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Chaire Administration suisse et politiques institutionnelles



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What explains electoral turnout in Swiss municipalities?

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Abstract

What explains the higher electoral turnout in some of the Swiss municipalities? Since there are important differences as far as size, socio-economic structure, importance, political systems and the prevailing political culture are concerned, the Swiss municipalities offer a laboratory-like field of research. Using aggregate level data from our own surveys and from official sources covering the whole country this paper investigates the determinants of voting turnout at the local level. It comes to the following conclusion: The level of electoral turnout in Swiss municipalities depends to an important extent on institutional variables. If the executive is elected in a citizens' assembly there are considerably fewer people participating than in elections at the polls. PR also has a positive effect on turnout, whereas it cannot be shown that having a local parliament leads to higher turnout (and thus to increased interest in politics). Another important variable is the size of a municipality. In smaller municipalities turnout is consistently higher than in bigger ones. As for the importance of Catholicism for turnout, our study confirms the findings of Freitag (2005) at the cantonal level. The Catholic milieu has a positive impact on participation.

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INTRODUCTION

Local elections in Switzerland are by no means second-order elections. Especially the smaller municipalities enjoy on average an even higher turnout when it comes to electing their municipal executives than cantonal or even national elections. Many scholars and observers unfamiliar with the Swiss context, however, are astonished by the generally low turnout figures which are around 50 per cent and which have slightly dropped in the last 15 years.

Our regular nationwide surveys among all 2700 Swiss municipalities – they are the only reliable way to gather turnout figures on a local level for the whole country – allow not only a thorough analysis of the latest developments but also offer an excellent opportunity to investigate the determinants of participation at the local level.

What explains the higher electoral turnout in some of the municipalities? Since there are important differences as far as size, socio-economic structure, importance, political systems and the prevailing political culture are concerned, the Swiss municipalities offer a laboratory-like field of research to investigate the driving factors behind electoral participation. Is it the size of the municipality or the bigger number of social problems the municipalities are confronted with? Is it the electoral system? Is it the fact that some municipalities have more active political parties? Or are socio-demographic and cultural factors responsible for the different turnout figures?

This paper draws on previous studies by the author (Ladner 1996, Ladner/Milner 1999 and Milner/Ladner 2006) and similar research attempts at cantonal level (Freitag 2005). It is based on data that are more recent and includes new and promising independent variables such as the number of social problems the municipalities are confronted with and the competitiveness of elections.

ELECTORAL TURNOUT IN SWISS MUNICIPALITIES – THE DEPENDENT VARIABLE AND THE DIFFERENCES TO EXPLAIN

In Switzerland, electoral turnout at local level usually refers to the elections of the local executive. These are the only elections which take place in almost all municipalities,¹ since the small size and the predominance of the principles of direct democracy render a system with a local council (local parliament) and an executive rather rare.²

The local executive is a board of usually five or seven members³ directly elected by the citizens. The board is headed by a mayor who is also directly elected. The mayor represents the municipality and chairs the meetings of the executive; however, he does not have more decision power than the other members of the executive (Ladner 2005: 106).

Elections of the local executive are by no means second-order elections. The average turnout figures in the municipalities are usually higher than comparable figures for the elections of the cantonal or the

¹ The only exceptions are the municipalities in the canton of Neuchâtel where the citizens elect the members of the local council (local parliament) which then elects the members of the executive from among its peers.

² Less than 20 % of the municipalities, mainly those with more than 10,000 inhabitants and those in the French-speaking part of the country, have an elected "legislative" body.

³ This applies to about 85 % of the municipalities. There are also municipalities with smaller or larger executives (Ladner 1991a, Ladner 2008).

national parliaments (see Table 1). This was the case in 1988 as well as in 2005 despite a somewhat bigger turnout decrease at local level. The by Swiss standards comparatively high turnout at local level can be explained by a historically and culturally high regard for local politics and by the far-reaching autonomy of the municipalities especially as far as their financial autonomy and their tax-raising power is concerned (Ladner 2009).

