician incentives. Third, the whole process of mergers and de-mergers took place over a relatively short period of time, and simultaneously in every town involved, such that further Tiebout sorting during the process is not likely to be an issue.[15]

Despite these advantages, there could be some unobserved variables omitted from the analysis.[16] For example, attachment to the original (pre-2001) municipality could increase the support for secession, while also being correlated with language composition. That variable is not available, but could theoretically be captured, for example, as the frequency of social interactions with neighbours. Not having access to such a measure, I instead include other control variables that might be related, such as the relative size of the town (e.g., smaller towns might favour social interactions), hoping to reduce the potential for bias. In fact, I control for a large number of variables, including socio-economic characteristics, political preferences, previous taxation lev-

[14] Since I can only include 89 towns in the analysis, the econometric estimations might suffer from sample selection. However, the motivation behind these outcomes is to study this particular stage of the decision process and see how it compares to the other outcomes. It could be possible to use a sample selection model, but the analysis would rely on the credibility of the exclusion restriction. Tanguay and Wihry (2008) use this method, but use no instrument (instead dropping relevant variables). One instrument used in the literature (e.g., Hansford and Gomez, 2010) is the amount of rainfall on the days for the gathering of signatures. I collected data on total rainfall on these days for every pre-merger town from Environment Canada (`http://climate.weather.gc.ca/advanceSearch/searchHistoricData_e.html`), using geographic coordinates to find the closest weather station to every town. However, unlike for elections, these data do not reliably predict the organisation of a referendum. This result is somewhat expected, since voters actually had 5 days to sign the register. For that reason, it is impossible to reliably estimate a selection model using this variable as the instrument.

[15] Of course, after the de-merger votes, dissatisfied voters might move to other towns. This possibility, however, does not affect the voters' preferences.

[16] While omitted variable bias is still a concern, due to potential unobservable variable, the nature of the data at least guarantees that reverse causality is not an issue: independent variables are all measured prior to the outcome.

els, previous economic integration with the merger, and merger fixed effects. Another potential bias could arise from spatial interactions, or from expectations of votes in other merger cities. I account for that possibility in robustness tests using spatial econometric models and a measure of expectations of neighbour city votes. Results are provided in Appendix E, and show that my results are robust to such specifications.

That being said, one additional threat to identification remains. Indeed, the nature of the data does not allow for a direct measurement of preferences for public goods or attachment to ethnic groups. Instead, I admittedly rely on proxies based on socio-economic characteristics. For example, linguistic differences could capture both differences in preferences for public goods and the salience of out-group aversion in a community towards the rest of the merger. For that reason, even if the coefficient were technically unbiased, it would not readily give a clear interpretation. To explore further the mechanisms behind the secession votes, in the last section of this paper, I include an additional analysis using interaction variables. This analysis allows a deeper understanding of the secession votes, and is accompanied by further robustness checks to eliminate some alternative explanations.

3.1 Empirical Specification

Before the mergers took place, voters likely sorted themselves over the years (at least partially) according to characteristics such as income and language (as suggested by Tiebout, 1956). I thus argue that votes will depend on differences in socio-economic characteristics[17] between a town and its partners in the same merger. I thus estimate the following model:

$$\begin{aligned} Outcome_i = \beta_0 &+ \beta_1(\textit{Diff. Median Income}_i) + \beta_2 I_i(\textit{Poorer}) \\ &+ \beta_3(\textit{Diff. \% English-Speaking}_i) + \beta_4 I_i(\textit{More English-Speaking}) \\ &+ \mathbf{x_i} \cdot \gamma + u_i \end{aligned}$$

I estimate this model with OLS for continuous outcomes, and OLS (Linear Probability Model) and Probit for binary outcomes.[18]

The first independent variables (*Diff. Median Income*$_i$ and *Diff. % English-Speaking*$_i$) measure differences on two dimensions (median income and language composition). I use these two dimensions as main variables given the importance of income in previous studies, and the importance of language in defining social groups in Québec. These variables are constructed as follows:

$$\textit{Diff. Median Income}_i = \left| Median\ Income_i - \frac{\sum_{j \neq i} Population_j \cdot Median\ Income_j}{\sum_{j \neq i} Population_j} \right|$$

$$\textit{Diff. \% English-Speaking}_i = \left| Share\ English_i - \frac{\sum_{j \neq i} Population_j \cdot Share\ English_j}{\sum_{j \neq i} Population_j} \right|$$

[17] I collect data from the most recent Canadian Census that took place before the merger wave (namely, the 2001 Community Profiles at the level of Census Subdivisions), as well as data from the Ministry of Municipalities (data on municipal budgets), and Elections Canada (federal election results). Data are missing for some of the 213 municipalities, so estimations actually include fewer observations. See Table A.1 for summary statistics.

[18] In the interest of brevity, I only report OLS results in the main text. However, some Probit estimates are provided in Appendix D and are usually similar unless noted otherwise.

Note that I am interested in how each town (i) differs from its partners (j) in the same merger. In other words, I argue that the decision to secede is not merely due to the level of characteristics, but to relative differences compared to the other towns in the merger.[19]

These difference variables are calculated in absolute values to capture the idea that *differences* are important (in any direction).[20] However, I also include two dummy variables capturing whether a town is i) poorer than its partners in terms of median income (*Poorer than Merging Partners*), and ii) more English-speaking than its partners (*Larger Prop. English-Speaking*).

3.2 Additional Control Variables

I also include a number of control variables. The first set of variables capture public finance aspects of the mergers. First, I include the predicted tax increases or decreases after a de-merger. Voters may be more reluctant to vote for secession if they expect tax increases (all else being equal). Fortunately, when it organized the referendums, the central government also mandated private consultant firms with the task of estimating the tax increase or decrease that an average household would experience in the re-constituted municipality. In doing so, these firms estimate how much an average voter would pay in tax to the agglomeration (basically the central town still responsible for part of the public goods) and to the re-constituted town (including referendum and transition costs, debt sharing, and re-assignment of current spending to re-constituted towns), and calculated the difference between that total and the taxes paid before the referendum. These estimates are certainly imperfect, but they were made available to all voters before the referendums. In my estimations, I use the estimated tax impact after five years, in percentage, for a family with a house of average value ($Tax\ Impact_i$).[21]

In addition to this predicted tax impact following de-mergers, I also include, in some models, information about previous tax rates. First, I include the tax rate prior to the mergers ($Tax\ level\ in$ 2001), expressed as an "adjusted global tax rate." The Government of Québec calculates such tax rates to allow comparisons between cities.[22]

Second, I include a measure of tax increase (or decrease) in the merged period, between 2001 and 2004.[23] I use these adjusted global tax rates and calculate the percentage increase between those two years ($Tax\ Increase,\ 2001-2004$). This measure of tax changes might be imperfect, however. Indeed, the taxes paid by residents depends not only on the tax rate but also on the value of their houses. Since house values increase between 2001 and 2004 (possibly faster than incomes and general inflation), the increase in taxes can feel higher to voters than what the official tax rates would imply.[24] To distinguish between the tax rate and the amount of taxes

[19] I also estimate equations with the level of median income and the proportion of English speakers directly, as robustness checks.

[20] For example, Bolton and Roland (1997), in their study of national secessions, argue that secessions can be driven by preferences for more or less redistribution, such that poorer regions may also favour secession in equilibrium. I also discuss robustness tests without this absolute value.

[21] More details on these studies are available, in French, at the following address: `http://www.mamrot.gouv.qc.ca/organisation-municipale/historique/consultation-sur-la-reorganisation-territoriale/etudes/`.

[22] It is measured using the total residential tax revenues and the total taxable valuation of residential buildings, and then adjusted, using some adjustment ratios, to allow comparisons.

[23] Mergers are usually sold as cost-saving arrangements, which would translate in tax decreases, but previous literature has found mixed evidence on that topic (see, e.g., Reingewertz, 2012; Moisio and Uusitalo, 2013; Blesse and Baskaran, 2016; Blom-Hansen et al., 2016).

[24] Mergers themselves could affect the value of houses if they cause more public services to be available for

paid, I also calculate the "average increase (or decrease) in tax payments" between 2001 and 2004. To do so, I impute average house values in years between 2001 and 2006 (average house values are only available for Census years) using the average annual growth rate, and then apply the global tax rate to the average value of a house in 2001 and 2004, thus obtaining the amount of taxes paid by an "average" household. I then calculate the increase in that amount between 2001 and 2004, expressed in percentage form ($Inc.\ in\ Average\ Tax\ Payment,\ 2001-2004$).

Differences in preferences for public goods could translate in different levels of spending in pre-merger towns. To measure differences in spending levels, I use financial data from municipalities in 2001, before the mergers, on total public spending. I then calculate a variable ($Diff.\ Public\ Spending$) similar to the ones for income and language, but using the total amount of spending per capita.

Since taxes at the municipal level are applied on house values, and not income, it may be important to also include differences in house values. I create a variable similar to the one for income, but instead using the average value of houses in each pre-merger town. This variable ($Diff.\ House\ Values$) should capture the "tax base effect:" individuals in towns with higher house values pay more taxes, and may be more supportive of secession if it keeps taxes lower for them. For that reason, I include this variable without taking the absolute value.[25]

Different towns may also have different political preferences. In Quebec, political parties are mostly absent from local politics, except in bigger cities in recent years. For that reason, it is virtually impossible to compare the political alignment of local politicians in different cities. Therefore, I instead control for political preferences using electoral results at the *federal* level, in each pre-merger town, using results from the 2000 federal elections, which took place before the merger events.[26] In Quebec in 2000, two federal parties dominated the results: the Bloc Quebecois and the Liberal Party.[27] To measure the differences in political preferences between a pre-merger town and its merging partners, I calculate the following variable, with $\%BQ$ the share of the vote going to the Bloc Quebecois:[28]

$$Diff.\ \%\ BQ_i = \left| \%BQ_i - \frac{\sum_{j \neq i} Population_j \cdot \%BQ_j}{\sum_{j \neq i} Population_j} \right|$$

The next variables capture elements of geography and population. First, I include a variable capturing the economic integration of each town with its merger partners: *Commuter Flows to Merger Partners*. This variable is measured using bilateral commuting flows between every city in Canada, summing the number of commuters from town i to its merger partners, and

residents, for example. In fact, Harjunen et al. (2017) find that house prices in small and large cities diverge following municipal mergers.

[25] Using the absolute value, this variable has no effect on support for secession. Results are available in Appendix D.

[26] Since voting results are not available at the town level, I construct these data by aggregating the results by voting district. Each electoral riding at the federal level, which includes several towns, is made up of a large number of small voting districts.

[27] On average, in my data, these two parties together represent 87% of the municipal vote share. The Bloc Québécois is a regional party promoting the interests of the province of Quebec and its independence. The Liberal Party is a centrist party present across the whole country.

[28] I also obtained data on voting results in the 1998 provincial elections in Quebec. Not surprisingly, the results are closely related. Towns with strong support for the Bloc Québécois also support the Parti Québécois at the provincial level, another nationalist party. Results are similar if I use provincial results instead.

expressing it as a share of the total labour force of town i.

I also include some variables controlling for the size of jurisdictions. First, I simply include the population of every pre-merger town. Second, I calculate the share of the agglomeration's population for each constituent town. Third, I include the size of the largest town in each merger. The last two variables may also control for the loss of representation that might be experienced by a smaller town merged with other larger towns.

The geographical distance between the municipality and the merger's central town may also influence the choice of voters. Indeed, as municipalities are farther away, their needs may differ. Efficiency gains are also probably lower, because public services have to be delivered in a larger geographical area. I calculate distance using the geographical location (latitude and longitude)[29] of every town in my sample, and measuring the distance between each pre-merger town and the core municipality of the merged agglomeration.[30] In addition to distance, I also include population density to account for the rural, urban or suburban composition of the municipalities.

Finally, while income and linguistic composition are two important socio-economic characteristics in Quebec, I also estimate a robustness model with variables, constructed in a similar way to *Diff. Median Income*$_i$, on the percentage of university-educated people, visible minorities, recent migrants (past 5 years) from elsewhere in the province, as well as on the unemployment rate and inequality (measured crudely by the ratio of average to median income). These variables all account for some additional potential preference heterogeneity between individuals of different municipalities.

4 Results

Before discussing regression results, I present a portrait of Québec municipalities in 2001 in Table 1. First, we see from columns 2 and 3 that the towns that were merged in 2001 were already different from the rest of the province. They were usually more populated (and with a faster growth rate), denser, slightly richer, and slightly more English-speaking (although differences in language composition are not significant). They were also more educated, had a lower unemployment rate, and had a larger share of visible minorities. In terms of public finance, they spent and taxed more. These socio-economic differences reflect the fact that the provincial government focused its merging efforts in urban areas. For my analysis, these differences point to a possible sample selection effect: the towns not in the sample are significantly different. In Appendix B, I show the results of my main analysis with the addition of all observables on which the cities might have been selected (those that are significantly different between my sample and towns not in the sample). The results on most of my main variables of interest are robust to these additions.[31]

[29] The geographical location of a municipality is approximated by its centroid.

[30] While the core municipality is often in the geographic centre, it is not always the case. The core municipality is identified in government documents, and is usually the one including the business core. In rare cases where it was not clearly identified, I assume that the largest town in terms of population is the core municipality.

[31] A common way to deal with sample selection issues is to use Heckman selection models. In this paper, most of the independent variables are also unobserved in the non-merged cities, since they are calculated in relation to the merger. For that reason, it would be impossible to include results from such a model in this paper, and instead I just control for the observable characteristics that differ between cities in the sample and those not in

That being said, the selection effect might not be that problematic in the first place. Indeed, the towns included in the sample represent 58% of the total population of Québec. The sample might not be representative at the city level, but the results concern a territory in which more than half the residents of Québec live. Moreover, discussions of municipal mergers often take place in urban contexts, in towns possibly more similar to those included in my sample.

The next columns compare towns that had a referendum (column 5) to those who did not but were part of the merger wave (column 4). Towns who had a referendum were in general smaller, denser, richer, more educated, more English-speaking, had a larger share visible minorities, and had a lower unemployment rate. They were also more closely integrated with the merging partners: a larger share of residents commuted inside the merger. Interestingly, public expenditures per capita were higher, but the tax rate was lower, reflecting the larger tax base (higher house values). Politically, towns who had a referendum had a lower vote share to either the Bloc Québécois or Parti Québécois, the nationalist parties at the federal and provincial level, respectively.

Finally, columns 6 and 7 compare towns that actually seceded to those that did not, but that had a referendum. The patterns are similar, but some are amplified. For example, the share of English speakers in seceding towns is much higher than in non-seceding ones. Seceding towns are also much more educated, houses are worth more, and had seen much higher population growth in recent years. Politically, residents in seceding towns vote even less for the two nationalist parties.

Results from OLS estimations for the 6 outcomes are shown in Table 2.[32] I first discuss results on language differences. Column 1 shows that towns with a greater proportion of English-speaking people than the rest of the merger have a probability to secede that is about 10 percentage points higher. Furthermore, even accounting for that effect, the *level* of language differences also plays a role. In particular, an increase of 1 percentage point in *Diff. English-Speaking Proportion* (standard deviation: 10.9) is associated with an increase in the probability of secession of about 1.2 percentage points. The other columns show a consistent effect of linguistic differences on the support for secession broadly defined. In particular, Column 4 implies that a 1 percentage point increase in linguistic differences is associated with an increase in the share of signatures collected of 0.31 percentage points, and that towns who have a greater share of English speakers collected on average 3.92 percentage points more in the share of signatures.[33]

For the other outcomes, exact coefficients obviously vary across models, but towns that were more English-speaking than their merging partners consistently showed more support for secession. They were more likely to gather at least 50% of votes in favour of secession, more likely to have a referendum, more likely to secede conditional on having a referendum, and gathered a larger share of votes for secession in the referendum when one took place.

Result 1. *The support for secession is greater in towns with a greater proportion of English-*

it.

[32] Appendix A presents summary tables for the variables included in the regression models.

[33] Note that only few towns have an outright English majority. Therefore, in the towns where secessions took place, it is probably a mix of English- and French-speakers who voted for secession. However, the hypothesis made here is that the share of English-speakers increase the support for secession and, in turn, the probability of it taking place.

Table 1: Means and Standard Deviations of Municipal Characteristics, by Group of Municipalities

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total	Non-Merged[a]	Merged				
			Total	No Referendum	Referendum		
					Total	Not seceded	Seceded
Population in 2001 (000s)	5356.0	2665.8***	19835.3	23637.4	14477.9	14846.3	13765.6
	(31674.5)	(11126.3)	(74229.0)	(95563.7)	(20054.4)	(21974.0)	(16021.2)
Pop. Growth (96-01)	1.89	1.23	5.43	1.08	11.6	2.34	29.4
	(46.0)	(44.3)	(53.9)	(9.27)	(82.9)	(7.47)	(141.4)
Land area (km^2)	440.5	501.3	112.8	143.1	70.2	66.9	76.7
	(8195.0)	(8922.5)	(252.6)	(309.7)	(126.3)	(92.8)	(175.5)
Density (000s per km^2)	0.20	0.10***	0.75	0.61	0.93	0.76	1.27
	(0.68)	(0.41)	(1.29)	(1.31)	(1.26)	(1.09)	(1.49)
Median income	18752.3	18163.7***	21811.6	20263.2	24078.9	22674.5	27043.9
	(4563.9)	(4266.8)	(4838.2)	(3718.2)	(5387.0)	(3893.4)	(6821.7)
Average Value of a Dwelling	77634.5	72154.0***	107218.9	90674.9	130798.7	101067.2	190261.9
	(40522.3)	(31557.7)	(64102.9)	(32157.5)	(87166.1)	(33608.8)	(124674.9)
Unemployment Rate	11.6	12.1***	9.32	10.4	7.86	7.66	8.26
	(9.21)	(9.65)	(5.85)	(5.90)	(5.48)	(3.92)	(7.80)
Proportion English-Speaking	6.65	6.40	8.04	3.35	14.7	7.45	29.2
	(15.2)	(15.3)	(14.9)	(6.60)	(20.0)	(11.9)	(24.8)
Share Commuting to Merger Partners			40.4	36.0	46.4	44.8	49.9
			(25.6)	(26.6)	(23.0)	(22.5)	(24.2)
Share Visible Minorities	0.78	0.43***	2.67	1.49	4.37	3.27	6.58
	(2.54)	(0.87)	(5.77)	(3.79)	(7.46)	(7.14)	(7.73)
Share University-Educated	7.88	6.88***	13.3	9.85	18.1	13.4	27.6
	(7.34)	(5.89)	(11.1)	(6.34)	(14.3)	(9.76)	(17.1)
Public Spending ($ p.c.)	841.6	806.0***	1025.0	854.3	1262.4	862.5	2062.0
	(625.5)	(543.1)	(922.1)	(364.6)	(1327.7)	(359.4)	(2039.2)
Tax level, 2001	1.49	1.44***	1.72	1.78	1.63	1.70	1.50
	(0.57)	(0.58)	(0.49)	(0.49)	(0.47)	(0.49)	(0.40)
Tax Increase, 2001-2004 (%)	5.55	4.01***	12.8	8.68	18.6	16.8	22.3
	(18.9)	(12.4)	(35.4)	(35.3)	(35.0)	(34.7)	(36.0)
Δ Average Tax Payment, 2001-2004 (%)	36.7	34.6***	46.5	40.5	54.8	52.1	60.2
	(29.8)	(25.8)	(42.7)	(42.9)	(41.3)	(40.8)	(42.5)
Share of Vote to B.Q., 2000 Fed. Elec.	44.3	44.8***	42.1	48.0	33.9	39.5	22.6
	(16.4)	(16.5)	(15.8)	(12.2)	(16.7)	(12.7)	(18.2)
Share of Vote to P.Q., 1998 Prov. Elec.	45.6	45.5	46.0	51.2	38.5	44.8	26.8
	(15.5)	(15.4)	(15.9)	(10.8)	(19.0)	(14.5)	(21.1)
N	1354	1141	213	124	89	58	31

Note: The actual number of observations differs per variable. Standard deviations are in parentheses.

[a] The stars represent the significance level of a t-test on the difference between towns part of the merger wave, and those not in the merger wave (Column 2 vs. Column 3). Significance levels: *** 1% ** 5% * 10%

speakers, and secessions are more likely to take place. Furthermore, the support for secession and the probability of an actual secession is positively linked to the absolute level of differences in language composition between a city and its merger partners.

Differences in median income between a city and other towns in the merger are also associated with an increase in the probability of secession (Column 1, Table 2). An increase of a thousand dollars in the absolute income difference (standard deviation: 3.3 thousands) is associated with an increase of about 2 percentage points in the probability of secession. Differences in median income also affect the likelihood of secession conditional on a referendum being held, and the share of votes in favour of secession (also conditional on the presence of a referendum). For the other outcomes, however, I do not find an effect of the level in income differences.

Interestingly, while income *differences* seem to affect the probability to secede, being poorer than the rest of the merger has no impact on that outcome (Column 1). This result contradicts the commonplace idea that richer jurisdictions are the ones seceding, but is consistent with the model of Bolton and Roland (1997). However, looking at the other dependent variables, we can see that this variable affects support for secession more generally. In particular, towns that are richer than their merging partners gather more signatures in the registers, were then more likely to have a referendum, and also more likely to gather at least 50% of votes in favour of secession in those referendums.

Result 2. *The effects of income differences vary by outcome:*

- *Differences in median income between a city and its merging partners increase the probability that a town will successfully secede. However, I do not find strong evidence that richer towns are more likely to secede.*
- *Richer towns, however, are more likely to have a referendum, and gather a larger share of signatures in the registers. They are also more likely to gather a plurality of votes in favour of secession in referendums.*

This result suggests that support for secession is greater in towns that are richer than their merging partners, but that this effect is not necessarily important enough to actually translate in an actual secession. To transform the support for secession into an actual secession, the level of differences in income must be large enough.

As expected, a predicted increase in taxes after a re-constitution is associated with a decrease in the support for secession, with significant results for 5 out of 6 outcomes. In particular, an increase in the tax impact prediction of 1 percentage point is associated with a decrease in the secession probability of about 0.47 percentage points. This effect is also economically significant. The average tax impact over the sample is an increase of 7.44 per cent, with a standard deviation of 16.43 per cent. An increase in this variable of one standard deviation thus corresponds to a decrease in the probability of secession of 7.23 percentage points, using the estimates from Column 1.

While a prediction of tax increases corresponds to a decreased probability of secession, the average seceding town was in fact facing a prediction of tax increases. This suggests that voters were willing to pay higher taxes to live in a smaller jurisdiction. In dollar terms, the average

Table 2: Determinants of Support for De-Mergers (with 6 Alternative Definitions)

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Secession	Yes Votes>50%	Referendum	% of Signatures	Secession	% Yes Votes
Diff. Median Income (000s)	0.019**	-0.00088	-0.0091	0.33	0.030*	0.72*
	(0.0071)	(0.0076)	(0.0068)	(0.24)	(0.015)	(0.37)
Diff. English-Speaking Proportion	0.012***	0.011***	0.0079**	0.31***	0.0082*	0.26**
	(0.0038)	(0.0023)	(0.0030)	(0.076)	(0.0043)	(0.10)
Poorer than Merging Partners	-0.0096	-0.12***	-0.15**	-2.80**	-0.012	-2.76
	(0.034)	(0.041)	(0.062)	(1.07)	(0.094)	(2.17)
Larger Prop. English-Speaking	0.097***	0.19***	0.17**	3.92***	0.17*	4.61**
	(0.034)	(0.053)	(0.069)	(1.06)	(0.082)	(2.15)
Tax Impact	-0.0047**	-0.0042*	-0.0032	-0.12*	-0.010***	-0.30***
	(0.0018)	(0.0021)	(0.0032)	(0.059)	(0.0031)	(0.070)
Diff. Public Spending (000s p.c.)	0.051	0.044	0.041	1.82	0.10***	1.53
	(0.059)	(0.037)	(0.042)	(1.79)	(0.028)	(0.94)
Distance to Core City	-0.0014	-0.0033*	-0.000085	-0.030	-0.0019	-0.052*
	(0.0012)	(0.0017)	(0.0034)	(0.046)	(0.0013)	(0.027)
Density (000s per sq. km)	-0.044***	-0.047	-0.024	-2.24*	-0.044	-3.11***
	(0.013)	(0.036)	(0.052)	(1.14)	(0.027)	(0.59)
Population (000s)	-0.00012	-0.00010	-0.000059	-0.00090	0.00066	-0.015
	(0.00014)	(0.00012)	(0.00018)	(0.0040)	(0.0031)	(0.059)
Share of merger population	-0.0030**	-0.0055***	-0.0072***	-0.18***	-0.0057	-0.11
	(0.0012)	(0.0016)	(0.0023)	(0.045)	(0.0034)	(0.093)
Size of Largest Town (000s)	0.00020**	0.00037***	0.00019	0.0096***	0.000084	0.0086**
	(0.000094)	(0.00013)	(0.00012)	(0.0029)	(0.00013)	(0.0036)
Constant	0.051	0.31***	0.52***	10.6***	0.13	27.3***
	(0.054)	(0.10)	(0.12)	(2.16)	(0.10)	(2.51)
R^2	0.496	0.457	0.306	0.574	0.498	0.641
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

predicted tax increase for towns that seceded was $319.26 for a typical family in the first year, and $91.24 after five years.[34] Since these are yearly additional payments, they correspond to a substantial amount of money. As a back-of-the-envelope calculation, and assuming a 5% annual interest rate, these additional taxes correspond to a total amount after 5 years of about $1008.[35]

These predicted tax increases also affect the share of signatures gathered in the first stage of the process. For each additional percentage point of tax increase, the share of signatures is 0.12 percentage points lower. An increase in this variable of one standard deviation thus corresponds to a decrease about 2 percentage points in the share of signatures (which has a sample average of 10.6%).

Result 3. *A prediction of tax increases following a secession corresponds to a reduction in the probability of secession. However, among towns that did secede, the average predicted tax impact was positive, suggesting that voters were willing to pay to have their old jurisdiction back.*

The second part of that result suggests that voters might be voting against what some observers would consider their economic interests; they are willing to pay additional taxes to provide public goods in a smaller and more homogeneous community.[36]

It is possible that these predictions of tax increases were wrong. Ex post, I can verify them by looking at the data on tax rates across towns and years. However, the actual tax rates are not available. Instead, I can only obtain the adjusted tax rates.[37] With these data, I find that tax rates actually decreased across the whole province between 2004 and 2006, by about 0.2$ per 100$ of evaluation (from an average level of 1.53$ in 2004). However, house prices also increased, so that residents might still have paid more taxes in 2006 compared to 2004. I can estimate the amount of taxes paid by an average household by using the average adjusted tax rate and the imputed average house prices.[38] I find that this "average household" experienced a much smaller increase in taxes paid in seceding towns (0.11%) versus non-seceding towns (7.26%). These numbers suggest important errors in the forecasting done by the provincial government. However, the forecasts were the best information available to voters at the time of their decision. Furthermore, the regression results suggest that they took them seriously: they affected the results of the consultations.

In most regressions, I include a number of additional control variables that produce some interesting results. Demographic factors seem to play a role in the decision of voters. Towns that have a larger share of the agglomeration's total population are, unsurprisingly, less likely to secede and have a lower level of support for secession. Density also negatively affects the probability of a town to secede, and the share of signatures gathered. This result would indicate that more urban towns are less likely to secede. The size of the largest town in the merger has a positive and significant effect on the likelihood of secession and on the gathering of signatures.

[34] The estimates varied from a decrease of $601 to an increase of $1090 in the first year, and a decrease of $870 to an increase of $859 after five years.

[35] In this calculation, I assumed that the predicted tax impact evolved at a linear rate between the first-year estimate of 319.26 and the fifth-year estimate of 91.24.

[36] This result is in line with the findings of Breinlich et al. (2017), for example, who find that through inflation, the Brexit vote cost British workers an average of one week of wages in the first year.

[37] As explained above for 2001 and 2004 tax rates, they are estimated by the provincial government by dividing the total amount of residential taxes collected by the total adjusted evaluation of residential buildings

[38] To obtain average house values in 2004, I find the average annual growth rate between the 2 Census years of 2001 and 2006, and apply it from 2001 to 2004.

This result would indicate that voters do resent being lumped with very large towns, who would usually get more say in decisions simply due to their sheer size. In terms of geography, distance to the core city affects the support for secession only in some outcomes. However, this variable is only crudely measured as some towns have very large territories and their centroid does not accurately represent where most of the population resides.

4.1 Robustness Checks

Tables 3, 4, and 5 present results with additional control variables for two of the outcomes: the binary variable indicating a secession, and the share of signatures collected in the register.[39]

Columns 1 and 4 of Table 3 looks at the inclusion of commuter flows. I find similar results on my main variables, using both outcomes. Commuting flows themselves have an effect on the gathering of signatures: in towns that are more economically integrated with the merger (i.e., greater commuting flows), fewer signatures are collected.

Columns 2 and 5 of Table 3 looks at the direct inclusion of the share of English-speakers and median income. The effects of income differences are somewhat robust to this addition. Even when accounting for median income, differences in income between a town and its merger partners affect the likelihood of a secession. In the regression with the share of signatures as the outcome (Column 5), the coefficient on the binary variable indicating that a town is poorer than its merger partners is no longer significant. However, given the positive coefficient on the level of income, the overall effect is similar: richer towns gather a greater share of signatures.

While the effect of having a larger English-speaking proportion than the rest of the merger is robust to this inclusion, the effect of the level of language differences is not robust. The share of English speakers and my linguistic difference variables are closely correlated (correlation coefficient of 0.9), such that the analysis might then suffer from collinearity. That correlation also points to a potential issue with the data. In particular, there are no mergers in which, for example, most towns were predominantly English-speaking and merged with a single French-speaking town. For that reason, it might be impossible to properly distinguish between the effect of *differences* and that of having a larger share of English speakers.

Columns 3 and 6 of Table 3 present the results of models that do not include the absolute value in the calculation of *Diff. Median Income* and *Diff. English-Speaking Proportion*. The results point to a similar interpretation as in the main table, with one notable exception. Indeed, I still find a positive effect of income differences on the likelihood of a secession (although only at the 10% level of significance), indicating that *richer* towns might in fact be more likely to secede. This result is consistent with those using other outcomes such as the share of signatures collected, and points to a more robust role of the richer vs. poorer status on support for secession.

Table 4 looks at the inclusion of differences in house values and political preferences. Columns 1 and 4 present the results with the addition of differences in house values alone. The effects of language are robust to this inclusion, as well as the effect of being poorer than merger partners on the share of signatures. However, I find that the effect of income differences on the likelihood of a secession is no longer significant in this estimation. This result could indicate that richer towns might in fact have a greater propensity to secede, but that this effect goes through house

[39] Results for the other outcomes are available in Appendix D.

Table 3: Determinants of Support for De-Mergers: Selection of Robustness Tests (Commuting Flows; Income and Language Levels; No Absolute Value)

	(1)	(2)	(3)	(4)	(5)	(6)
	Separation			% Signatures in Register		
Diff. Median Income (000s)	0.019***	0.015***		0.29	-0.069	
	(0.0065)	(0.0048)		(0.26)	(0.14)	
Diff. English-Speaking Proportion	0.011**	0.0068		0.27***	0.14	
	(0.0042)	(0.0062)		(0.083)	(0.12)	
Larger Prop. English-Speaking	0.094***	0.076**	0.039	3.78***	3.12***	2.41*
	(0.033)	(0.034)	(0.046)	(0.97)	(1.04)	(1.31)
Poorer than Merging Partners	-0.027	0.019	0.074	-3.78***	0.28	1.13
	(0.040)	(0.042)	(0.051)	(1.12)	(1.25)	(1.39)
Share Commuting to Merger Partners	-0.0023			-0.13**		
	(0.0020)			(0.054)		
Proportion English-Speaking (%)		0.0044			0.15*	
		(0.0044)			(0.077)	
Median Income (000s)		0.0059			0.64***	
		(0.0089)			(0.22)	
Diff. Median Income (000s), raw[a]			0.015*			0.62***
			(0.0084)			(0.21)
Diff. English-Speaking Proportion, raw[a]			0.011***			0.25***
			(0.0036)			(0.054)
Constant	0.19	-0.075	0.078	18.0***	-3.34	9.92***
	(0.15)	(0.19)	(0.058)	(3.55)	(5.33)	(2.15)
Additional Controls	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.507	0.502	0.469	0.604	0.605	0.579
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses. Regression also includes control variables: Diff. Public Spending per Capita, Tax Impact (5 years), Distance to core city, Density, Population, Share of Merger Population, Size of Largest Town in Merger (thousands).
Significance levels: *** 1% ** 5% * 10%

[a] Models 3 and 6 include *Diff. Median Income* and *Diff. English-Speaking Proportion* without the absolute value.

values (in other words, the size of the tax base), and not incomes. This significance loss is due to a slight decrease in the coefficient, but also to a slight decrease in precision. In fact, adding both differences in house values and political preferences in the estimation results in a significant effect of income differences on the likelihood of a secession (Column 3), such that the role of differences in house values is not that clear.

Columns 2 and 5 of Table 4 looks at the inclusion of differences in political preferences. I find that most results are robust to this addition, although the effect of language differences on the likelihood of a secession is smaller. The effect of differences in political preferences itself is positive. This finding suggests a potential correlation between political preferences and language (such that the model was overestimating the effect of language differences before). In fact, political preferences are closely linked to language in Québec, and both variables could capture some of the same underlying effect: attachment to linguistic groups.[40]

Table 4: Determinants of Support for De-Mergers: Selection of Robustness tests (Politics, House Values)

	(1)	(2)	(3)	(4)	(5)	(6)
	Separation			% Signatures in Register		
Diff. Median Income (000s)	0.013	0.018**	0.012*	0.077	0.31	0.073
	(0.0078)	(0.0073)	(0.0072)	(0.28)	(0.24)	(0.27)
Diff. English-Speaking Proportion	0.011***	0.0067**	0.0062**	0.28***	0.25***	0.23***
	(0.0038)	(0.0027)	(0.0028)	(0.077)	(0.072)	(0.073)
Larger Prop. English-Speaking	0.096***	0.11***	0.11***	3.90***	4.10***	4.06***
	(0.034)	(0.039)	(0.040)	(1.02)	(1.12)	(1.08)
Poorer than Merging Partners	0.0041	-0.028	-0.016	-2.26**	-3.03***	-2.50**
	(0.033)	(0.031)	(0.032)	(0.93)	(1.04)	(0.93)
Diff. House Values	0.00096**		0.00079	0.038*		0.036*
	(0.00041)		(0.00053)	(0.019)		(0.020)
Diff. % of Votes for BQ		0.014**	0.013*		0.18	0.15
		(0.0068)	(0.0066)		(0.13)	(0.12)
Constant	0.060	0.017	0.026	11.0***	10.2***	10.6***
	(0.052)	(0.054)	(0.053)	(2.01)	(2.19)	(2.04)
Additional Controls	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.506	0.531	0.537	0.587	0.579	0.591
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses. Regression also includes control variables: Diff. Public Spending per Capita, Tax Impact (5 years), Distance to core city, Density, Population, Share of Merger Population, Size of Largest Town in Merger (thousands).
Significance levels: *** 1% ** 5% * 10%

Table 5 presents the results when including various variables concerning taxes. The coefficients on the four main variables on income and language are robust to all three measures. Moreover, somewhat surprisingly, tax increases in the merged period (2001 to 2004) don't seem to affect the support for secession. However, in Column 3, I do find that towns with higher tax

[40] In fact, politics at the federal level in Quebec are mostly driven by "the national question" of whether Quebec should secede from Canada, instead of more traditional questions such as the role of the state (Nadeau, Guérin and Martin, 1995). Without a better indicator of true political preferences (e.g., left-right), I cannot know if differences in this variable would affect the choice to secede.

rates in 2001 are less likely to de-merge. However, this coefficient is only significant at the 10% level, and is insignificant in the regression with the share of signatures as the outcome.

These results would indicate that pre-merger taxes or tax increases are not important factors in the decision to secede. If the main motivation of voters in seceding was to reverse, for example, post-merger tax increases, we would expect this factor to play a prominent role. However, these results should be interpreted with caution since actual taxes paid by voters also depend on other factors such as individual house values.

Table 5: Determinants of Support for De-Mergers: Selection of Robustness tests (Pre-Referendum Taxes)

	(1)	(2)	(3)	(4)	(5)	(6)
	Separation			% Signatures in Register		
Diff. Median Income (000s)	0.019**	0.019**	0.019***	0.32	0.32	0.32
	(0.0071)	(0.0069)	(0.0066)	(0.25)	(0.24)	(0.23)
Diff. English-Speaking Proportion	0.012***	0.012***	0.011***	0.31***	0.31***	0.31***
	(0.0038)	(0.0037)	(0.0039)	(0.076)	(0.076)	(0.077)
Larger Prop. English-Speaking	0.093***	0.092***	0.094***	3.89***	3.87***	3.87***
	(0.032)	(0.031)	(0.032)	(1.09)	(1.08)	(1.03)
Poorer than Merging Partners	-0.0020	-0.0055	0.0055	-2.71**	-2.75**	-2.47**
	(0.039)	(0.036)	(0.037)	(1.13)	(1.11)	(1.13)
Tax Increase, 2001-2004 (%)	0.00071			0.0077		
	(0.00077)			(0.018)		
Inc. in Average Tax Payment, 2001-2004 (%)		0.00072			0.0083	
		(0.00062)			(0.014)	
Tax level in 2001			-0.086*			-1.88
			(0.048)			(1.48)
Constant	0.022	-0.00074	0.17*	10.3***	10.0***	13.3***
	(0.068)	(0.070)	(0.096)	(2.35)	(2.45)	(2.98)
Additional Controls	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.500	0.502	0.508	0.574	0.575	0.579
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses. Regression also includes control variables: Diff. Public Spending per Capita, Tax Impact (5 years), Distance to core city, Density, Population, Share of Merger Population, Size of Largest Town in Merger (thousands).
Significance levels: *** 1% ** 5% * 10%

In addition to the robustness checks detailed above, Appendix D present the results of additional robustness checks. I find that my results are robust to the addition of merger fixed effects. My results are also robust to the inclusion differences between a town and the merger partners of a number of other variables: the percentage of university-educated people, visible minorities, recent migrants (past 5 years) from elsewhere in the province, as well as on the unemployment rate and inequality (measured crudely by the ratio of average to median income). Among these, I find that differences in the share of visible minorities and in the share of university-educated people also partly explain support for secession, but only on the share of signatures gathered.

5 Interaction Effects: The Role of Out-Group Aversion in the Voters' Decisions

As mentioned in the introduction, there are at least two explanations why differences between towns might affect the desirability of a merger for voters. One is that voters in different towns have different preferences for public goods. Regarding language, it is possible that voters from different linguistic communities want different public goods. Another reason is that voters prefer to live in linguistically or ethnically homogeneous jurisdictions.

In this section, I provide additional tests to try to determine whether both channels are present. In practical terms, I include an interaction term between income and language differences,[41] both defined as in the previous section:

$$\begin{aligned} \textit{Outcome}_i = \beta_0 &+ \beta_1(\textit{Diff. Median Income}_i) + \beta_2(\textit{Diff. \% English-Speaking}_i) \\ &+ \beta_3(\textit{Diff. Median Income}_i) \times (\textit{Diff. \% English-Speaking}_i) \\ &+ \mathbf{x_i} \cdot \gamma + u_i \end{aligned}$$

where $\mathbf{x_i}$ includes the other model variables defined above.

The intuition for this model is as follows.[42] In the previous model, I find that differences in linguistic composition has a first-order effect on the likelihood of a de-merger: larger differences are associated with a higher probability of a secession. The interaction term allows an answer to the question of whether there is a second-order effect.