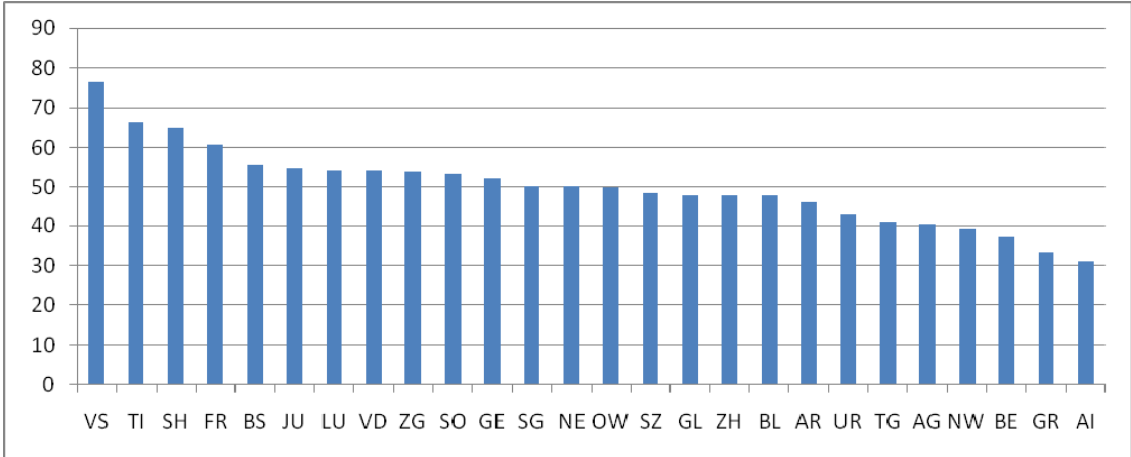
Table 1: Average turnout figures for local, cantonal and national elections

	1988	2005	Change 88-05
Local elections	57.2	49.2	-8.1
Cantonal elections	50.6	44.5	-6.2
National elections	49.4	45.1	-4.3
N*=	1290	1290	

* Only municipalities which provided figures for both surveys

The citizens, however, do not participate at their local elections with the same enthusiasm in all municipalities. There are municipalities where only a few percent of the electorate turns out, whereas in other municipalities almost everybody participates. These differences do not seem to be purely coincidental. There are, for example, remarkable differences between the 26 cantons: If we compare the average turnout level of the municipalities in each canton (see Figure 1), there are cantons like Valais (VS), Ticino (TI), Schaffhausen (SH) and Fribourg (FR), where the average turnout level is above 60 per cent. In the Valais turnout reaches almost 80 per cent. In cantons like Aargau, (AG), Berne (BE), Graubünden (GR) and Appenzell-Innerrhoden (AI) the average does not even reach the 50 percent line.

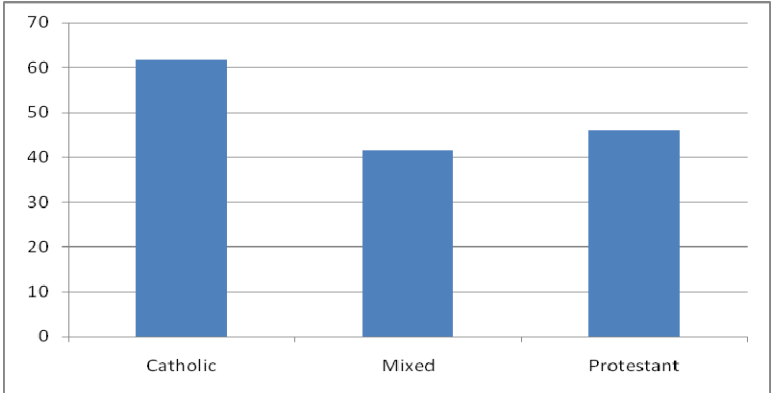
Figure 1: Average turnout levels at local elections in the 26 cantons



Since Switzerland is a culturally heterogeneous country with two almost equally strong religious denominations and three different language areas, the first question of interest is whether there are differences in political behavior between Protestant and Catholic or between German, French and Italian-speaking cantons. Figure 2 reveals that in Catholic cantons the average turnout level is considerably