To understand this, note that I find that differences in income are a significant determinant of de-merger. However, this effect might not be homogeneous. With this more sophisticated model, I ask whether the effect of income differences is the same for towns that are linguistically similar to the merger and those that are linguistically different. In other words, the model will determine whether linguistic differences modify the effect of income differences. Of course, this second-order effect could have various explanations. However, it is not likely due to differences in public goods preferences.[43] I interpret it as due to ethnic differences, but provide some robustness checks in the next section to investigate other possibilities. The model in this section can be understood as an indirect test of whether out-group aversion also matters in the decision to secede.

A different way to understand the model is that a positive interaction term would suggest that voters in towns merged with partners similar in language composition are more willing to compromise on differences arising from income levels. In fact, the argument is similar to the one made by Luttmer (2001) in his analysis of welfare spending in the US, and how it is affected by the racial composition of the neighbourhood. It was also an argument of Alesina, Baqir, and Easterly (1999), who find that "voters choose lower public goods when a significant fraction of

[41] Province-wide, the correlation coefficient between the share of English-speakers and median income is equal to 0.12. Moreover, the towns in the sample are almost equally split between the 4 groups defined by the 2 categories of more or less English-speaking, and poorer or richer.

[42] For simplicity, I make the argument here using language as the "group marker", but nothing in the model precludes the possibility that income defines social groups instead.

[43] For instance, Appendix C shows that income and language do not have interacting effects on the level of public spending.

tax revenues collected on one ethnic group are used to provide public goods shared with other ethnic groups." In other words, the choices of voters on public policies change depending on the identity of those receiving the benefits with them. While these authors studied decisions on redistribution, I instead study decisions on jurisdiction borders. The mechanisms, however, should be similar: instead of choosing to not spend on some public goods, voters choose to simply leave the mixed jurisdiction.

Table 6: Interactions between the Level of Language and Income Differences (Probit and OLS)

	(1)	(2)	(3)	(4)
	Separation			% Signatures in Register
	Probit	OLS	OLS	OLS
Diff. Median Income (000s)	0.057	0.013	-0.0076	0.042
	(0.042)	(0.0091)	(0.016)	(0.29)
Diff. English-Speaking Proportion	-0.017	0.0089*	0.0084	0.18**
	(0.037)	(0.0051)	(0.0079)	(0.079)
Larger Prop. English-Speaking	1.11***	0.097***	0.098***	3.95***
	(0.39)	(0.034)	(0.035)	(1.07)
Poorer than Merging Partners	-0.079	-0.0089	-0.0081	-2.77**
	(0.41)	(0.033)	(0.034)	(1.05)
Diff. Median Income *	0.023**	0.00046	0.0049***	0.022**
Diff. English-Speaking Proportion	(0.011)	(0.00040)	(0.0015)	(0.0090)
(Diff. Median Income)^2			0.0014	
			(0.0016)	
(Diff. English-Speaking Proportion)^2			-0.00018	
			(0.00017)	
(Diff. Median Income)^2 *			-0.00024*	
Diff. English-Speaking Proportion			(0.00012)	
(Diff. English-Speaking Proportion)^2 *			-0.0000035	
Diff. Diff. Median Income			(0.000038)	
Constant	-1.52***	0.070	0.085	11.5***
	(0.46)	(0.052)	(0.054)	(1.98)
Additional Controls	Yes	Yes	Yes	Yes
R^2 / *Pseudo-*R^2	0.606	0.501	0.530	0.584
F-test / χ^2-test, p-value	0.000	0.000	0.000	0.000
N	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses. Column 1 reports Probit coefficients. Regression also includes control variables: Diff. Public Spending per Capita, Tax Impact (5 years), Distance to core city, Density, Population, Share of Merger Population, Size of Largest Town in Merger (thousands).
Significance levels: *** 1% ** 5% * 10%

The results of this model are shown in Table 6. The first column presents the results of a Probit estimation, showing that there is a positive interaction term. That interaction term, however, is not significant in a simple OLS estimation (Column 2). The discrepancy might

indicate potential non-linearities or problems with the OLS estimation,[44] which I investigate in Column 3. In this model, including non-linearities, I do find a positive interaction term between language and income differences, like in the Probit model.

In Column 4, I estimate the same model with the share of signatures as the outcome. Again, I find a positive interaction term between differences in income and linguistic composition. As in the model without interactions, the main effect of income differences (implicitly, the marginal effect of income differences when the value of language differences is equal to 0) is not significant. However, this result indicates that at non-null values of *Diff. English-Speaking Proportion*, the level of income differences affect the share of signatures gathered.

Result 4. *The effects of language and income differences positively interact with each other, suggesting that secession decisions are affected by out-group aversion.*

To better interpret this result, Figure 1 shows the marginal effect of income differences on the probability of secession at multiple levels of language differences, using the estimates of Columns 1 and 3 (with 95% confidence intervals). The figure shows a positive slope, although the confidence intervals are large at higher levels of language differences. In other words, voters are more affected by income differences between their town and the rest of the merger when language differences are also present, suggesting the existence of an out-group aversion effect.

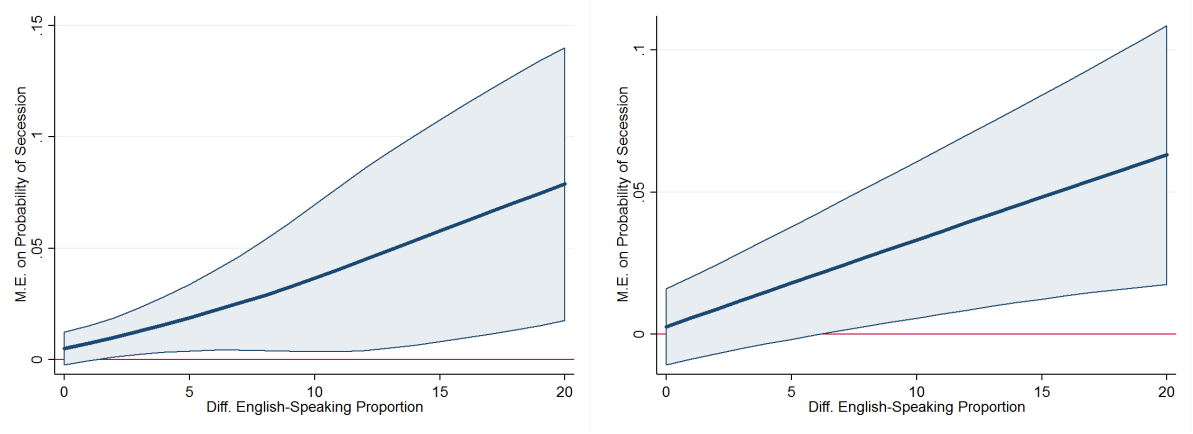
I also estimated this model with the other outcomes. The results are provided in Appendix D. In those estimations, I find a similar interaction effect using the *Separation* variable, but limiting the sample to the cities that had a referendum. I also find an interaction term using the $YesVotes > 50\%$ variable, but that interaction term is negative. However, it is only significant at the 10% level, and not significantly different from zero in a Probit estimation. Moreover, when plotting the marginal effects as in Figure 1, I find that the marginal effect of income differences in that model is always undistinguishable from zero.

Table 7 investigates a different interaction term: one between the two binary variables, indicating that a town is poorer than its merging partners, and that a town is more English-speaking than the others. I do not find a significant interaction term with realised secessions as the outcome (with OLS or Probit), but I do find a significant interaction term when using the share of signatures in the register (Column 3). Figure 2 presents the average adjusted predictions from these two models in graphical form, to make the interpretation easier. While the 95% confidence intervals are quite large (especially with *Separation*), this figure indicates that both the probability of a secession and the share of signatures is larger when a town is both richer, and more English-speaking than its merging partners. This result is consistent with those from the interaction between the two continuous difference variables.

5.1 Robustness Checks and Alternative Explanations

Overall, the results using the interaction terms suggest that voters care about the identity of the other residents of their local jurisdiction. However, one could potentially offer alternative

[44] In OLS estimations, many predicted values fall out of the $[0, 1]$ range, which could indicate some issues with the Linear Probability Model (Horrace and Oaxaca, 2006). In most cases, since the results are similar, this paper only reports OLS estimations for ease of interpretation. However, when results are different, such as in this case, Probit results might be more believable.



(a) Probit (b) OLS

Figure 1: Average Marginal Effects of Differences in Median Income on the Probability to Secede (with 95% Confidence Intervals). Based on Column 1 of Table 6 (Panel 1a) and Column 3 of Table 6 (Panel 1b).

Table 7: Interactions between Language and Income Groups (Poorer and More English-Speaking)

	(1)	(2)	(3)
	Separation		% Signatures in Register
	Probit	OLS	OLS
Diff. Median Income (000s)	0.15***	0.019**	0.29
	(0.049)	(0.0070)	(0.25)
Diff. English-Speaking Proportion	0.045**	0.011***	0.30***
	(0.023)	(0.0038)	(0.076)
Poorer than Merging Partners	-0.57	0.019	-0.90
	(0.48)	(0.037)	(1.36)
Larger Prop. English-Speaking	0.99**	0.13**	5.89***
	(0.43)	(0.051)	(1.60)
Poorer than Merging Partners *	0.48	-0.064	-4.21*
Larger Prop. English-Speaking	(0.66)	(0.074)	(2.22)
Constant	-1.75***	0.045	10.2***
	(0.49)	(0.054)	(2.16)
Additional Controls	Yes	Yes	Yes
R^2 / *Pseudo*-R^2	0.583	0.498	0.581
F-test / χ^2-test, p-value	0.000	0.000	0.000
N	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses. Column 1 reports Probit coefficients.
Significance levels: *** 1% ** 5% * 10%

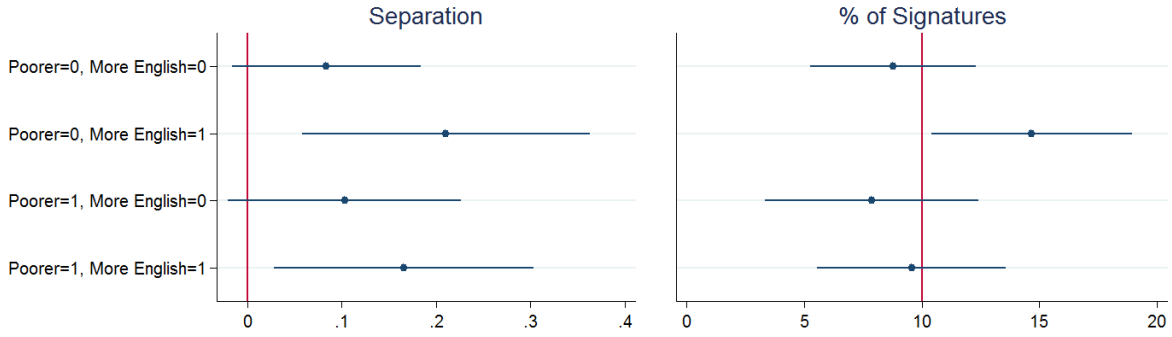


Figure 2: Predictive Margins (with 95% Confidence Intervals), Based on Columns 3 and 5 of Table 7

explanations for the interaction term. In this section, I discuss some possibilities and investigate the robustness of the interaction effect under alternative specifications. The detailed results are available in the Appendix.

5.1.1 Additional Control Variables

In the results without interaction terms, I used a number of additional control variables. I also investigate the robustness of the interaction term to the inclusion of these controls (see Appendix D). I find that the interaction term between language and income differences in the model with realised secessions as the outcome is robust to many specifications, including merger fixed effects and the inclusion of median income and share of English speakers directly. It is also robust to the inclusion of commuter flows; the addition of differences in house values and political preferences; and calculation of differences in income and language without absolute values.

The interaction term between the two binary variables (*Larger Prop. English-Speaking* and *Poorer than Merging Partners*), however, is less robust to the choice of specification. In particular, the coefficient is no longer statistically significant when including commuter flows (economic integration) or merger fixed effects.

5.1.2 The Role of Turnout

Another explanation for the positive interaction term is that as differences in language composition increase, so does turnout at the referendums. Indeed, towns with a very different language composition may be more motivated to go vote, thus increasing turnout. Given the referendum rules, and in particular the minimum turnout rule, increased turnout would inevitably lead to a greater probability of secession. Fortunately, I have data on turnout in every town that had an actual referendum. As expected, I find a strongly statistically significant effect of turnout on the probability to secede.

Even when controlling for turnout in the regression, I still find a positive interaction between language and income differences on the likelihood of a secession, both in Probit and OLS estimations (when including non-linearities; see Appendix D). This result suggests that increases in turnout at high levels of language differences does not explain entirely the interaction term.

However, since the sample size is reduced, I might lose precision, and the analysis may suffer from a selection problem.[45]

5.1.3 Spatial Interactions

Another possible bias in my analysis is due to potential spatial interactions between voters of different towns in the same merger. Indeed, all referendums took place at the same time, and while the choice was between re-constitution of the previous town or accepting the merger as is, the final configuration of the merger is unknown until all after the referendums. Therefore, choices of voters in a given town could be affected by those of voters in the towns taking part in the same merger.

I use two methods to correct for spatial interactions, with results shown in Appendix E. First, since the consultation process took place in two steps, voters had an estimate, at the moment of the actual vote, of the popularity of the secession movement in the other towns in the merger. Indeed, the share of registered voters that signed the register is likely a good indication of the amount of support for re-constitution. The first method thus includes a variable that captures the weighted averages of register signatures in the other towns of the merger. The interaction term is robust to the inclusion of this variable.

Second, I use methods from spatial econometrics. Indeed, while the previous result is interesting, the percentages of voters signing the registers are strongly correlated with the actual referendum results. Therefore, I am essentially estimating a model with a spatial lag. These models are inconsistent when estimated with OLS or Probit. For that reason, I also obtain results from estimations that explicitly account for the spatial correlation between the votes for secession in neighbouring towns using MLE methods. This type of model requires the definition of a matrix of spatial weights indicating the relationship between two towns. Again, the interaction term is robust to this new specification.

6 Conclusion

This paper investigates the determinants of voter preferences on municipal borders. It contributes to the literature on municipal mergers with a direct test of voter preferences on municipal borders, instead of relying on choices of elected officials. It does so in a context of cohabiting linguistic groups, thus exploring the mechanisms behind the choice of jurisdiction borders: preferences for public goods alone, or also out-group aversion. Notably, it adds to the evidence from other countries (for example on racial groups in the United States) by exploring whether other sources of ethnic diversity play a similar role. More specifically, this paper uses results

[45]To correct for this bias, researchers usually turn to sample selection models, which require a variable that affects selection but not the outcome. In my case, the selection process is clear: towns select themselves into the restricted sample (of having a referendum) by gathering enough signatures on the register. One could reasonably argue that every variable that affects the number of people manifesting their desire for a referendum would also affect the support for secession. For that reason, it would be difficult to find an appropriate variable to justify the exclusion restriction needed to use a Heckman selection model. As mentioned in Section 3, one possibility is to use rainfall on the day where registers are open as an instrument. However, this instrument is not useful in my case, as rainfall fails to predict the organisation of a referendum. Another possibility is to attempt an estimation of the turnout in towns that had no referendum. With this method, I again obtain a positive interaction term, but rigorous statistical inference would require more sophisticated methods.

from 213 public consultations in the Canadian province of Quebec. In this consultation process, voters were asked whether they wanted their pre-merger town to secede from a consolidated municipality or not.

My results first show that larger differences in median income and language composition between a town and its merger partners increase the probability of that town opting for secession. Moreover, more English-speaking and richer towns also show more support for secession. In addition, I show that differences in language composition alter the effect of income differences. More specifically, the effect of income differences is significantly larger when language differences are larger. Put differently, individuals more readily accept having people of different incomes in the same jurisdiction, and thus compromise on the composition of the public good, when they share a common ethnic identity. This result suggests that the decision to secede from a merger stems not only from differences in preferences for public goods, but also to some degree from out-group aversion. This result is robust to the inclusion of additional variables and to the choice of specification.

Finally, I find that that the probability to secede is lower when voters expect a tax increase following the re-constitution of the old town. However, even among towns that did secede, taxes were, on average, expected to increase. In other words, voters are actually willing to pay to avoid being merged with towns of different average socio-economic characteristics.

The analysis has some limitations. In particular, linguistic differences only act as a proxy for differences in social identity, and some unobservable characteristics may be omitted from the analysis. Therefore, the results presented here should be interpreted with caution, and more as correlation than causality. Nevertheless, many countries and regions face situations similar to those investigated in this paper, and have to manage populations with diverse ethnic backgrounds. A recent example of the problematic studied in this paper is the secession of school districts in the United States. A recent report by EdBuild, a non-profit organisation, identified 71 cases of school district secessions since 2000, often occurring along racial lines (EdBuild, 2017). While these secessions may have taken place for a number of reasons in addition to racial differences, they only underline the need for further research to understand the mechanisms behind such local secessions. This paper brings some additional light on the way voters decide to secede, and the role of ethnic differences in this decision.

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Appendix A Summary Tables

Table A.1: Means and Standard Deviations of Model Variables, by Outcome of Consultation

	Whole Sample		Had a Referendum		Seceded	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Secession	0.15	0.35	0.35	0.48	1	0
Majority for Secession	0.27	0.45	0.65	0.48	1	0
Referendum	0.42	0.49	1	0	1	0
% of Signatures in the Register	10.6	12.5	22.2	11.6	33.3	12.9
% of Yes Votes in Referendum	32.2	13.7	32.2	13.7	47.7	10.2
Turnout in Referendum	53.4	11.5	53.4	11.5	60.0	10.9
Diff. Median Income (000s)	3.65	3.34	4.24	4.21	7.23	5.22
Diff. Median Income (thousands), raw	1.17	4.81	3.34	4.95	6.30	6.34
Diff. English-Speaking Proportion	5.51	10.9	9.69	15.3	20.3	19.7
Diff. English-Speaking Proportion, raw	2.46	12.0	7.68	16.4	18.6	21.4
Proportion English-Speaking	8.04	14.9	14.7	20.0	29.2	24.8
Median income	21811.6	4838.2	24078.9	5387.0	27043.9	6821.7
Larger Prop. English-Speaking	0.47	0.50	0.59	0.50	0.83	0.38
Poorer than Merging Partners	0.42	0.50	0.25	0.44	0.19	0.40
Tax Impact (5 years)	7.44	16.4	6.03	17.9	1.50	22.4
Diff. Public Spending (000s p.c.)	0.52	0.99	0.59	1.12	0.94	1.87
Tax Increase, 2001-2004 (%)	12.8	35.4	18.6	35.0	22.3	36.0
Inc. in Average Tax Payment, 2001-2004 (%)	46.5	42.7	54.8	41.3	60.2	42.5
Tax level, 2001	1.72	0.49	1.63	0.47	1.50	0.40
Distance to Core City	12.4	15.6	15.8	19.5	17.5	13.4
Density	0.75	1.29	0.93	1.26	1.27	1.49
Population (000s)	19.8	74.2	14.5	20.1	13.8	16.0
Share of merger population	19.8	24.2	8.61	10.6	4.41	5.30
Size of Largest Town (000s)	172.7	340.8	302.2	428.4	532.3	501.6
Share Commuting to Merger Partners	40.4	25.6	46.4	23.0	49.9	24.2
Diff. House Values	4.39	50.5	19.3	69.1	58.9	104.0
Diff. % of Votes for BQ	6.16	6.91	8.49	8.62	15.0	9.30
Diff. Median Age	3.01	2.14	2.82	2.38	3.41	3.02
Diff. Unemployment Rate	3.40	4.08	3.21	3.88	4.68	5.14
Diff. % of Visible Minorities	2.06	3.93	3.64	5.28	7.14	6.56
Diff. % University-Educated	6.23	6.56	8.44	8.30	12.5	10.3
Diff. % Recent Intra-Provincial Migrants	4.39	4.17	4.46	4.09	5.19	4.32
Diff. Inequality (Ratio Avg. to Median Income)	0.11	0.099	0.12	0.12	0.15	0.16
Total Sample Size	213		89		31	

Note: Actual sample size varies for each variable, depending on availability of data.