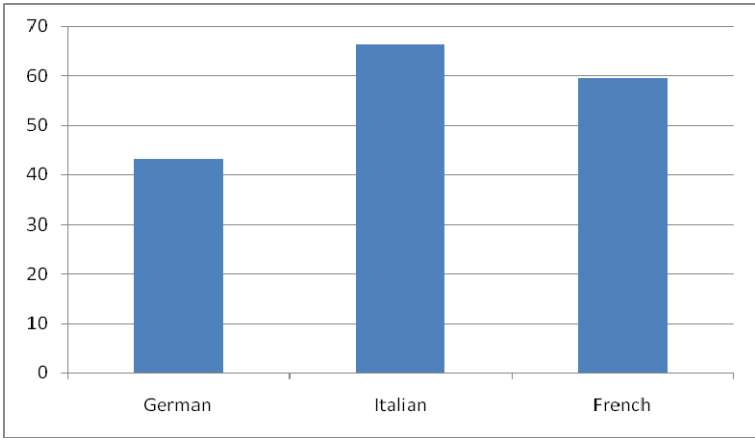
higher than in Protestant cantons. The so-called denominationally mixed cantons show the lowest results of the three groups of municipalities.⁴

Figure 2: Average turnout levels at local elections and the predominant denomination in the cantons



As for the differences between the language areas, it is interesting to note that electoral turnout is highest in the Italian-speaking municipalities of the canton of Ticino followed by the French-speaking municipalities with an average of almost 60 percent, whereas the German-speaking municipalities only score slightly more than 40 percent (see Figure 3).

Figure 3: Average turnout levels at local elections in the different language areas



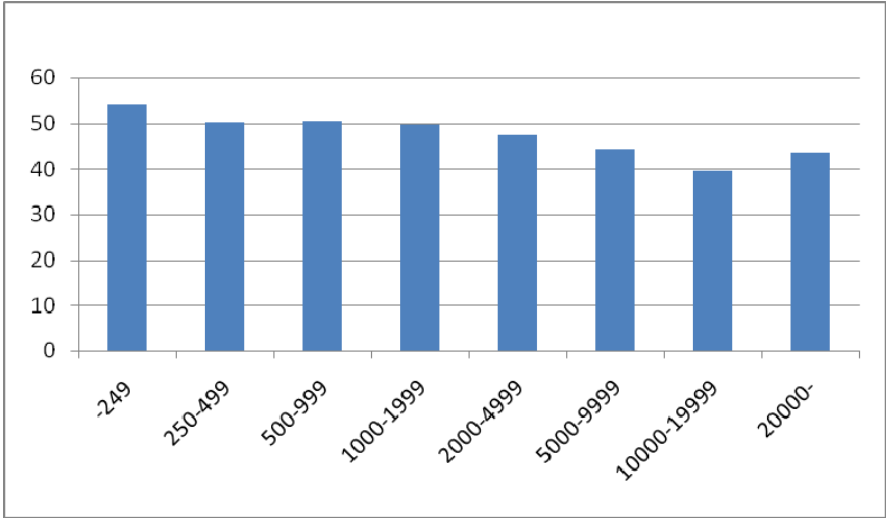
However, it would be overly hasty to make the dominant religious denomination or the language area responsible for the different turnout levels. There may be other reasons known to influence political participation such as political institutions or specific characteristics of the electorate. Also, the municipalities themselves may be distributed unevenly among the different groups of cantons and thus account for the differences in turnout levels.

The size of the municipalities, for example, may also influence turnout levels - and this relates to an old debate on the relation between size and the quality of democracy (Dahl and Tufte 1973). Figure 4 reveals that turnout in the smallest municipalities with fewer than 250 inhabitants is about 15 percent higher than turnout in the size category 10,000 to 20,000 inhabitants. This figure also reveals that a

⁴ Cantons where the average percentages of Catholics are between 40 and 60 percent are considered as denominationally mixed cantons, viz. the cantons of Solothurn (SO), St. Gallen (SG), Graubünden (GR) and Aargau (AG).

possible relation does not necessarily have to be linear. In municipalities above 20,000, the average turnout is again higher than in the category below.

Figure 4: Average turnout levels at local elections and the predominant denomination in the cantons



In order to make sure whether the variables suggested here can really be made responsible for the differences in electoral turnout we need to control for other variables which may also have an influence on electoral turnout. The various studies on political participation offer a wide range of such variables and interesting theoretical considerations.

INDEPENDENT VARIABLES AND THEORETICAL CONSIDERATIONS

In the comparative literature on electoral turnout we find a myriad of factors which are assumed to explain the differences in people’s participation in elections. Following Freitag (2005: 672) the dominant approaches emphasize socio-economic resources, the political and cultural background as well as political institutions and politics. Although we are not analyzing electoral participation at the individual level but instead concentrate on turnout levels in municipalities, some of the macro-variables used employ the arguments put forward by studies at the individual level.

1.1 SOCIO-ECONOMIC AND SOCIO-DEMOGRAPHIC VARIABLES

Some people are more likely to participate if they dispose of the resources needed or belong to a part of society which generally participates more intensely in social activities. We therefore assume that municipalities with a higher percentage of such citizens are likely to have higher turnout figures. Socio-economic and socio-demographic variables which have proven to be influential are education, age, economic structure and the economic performance of a political context (see Blais and Dobrzynska 1998: 241-244, Norris 2004).

We therefore suggest that municipalities with a high percentage of educated citizens and a higher percentage of elderly people are more likely to show a higher electoral turnout. As for the predominant economic structure and the economic performance of a municipality, the effects are more difficult to foresee. On the one hand, in terms of education, citizens in rural and agrarian municipalities do not

necessarily belong to the parts of society which participate above average; on the other hand, such municipalities traditionally rely on structures like for example the joint use of the commons, which also requires common political decisions. Furthermore, it is an open question whether wealth and a high standard of services lead to more participation, or whether the awareness of social problems motivates people to take part in elections. On the one hand, it can be argued that low turnout reflects satisfaction with the political status quo (Jackman 1987: 418-419), on the other hand, low turnout could also be a sign of alienation from local politics or a general distrust.

A final variable we would like to consider in this group of variables is the size of the municipality. We have already seen that the electoral turnout in local elections is higher in smaller municipalities. This result is in line with most studies (Frandsen 2002: 866). There is, however, a debate on whether size does or can have a direct influence on variables related to democracy (see Denters et al. forthcoming). Following rational voter theory (Downs 1957), the chances of an individual vote being decisive are considerably higher in smaller municipalities and therefore motivate citizens to take part in elections. However, it may be true that voters are not as rational as they are thought to be and that size is connected to other variables which themselves influence political behavior. In this case, the negative size effect should disappear once we control for these variables. New and rather complex analyses using individual and contextual data for Switzerland, Norway, Denmark and the Netherlands (Denters et al. forthcoming) do not find a consistent negative effect of size on turnout if variables like local attachment, associational involvement, political confidence and others are controlled for. In any case, a model trying to estimate determinants of turnout levels in municipalities should include the size of the municipality, either as a control variable or an explanatory variable.

1.2 POLITICAL AND CULTURAL BACKGROUND VARIABLES

The politico-cultural and socio-integrative perspective emphasize that the willingness to participate in elections is not due to socio-demographic or socio-economic variables but is instead the result of an acquired habit (Freitag 2005: 675, Norris 2004: 154). Socio-political and politico-cultural factors need to be examined (Siaroff and Meter 2002).

In his article on turnout differences for the elections of the Swiss cantonal parliaments, Freitag (2005) shows that in cantons where a higher percentage of citizens are members of a political party there is also a higher electoral turnout. Since we lack membership figures for municipalities and not all municipalities have organized local parties, we use the following two variables: the existence of local political parties and the perceived influence of local parties on local politics. Similarly, we also measure associational involvement, which is – following the tradition of Tocqueville and Almond and Verba (1965) and the results of the size and local democracy study – another important stimulant for participation by means of the perceived influence of associations in local politics. It can be assumed that the importance of political parties and associations leads to a higher electoral turnout.