Table A.2: Means of Model Variables: Poorer vs. Richer, and More English-Speaking vs. Less English-Speaking

	More English-Speaking		Poorer than Merger Partners	
	0	1	0	1
Secession	0.045	0.24	0.19	0.058
Majority for Secession	0.13	0.41	0.37	0.12
Referendum	0.32	0.52	0.53	0.24
% of Signatures in the Register	7.21	13.5	13.4	5.77
% of Yes Votes in Referendum	25.6	35.7	32.8	26.7
Turnout in Referendum	51.8	53.5	53.5	50.4
Diff. Median Income (000s)	3.15	4.21	4.17	2.93
Diff. Median Income (thousands), raw	0.46	1.98	4.17	-2.93
Diff. English-Speaking Proportion	2.88	8.49	6.69	3.61
Diff. English-Speaking Proportion, raw	-2.88	8.49	4.60	-0.26
Proportion English-Speaking	2.35	14.5	10.3	5.19
Median income	21128.3	22586.6	24346.6	18552.1
Larger Prop. English-Speaking	0	1	0.48	0.45
Poorer than Merging Partners	0.44	0.41	0	1
Tax Impact (5 years)	9.25	4.88	7.03	7.82
Diff. Public Spending (000s p.c.)	0.52	0.53	0.42	0.42
Tax Increase, 2001-2004 (%)	14.2	11.4	20.4	3.06
Inc. in Average Tax Payment, 2001-2004 (%)	48.5	44.2	54.0	37.2
Tax level, 2001	1.73	1.71	1.62	1.89
Distance to Core City	13.3	11.3	13.7	10.4
Density	0.63	0.89	0.75	0.81
Population (000s)	22.8	16.6	12.6	31.5
Share of merger population	16.5	23.8	14.2	25.8
Size of Largest Town (000s)	104.3	243.0	223.2	109.1
Share Commuting to Merger Partners	43.0	37.4	48.1	30.9
Diff. House Values	-6.42	16.6	15.6	-10.2
Diff. % of Votes for BQ	5.40	7.03	6.55	5.68
Diff. Median Age	3.10	2.91	3.02	2.85
Diff. Unemployment Rate	3.39	3.41	2.95	3.29
Diff. % of Visible Minorities	1.43	2.79	2.47	1.66
Diff. % University-Educated	5.46	7.11	6.68	5.24
Diff. % Recent Intra-Provincial Migrants	4.27	4.52	4.42	4.22
Diff. Inequality (Ratio Avg. to Median Income)	0.10	0.12	0.12	0.091

Appendix B Results on Sample Selection Issue

Table B.1: Determinants of Support for De-Mergers: Control for Potential Selection into Sample

	(1)	(2)
	Separation	% of Signatures
Diff. Median Income (000s)	0.012*	-0.034
	(0.0065)	(0.17)
Diff. English-Speaking Proportion	0.0076**	0.13**
	(0.0037)	(0.058)
Larger Prop. English-Speaking	0.074**	2.98***
	(0.033)	(0.93)
Poorer than Merging Partners	-0.015	-0.46
	(0.046)	(1.15)
Tax Impact (5 years)	-0.0027*	-0.044
	(0.0016)	(0.045)
Diff. Public Spending (000s p.c.)	-0.073	-0.099
	(0.069)	(2.13)
Distance to Core City	-0.00023	0.019
	(0.00061)	(0.036)
Density	-0.024	-1.61**
	(0.015)	(0.68)
Population (000s)	-0.00022*	0.00039
	(0.00012)	(0.0048)
Share of merger population	-0.0026**	-0.16***
	(0.0011)	(0.036)
Size of Largest Town (000s)	-0.000073	0.0014
	(0.00018)	(0.0037)
Unemployment Rate	-0.0018	-0.22
	(0.0046)	(0.17)
Pop. Growth (96-01)	-0.00099	-0.20**
	(0.0029)	(0.092)
Share Visible Minorities	0.0048	-0.026
	(0.0098)	(0.16)
Share University-Educated	0.0023	0.065
	(0.0050)	(0.10)
Average Value of a Dwelling	-0.000000053	-0.000015
	(0.00000057)	(0.000014)
Tax Increase, 2001-2004 (%)	0.0013	0.043***
	(0.00077)	(0.016)
Share of Vote to B.Q., 2000 Fed. Elec.	-0.0026	-0.20***
	(0.0025)	(0.065)
Median income	0.0019	0.54**
	(0.011)	(0.22)
Public Spending (p.c.)	0.00020***	0.0048***
	(0.000064)	(0.0018)
Constant	-0.010	6.82
	(0.24)	(5.57)
R^2	0.563	0.681
F-test, p-value	0.000	0.000
N	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Appendix C Determinants of Municipal Public Spending Per Capita

Table C.1: Determinants of Public Spending

	(1)	(2)	(3)	(4)
% English-Speaking	2.8383*	-5.0526	3.9537	9.7735
	(1.70)	(6.48)	(3.77)	(11.82)
Median Income	0.0129*	0.0099	-0.0361**	-0.0337**
	(0.01)	(0.01)	(0.02)	(0.02)
Interaction		0.0004		-0.0002
		(0.00)		(0.00)
Average House Values	-0.0001	-0.0005	0.0042***	0.0045***
	(0.00)	(0.00)	(0.00)	(0.00)
Ratio of Average over Median Income	332.8919***	322.2829**	-79.2582	-58.0270
	(122.64)	(125.51)	(312.00)	(314.62)
% Immigrants	-1.1765	-2.9466	-26.6102*	-27.9376*
	(5.98)	(6.30)	(14.05)	(15.92)
% Visible Minorities	-18.2086	-15.1918	1.9164	1.9951
	(14.39)	(15.88)	(15.68)	(15.77)
% University Educated	5.3914*	4.7227	12.1055*	11.9941*
	(3.22)	(3.05)	(6.51)	(6.62)
Unemployment Rate	8.4321***	7.9712***	-0.1696	0.5739
	(2.07)	(1.81)	(6.94)	(6.11)
% Immigrants from Other Municipalities	1.9864	2.4545	-0.3255	-0.9409
	(1.81)	(1.73)	(4.20)	(4.40)
Density	-0.0486	-0.0419	-0.1164**	-0.1180**
	(0.04)	(0.04)	(0.05)	(0.06)
Population	0.0011*	0.0012**	0.0010*	0.0010*
	(0.00)	(0.00)	(0.00)	(0.00)
Montreal	1115.3045**	1011.0588*	1127.6670	1151.1621
	(521.85)	(574.90)	(736.52)	(780.88)
Constant	-39.8320	55.3014	1274.7261*	1175.0382*
	(223.56)	(253.69)	(667.21)	(627.98)
N	1233	1233	204	204
R^2	0.224	0.230	0.429	0.429

Note: Robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%
Columns 3 and 4 only include municipalities part of the merger wave.

Appendix D Supplementary Material: Tables and Figures

D.1 Robustness Checks: Probit Results

Table D.1: Determinants of Support for De-Mergers: Marginal Effects from Probit Estimations

	(1)	(2)	(3)	(4)
	Full Sample			Conditional on Ref.
	Separation	Yes Votes>50%	Referendum	Separation
Diff. Median Income (000s)	0.013***	0.0053	-0.0075	0.027**
	(0.0051)	(0.0074)	(0.0081)	(0.010)
Diff. English-Speaking Proportion	0.0042**	0.020***	0.018***	0.0060
	(0.0019)	(0.0048)	(0.0063)	(0.0036)
Poorer than Merging Partners	-0.019	-0.13***	-0.15***	-0.013
	(0.038)	(0.031)	(0.051)	(0.085)
Larger Prop. English-Speaking	0.10***	0.18***	0.15**	0.18**
	(0.030)	(0.039)	(0.057)	(0.076)
Tax Impact (5 years)	-0.0048**	-0.0037***	-0.0024	-0.011**
	(0.0017)	(0.0014)	(0.0026)	(0.0029)
Diff. Public Spending (000s p.c.)	0.035	0.035	0.034	0.094**
	(0.021)	(0.075)	(0.067)	(0.026)
Distance to Core City	-0.0031	-0.0060*	-0.00023	-0.0031
	(0.0018)	(0.0033)	(0.0025)	(0.0030)
Density	-0.019**	-0.071***	-0.034	-0.022
	(0.011)	(0.024)	(0.056)	(0.035)
Population (000s)	0.000089	0.00018	0.000057	0.00056
	(0.00017)	(0.00011)	(0.00022)	(0.0022)
Share of merger population	-0.0038***	-0.0083***	-0.0088***	-0.0032
	(0.0012)	(0.0023)	(0.0027)	(0.0040)
Size of Largest Town (000s)	0.000060	0.00026***	0.00011	0.000064
	(0.000044)	(0.000064)	(0.00015)	(0.000083)
Pseudo-R^2	0.581	0.498	0.290	0.510
χ^2, p-value	0.000	0.000	0.000	0.000
N	194	194	194	81

Note: Robust standard errors in parentheses. The Probit model is estimated using clustered (by merger) standard errors.
Significance levels: *** 1% ** 5% * 10%

D.2 Robustness Checks: Inclusion of Additional Variables, 6 Outcomes

Table D.2: Determinants of Support for De-Mergers: Inclusion of Commuting Flows

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.019***	-0.0019	-0.010	0.29	0.031**	0.75**
	(0.0065)	(0.0070)	(0.0073)	(0.26)	(0.014)	(0.36)
Diff. English-Speaking Proportion	0.011**	0.0093***	0.0062**	0.27***	0.0071	0.23*
	(0.0042)	(0.0020)	(0.0027)	(0.083)	(0.0049)	(0.11)
Poorer than Merging Partners	-0.027	-0.15***	-0.20***	-3.78***	-0.020	-3.00
	(0.040)	(0.044)	(0.063)	(1.12)	(0.091)	(1.96)
Larger Prop. English-Speaking	0.094***	0.18***	0.16**	3.78***	0.15*	4.10*
	(0.033)	(0.050)	(0.065)	(0.97)	(0.079)	(2.08)
Share Commuting to Merger Partners	-0.0023	-0.0041**	-0.0055**	-0.13**	-0.0042	-0.12
	(0.0020)	(0.0018)	(0.0027)	(0.054)	(0.0037)	(0.080)
Tax Impact (5 years)	-0.0044**	-0.0037*	-0.0025	-0.10*	-0.0093***	-0.27***
	(0.0018)	(0.0021)	(0.0032)	(0.056)	(0.0031)	(0.052)
Diff. Public Spending (000s p.c.)	0.059	0.057*	0.059*	2.24	0.099***	1.48*
	(0.050)	(0.031)	(0.035)	(1.38)	(0.023)	(0.77)
Distance to Core City	-0.0019	-0.0041**	-0.0012	-0.055	-0.0031*	-0.087**
	(0.0014)	(0.0018)	(0.0033)	(0.043)	(0.0016)	(0.034)
Density	-0.047***	-0.052	-0.032	-2.41**	-0.044	-3.14***
	(0.010)	(0.032)	(0.049)	(1.04)	(0.030)	(0.52)
Population (000s)	-0.00013	-0.00013	-0.000089	-0.0016	0.00048	-0.020
	(0.00013)	(0.00012)	(0.00020)	(0.0041)	(0.0028)	(0.051)
Share of merger population	-0.0047**	-0.0084***	-0.011***	-0.27***	-0.011*	-0.26*
	(0.0023)	(0.0022)	(0.0022)	(0.055)	(0.0058)	(0.15)
Size of Largest Town (000s)	0.00026**	0.00046***	0.00031**	0.013***	0.00018	0.011***
	(0.000095)	(0.00010)	(0.00015)	(0.0030)	(0.00010)	(0.0024)
Constant	0.19	0.55***	0.84***	18.0***	0.38	34.4***
	(0.15)	(0.15)	(0.17)	(3.55)	(0.23)	(5.37)
R^2	0.507	0.477	0.336	0.604	0.514	0.659
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.3: Determinants of Support for De-Mergers: Inclusion of Median Income and Share of English Speakers

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.015***	-0.0038	-0.027***	-0.069	0.038	0.56
	(0.0048)	(0.0069)	(0.0069)	(0.14)	(0.024)	(0.35)
Diff. English-Speaking Proportion	0.0068	0.0044	-0.0073	0.14	-0.0045	0.096
	(0.0062)	(0.0057)	(0.0049)	(0.12)	(0.012)	(0.18)
Poorer than Merging Partners	0.019	-0.11*	-0.029	0.28	-0.064	-2.66
	(0.042)	(0.063)	(0.084)	(1.25)	(0.088)	(2.59)
Larger Prop. English-Speaking	0.076**	0.16***	0.100	3.12***	0.14*	4.05*
	(0.034)	(0.056)	(0.071)	(1.04)	(0.079)	(2.30)
Median income	0.0059	0.0028	0.026**	0.64***	-0.012	0.11
	(0.0089)	(0.010)	(0.012)	(0.22)	(0.019)	(0.38)
Proportion English-Speaking	0.0044	0.0059	0.014***	0.15*	0.012	0.16
	(0.0044)	(0.0053)	(0.0043)	(0.077)	(0.0091)	(0.13)
Tax Impact (5 years)	-0.0047**	-0.0043**	-0.0029	-0.11*	-0.011***	-0.31***
	(0.0018)	(0.0021)	(0.0031)	(0.055)	(0.0029)	(0.069)
Diff. Public Spending (000s p.c.)	0.063	0.057	0.082*	2.46	0.14***	1.86**
	(0.058)	(0.038)	(0.042)	(1.58)	(0.027)	(0.81)
Distance to Core City	-0.0013	-0.0031*	0.00057	-0.016	-0.0020	-0.057*
	(0.0011)	(0.0017)	(0.0031)	(0.039)	(0.0014)	(0.030)
Density	-0.041***	-0.042	-0.013	-2.14**	-0.042	-3.17***
	(0.0098)	(0.033)	(0.041)	(0.90)	(0.030)	(0.58)
Population (000s)	-0.000053	-0.000024	0.00015	0.0016	0.0018	-0.016
	(0.00015)	(0.00014)	(0.00015)	(0.0037)	(0.0035)	(0.061)
Share of merger population	-0.0030**	-0.0056***	-0.0072***	-0.17***	-0.011*	-0.16
	(0.0011)	(0.0016)	(0.0021)	(0.039)	(0.0052)	(0.11)
Size of Largest Town (000s)	0.00014	0.00029*	-0.000024	0.0066**	-0.00011	0.0065*
	(0.00011)	(0.00015)	(0.00013)	(0.0026)	(0.00018)	(0.0036)
Constant	-0.075	0.25	-0.027	-3.34	0.41	25.9***
	(0.19)	(0.26)	(0.29)	(5.33)	(0.39)	(7.45)
R^2	0.502	0.461	0.347	0.605	0.516	0.644
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.4: Determinants of Support for De-Mergers: Differences in Income and Linguistic Composition not in Absolute Values

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (thousands), raw	0.015*	-0.0073	0.013	0.62***	0.019	0.53
	(0.0084)	(0.0090)	(0.012)	(0.21)	(0.015)	(0.43)
Diff. English-Speaking Proportion, raw	0.011***	0.0096***	0.0059***	0.25***	0.0078*	0.25**
	(0.0036)	(0.0016)	(0.0019)	(0.054)	(0.0043)	(0.10)
Poorer than Merging Partners	0.074	-0.16**	-0.052	1.13	0.028	-1.41
	(0.051)	(0.068)	(0.085)	(1.39)	(0.095)	(2.90)
Larger Prop. English-Speaking	0.039	0.14**	0.12	2.41*	0.14	3.50
	(0.046)	(0.057)	(0.074)	(1.31)	(0.10)	(2.47)
Tax Impact (5 years)	-0.0046**	-0.0046**	-0.0031	-0.11*	-0.011***	-0.31***
	(0.0018)	(0.0022)	(0.0033)	(0.057)	(0.0032)	(0.073)
Diff. Public Spending (000s p.c.)	0.079	0.051	0.044	2.46	0.10**	1.79*
	(0.057)	(0.042)	(0.049)	(1.86)	(0.038)	(1.04)
Distance to Core City	-0.00085	-0.0033*	0.00016	-0.011	-0.0019	-0.051*
	(0.00096)	(0.0018)	(0.0033)	(0.037)	(0.0013)	(0.029)
Density	-0.025*	-0.044	-0.017	-1.70	-0.032	-2.83***
	(0.014)	(0.039)	(0.050)	(1.05)	(0.023)	(0.63)
Population (000s)	0.000080	0.000015	0.00014	0.0056	-0.000096	-0.031
	(0.00017)	(0.00013)	(0.00013)	(0.0040)	(0.0034)	(0.065)
Share of merger population	-0.0024**	-0.0052***	-0.0071***	-0.16***	-0.0049	-0.085
	(0.0011)	(0.0016)	(0.0022)	(0.041)	(0.0040)	(0.092)
Size of Largest Town (000s)	0.00021**	0.00044***	0.00014	0.0087***	0.00014	0.0099**
	(0.000096)	(0.00014)	(0.00016)	(0.0030)	(0.00014)	(0.0037)
Constant	0.078	0.36***	0.47***	9.92***	0.19*	28.8***
	(0.058)	(0.11)	(0.14)	(2.15)	(0.10)	(2.52)
R^2	0.469	0.450	0.308	0.579	0.464	0.620
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses. Differences in income and linguistic composition are calculated as in the other models, but without taking the absolute value.
Significance levels: *** 1% ** 5% * 10%

Table D.5: Determinants of Support for De-Mergers: Inclusion of Differences in Political Preferences and House Values

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.012*	-0.0018	-0.016	0.073	0.027	0.39
	(0.0072)	(0.0079)	(0.0098)	(0.27)	(0.020)	(0.57)
Diff. English-Speaking Proportion	0.0062**	0.0071*	0.0048	0.23***	0.00092	0.22**
	(0.0028)	(0.0036)	(0.0038)	(0.073)	(0.0030)	(0.084)
Poorer than Merging Partners	-0.016	-0.14***	-0.15**	-2.50**	-0.082	-2.87
	(0.032)	(0.040)	(0.064)	(0.93)	(0.090)	(1.91)
Larger Prop. English-Speaking	0.11***	0.20***	0.17**	4.06***	0.20**	4.76**
	(0.040)	(0.055)	(0.069)	(1.08)	(0.090)	(2.29)
Diff. House Values	0.00079	-0.000027	0.00094	0.036*	-0.00015	0.029
	(0.00053)	(0.00058)	(0.00093)	(0.020)	(0.00070)	(0.023)
Diff. % of Votes for BQ	0.013*	0.0100	0.0066	0.15	0.022*	0.082
	(0.0066)	(0.0059)	(0.0072)	(0.12)	(0.013)	(0.28)
Tax Impact (5 years)	-0.0046***	-0.0043**	-0.0030	-0.11*	-0.010***	-0.28***
	(0.0017)	(0.0020)	(0.0032)	(0.059)	(0.0030)	(0.075)
Diff. Public Spending (000s p.c.)	0.048	0.037	0.043	1.95	0.092***	1.22
	(0.047)	(0.035)	(0.037)	(1.47)	(0.027)	(0.92)
Distance to Core City	-0.0014	-0.0036**	0.00025	-0.015	-0.0031	-0.045
	(0.00098)	(0.0014)	(0.0031)	(0.040)	(0.0020)	(0.044)
Density	-0.044***	-0.043	-0.028	-2.39**	-0.035	-3.59***
	(0.0073)	(0.027)	(0.048)	(1.13)	(0.029)	(0.83)
Population (000s)	-0.00011	-0.00016	-0.0000039	0.0017	0.00089	-0.0060
	(0.00015)	(0.00013)	(0.00015)	(0.0024)	(0.0032)	(0.059)
Share of merger population	-0.0029**	-0.0054***	-0.0071***	-0.18***	-0.0058	-0.15
	(0.0012)	(0.0016)	(0.0022)	(0.043)	(0.0040)	(0.094)
Size of Largest Town (000s)	0.00013	0.00031***	0.00015	0.0086**	-0.000084	0.0088
	(0.00010)	(0.00011)	(0.00012)	(0.0032)	(0.00020)	(0.0052)
Constant	0.026	0.28***	0.52***	10.6***	0.081	28.2***
	(0.053)	(0.10)	(0.12)	(2.04)	(0.10)	(2.44)
R^2	0.537	0.467	0.315	0.591	0.548	0.652
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.6: Determinants of Support for De-Mergers: Inclusion of Differences in House Values Alone

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.013	-0.0016	-0.016	0.077	0.027	0.39
	(0.0078)	(0.0084)	(0.0099)	(0.28)	(0.020)	(0.56)
Diff. English-Speaking Proportion	0.011***	0.011***	0.0070**	0.28***	0.0081*	0.25**
	(0.0038)	(0.0022)	(0.0029)	(0.077)	(0.0043)	(0.11)
Poorer than Merging Partners	0.0041	-0.12***	-0.14**	-2.26**	-0.011	-2.61
	(0.033)	(0.041)	(0.062)	(0.93)	(0.095)	(2.15)
Larger Prop. English-Speaking	0.096***	0.19***	0.17**	3.90***	0.17*	4.64**
	(0.034)	(0.053)	(0.068)	(1.02)	(0.083)	(2.16)
Diff. House Values	0.00096**	0.00010	0.0010	0.038*	0.00021	0.031
	(0.00041)	(0.00055)	(0.00089)	(0.019)	(0.00064)	(0.023)
Tax Impact (5 years)	-0.0043**	-0.0042*	-0.0028	-0.11*	-0.010***	-0.28***
	(0.0018)	(0.0021)	(0.0033)	(0.061)	(0.0032)	(0.075)
Diff. Public Spending (000s p.c.)	0.057	0.044	0.047	2.06	0.098***	1.25
	(0.053)	(0.036)	(0.039)	(1.54)	(0.029)	(0.94)
Distance to Core City	-0.00089	-0.0032*	0.00049	-0.0091	-0.0018	-0.040
	(0.0010)	(0.0017)	(0.0034)	(0.044)	(0.0012)	(0.029)
Density	-0.049***	-0.047	-0.030	-2.45*	-0.047	-3.64***
	(0.016)	(0.035)	(0.053)	(1.25)	(0.029)	(0.86)
Population (000s)	-0.000022	-0.000093	0.000041	0.0028	0.00072	-0.0067
	(0.00012)	(0.000100)	(0.00014)	(0.0024)	(0.0031)	(0.059)
Share of merger population	-0.0030**	-0.0055***	-0.0072***	-0.18***	-0.0059	-0.15
	(0.0012)	(0.0016)	(0.0022)	(0.044)	(0.0035)	(0.093)
Size of Largest Town (000s)	0.00020**	0.00037**	0.00019	0.0095***	0.000090	0.0094**
	(0.000085)	(0.00013)	(0.00014)	(0.0033)	(0.00014)	(0.0042)
Constant	0.060	0.31***	0.53***	11.0***	0.13	28.4***
	(0.052)	(0.10)	(0.12)	(2.01)	(0.12)	(2.56)
R^2	0.506	0.457	0.311	0.587	0.499	0.651
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.7: Determinants of Support for De-Mergers: Inclusion of Differences in House Values in Absolute Value

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.016**	-0.0014	-0.013	0.19	0.031*	0.53
	(0.0077)	(0.0083)	(0.0086)	(0.27)	(0.017)	(0.47)
Diff. English-Speaking Proportion	0.011***	0.011***	0.0074**	0.29***	0.0082*	0.26**
	(0.0038)	(0.0023)	(0.0030)	(0.076)	(0.0043)	(0.11)
Poorer than Merging Partners	-0.010	-0.12***	-0.15**	-2.82**	-0.011	-2.86
	(0.034)	(0.041)	(0.062)	(1.07)	(0.095)	(2.15)
Larger Prop. English-Speaking	0.096***	0.19***	0.17**	3.89***	0.17*	4.69**
	(0.034)	(0.053)	(0.069)	(1.05)	(0.083)	(2.17)
Diff. House Values, in Absolute Value	0.00052	0.00010	0.00080	0.026	-0.00021	0.023
	(0.00045)	(0.00053)	(0.00067)	(0.016)	(0.00055)	(0.017)
Tax Impact (5 years)	-0.0047**	-0.0042*	-0.0032	-0.12*	-0.010***	-0.29***
	(0.0018)	(0.0021)	(0.0032)	(0.059)	(0.0032)	(0.071)
Diff. Public Spending (000s p.c.)	0.047	0.043	0.035	1.62	0.11***	0.89
	(0.057)	(0.037)	(0.040)	(1.64)	(0.038)	(1.14)
Distance to Core City	-0.0015	-0.0033*	-0.00013	-0.031	-0.0018	-0.055*
	(0.0011)	(0.0017)	(0.0033)	(0.044)	(0.0013)	(0.028)
Density	-0.047***	-0.047	-0.029	-2.41*	-0.039	-3.60***
	(0.013)	(0.036)	(0.052)	(1.20)	(0.032)	(0.82)
Population (000s)	-0.000088	-0.000098	-0.000016	0.00051	0.00056	-0.0037
	(0.00012)	(0.00011)	(0.00016)	(0.0031)	(0.0032)	(0.056)
Share of merger population	-0.0030**	-0.0055***	-0.0071***	-0.17***	-0.0056	-0.13
	(0.0012)	(0.0016)	(0.0023)	(0.045)	(0.0035)	(0.092)
Size of Largest Town (000s)	0.00020**	0.00036**	0.00018	0.0093***	0.000081	0.0089**
	(0.000083)	(0.00014)	(0.00014)	(0.0030)	(0.00014)	(0.0039)
Constant	0.056	0.31***	0.53***	10.9***	0.12	28.0***
	(0.053)	(0.10)	(0.12)	(2.08)	(0.11)	(2.46)
R^2	0.498	0.457	0.308	0.579	0.499	0.646
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.8: Determinants of Support for De-Mergers: Inclusion of Differences in Political Preferences

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.018**	-0.0020	-0.0099	0.31	0.025	0.70*
	(0.0073)	(0.0076)	(0.0068)	(0.24)	(0.016)	(0.38)
Diff. English-Speaking Proportion	0.0067**	0.0071*	0.0054	0.25***	0.00091	0.22***
	(0.0027)	(0.0037)	(0.0041)	(0.072)	(0.0030)	(0.077)
Poorer than Merging Partners	-0.028	-0.14***	-0.16**	-3.03***	-0.081	-3.13
	(0.031)	(0.040)	(0.063)	(1.04)	(0.090)	(1.94)
Larger Prop. English-Speaking	0.11***	0.20***	0.17**	4.10***	0.20**	4.79**
	(0.039)	(0.055)	(0.070)	(1.12)	(0.089)	(2.30)
Diff. % of Votes for BQ	0.014**	0.0099*	0.0072	0.18	0.022*	0.12
	(0.0068)	(0.0059)	(0.0075)	(0.13)	(0.013)	(0.28)
Tax Impact (5 years)	-0.0049***	-0.0043**	-0.0033	-0.12**	-0.010***	-0.30***
	(0.0017)	(0.0020)	(0.0031)	(0.057)	(0.0029)	(0.070)
Diff. Public Spending (000s p.c.)	0.043	0.038	0.036	1.71	0.091***	1.48
	(0.053)	(0.036)	(0.040)	(1.71)	(0.024)	(0.89)
Distance to Core City	-0.0018*	-0.0036**	-0.00030	-0.035	-0.0030	-0.058
	(0.00096)	(0.0014)	(0.0031)	(0.040)	(0.0019)	(0.041)
Density	-0.040***	-0.044	-0.022	-2.19**	-0.038	-3.08***
	(0.0072)	(0.030)	(0.048)	(1.03)	(0.024)	(0.59)
Population (000s)	-0.00019	-0.00016	-0.000099	-0.0019	0.00093	-0.013
	(0.00015)	(0.00014)	(0.00019)	(0.0040)	(0.0032)	(0.060)
Share of merger population	-0.0028**	-0.0054***	-0.0071***	-0.17***	-0.0060	-0.12
	(0.0012)	(0.0016)	(0.0022)	(0.044)	(0.0039)	(0.096)
Size of Largest Town (000s)	0.00013	0.00031***	0.00015	0.0086***	-0.000079	0.0077
	(0.00011)	(0.00011)	(0.00010)	(0.0028)	(0.00019)	(0.0047)
Constant	0.017	0.29***	0.50***	10.2***	0.087	27.1***
	(0.054)	(0.10)	(0.13)	(2.19)	(0.094)	(2.41)
R^2	0.531	0.467	0.311	0.579	0.548	0.643
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.9: Determinants of Support for De-Mergers: Inclusion of Differences in Political Preferences at Provincial Level

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.021***	0.0018	-0.0050	0.38	0.028*	0.71*
	(0.0075)	(0.0072)	(0.0060)	(0.24)	(0.014)	(0.38)
Diff. English-Speaking Proportion	0.0028	0.0026	-0.00062	0.18	-0.0056	0.18
	(0.0052)	(0.0037)	(0.0043)	(0.11)	(0.0075)	(0.15)
Poorer than Merging Partners	-0.015	-0.11**	-0.17**	-2.88**	-0.073	-1.96
	(0.036)	(0.047)	(0.065)	(1.17)	(0.098)	(1.92)
Larger Prop. English-Speaking	0.10***	0.21***	0.18**	4.06***	0.20**	4.36*
	(0.033)	(0.048)	(0.068)	(1.06)	(0.087)	(2.22)
Diff. % of Votes for PQ (provincial)	0.016**	0.015**	0.016**	0.23	0.024**	0.12
	(0.0063)	(0.0057)	(0.0074)	(0.16)	(0.0092)	(0.19)
Tax Impact (5 years)	-0.0052**	-0.0046**	-0.0026	-0.12*	-0.012***	-0.35***
	(0.0019)	(0.0022)	(0.0032)	(0.061)	(0.0030)	(0.068)
Diff. Public Spending (000s p.c.)	0.033	0.020	0.027	1.59	0.070**	1.02
	(0.055)	(0.037)	(0.043)	(1.81)	(0.026)	(0.93)
Distance to Core City	-0.0020	-0.0035*	-0.00085	-0.036	-0.0024*	-0.035
	(0.0013)	(0.0017)	(0.0033)	(0.047)	(0.0012)	(0.031)
Density	-0.042***	-0.043	-0.019	-2.17*	-0.039	-3.02***
	(0.0091)	(0.032)	(0.051)	(1.12)	(0.030)	(0.53)
Population (000s)	-0.00015	-0.00015	-0.000069	-0.0012	-0.000015	-0.031
	(0.00012)	(0.00011)	(0.00017)	(0.0038)	(0.0027)	(0.056)
Share of merger population	-0.0032**	-0.0053***	-0.0069***	-0.18***	-0.0035	-0.086
	(0.0012)	(0.0016)	(0.0023)	(0.046)	(0.0038)	(0.10)
Size of Largest Town (000s)	0.00017	0.00035***	0.00016	0.0092***	0.000079	0.0092**
	(0.00010)	(0.00012)	(0.00012)	(0.0029)	(0.00012)	(0.0038)
Constant	0.013	0.24**	0.45***	9.62***	0.068	27.2***
	(0.053)	(0.093)	(0.13)	(2.33)	(0.11)	(2.79)
R^2	0.523	0.486	0.327	0.583	0.541	0.669
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	188	188	188	188	77	77

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.10: Determinants of Support for De-Mergers: Inclusion of Tax Increases between 2001 and 2004

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.019**	-0.00076	-0.0091	0.32	0.028*	0.69*
	(0.0071)	(0.0076)	(0.0069)	(0.25)	(0.015)	(0.37)
Diff. English-Speaking Proportion	0.012***	0.011***	0.0079**	0.31***	0.0083*	0.26**
	(0.0038)	(0.0023)	(0.0031)	(0.076)	(0.0041)	(0.097)
Poorer than Merging Partners	-0.0020	-0.12***	-0.15**	-2.71**	-0.019	-2.90
	(0.039)	(0.044)	(0.067)	(1.13)	(0.084)	(2.15)
Larger Prop. English-Speaking	0.093***	0.19***	0.17**	3.89***	0.15*	4.21*
	(0.032)	(0.053)	(0.069)	(1.09)	(0.073)	(2.08)
Tax Increase, 2001-2004 (%)	0.00071	-0.00025	0.000051	0.0077	0.0020	0.040
	(0.00077)	(0.00094)	(0.0012)	(0.018)	(0.0015)	(0.032)
Tax Impact (5 years)	-0.0044**	-0.0043**	-0.0032	-0.12*	-0.0098***	-0.29***
	(0.0019)	(0.0020)	(0.0031)	(0.060)	(0.0032)	(0.076)
Diff. Public Spending (000s p.c.)	0.048	0.045	0.041	1.78	0.098***	1.49
	(0.061)	(0.037)	(0.043)	(1.82)	(0.029)	(0.99)
Distance to Core City	-0.0013	-0.0033*	-0.000078	-0.029	-0.0011	-0.037
	(0.0013)	(0.0017)	(0.0035)	(0.048)	(0.0015)	(0.034)
Density	-0.038**	-0.049	-0.024	-2.18*	-0.025	-2.75***
	(0.017)	(0.036)	(0.052)	(1.17)	(0.029)	(0.84)
Population (000s)	-0.00013	-0.000099	-0.000060	-0.0010	0.0014	0.00018
	(0.00014)	(0.00013)	(0.00019)	(0.0041)	(0.0034)	(0.062)
Share of merger population	-0.0025*	-0.0057***	-0.0071***	-0.17***	-0.0048	-0.097
	(0.0014)	(0.0016)	(0.0025)	(0.051)	(0.0037)	(0.10)
Size of Largest Town (000s)	0.00021**	0.00036***	0.00019	0.0097***	0.00011	0.0092**
	(0.000095)	(0.00013)	(0.00013)	(0.0031)	(0.00014)	(0.0040)
Constant	0.022	0.32***	0.52***	10.3***	0.046	25.7***
	(0.068)	(0.10)	(0.14)	(2.35)	(0.14)	(3.15)
R^2	0.500	0.457	0.306	0.574	0.515	0.649
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses. The tax increase is calculated as the increase in percentage between 2001 and 2004 of the adjusted tax rate.
Significance levels: *** 1% ** 5% * 10%

Table D.11: Determinants of Support for De-Mergers: Inclusion of Tax Increases between 2001 and 2004 (alternate measure)

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.019**	-0.00079	-0.0092	0.32	0.028*	0.68*
	(0.0069)	(0.0076)	(0.0068)	(0.24)	(0.014)	(0.35)
Diff. English-Speaking Proportion	0.012***	0.011***	0.0079**	0.31***	0.0087**	0.27***
	(0.0037)	(0.0023)	(0.0031)	(0.076)	(0.0038)	(0.093)
Poorer than Merging Partners	-0.0055	-0.12***	-0.15**	-2.75**	-0.036	-3.24
	(0.036)	(0.042)	(0.064)	(1.11)	(0.082)	(2.23)
Larger Prop. English-Speaking	0.092***	0.19***	0.17**	3.87***	0.15**	4.23**
	(0.031)	(0.052)	(0.069)	(1.08)	(0.072)	(2.05)
Inc. in Average Tax Payment, 2001-2004 (%)	0.00072	-0.00013	0.00019	0.0083	0.0021	0.043*
	(0.00062)	(0.00077)	(0.00099)	(0.014)	(0.0012)	(0.025)
Tax Impact (5 years)	-0.0045**	-0.0042**	-0.0032	-0.12*	-0.010***	-0.30***
	(0.0018)	(0.0020)	(0.0032)	(0.059)	(0.0031)	(0.075)
Diff. Public Spending (000s p.c.)	0.047	0.044	0.040	1.77	0.099***	1.52
	(0.062)	(0.037)	(0.043)	(1.82)	(0.029)	(1.00)
Distance to Core City	-0.0014	-0.0033*	-0.000087	-0.030	-0.0014	-0.043
	(0.0012)	(0.0017)	(0.0035)	(0.047)	(0.0014)	(0.030)
Density	-0.036*	-0.048	-0.022	-2.15*	-0.021	-2.65***
	(0.018)	(0.037)	(0.052)	(1.15)	(0.025)	(0.86)
Population (000s)	-0.00014	-0.000100	-0.000065	-0.0011	0.0017	0.0060
	(0.00013)	(0.00013)	(0.00019)	(0.0040)	(0.0035)	(0.063)
Share of merger population	-0.0024*	-0.0056***	-0.0070**	-0.17***	-0.0050	-0.099
	(0.0013)	(0.0015)	(0.0026)	(0.049)	(0.0035)	(0.10)
Size of Largest Town (000s)	0.00021**	0.00036***	0.00019	0.0097***	0.000082	0.0085**
	(0.000090)	(0.00013)	(0.00013)	(0.0030)	(0.00012)	(0.0035)
Constant	-0.00074	0.32***	0.51***	10.0***	-0.021	24.3***
	(0.070)	(0.11)	(0.16)	(2.45)	(0.16)	(3.30)
R^2	0.502	0.457	0.306	0.575	0.525	0.656
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses. The tax rate is calculated by first estimating the amount of taxes paid by a household with a house of "average value", and then estimating the increase in percentage between 2001 and 2004.
Significance levels: *** 1% ** 5% * 10%

Table D.12: Determinants of Support for De-Mergers: Inclusion of Tax Rates Prior to Mergers