We have already seen that in predominantly Catholic municipalities turnout is considerably higher. The same can be shown for cantons when it comes to turnout at elections for the cantonal parliaments. Plausible explanations for these differences are the strong bonds between the Catholics and the Christian Democratic Party (CVP) (Wernli 1998: 96 ff.), which are rooted in the defeat of the Catholic coalition at the end of the Sonderbundkrieg (short Swiss civil war, 1847), which resulted in the withdrawal of the Catholics into a kind of isolated society in the Catholic cantons (Altermatt 1989: 97ff; Geser 2004). Elections are perceived as recurring challenges to the bastion of Catholicism and essential Christian religious values (Freitag 2005: 676). To this can be added clientelistic entanglements between party and ideology as a mobilizing force on electoral participation.

A final cultural variable, which may – after having controlled for all the other variables – directly influence turnout is the language area, where we also found considerable differences between the Italian and the French and the German-speaking municipalities. Possible explanations for these differences are the different democratic cultures. In the German-speaking part of Switzerland direct democracy plays a more important role, especially when it comes to the political organization of the municipalities (see also the next section). Direct democracy lowers the importance of elections. Important decisions have to be accepted by the citizens and the influence of elected politicians is minor. In French and Italian-speaking municipalities, the emphasis is on representative democracy, which increases the importance of elections.

1.3 POLITICAL INSTITUTIONS AND POLITICS

Of special interest to political scientists is the role of political institutions. If we seek to increase electoral turnout this is where adjustments can be made. Important variables in this context are the political organization of the municipalities and the electoral system. Linked to the political institutions are other political variables such as the party system and the saliency of elections which might influence participation.

There are two different political organizations which apply to Swiss municipalities. The bigger cities and most municipalities in the French-speaking part have - in addition to the directly elected executive - a directly elected council (local parliament) (see Ladner 2005). More than 80 per cent of the municipalities – predominantly the smaller ones and those in the German-speaking part of Switzerland - have a local assembly, which is a gathering of all the citizens entitled to vote between twice and four times a year to decide on all important local issues. The executive in such a direct democratic political system, it could be argued, is of lesser importance and we could expect a generally lower turnout level. In reality, however, the executive plays an important role, since it proves to be rather difficult for the citizens to control activities of the executive, and there is usually only a very small minority of citizens participating in these assemblies. In municipalities with a local parliament, political parties are usually more important, and they furthermore lead to a politicization of local politics. In such representative political systems, elections are expected to be more important. However, in municipalities with a local parliament citizens also have the possibility to intervene directly in political decisions by means of initiative and referendum.

More straightforward are the arguments given for the influence of the electoral system. There is a small group of about 16 percent of municipalities which elect the local executive in the assembly and not at the polls. Since the attendance at such assemblies is more strenuous we expect a lower turnout level. As for the voting formulae, in accordance with previous studies for Swiss municipalities (Ladner and Milner 1999) and in accordance with international results we expect a positive effect of PR voting. PR voting takes place in slightly less than 30 percent of the municipalities, while the other municipalities use a majority system.

A final set of variables concerns the party system and the extent to which the elections are competitive and contested. We have already mentioned the mobilizing effect of political parties. It can now be argued that a bigger number of parties running for office and a stronger competition between the parties lead to higher turnout.⁵ This could also be true for more polarized party systems since in these systems parties are likely to offer the citizens a choice between more different policy solutions. Such mobilizing effects of characteristic elements of the party system only hold for the roughly sixty percent of the municipalities which have political parties. In any case local elections are not always contested elections. In some municipalities it has become increasingly difficult to find candidates running for office and there

⁵ In a more institutionalist approach we might also look at the entry hurdles. Here we argue that the fragmentation of the party system is just a result of lower entry hurdles.

are often elections where the number of candidates exactly equals the number of seats available. Following Franklin (1996) we therefore suggest measuring the saliency of elections by means of their competitiveness: Whether or not the members of the executive have had to win the elections against competing candidates.

Table 2 summarizes the different variables and hypotheses proposed up to now. It also shows the operationalization of the variables and the sources used.⁶

Table 2: Variables and expected influence

Variable	Description/operationalization/source	Expected influence
Socio-economic and socio-demographic variables		
Education	Percentage of people with a degree from a university or a university in applied science; national census 2000	positive
Age	Percentage of people between 60 and 80; national census 2000	positive
Sector 1	Percentage of people working in the first sector; national census 2000	positive
Sector 2	Percentage of people working in the second sector; national census 2000	negative
Sector 3	Percentage of people working in the third sector; national census 2000	positive
Wealth	Municipality pays money into a fund to level the differences between municipalities, no (0) – yes (1); local secretary survey 2005	positive/negative
Limits of performance	Municipalities encounter difficulties in performing their tasks and services, index, no limits (1) – limits passed (4); local secretary survey 2005	positive/negative
Problems	Municipalities are confronted with various social problems, index, not concerned (1) – strongly concerned (3); local secretary survey 2005	positive/negative
Size	Number of inhabitants 2004 (natural log.); official statistics for 2004	positive/negative
Cultural and political background variables		
Local parties	Existence of local parties in the municipality, no (0) – yes (1); local secretary survey 2005	positive
Influence of local parties	Perceived influence of local parties, no influence (1) – strong influence (7); local secretary survey 2005	positive
Influence of associations	Perceived influence of associations, no influence (1) – strong influence (7); local secretary survey 2005	positive
Catholics	Percentage of Catholic inhabitants in the municipality, national census 2000	positive
French	Percentage of French-speaking inhabitants in the municipality; national census 2000	positive

⁶ More information about the sources is provided in the next section.

Italian	Percentage of Italian-speaking inhabitants in the municipality; national census 2000	positive
Political institutions and politics		
Parliament	The municipality has a parliament, no (0) – yes (1); local secretary survey 2005	positive
Assembly voting	The executive is elected in the assembly, no (0) – yes (1); local secretary survey 1988	negative
PR	The executive is elected in a PR system, no (0) – yes (1); local secretary survey 2005	positive
Fragmentation	Effective number of different groups represented in the local executive; ⁷ local secretary survey 2005	positive
Polarization	Polarization among the political parties decreased (1), unchanged (2), increased (3) local; secretary survey 2005	positive
Competitiveness	Members of the executives had to fight for their seat, no (0) – yes (1); local executive survey 2009	positive

Some of the variables discussed are more generally related to the citizens' propensity to participate in politics, while others are more directly related to local politics. In other words: For some of the variables we should not only find an effect on electoral turnout at local level but also on turnout at cantonal and national levels, whereas for others there should not necessarily be an effect on turnout at higher level. Education for example is a factor which more generally leads to higher turnout, whereas the competitiveness of local elections does not directly relate to the elections at higher level. Therefore we shall additionally compare the results for the local level with results for higher political levels.

Furthermore, for variables like religious denomination or language there is no important variance between the municipalities of a canton or a specific region of the country, whereas variables such as the size of a municipality vary within each canton. A subsequent research strategy is to look at the effects of the different variables in different groups of municipalities.

DATA AND METHOD

In a federalist country like Switzerland, the gathering of data on municipalities is a rather difficult task. There are considerable differences between the municipalities in the different cantons and there is only a limited number of data available at national level for all municipalities. Most of the data used in this paper comes from surveys. This is also true for the data on electoral turnout at local elections. The turnout data used in this survey stems from the 2005 national survey of local secretaries collected by the author of this paper (Ladner 2008). The survey covers about 80 percent of the over 2700 Swiss municipalities. A similar survey was conducted in 1988 and a comparison of the two allows a closer look at recent trends (Ladner 1991). Some contextual data stems from the last national census in 2000 and for the competitiveness of elections variable we rely on the latest nationwide survey among all members of the local executives, which was conducted at the Institute of Sociology at the University of Zurich.

⁷ The calculation of the effective number of different groups in the executive follows the formula of Laakso, Markku and Taagepera (1979).