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.019***	-0.0011	-0.0093	0.32	0.026**	0.64*
	(0.0066)	(0.0074)	(0.0067)	(0.23)	(0.012)	(0.35)
Diff. English-Speaking Proportion	0.011***	0.010***	0.0078**	0.31***	0.0085*	0.27**
	(0.0039)	(0.0023)	(0.0030)	(0.077)	(0.0042)	(0.099)
Poorer than Merging Partners	0.0055	-0.11**	-0.15**	-2.47**	-0.024	-3.03
	(0.037)	(0.044)	(0.067)	(1.13)	(0.084)	(2.14)
Larger Prop. English-Speaking	0.094***	0.19***	0.17**	3.87***	0.13*	3.67*
	(0.032)	(0.051)	(0.069)	(1.03)	(0.063)	(1.84)
Tax level, 2001	-0.086*	-0.047	-0.040	-1.88	-0.21*	-4.64*
	(0.048)	(0.058)	(0.097)	(1.48)	(0.12)	(2.58)
Tax Impact (5 years)	-0.0042**	-0.0040*	-0.0030	-0.11*	-0.0089**	-0.27***
	(0.0017)	(0.0020)	(0.0031)	(0.057)	(0.0033)	(0.073)
Diff. Public Spending (000s p.c.)	0.050	0.043	0.041	1.81	0.097***	1.45
	(0.058)	(0.035)	(0.042)	(1.77)	(0.029)	(1.01)
Distance to Core City	-0.0010	-0.0030*	0.00010	-0.021	-0.00078	-0.028
	(0.0012)	(0.0018)	(0.0036)	(0.049)	(0.0016)	(0.032)
Density	-0.036**	-0.042	-0.021	-2.06*	-0.021	-2.61***
	(0.016)	(0.039)	(0.052)	(1.19)	(0.024)	(0.81)
Population (000s)	-0.000081	-0.000084	-0.000043	-0.00013	0.0018	0.0099
	(0.00013)	(0.00012)	(0.00017)	(0.0037)	(0.0035)	(0.066)
Share of merger population	-0.0025**	-0.0052***	-0.0069**	-0.17***	-0.0076*	-0.16
	(0.0011)	(0.0015)	(0.0026)	(0.048)	(0.0038)	(0.10)
Size of Largest Town (000s)	0.00021**	0.00037***	0.00019	0.0097***	0.000071	0.0083**
	(0.000088)	(0.00013)	(0.00013)	(0.0028)	(0.00011)	(0.0032)
Constant	0.17*	0.38**	0.58***	13.3***	0.46**	34.9***
	(0.096)	(0.14)	(0.14)	(2.98)	(0.17)	(4.60)
R^2	0.508	0.459	0.307	0.579	0.528	0.661
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.13: Determinants of Support for De-Mergers: Inclusion of Merger Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.023***	-0.0051	-0.0090	0.42*	0.021	0.60**
	(0.0068)	(0.0073)	(0.0070)	(0.23)	(0.017)	(0.26)
Diff. English-Speaking Proportion	0.011**	0.0096***	0.0084***	0.32***	0.0084	0.29**
	(0.0047)	(0.0019)	(0.0022)	(0.065)	(0.0087)	(0.12)
Poorer than Merging Partners	-0.019	-0.081*	-0.089	-1.98*	-0.055	-2.38
	(0.034)	(0.047)	(0.069)	(1.01)	(0.13)	(2.02)
Larger Prop. English-Speaking	0.079**	0.14**	0.11	2.66**	0.079	1.38
	(0.036)	(0.064)	(0.076)	(1.14)	(0.10)	(2.63)
Tax Impact (5 years)	-0.0043**	-0.0051**	-0.0033	-0.10*	-0.010*	-0.46***
	(0.0018)	(0.0024)	(0.0032)	(0.060)	(0.0052)	(0.11)
Diff. Public Spending (000s p.c.)	0.13***	-0.015	0.016	3.09***	0.12**	2.04*
	(0.028)	(0.073)	(0.041)	(1.06)	(0.042)	(1.02)
Distance to Core City	-0.0026**	-0.0024*	0.0011	0.016	-0.0033	0.083**
	(0.0011)	(0.0014)	(0.0020)	(0.035)	(0.0023)	(0.034)
Density	-0.071***	-0.10***	-0.081***	-3.50***	-0.064	-3.29***
	(0.022)	(0.0096)	(0.025)	(0.42)	(0.043)	(0.70)
Population (000s)	-0.000041	-0.00023	-0.000073	-0.0019	-0.0015	-0.091*
	(0.00013)	(0.00024)	(0.00026)	(0.0054)	(0.0036)	(0.047)
Share of merger population	-0.0034**	-0.0050***	-0.0080***	-0.16***	-0.0031	-0.11
	(0.0014)	(0.0017)	(0.0020)	(0.040)	(0.011)	(0.23)
Size of Largest Town (000s)	-0.020	-0.029**	0.19***	3.11***	-0.11	2.43
	(0.016)	(0.013)	(0.014)	(0.41)	(0.11)	(1.80)
Constant	0.18*	0.36***	-0.25***	-4.10	0.75	17.8
	(0.099)	(0.056)	(0.058)	(2.70)	(0.71)	(11.2)
Merger Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.623	0.634	0.601	0.742	0.701	0.850
F-test, p-value	0.623	0.634	0.601	0.742	0.701	0.850
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.14: Determinants of Support for De-Mergers: Inclusion of a Number of Additional Difference Variables

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample				Conditional on Ref.	
	Separation	Yes Votes>50%	Referendum	% of Signatures	Separation	% Yes Votes
Diff. Median Income (000s)	0.012*	-0.0091	-0.017*	-0.0029	0.023	0.17
	(0.0068)	(0.0082)	(0.010)	(0.20)	(0.019)	(0.40)
Diff. English-Speaking Proportion	0.011***	0.010***	0.0069**	0.28***	0.0083**	0.25**
	(0.0037)	(0.0024)	(0.0029)	(0.068)	(0.0037)	(0.090)
Poorer than Merging Partners	-0.038	-0.14***	-0.16***	-3.64***	-0.013	-3.57*
	(0.040)	(0.042)	(0.060)	(1.01)	(0.12)	(2.02)
Larger Prop. English-Speaking	0.098***	0.19***	0.17**	3.94***	0.17**	5.09**
	(0.034)	(0.052)	(0.069)	(0.96)	(0.083)	(2.04)
Tax Impact (5 years)	-0.0044**	-0.0042**	-0.0032	-0.11**	-0.0078**	-0.25***
	(0.0017)	(0.0020)	(0.0029)	(0.051)	(0.0035)	(0.056)
Diff. Public Spending (000s p.c.)	0.038	0.029	0.033	1.37	0.12***	0.91
	(0.061)	(0.035)	(0.042)	(1.36)	(0.038)	(0.91)
Distance to Core City	-0.0011	-0.0027*	0.0011	-0.0025	-0.0023**	-0.056**
	(0.00090)	(0.0013)	(0.0028)	(0.032)	(0.0011)	(0.023)
Density	-0.031**	-0.039	-0.041	-2.29***	0.0097	-2.22**
	(0.013)	(0.035)	(0.044)	(0.83)	(0.031)	(1.07)
Population (000s)	-0.000018	-0.000013	0.00011	0.0049	0.00078	-0.034
	(0.00017)	(0.000098)	(0.00018)	(0.0037)	(0.0015)	(0.023)
Share of merger population	-0.0025**	-0.0050***	-0.0062***	-0.15***	-0.0036	-0.021
	(0.0011)	(0.0014)	(0.0019)	(0.036)	(0.0036)	(0.089)
Size of Largest Town (000s)	-0.000043	0.00017	0.000041	0.0016	-0.00022	0.0012
	(0.00015)	(0.00026)	(0.00021)	(0.0034)	(0.00016)	(0.0030)
Diff. Median Age	0.0077	0.015	-0.0093	0.045	0.025	0.97***
	(0.0073)	(0.011)	(0.012)	(0.29)	(0.016)	(0.31)
Diff. Unemployment Rate	0.0042	0.0019	-0.0100	-0.100	0.051***	1.10**
	(0.0068)	(0.0078)	(0.011)	(0.23)	(0.017)	(0.53)
Diff. % of Visible Minorities	0.026	0.023	0.016	0.85***	0.027	0.97***
	(0.019)	(0.017)	(0.013)	(0.24)	(0.019)	(0.25)
Diff. % University-Educated	0.0037	0.0049	0.011	0.32***	0.0023	0.24
	(0.0052)	(0.0057)	(0.0094)	(0.088)	(0.014)	(0.24)
Diff. % Recent Intra-Provincial Migrants	-0.0018	-0.0059	-0.0082	-0.13	0.0015	-0.22
	(0.0030)	(0.0049)	(0.0071)	(0.10)	(0.0052)	(0.21)
Diff. Inequality (Ratio Avg. to Median Income)	-0.26	-0.26	0.057	-4.99	-0.84**	-19.1**
	(0.21)	(0.20)	(0.37)	(7.23)	(0.39)	(8.93)
Constant	0.033	0.29***	0.55***	10.5***	-0.076	22.6***
	(0.051)	(0.095)	(0.11)	(1.94)	(0.13)	(2.61)
R^2	0.541	0.484	0.340	0.639	0.581	0.757
F-test, p-value	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

D.3 Robustness Checks: Interaction Effects

Table D.15: Interactions between Language and Income Differences, with Other Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Full Sample				Conditional on Ref.		
	Yes Votes>50%		Referendum		Separation		% Yes Votes
	Probit	OLS	Probit	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	0.037	0.0083	-0.048	-0.0080	0.058	0.026	0.29
	(0.066)	(0.010)	(0.047)	(0.010)	(0.051)	(0.019)	(0.54)
Diff. English-Speaking Proportion	0.13***	0.015***	0.049*	0.0084**	-0.044	0.0073	0.14
	(0.046)	(0.0036)	(0.029)	(0.0041)	(0.037)	(0.0062)	(0.15)
Interaction term	-0.0015	-0.00071*	0.0065	-0.000081	0.028**	0.00017	0.023
	(0.013)	(0.00036)	(0.0096)	(0.00033)	(0.013)	(0.00052)	(0.015)
Larger Prop. English-Speaking	1.10***	0.19***	0.56**	0.17**	1.01*	0.17**	5.16**
	(0.31)	(0.052)	(0.23)	(0.069)	(0.58)	(0.083)	(2.20)
Poorer than Merging Partners	-0.79***	-0.12***	-0.54***	-0.15**	0.19	-0.015	-3.12
	(0.24)	(0.041)	(0.19)	(0.062)	(0.51)	(0.097)	(2.12)
Tax Impact (5 years)	-0.023***	-0.0043**	-0.0085	-0.0032	-0.057**	-0.010***	-0.30***
	(0.0083)	(0.0021)	(0.0097)	(0.0032)	(0.023)	(0.0032)	(0.071)
Diff. Public Spending (000s p.c.)	0.21	0.036	0.16	0.040	0.77***	0.10***	1.54*
	(0.46)	(0.041)	(0.25)	(0.044)	(0.26)	(0.028)	(0.83)
Distance to Core City	-0.037*	-0.0034*	-0.00083	-0.000098	-0.022	-0.0019	-0.053*
	(0.019)	(0.0018)	(0.0092)	(0.0035)	(0.023)	(0.0012)	(0.027)
Density	-0.43***	-0.048	-0.13	-0.025	-0.024	-0.046*	-3.43***
	(0.15)	(0.032)	(0.21)	(0.051)	(0.23)	(0.026)	(0.73)
Population (000s)	0.0011*	-0.00016	0.00014	-0.000066	0.0018	0.00078	0.00078
	(0.00067)	(0.00013)	(0.00082)	(0.00019)	(0.013)	(0.0032)	(0.058)
Share of merger population	-0.051***	-0.0055***	-0.032***	-0.0072***	-0.034	-0.0059*	-0.14*
	(0.012)	(0.0016)	(0.010)	(0.0023)	(0.023)	(0.0033)	(0.078)
Size of Largest Town (000s)	0.0016***	0.00040***	0.00037	0.00019	-0.00030	0.000078	0.0078**
	(0.00045)	(0.000096)	(0.00058)	(0.00012)	(0.00062)	(0.00012)	(0.0036)
Constant	-0.26	0.28**	0.19	0.52***	-1.47**	0.14	29.0***
	(0.58)	(0.11)	(0.35)	(0.12)	(0.65)	(0.11)	(2.41)
R^2/Pseudo-R^2	0.498	0.464	0.291	0.306	0.554	0.499	0.655
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	81	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.16: Interactions between between *Poorer* and *Larger Prop. English-Speaking*, with Other Outcomes

	(1)	(2)	(3)	(4)
	Full Sample		Conditional on Ref.	
	Yes Votes>50%	Referendum	Separation	% Yes Votes
Diff. Median Income (000s)	-0.0020	-0.010	0.031*	0.73*
	(0.0075)	(0.0072)	(0.016)	(0.38)
Diff. English-Speaking Proportion	0.010***	0.0076**	0.0080*	0.26**
	(0.0025)	(0.0032)	(0.0045)	(0.10)
Poorer than Merging Partners	-0.059	-0.080	-0.093	-3.14
	(0.063)	(0.090)	(0.10)	(3.49)
Larger Prop. English-Speaking	0.25***	0.24**	0.12	4.39
	(0.089)	(0.10)	(0.094)	(2.61)
Poorer than Merging Partners *	-0.14	-0.16	0.16	0.75
Larger Prop. English-Speaking	(0.13)	(0.14)	(0.20)	(5.46)
Tax Impact (5 years)	-0.0045**	-0.0036	-0.010***	-0.30***
	(0.0020)	(0.0032)	(0.0031)	(0.072)
Diff. Public Spending (000s p.c.)	0.041	0.038	0.11***	1.58
	(0.035)	(0.039)	(0.029)	(1.08)
Distance to Core City	-0.0033*	-0.00016	-0.0018	-0.052*
	(0.0018)	(0.0035)	(0.0013)	(0.027)
Density	-0.049	-0.027	-0.045	-3.12***
	(0.036)	(0.050)	(0.029)	(0.60)
Population (000s)	-0.000099	-0.000054	0.0010	-0.013
	(0.00011)	(0.00017)	(0.0032)	(0.066)
Share of merger population	-0.0056***	-0.0073***	-0.0062	-0.12
	(0.0016)	(0.0023)	(0.0037)	(0.10)
Size of Largest Town (000s)	0.00035***	0.00017	0.000099	0.0086**
	(0.00013)	(0.00012)	(0.00013)	(0.0034)
Constant	0.30***	0.51***	0.14	27.3***
	(0.11)	(0.12)	(0.11)	(2.52)
R^2	0.462	0.312	0.503	0.641
F-test, p-value	0.000	0.000	0.000	0.000
N	194	194	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.17: Interactions between Language and Income Differences, with Commuter flows

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	0.062	0.011	-0.0074	-0.065	0.14***	0.018***	0.26
	(0.043)	(0.0077)	(0.015)	(0.27)	(0.037)	(0.0065)	(0.26)
Diff. English-Speaking Proportion	-0.014	0.0075	0.0064	0.10	0.035	0.011**	0.26***
	(0.034)	(0.0055)	(0.0085)	(0.067)	(0.023)	(0.0042)	(0.083)
Larger Prop. English-Speaking	1.23**	0.094***	0.095***	3.80***	1.08**	0.12**	5.58***
	(0.49)	(0.034)	(0.034)	(0.99)	(0.51)	(0.050)	(1.57)
Poorer than Merging Partners	-0.33	-0.029	-0.026	-3.84***	-1.38**	-0.0016	-2.03
	(0.40)	(0.041)	(0.041)	(1.11)	(0.56)	(0.042)	(1.57)
Diff. Median Income	0.018*	0.00056	0.0049***	0.028***			
* Diff. English-Speaking Proportion	(0.0098)	(0.00039)	(0.0013)	(0.0082)			
Larger Prop. English-Speaking *					1.06	-0.057	-3.83
Poorer than Merging Partners					(0.77)	(0.073)	(2.30)
Share Commuting to Merger Partners	-0.022*	-0.0026	-0.0023	-0.14**	-0.026**	-0.0023	-0.12**
	(0.012)	(0.0020)	(0.0019)	(0.057)	(0.013)	(0.0020)	(0.054)
(Diff. Median Income)^2			0.0012				
			(0.0014)				
(Diff. English-Speaking Proportion)^2			-0.00017				
			(0.00016)				
(Diff. Median Income)^2 *			-0.00024**				
Diff. English-Speaking Proportion			(0.00011)				
(Diff. English-Speaking Proportion)^2 *			-0.0000014				
Diff. Median Income			(0.000037)				
Tax Impact (5 years)	-0.052**	-0.0043**	-0.0043**	-0.098*	-0.057**	-0.0045**	-0.11*
	(0.022)	(0.0018)	(0.0018)	(0.056)	(0.023)	(0.0018)	(0.057)
Diff. Public Spending (000s p.c.)	0.65***	0.065	0.11**	2.57**	0.67***	0.058	2.17
	(0.24)	(0.041)	(0.044)	(1.13)	(0.19)	(0.049)	(1.29)
Distance to Core City	-0.040	-0.0018	-0.0017	-0.053	-0.037	-0.0019	-0.056
	(0.027)	(0.0013)	(0.0012)	(0.040)	(0.023)	(0.0014)	(0.044)
Density	-0.17*	-0.046***	-0.025***	-2.35**	-0.17	-0.048***	-2.47**
	(0.091)	(0.013)	(0.0088)	(1.16)	(0.10)	(0.010)	(1.00)
Population (000s)	0.0010	-0.000084	-0.00015	0.00059	0.00095	-0.00013	-0.0015
	(0.0021)	(0.00010)	(0.00010)	(0.0034)	(0.0055)	(0.00012)	(0.0038)
Share of merger population	-0.067***	-0.0048**	-0.0048**	-0.28***	-0.067***	-0.0047**	-0.27***
	(0.019)	(0.0023)	(0.0022)	(0.057)	(0.018)	(0.0023)	(0.056)
Size of Largest Town (000s)	0.00068	0.00023***	0.000049	0.011***	0.0012**	0.00025**	0.012***
	(0.00066)	(0.000059)	(0.000085)	(0.0030)	(0.00062)	(0.000096)	(0.0030)
Constant	-0.40	0.22	0.22	19.9***	-0.45	0.18	17.5***
	(0.76)	(0.15)	(0.15)	(3.62)	(0.73)	(0.15)	(3.64)
R^2/Pseudo-R^2	0.632	0.514	0.540	0.620	0.620	0.508	0.610
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.18: Interactions between Language and Income Differences, with House Values and Political Preferences