Although the response rates for the different surveys were quite high, the combination of these different surveys leads to a considerable decrease in the number of responses. If we combine all sources used the number of valid responses drops to less than a third of the total number of municipalities.

To test the hypothesis suggested in the previous part of this paper, we shall first have a look at the bivariate correlations before we test different linear regression models. Having identified the most important determinants, we then test the robustness of our findings for electoral participation at higher levels and in different subgroups of municipalities.

RESULTS

The bivariate analyses show the strongest correlation for three cultural and two institutional variables. In the case of the cultural variables this confirms the findings we have already seen in the introduction. Municipalities with a high percentage of Catholics and French or Italian-speaking inhabitants have a considerably higher turnout. The same is true for municipalities where the executive is elected at the polls (and not in the assembly) and in municipalities using PR instead of majority voting. If we compare these results with the turnout figures at cantonal and national level there are interesting differences to be found. Catholicism goes hand in hand with a generally higher turnout, whereas in the French-speaking municipalities turnout is also higher at the cantonal level but not at national level. In the Italian-speaking municipalities, there is a significant correlation at all three levels, but the correlation at national level is clearly weaker. For the two institutional variables, there are also significant correlations for the higher political levels. These are likely to be caused by other factors since it is difficult to see how characteristics of the local electoral system should directly influence turnout at cantonal or national elections. We might expect these correlations to disappear when we control for other variables.

For most other variables, the correlations point in the expected direction. They are, however, considerably weaker. The socio-demographic variables education and age correlate positively with turnout at local level although not consistently at higher levels. As for the contextual socio-economical variables, we find consistent positive correlations for richer municipalities. Limits of performance correlate positively with local turnout, whereas the perception of a bigger number of social problems seems to go hand in hand with lesser turnout at all three levels. As for the structure of the economy, it is interesting to note that agrarian municipalities (first sector) do not necessarily have a higher turnout. In industrial municipalities as well as in municipalities with a strong tertiary sector turnout is generally lower. Size, finally, is negatively correlated with turnout at local and cantonal level.

Neither the existence of local parties nor a bigger influence of local parties shows a positive correlation with turnout. A bigger influence of associations however is positively correlated with a higher turnout. A consistently positive correlation is also found for the third institutional variable, the existence of a local parliament, although the correlations are very weak. More parties represented in the executive and an increasing polarization of the local party system do not go together with higher turnout, on the contrary, but if there are contested elections turnout at local level is significantly higher.

Table 3: Correlations of independent variables and electoral turnout at local, cantonal and national elections in Swiss municipalities and turnout change 1988 – 2005 at local level

	Local level	Cantonal level	National level	Local level 1988-2005
Education	<i>.051*</i> (1852)	<i>.036</i> (1849)	<i>.123**</i> (1852)	<i>.020</i> (1455)
Age	<i>.084**</i> (1852)	<i>.065**</i> (1849)	<i>.029</i> (1852)	<i>.053*</i> (1455)

Sector 1	-.047*	.029	.022	-.025
	(1852)	(1849)	(1852)	(1455)
Sector 2	-.118**	-.115**	-.109**	-.009
	(1852)	(1849)	(1852)	(1455)
Sector 3	-.048*	-.089**	.021	-.004
	(1852)	(1849)	(1852)	(1455)
Wealth of municipality	.090**	.100**	.083**	-.016
	(1746)	(1735)	(1741)	(1368)
Limits of performance	.053*	-.013	-.043	.021
	(1824)	(1817)	(1822)	(1431)
Social problems	-.098**	-.155**	-.147**	.056*
	(1855)	(1852)	(1856)	(1449)
Size (inhabitants)	-.062**	-.084**	-.010	.061*
	(1860)	(1857)	(1861)	(1455)
Size (inhabitants) (log.)	-.166**	-.194**	-.077**	.075**
	(1860)	(1857)	(1861)	(1455)
Local parties	.008	.017	.048*	.032
	(1849)	(1845)	(1850)	(1448)
Influence of local parties	.026	-.036	-.018	.010
	(1811)	(1809)	(1816)	(1423)
Influence of associations	.106**	.047*	.037	-.004
	(1791)	(1789)	(1798)	(1409)
Catholics	.355**	.360**	.170**	-.022
	(1852)	(1849)	(1852)	(1455)
French	.266**	.165**	.004	-.105**
	(1852)	(1849)	(1852)	(1455)
Italian	.216**	.223**	.079**	-.043
	(1852)	(1849)	(1852)	(1455)
Parliament	.069**	.090**	.066**	-.013
	(1775)	(1774)	(1778)	(1387)
Assembly voting	-.329**	-.140**	-.080**	.066*
	(1514)	(1513)	(1518)	(1440)
PR	.307**	.175**	.095**	-.098**
	(1741)	(1720)	(1724)	(1358)
Fragmentation of executive	-.190**	-.219**	-.091**	.027
	(1514)	(1510)	(1514)	(1210)
Polarization	-.063*	-.104**	.016	.100**
	(1042)	(1035)	(1039)	(848)
Competitiveness of elections	-.121**	.026	-.017	-.052
	(1413)	(1386)	(1392)	(1120)