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	0.016	0.012	-0.0057	-0.014	0.12***	0.012	0.037
	(0.054)	(0.0084)	(0.013)	(0.29)	(0.042)	(0.0072)	(0.27)
Diff. English-Speaking Proportion	-0.13**	0.0056	0.0064	0.17*	-0.0061	0.0060**	0.21***
	(0.053)	(0.0053)	(0.0064)	(0.096)	(0.014)	(0.0028)	(0.077)
Poorer than Merging Partners	-0.37	-0.017	0.0099	-2.61***	-0.94*	0.020	-0.52
	(0.50)	(0.032)	(0.033)	(0.91)	(0.50)	(0.034)	(1.19)
Larger Prop. English-Speaking	1.61***	0.11***	0.11***	4.07***	1.22***	0.15***	6.14***
	(0.45)	(0.039)	(0.039)	(1.09)	(0.37)	(0.051)	(1.56)
Diff. Median Income *	0.034***	0.00012	0.0048***	0.012			
Diff. English-Speaking Proportion	(0.011)	(0.00057)	(0.0012)	(0.012)			
Larger Prop. English-Speaking *					0.50	-0.080	-4.41*
Poorer than Merging Partners					(0.81)	(0.071)	(2.18)
Diff. House Values	0.012**	0.00070	0.0021***	0.026	0.0072	0.00079	0.035*
	(0.0053)	(0.00065)	(0.00076)	(0.025)	(0.0057)	(0.00052)	(0.020)
Diff. % of Votes for BQ	0.16***	0.013*	0.012**	0.15	0.11***	0.013*	0.17
	(0.050)	(0.0067)	(0.0058)	(0.12)	(0.039)	(0.0066)	(0.12)
(Diff. Median Income)^2			0.00089				
			(0.0014)				
(Diff. English-Speaking Proportion)^2			-0.00038*				
			(0.00021)				
(Diff. Median Income)^2 *			-0.00040**				
Diff. English-Speaking Proportion			(0.00016)				
(Diff. English-Speaking Proportion)^2 *			0.000052				
Diff. Median Income			(0.000048)				
Tax Impact (5 years)	-0.053***	-0.0046***	-0.0042**	-0.11*	-0.055***	-0.0047***	-0.12*
	(0.016)	(0.0016)	(0.0016)	(0.060)	(0.017)	(0.0017)	(0.059)
Diff. Public Spending (000s p.c.)	0.81***	0.049	0.11**	2.02	0.51**	0.046	1.87
	(0.28)	(0.045)	(0.050)	(1.45)	(0.24)	(0.045)	(1.35)
Distance to Core City	-0.015***	-0.0014	-0.00074	-0.018	-0.0097*	-0.0014	-0.017
	(0.0053)	(0.00086)	(0.00071)	(0.039)	(0.0056)	(0.00096)	(0.039)
Density	-0.32***	-0.043***	-0.027***	-2.31**	-0.17*	-0.045***	-2.45**
	(0.11)	(0.0096)	(0.0078)	(1.09)	(0.10)	(0.0070)	(1.09)
Population (000s)	0.0024**	-0.00011	-0.00011	0.0018	0.0019	-0.00011	0.0018
	(0.0012)	(0.00015)	(0.00014)	(0.0024)	(0.0014)	(0.00015)	(0.0023)
Share of merger population	-0.045***	-0.0029**	-0.0033***	-0.18***	-0.038***	-0.0029**	-0.18***
	(0.011)	(0.0012)	(0.0011)	(0.044)	(0.010)	(0.0012)	(0.043)
Size of Largest Town (000s)	-0.00042	0.00012	-0.000058	0.0081***	0.00015	0.00012	0.0080**
	(0.00034)	(0.000078)	(0.000093)	(0.0028)	(0.00037)	(0.000098)	(0.0030)
Constant	-2.61***	0.030	0.028	11.0***	-2.56***	0.018	10.2***
	(0.53)	(0.052)	(0.048)	(1.95)	(0.46)	(0.054)	(2.04)
R^2/Pseudo-R^2	0.688	0.537	0.579	0.593	0.644	0.540	0.599
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.19: Interactions between Language and Income Differences, with Direct Inclusion of the Level of Median Income and Share of English-Speakers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	0.058	0.011*	-0.0076	-0.23	0.14*	0.014***	-0.11
	(0.079)	(0.0060)	(0.017)	(0.19)	(0.084)	(0.0051)	(0.15)
Diff. English-Speaking Proportion	-0.073	0.0049	0.0060	0.064	-0.023	0.0066	0.12
	(0.050)	(0.0068)	(0.0085)	(0.12)	(0.041)	(0.0062)	(0.12)
Poorer than Merging Partners	-0.17	0.014	0.011	0.069	-0.68	0.051	2.36
	(0.50)	(0.046)	(0.045)	(1.31)	(0.51)	(0.051)	(1.64)
Larger Prop. English-Speaking	0.86**	0.078**	0.086**	3.20***	0.69	0.11*	5.20***
	(0.43)	(0.034)	(0.036)	(1.04)	(0.44)	(0.054)	(1.64)
Diff. Median Income * Diff. English-Speaking Proportion	0.021**	0.00039	0.0047***	0.015			
	(0.010)	(0.00045)	(0.0012)	(0.010)			
Larger Prop. English-Speaking *					0.43	-0.068	-4.50*
Poorer than Merging Partners					(0.68)	(0.073)	(2.26)
Median Income	0.0076	0.0047	0.0039	0.59**	0.0043	0.0061	0.65***
	(0.082)	(0.0099)	(0.0100)	(0.25)	(0.083)	(0.0090)	(0.22)
Proportion English-Speaking	0.058**	0.0041	0.0024	0.14*	0.066**	0.0045	0.15*
	(0.028)	(0.0043)	(0.0043)	(0.074)	(0.029)	(0.0043)	(0.079)
(Diff. Median Income)^2			0.0012				
			(0.0018)				
(Diff. English-Speaking Proportion)^2			-0.00018				
			(0.00017)				
(Diff. Median Income)^2 *			-0.00023*				
Diff. English-Speaking Proportion			(0.00012)				
(Diff. English-Speaking Proportion)^2 *			-0.00000068				
Diff. Median Income			(0.000037)				
Tax Impact (5 years)	-0.056***	-0.0047**	-0.0046**	-0.10*	-0.062***	-0.0048**	-0.12**
	(0.020)	(0.0018)	(0.0018)	(0.056)	(0.021)	(0.0019)	(0.055)
Diff. Public Spending (000s p.c.)	0.80**	0.066	0.10*	2.57*	0.70**	0.062	2.40
	(0.32)	(0.053)	(0.055)	(1.46)	(0.27)	(0.055)	(1.44)
Distance to Core City	-0.037*	-0.0012	-0.0011	-0.015	-0.034*	-0.0013	-0.018
	(0.022)	(0.0010)	(0.00089)	(0.038)	(0.020)	(0.0011)	(0.039)
Density	-0.13	-0.040***	-0.021**	-2.10**	-0.14	-0.042***	-2.20**
	(0.093)	(0.012)	(0.0091)	(1.00)	(0.10)	(0.0095)	(0.86)
Population (000s)	0.0024	-0.000027	-0.00011	0.0026	0.0028	-0.000050	0.0018
	(0.0017)	(0.00013)	(0.00012)	(0.0031)	(0.0021)	(0.00015)	(0.0032)
Share of merger population	-0.056***	-0.0030**	-0.0032***	-0.17***	-0.052***	-0.0031**	-0.18***
	(0.018)	(0.0011)	(0.0011)	(0.040)	(0.018)	(0.0012)	(0.039)
Size of Largest Town (000s)	-0.00061	0.00013	-0.000036	0.0061**	-0.00023	0.00013	0.0059**
	(0.00076)	(0.000090)	(0.00012)	(0.0029)	(0.00061)	(0.00011)	(0.0024)
Constant	-1.59	-0.032	-0.0033	-1.62	-1.74	-0.085	-3.94
	(1.75)	(0.22)	(0.23)	(6.05)	(1.80)	(0.20)	(5.43)
R^2/Pseudo-R^2	0.620	0.506	0.532	0.610	0.602	0.504	0.613
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.20: Interactions between Language and Income Differences, with Merger Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	-0.039	0.014*	0.00042	0.025	0.11***	0.023***	0.41*
	(0.055)	(0.0078)	(0.025)	(0.26)	(0.0071)	(0.0072)	(0.24)
Diff. English-Speaking Proportion	0.028	0.0073	0.00060	0.17***	0.15**	0.011**	0.32***
	(0.065)	(0.0065)	(0.015)	(0.054)	(0.064)	(0.0046)	(0.065)
Poorer than Merging Partners	-0.47	-0.018	-0.014	-1.95*	-7.07**	-0.034	-1.08
	(0.56)	(0.035)	(0.034)	(1.02)	(3.06)	(0.039)	(1.54)
Larger Prop. English-Speaking	0.38	0.080**	0.079**	2.72**	-0.15	0.062	3.63**
	(0.52)	(0.036)	(0.037)	(1.13)	(1.01)	(0.044)	(1.66)
Diff. Median Income * Diff. English-Speaking Proportion	0.035**	0.00053	0.0051***	0.025***			
	(0.014)	(0.00046)	(0.0016)	(0.0080)			
Larger Prop. English-Speaking *					6.18	0.035	-2.01
Poorer than Merging Partners					(3.89)	(0.084)	(2.86)
(Diff. Median Income)^2			0.00060				
			(0.0024)				
(Diff. English-Speaking Proportion)^2			-0.000042				
			(0.00019)				
(Diff. Median Income)^2 *			-0.00021**				
Diff. English-Speaking Proportion			(0.000095)				
(Diff. English-Speaking Proportion)^2 *			-0.000016				
Diff. Median Income			(0.000025)				
Tax Impact (5 years)	-0.12***	-0.0043**	-0.0042**	-0.11*	-0.16***	-0.0042**	-0.11*
	(0.027)	(0.0018)	(0.0018)	(0.059)	(0.035)	(0.0018)	(0.061)
Diff. Public Spending (000s p.c.)	1.31	0.13***	0.17***	2.92***	2.24	0.13***	3.03***
	(1.73)	(0.027)	(0.029)	(1.02)	(1.47)	(0.029)	(1.02)
Distance to Core City	0.0030	-0.0023**	-0.0024***	0.029	-0.029	-0.0026**	0.016
	(0.017)	(0.0011)	(0.00085)	(0.037)	(0.10)	(0.0011)	(0.034)
Density	-0.72***	-0.072***	-0.049*	-3.54***	-0.95*	-0.071***	-3.51***
	(0.20)	(0.021)	(0.027)	(0.46)	(0.53)	(0.022)	(0.40)
Population (000s)	0.0028	-0.0000033	-0.000071	-0.00014	0.012	-0.000040	-0.0020
	(0.0070)	(0.00013)	(0.00013)	(0.0050)	(0.017)	(0.00014)	(0.0053)
Share of merger population	-0.13***	-0.0034**	-0.0036**	-0.16***	-0.15***	-0.0034**	-0.16***
	(0.042)	(0.0014)	(0.0014)	(0.039)	(0.034)	(0.0014)	(0.039)
Size of Largest Town (000s)	0.29	-0.029	-0.035***	2.67***	0.48	-0.019	3.04***
	(0.22)	(0.019)	(0.011)	(0.35)	(0.38)	(0.015)	(0.41)
Constant	-1.31	0.25*	0.29***	-0.78	-2.56	0.18*	-4.12
	(1.38)	(0.12)	(0.080)	(1.88)	(2.64)	(0.099)	(2.75)
Merger Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2/Pseudo-R^2	0.773	0.628	0.647	0.753	0.767	0.623	0.743
F/χ^2, p-value	n.a.[a]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
N	72	194	194	194	72	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
[a] The F-test/χ^2 test with fixed effects and clustered standard errors cannot be estimated (not enough information).
Significance levels: *** 1% ** 5% * 10%

Table D.21: Interactions between Language and Income Differences, with Main Variables not in Absolute Value

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (thousands), raw	0.074	0.0077	0.0067	0.47	0.093*	0.014*	0.61***
	(0.066)	(0.0099)	(0.0093)	(0.28)	(0.054)	(0.0083)	(0.21)
Diff. English-Speaking Proportion, raw	0.028	0.0070*	0.0091***	0.17***	0.038*	0.010***	0.24***
	(0.018)	(0.0038)	(0.0030)	(0.052)	(0.021)	(0.0035)	(0.050)
Poorer than Merging Partners	0.21	0.036	0.043	0.27	-0.28	0.11*	3.08*
	(0.37)	(0.058)	(0.057)	(1.54)	(0.46)	(0.060)	(1.60)
Larger Prop. English-Speaking	0.81**	0.059	0.053	2.87**	0.74**	0.081	4.56**
	(0.34)	(0.046)	(0.042)	(1.22)	(0.38)	(0.059)	(1.81)
Diff. Median Income * Diff. English-Speaking Proportion	0.0051	0.00064*	0.0020	0.015*			
	(0.0050)	(0.00033)	(0.0013)	(0.0074)			
Larger Prop. English-Speaking *					0.53	-0.088	-4.48**
Poorer than Merging Partners					(0.64)	(0.068)	(2.11)
(Diff. Median Income)^2			0.00092				
			(0.00071)				
(Diff. English-Speaking Proportion)^2			-0.000080				
			(0.000071)				
(Diff. Median Income)^2 *			-0.00012*				
Diff. English-Speaking Proportion			(0.000059)				
(Diff. English-Speaking Proportion)^2 *			0.0000055				
Diff. Median Income			(0.000022)				
Tax Impact (5 years)	-0.045**	-0.0047**	-0.0048**	-0.11*	-0.048**	-0.0048**	-0.12**
	(0.019)	(0.0018)	(0.0020)	(0.059)	(0.021)	(0.0018)	(0.058)
Diff. Public Spending (000s p.c.)	0.44	0.072	0.081	2.30	0.49*	0.077	2.35
	(0.30)	(0.052)	(0.067)	(1.71)	(0.30)	(0.055)	(1.75)
Distance to Core City	-0.028	-0.0010	-0.0013	-0.015	-0.024	-0.00090	-0.014
	(0.018)	(0.00089)	(0.0011)	(0.037)	(0.018)	(0.00098)	(0.038)
Density	-0.11	-0.029	-0.025	-1.79	-0.14*	-0.027**	-1.79*
	(0.098)	(0.018)	(0.015)	(1.19)	(0.082)	(0.013)	(1.00)
Population (000s)	0.0015	0.000041	-0.000022	0.0048	0.0021	0.000080	0.0056
	(0.0023)	(0.00016)	(0.00017)	(0.0035)	(0.0033)	(0.00017)	(0.0035)
Share of merger population	-0.039***	-0.0027**	-0.0030**	-0.17***	-0.037***	-0.0025**	-0.17***
	(0.010)	(0.0011)	(0.0012)	(0.042)	(0.011)	(0.0011)	(0.042)
Size of Largest Town (000s)	0.00032	0.00018**	0.00013	0.0080**	0.00066*	0.00020**	0.0080***
	(0.00048)	(0.000076)	(0.00012)	(0.0032)	(0.00038)	(0.000098)	(0.0029)
Constant	-1.33***	0.11*	0.10	10.5***	-1.47***	0.069	9.44***
	(0.42)	(0.056)	(0.062)	(2.20)	(0.46)	(0.058)	(2.19)
R^2/Pseudo-R^2	0.555	0.483	0.500	0.585	0.546	0.472	0.587
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.22: Interactions between Language and Income Differences, with Additional Socio-Economic Differences

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	0.041	0.0082	-0.0056	-0.12	0.14**	0.012	-0.019
	(0.090)	(0.0074)	(0.016)	(0.24)	(0.058)	(0.0070)	(0.20)
Diff. English-Speaking Proportion	-0.042	0.0092*	0.0094	0.22**	0.054**	0.011***	0.27***
	(0.033)	(0.0052)	(0.0085)	(0.085)	(0.023)	(0.0037)	(0.067)
Poorer than Merging Partners	-0.34	-0.037	-0.034	-3.61***	-1.83**	-0.016	-1.61
	(0.47)	(0.040)	(0.039)	(1.01)	(0.80)	(0.032)	(1.28)
Larger Prop. English-Speaking	1.50***	0.099***	0.10***	3.96***	1.04***	0.12**	5.98***
	(0.50)	(0.034)	(0.034)	(0.96)	(0.39)	(0.052)	(1.58)
Diff. Median Income * Diff. English-Speaking Proportion	0.040**	0.00036	0.0047***	0.012			
	(0.017)	(0.00046)	(0.0012)	(0.0089)			
Larger Prop. English-Speaking *					1.64*	-0.047	-4.35*
Poorer than Merging Partners					(0.87)	(0.078)	(2.37)
(Diff. Median Income)^2			0.00045				
			(0.0015)				
(Diff. English-Speaking Proportion)^2			-0.00019				
			(0.00018)				
(Diff. Median Income)^2 *			-0.00022*				
Diff. English-Speaking Proportion			(0.00013)				
(Diff. English-Speaking Proportion)^2 *			-0.0000041				
Diff. Median Income			(0.000039)				
Tax Impact (5 years)	-0.064***	-0.0043**	-0.0044**	-0.11**	-0.065***	-0.0045**	-0.12**
	(0.020)	(0.0017)	(0.0017)	(0.052)	(0.018)	(0.0017)	(0.049)
Diff. Public Spending (000s p.c.)	0.87***	0.043	0.077	1.55	0.64***	0.036	1.25
	(0.32)	(0.057)	(0.055)	(1.33)	(0.21)	(0.059)	(1.24)
Distance to Core City	-0.020	-0.0010	-0.00081	-0.0015	-0.016	-0.0011	-0.0029
	(0.017)	(0.00087)	(0.00061)	(0.031)	(0.017)	(0.00092)	(0.032)
Density	-0.10	-0.029*	-0.0093	-2.21**	-0.13	-0.032**	-2.38***
	(0.11)	(0.016)	(0.010)	(0.86)	(0.15)	(0.013)	(0.81)
Population (000s)	-0.0082	-0.0000094	-0.000069	0.0052	-0.0036	-0.000016	0.0051
	(0.014)	(0.00015)	(0.00014)	(0.0033)	(0.0076)	(0.00016)	(0.0034)
Share of merger population	-0.060***	-0.0026**	-0.0028***	-0.15***	-0.044***	-0.0026**	-0.15***
	(0.018)	(0.0010)	(0.00099)	(0.036)	(0.016)	(0.0010)	(0.036)
Size of Largest Town (000s)	-0.0019**	-0.000052	-0.00023	0.0013	-0.00027	-0.000050	0.00095
	(0.00091)	(0.00016)	(0.00014)	(0.0040)	(0.00072)	(0.00015)	(0.0032)
Diff. Median Age	0.16*	0.0087	0.012	0.075	0.12*	0.0074	0.015
	(0.097)	(0.0071)	(0.0078)	(0.31)	(0.066)	(0.0073)	(0.30)
Diff. Unemployment Rate	0.034	0.0047	0.0044	-0.084	0.040	0.0036	-0.15
	(0.056)	(0.0069)	(0.0072)	(0.23)	(0.057)	(0.0068)	(0.23)
Diff. % of Visible Minorities	0.17***	0.026	0.027	0.82***	0.13**	0.027	0.86***
	(0.059)	(0.020)	(0.016)	(0.27)	(0.065)	(0.019)	(0.24)
Diff. % University-Educated	-0.025	0.0029	0.0021	0.29***	0.0056	0.0036	0.30***
	(0.023)	(0.0055)	(0.0049)	(0.10)	(0.038)	(0.0052)	(0.082)
Diff. % Recent Intra-Provincial Migrants	-0.13**	-0.0019	-0.0048	-0.14	-0.093*	-0.0018	-0.13
	(0.059)	(0.0030)	(0.0031)	(0.11)	(0.053)	(0.0031)	(0.11)
Diff. Inequality (Ratio Avg. to Median Income)	-5.56**	-0.31	-0.12	-6.39	-5.08***	-0.24	-3.16
	(2.41)	(0.23)	(0.24)	(7.74)	(1.72)	(0.21)	(7.15)
Constant	-1.49**	0.051	0.045	11.0***	-1.85***	0.029	10.1***
	(0.65)	(0.055)	(0.058)	(1.86)	(0.64)	(0.053)	(1.99)
R^2/Pseudo-R^2	0.699	0.544	0.572	0.641	0.656	0.542	0.646
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.23: Interactions between Language and Income Differences, with Pre-Merger Tax Rate

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	0.070	0.013	-0.0087	0.026	0.15***	0.018***	0.29
	(0.044)	(0.0083)	(0.015)	(0.27)	(0.047)	(0.0066)	(0.24)
Diff. English-Speaking Proportion	0.00083	0.0086	0.0076	0.17**	0.050*	0.011***	0.30***
	(0.034)	(0.0051)	(0.0080)	(0.077)	(0.026)	(0.0039)	(0.078)
Poorer than Merging Partners	-0.16	0.0064	0.0076	-2.43**	-0.74	0.023	-0.82
	(0.37)	(0.037)	(0.039)	(1.11)	(0.45)	(0.040)	(1.39)
Larger Prop. English-Speaking	0.98***	0.095***	0.096***	3.90***	0.80**	0.11**	5.65***
	(0.35)	(0.032)	(0.033)	(1.04)	(0.40)	(0.049)	(1.64)
Diff. Median Income * Diff. English-Speaking Proportion	0.018**	0.00047	0.0049***	0.022**			
	(0.0089)	(0.00038)	(0.0013)	(0.0085)			
Larger Prop. English-Speaking *					0.61	-0.041	-3.77
Poorer than Merging Partners					(0.76)	(0.077)	(2.29)
(Diff. Median Income)^2			0.0015				
			(0.0016)				
(Diff. English-Speaking Proportion)^2			-0.00019				
			(0.00015)				
(Diff. Median Income)^2 *			-0.00025**				
Diff. English-Speaking Proportion			(0.00011)				
(Diff. English-Speaking Proportion)^2 *			0.0000027				
Diff. Median Income			(0.000035)				
Tax level, 2001	-0.83**	-0.088*	-0.084*	-1.94	-1.01**	-0.083	-1.60
	(0.41)	(0.048)	(0.045)	(1.44)	(0.45)	(0.049)	(1.53)
Tax Impact (5 years)	-0.045**	-0.0042**	-0.0042**	-0.11*	-0.049**	-0.0043**	-0.12**
	(0.020)	(0.0017)	(0.0017)	(0.057)	(0.021)	(0.0018)	(0.058)
Diff. Public Spending (000s p.c.)	0.62**	0.055	0.098*	2.04	0.56**	0.050	1.74
	(0.26)	(0.052)	(0.053)	(1.59)	(0.23)	(0.057)	(1.67)
Distance to Core City	-0.027	-0.00093	-0.00082	-0.017	-0.023	-0.0010	-0.024
	(0.022)	(0.0012)	(0.0010)	(0.047)	(0.022)	(0.0013)	(0.049)
Density	-0.11	-0.034*	-0.014	-2.00	-0.087	-0.037**	-2.15*
	(0.077)	(0.018)	(0.013)	(1.29)	(0.081)	(0.016)	(1.15)
Population (000s)	0.0016	-0.000042	-0.00010	0.0017	0.0021	-0.000081	-0.00013
	(0.0010)	(0.00012)	(0.00011)	(0.0030)	(0.0013)	(0.00013)	(0.0034)
Share of merger population	-0.038***	-0.0025**	-0.0027**	-0.17***	-0.034***	-0.0026**	-0.17***
	(0.010)	(0.0011)	(0.0011)	(0.048)	(0.0099)	(0.0011)	(0.048)
Size of Largest Town (000s)	0.00022	0.00018***	0.00000030	0.0086***	0.00069	0.00020**	0.0092***
	(0.00050)	(0.000059)	(0.000091)	(0.0030)	(0.00050)	(0.000089)	(0.0028)
Constant	-0.52	0.19**	0.21**	14.3***	-0.51	0.16	12.5***
	(0.61)	(0.095)	(0.096)	(2.85)	(0.63)	(0.100)	(3.12)
R^2/Pseudo-R^2	0.627	0.513	0.541	0.590	0.615	0.509	0.585
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.24: Interactions between Language and Income Differences, with Tax Increase in the 2001-2004 Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	0.062	0.013	-0.0090	0.041	0.15***	0.018**	0.29
	(0.041)	(0.0091)	(0.016)	(0.29)	(0.051)	(0.0070)	(0.25)
Diff. English-Speaking Proportion	-0.012	0.0091*	0.0092	0.18**	0.047**	0.011***	0.30***
	(0.036)	(0.0051)	(0.0079)	(0.078)	(0.024)	(0.0038)	(0.077)
Poorer than Merging Partners	-0.080	-0.0017	0.00072	-2.70**	-0.57	0.025	-0.85
	(0.40)	(0.039)	(0.040)	(1.12)	(0.47)	(0.041)	(1.39)
Larger Prop. English-Speaking	1.07***	0.094***	0.094***	3.92***	0.92**	0.12**	5.85***
	(0.38)	(0.033)	(0.033)	(1.10)	(0.42)	(0.052)	(1.64)
Diff. Median Income * Diff. English-Speaking Proportion	0.022**	0.00044	0.0049***	0.022**			
	(0.011)	(0.00039)	(0.0015)	(0.0087)			
Larger Prop. English-Speaking *					0.50	-0.059	-4.17*
Poorer than Merging Partners					(0.67)	(0.074)	(2.23)
(Diff. Median Income)^2			0.0015				
			(0.0016)				
(Diff. English-Speaking Proportion)^2			-0.00020				
			(0.00017)				
(Diff. Median Income)^2 *			-0.00025**				
Diff. English-Speaking Proportion			(0.00012)				
(Diff. English-Speaking Proportion)^2 *			-0.0000011				
Diff. Median Income			(0.000037)				
Tax Increase, 2001-2004 (%)	0.0032	0.00067	0.00082	0.0058	0.0047	0.00068	0.0061
	(0.0061)	(0.00077)	(0.00073)	(0.018)	(0.0063)	(0.00078)	(0.019)
Tax Impact (5 years)	-0.047**	-0.0044**	-0.0042**	-0.11*	-0.050**	-0.0045**	-0.13**
	(0.020)	(0.0019)	(0.0018)	(0.060)	(0.022)	(0.0019)	(0.060)
Diff. Public Spending (000s p.c.)	0.57**	0.053	0.095*	2.02	0.44*	0.047	1.72
	(0.26)	(0.055)	(0.054)	(1.64)	(0.25)	(0.059)	(1.70)
Distance to Core City	-0.035	-0.0013	-0.0011	-0.026	-0.032	-0.0014	-0.031
	(0.022)	(0.0012)	(0.0011)	(0.045)	(0.022)	(0.0013)	(0.049)
Density	-0.18**	-0.037*	-0.015	-2.14	-0.16*	-0.039**	-2.26*
	(0.089)	(0.019)	(0.015)	(1.27)	(0.089)	(0.016)	(1.12)
Population (000s)	0.00096	-0.000092	-0.00016	0.00078	0.0013	-0.00013	-0.00088
	(0.0012)	(0.00011)	(0.00011)	(0.0034)	(0.0014)	(0.00013)	(0.0037)
Share of merger population	-0.041***	-0.0026*	-0.0026**	-0.17***	-0.037***	-0.0026*	-0.18***
	(0.012)	(0.0013)	(0.0012)	(0.050)	(0.012)	(0.0014)	(0.050)
Size of Largest Town (000s)	0.00024	0.00019***	-0.0000036	0.0086***	0.00077	0.00021**	0.0092***
	(0.00053)	(0.000068)	(0.000096)	(0.0031)	(0.00047)	(0.000096)	(0.0030)
Constant	-1.70***	0.042	0.052	11.3***	-1.98***	0.018	9.98***
	(0.65)	(0.065)	(0.066)	(2.11)	(0.67)	(0.068)	(2.34)
R^2/Pseudo-R^2	0.608	0.504	0.535	0.585	0.588	0.501	0.581
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table D.25: Interactions between Language and Income Differences, with Increase in Taxes Paid by Average Household in the 2001-2004 Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1 (Continuous)				Model 2 (Binary)		
	Separation			% Signatures in Register	Separation		% Signatures in Register
	Probit	OLS	OLS	OLS	Probit	OLS	OLS
Diff. Median Income (000s)	0.079*	0.013	-0.0094	0.042	0.16***	0.018**	0.29
	(0.043)	(0.0089)	(0.015)	(0.29)	(0.052)	(0.0068)	(0.24)
Diff. English-Speaking Proportion	-0.0047	0.0092*	0.0089	0.18**	0.050**	0.012***	0.30***
	(0.035)	(0.0050)	(0.0077)	(0.079)	(0.023)	(0.0037)	(0.077)
Poorer than Merging Partners	-0.12	-0.0051	-0.0038	-2.73**	-0.66	0.020	-0.89
	(0.39)	(0.036)	(0.037)	(1.09)	(0.46)	(0.040)	(1.38)
Larger Prop. English-Speaking	1.08***	0.093***	0.094***	3.92***	0.93**	0.12**	5.83***
	(0.39)	(0.032)	(0.032)	(1.09)	(0.44)	(0.051)	(1.64)
Diff. Median Income * Diff. English-Speaking Proportion	0.020**	0.00042	0.0049***	0.022**			
	(0.010)	(0.00038)	(0.0014)	(0.0088)			
Larger Prop. English-Speaking *					0.56	-0.058	-4.15*
Poorer than Merging Partners					(0.68)	(0.074)	(2.22)
(Diff. Median Income)^2			0.0016				
			(0.0016)				
(Diff. English-Speaking Proportion)^2			-0.00019				
			(0.00016)				
(Diff. Median Income)^2 *			-0.00025**				
Diff. English-Speaking Proportion			(0.00011)				
(Diff. English-Speaking Proportion)^2 *			-0.00000023				
Diff. Median Income			(0.000036)				
Inc. in Average Tax Payment, 2001-2004 (%)	0.0053	0.00067	0.00070	0.0059	0.0072	0.00070	0.0069
	(0.0045)	(0.00062)	(0.00058)	(0.014)	(0.0046)	(0.00063)	(0.015)
Tax Impact (5 years)	-0.049**	-0.0045**	-0.0044**	-0.12*	-0.053**	-0.0047**	-0.13**
	(0.019)	(0.0018)	(0.0018)	(0.059)	(0.021)	(0.0019)	(0.059)
Diff. Public Spending (000s p.c.)	0.58**	0.052	0.094	2.01	0.49**	0.046	1.71
	(0.28)	(0.056)	(0.055)	(1.64)	(0.25)	(0.060)	(1.70)
Distance to Core City	-0.037	-0.0014	-0.0012	-0.026	-0.034	-0.0015	-0.032
	(0.023)	(0.0012)	(0.0010)	(0.045)	(0.023)	(0.0013)	(0.048)
Density	-0.14*	-0.035*	-0.014	-2.12*	-0.12	-0.037**	-2.23**
	(0.085)	(0.020)	(0.015)	(1.25)	(0.086)	(0.018)	(1.10)
Population (000s)	0.00088	-0.00010	-0.00016	0.00070	0.0012	-0.00013	-0.00097
	(0.0011)	(0.00011)	(0.00011)	(0.0033)	(0.0013)	(0.00013)	(0.0036)
Share of merger population	-0.038***	-0.0024*	-0.0025**	-0.17***	-0.034***	-0.0024*	-0.17***
	(0.011)	(0.0012)	(0.0012)	(0.048)	(0.010)	(0.0013)	(0.048)
Size of Largest Town (000s)	0.00030	0.00019***	-0.0000056	0.0086***	0.00076	0.00020**	0.0091***
	(0.00054)	(0.000064)	(0.000096)	(0.0030)	(0.00047)	(0.000091)	(0.0029)
Constant	-2.05***	0.021	0.036	11.1***	-2.43***	-0.0046	9.73***
	(0.71)	(0.067)	(0.069)	(2.21)	(0.73)	(0.070)	(2.41)
R^2/Pseudo-R^2	0.614	0.506	0.535	0.585	0.598	0.503	0.582
F/χ^2, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	194	194	194	194	194	194	194

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

D.4 Robustness Checks: The Role of Turnout

Table D.26: Determinants of De-Mergers: Robustness Test with Turnout (Outcome: *Separation*)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Probit				OLS		
	Coef.	M.E.	Coef.	M.E.			
Diff. Median Income (000s)	0.13**	0.019**	0.045	0.037	0.021	0.023	0.089*
	(0.064)	(0.0088)	(0.049)	(0.014)	(0.014)	(0.018)	(0.043)
Diff. English-Speaking Proportion	0.058**	0.0083**	-0.016	0.011	0.0071*	0.0077	0.0089
	(0.028)	(0.0033)	(0.038)	(0.0030)	(0.0036)	(0.0050)	(0.010)
Poorer than Merging Partners	0.38	0.054	0.57	0.073	0.0097	0.012	0.046
	(0.51)	(0.076)	(0.57)	(0.074)	(0.093)	(0.095)	(0.093)
Larger Prop. English-Speaking	0.86	0.12	0.82	0.11	0.16*	0.16*	0.15*
	(0.54)	(0.070)	(0.61)	(0.073)	(0.086)	(0.084)	(0.078)
Diff. Median Income *			0.028**			-0.00011	0.0026*
Diff. English-Speaking Proportion			(0.013)			(0.00044)	(0.0013)
Turnout	0.090***	0.013***	0.084***	0.011***	0.012***	0.012***	0.013***
	(0.034)	(0.0035)	(0.031)	(0.0032)	(0.0043)	(0.0043)	(0.0038)
(Diff. Median Income)^2							-0.0064*
							(0.0036)
(Diff. English-Speaking Proportion)^2							-0.00016
							(0.00018)
(Diff. Median Income)^2 *							-0.000070
Diff. English-Speaking Proportion							(0.000098)
(Diff. English-Speaking Proportion)^2 *							-0.0000044
Diff. Median Income							(0.000032)
Tax Impact (5 years)	-0.047**	-0.0066**	-0.046**	-0.0059**	-0.0084***	-0.0084***	-0.0086***
	(0.022)	(0.0023)	(0.021)	(0.0020)	(0.0030)	(0.0030)	(0.0030)
Diff. Public Spending (000s p.c.)	0.59***	0.084***	0.83***	0.11***	0.11***	0.11***	0.19***
	(0.22)	(0.019)	(0.25)	(0.022)	(0.026)	(0.026)	(0.030)
Distance to Core City	-0.0024	-0.00034	-0.0030	-0.00039	-0.0016	-0.0016	-0.0013
	(0.0045)	(0.00066)	(0.0045)	(0.00058)	(0.0011)	(0.0011)	(0.00096)
Density	-0.056	-0.0080	0.069	0.0090	-0.0032	-0.0011	0.041
	(0.20)	(0.029)	(0.25)	(0.032)	(0.030)	(0.035)	(0.051)
Population (000s)	0.018	0.0025	0.014	0.0018	0.0019	0.0018	0.0016
	(0.015)	(0.0019)	(0.015)	(0.0018)	(0.0031)	(0.0031)	(0.0029)
Share of merger population	-0.029	-0.0041	-0.040	-0.0052	-0.0044	-0.0042	-0.0057
	(0.035)	(0.0049)	(0.032)	(0.0040)	(0.0042)	(0.0042)	(0.0037)
Size of Largest Town (000s)	0.00028	0.000040	-0.00043	-0.000055	0.000080	0.000084	-0.00013
	(0.00051)	(0.000078)	(0.00072)	(0.000087)	(0.00012)	(0.00012)	(0.00013)
Constant	-7.30***		-6.70***		-0.57**	-0.58**	-0.76***
	(2.39)		(2.10)		(0.26)	(0.28)	(0.26)
R^2/Pseudo-R^2	0.597		0.630		0.551	0.551	0.602
F/χ^2, p-value	0.000		0.000		0.000	0.000	0.000
N	81		81		81	81	81

Note: Clustered (by merger) robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Appendix E Spatial Interactions

In this Appendix, I provide additional details on the estimations correcting for potential spatial interactions between voters of different towns in the same merger. To do so, I limit the analysis to towns that had a referendum. Those that did not gather enough signatures are not relevant since at the second stage of the consultation, i) they do not make a choice, and ii) there is no uncertainty on their final choice. Reducing the number of towns in the sample inevitably leads to a sample selection problem. However, this sub-section abstracts from this problem, since it was already discussed in the discussion on turnout.

In the first step of the consultation process, voters in the 213 towns had to sign a register. The percentage of registered voters who signed it in each town will stand in for the expected "strength" of the secessionist movement in that town. Voters in every neighbouring town observe that percentage, and can use it when choosing how to vote in the second stage. I will calculate the overall expectations of voters in town i on votes of neighbouring towns in two ways. First, I will calculate the average percentage of register signatures in neighbouring towns simply weighted by population. Note that the sample is reduced only to those towns that had a referendum. Second, I will weight these percentages not only by population, but also by language similarity (i.e., $1 - \left|ShareEnglish_i - ShareEnglish_j\right|$). This second variable will capture the idea that voters in a given town react more to their expectations of votes in towns that are similar to them.

Table E.1 presents the results of Probit estimations when including the weighted averages of register signatures. In these estimations, we report only robust (not clustered) standard errors given the low number of observations and clusters. The interaction term between language and income is, once again, robust to this specification, although only at the 10% level of significance when including all controls.

The results on the average share of register signatures themselves are also interesting. First, note that they are significantly positive in almost all specifications, so that when voters in a given town observe that their neighbours have strong secessionist movements in the first consultation stage, they also are more likely to secede. This effect is also marginally stronger and more significant when using language similarity weights, which would indicate, as expected, a stronger relationship in voting expectations between culturally similar towns.

While these results are interesting, the percentages of voters signing the registers are strongly correlated with the actual referendum results. Therefore, I am essentially estimating a model with a spatial lag. These models are inconsistent when estimated with OLS or Probit. For that reason, I also provide results from estimations that explicitly account for the spatial correlation between the votes for secession in neighbouring towns using MLE methods. This type of model requires the definition of a matrix of spatial weights indicating the relationship between two towns. I define two such matrices. The first (W) is simply a neighbourhood matrix. Weights for town i take value $1/n_i$ for each n_i town that is part of the same merger as town i. The second matrix (W_{lang}) puts greater weights on towns that are more similar in terms of language composition.

Table E.2 presents the results of estimations using two models.[46] The first, in columns 1 and 2, is the usual spatial auto-regressive model (SAR), with ρ as the spatial lag:

$$Secession = \rho \cdot W \cdot Secession + \mathbf{X} \cdot \beta + \epsilon$$
$$\epsilon \sim N(0, \sigma^2 I_n)$$

The second model (SEM), in columns 3 and 4, includes spatial dependence in the error term

[46] Both models are estimated with MLE methods in MATLAB using the *sar* and *sem* functions of the Spatial Econometrics Toolbox developed by James P. Lesage.

instead, which is captured by the parameter λ:

$$\begin{aligned} Secession &= \mathbf{X} \cdot \beta + u \\ u &= \lambda \cdot W \cdot u + \epsilon \\ \epsilon &\sim N(0, \sigma^2 I_n) \end{aligned}$$

First, note that the interaction effect between language and income differences is still positive, as in the main results. This result is thus robust to the inclusion of a spatial lag. Second, the spatial lag ρ is also significant, but only when using W_{lang} and only at the 10% level of significance. This finding is consistent with the results using signature registers in Table E.1. Finally, note that λ is statistically significant using both weight matrices, indicating that the data exhibit spatial dependence through the error terms. This result could indicate the existence of a possibly-unobservable spatially correlated explanatory variable.

Table E.1: Probit Estimations Including the Weighted Average of the Percentage of Register Signatures in Neighbouring Towns

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Avg. % Register Signatures	0.0829**	0.0916*	0.0805**	0.0948*				
(Language-weighted)	(0.04)	(0.05)	(0.04)	(0.05)				
Avg. % Register Signatures					0.0556*	0.0785	0.0542*	0.0848*
(Population-weighted)					(0.03)	(0.05)	(0.03)	(0.05)
Diff. Median Income (thousands)	0.1585***	0.1569**	0.0716	0.0652	0.1714***	0.1621**	0.0838	0.0664
	(0.06)	(0.07)	(0.08)	(0.11)	(0.06)	(0.07)	(0.08)	(0.11)
Diff. % English-Speakers	0.0306**	0.0410**	-0.0320	-0.0353	0.0354**	0.0434**	-0.0282	-0.0344
	(0.02)	(0.02)	(0.04)	(0.05)	(0.02)	(0.02)	(0.03)	(0.05)
Interaction Term			0.0210**	0.0250*			0.0218**	0.0253*
			(0.01)	(0.01)			(0.01)	(0.01)
More English-Speaking	0.3545	0.8040	0.3191	0.8508	0.2593	0.7675	0.2161	0.8250
	(0.43)	(0.73)	(0.45)	(0.75)	(0.43)	(0.71)	(0.44)	(0.74)
Poorer than Merging Partners	0.3680	-0.7518	0.6316	-0.1972	0.3981	-0.7496	0.6730	-0.1977
	(0.50)	(0.62)	(0.46)	(0.50)	(0.48)	(0.61)	(0.46)	(0.50)
Constant	-3.4193***	-3.1909**	-3.1618***	-2.7142**	-2.9402***	-3.0533**	-2.7098***	-2.5934**
	(0.80)	(1.28)	(0.78)	(1.10)	(0.70)	(1.31)	(0.71)	(1.12)
N	72	70	72	70	73	70	73	70
Pseudo-R^2	0.410	0.622	0.456	0.649	0.392	0.615	0.440	0.644
χ^2	34.9	45.7	24.4	44.0	31.6	44.9	22.7	44.3
Controls	No	Yes	No	Yes	No	Yes	No	Yes

Note: Robust standard errors in parentheses.
Significance levels: *** 1% ** 5% * 10%

Table E.2: Spatial Econometrics Estimations (MLE)

	(1)	(2)	(3)	(4)
ρ	0.133	0.143*		
	(1.571)	(1.678)		
λ			0.173**	0.175**
			(1.968)	(1.997)
Diff. English-Speaking Proportion	-0.00099	-0.00093	-0.00146	-0.00145
	(-0.204)	(-0.190)	(-0.299)	(-0.298)
Diff. Median Income (thousands)	-0.00021	-0.00036	-0.00010	-0.00049
	(-0.010)	(-0.018)	(-0.005)	(-0.024)
Interaction term	0.00398***	0.00393***	0.00409***	0.00409***
	(2.529)	(2.499)	(2.616)	(2.615)
(Diff. Median Income)^2	0.00082	0.00084	0.00081	0.00085
	(0.448)	(0.460)	(0.428)	(0.446)
(Diff. Median Income)^2 * Diff. English-Speaking Proportion	-0.00019**	-0.00019**	-0.00019**	-0.00020**
	(-2.114)	(-2.015)	(-2.165)	(-2.178)
Larger Proportion English-speaking	0.0988***	0.101***	0.0906**	0.0902**
	(2.647)	(2.682)	(2.518)	(2.505)
Poorer than Merging Partners	-0.00587	-0.00640	-0.00392	-0.00372
	(-0.155)	(-0.169)	(-0.107)	(-0.102)
Constant	0.0891	0.0900	0.101*	0.101*
	(1é536)	(1.557)	(1.699)	(1.687)
Neighbourhood Weight Matrix	W	W_{lang}	W	W_{lang}
Controls[a]	Yes	Yes	Yes	Yes
N	194	194	194	194
R^2	0.510	0.511	0.524	0.525

Note: Estimated in MATLAB using the *sar* and *sem* functions of the Spatial Econometrics Toolbox developed by James P. Lesage. Asymptotic t-statistics in parentheses.
Significance levels: *** 1% ** 5% * 10%

[a] Controls include Difference in Public Spending per Capita, Tax Impact (5 years), Distance to core city, Population Density, Share of merger population, Size of Largest Town in Merger (thousands).