() = N

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Apart from the existence and influence of local parties all variables correlate significantly with turnout at local level. It is, of course, far too early to take the significant correlations as evidence for causal effects since there are some important inter-correlations between the explanatory variables. We therefore suggest testing their influence in a series of regression models, including all variables mentioned up to now, and including – for the sake of argument – the two variables on local political parties.

Table 4 shows the results of eight different regression models starting with a first model containing the two variables education and age and ending with a model containing all the variables discussed so far. The results lead to the following insights:

- Municipalities with a higher percentage of educated and elderly citizens have a significantly higher electoral turnout at local level only when entered alone. Age reappears in model 6 and 8, but the effect is not very important.

- The economic structure of a municipality seems to have an influence at first sight (model 2). The effects, however, point in the wrong direction for the first and the third sector. Municipalities with a high percentage of people working in the agrarian and the service sector seem to have lower electoral turnout. These effects, however, disappear when we introduce the cultural background variables religious denomination and language.
- Wealth, limits of performance and a bigger number of problems have significant effects when entered in model 3. For the former two, however, the effects disappear when entering all the variables. Problems within the municipality do not seem to have a mobilizing effect for the voters, on the contrary.
- The size of the municipality proves to have a much stronger effect than expected based on the bivariate correlations. Even if we control for the different structure of the municipalities and the different political systems turnout is considerably lower in bigger municipalities.
- The existence of local parties has an effect when added in model 5. This effect, however, disappears when we enter the variables of the political system and the competitiveness of elections. This is not astonishing since PR municipalities are likely to have a greater number of political parties (Ladner and Milner 1999) and if there are local parties, elections are likely to be more competitive. The influence of political parties does not bring any additional explanatory power and the influence of associations disappears as soon as we enter the other cultural background variables.
- It is the cultural background variables religious denomination and language area which seem to be to a large extent responsible for the different turnout levels in Swiss municipalities. While entering these variables in model 6 the explanatory power more than doubles from an adjusted R^2 of 0.121 to 0.265. Catholicism also goes hand in hand with higher turnout in the final model. But this is not true for the language area variables, where the influence disappears once we control for the variables of the political system and the competitiveness of the elections. It is interesting to note, however, that entering the cultural background variables makes the significant effects of the economic structure of the municipalities disappear. This is due to the characteristic economic difference between the municipalities in the different language areas and the denominationally different cantons. The French-speaking municipalities are more rural and less industrialized, and the Italian-speaking municipalities are neither rural nor industrialized, but predominantly Catholic.
- It is the variables of the political system, i.e. assembly voting and PR voting, which add the biggest explanatory power to our model. The R^2 rises from 0.265 to 0.495. PR voting fosters participation and the more cumbersome assembly voting leads to lower turnout. The influence of the language areas disappears when we control for variables of the local political system.
- The final model also contains variables concerning politics. Here it is the competitiveness of elections which proves to have a significant positive effect on turnout, whereas the effects of fragmentation and polarization are not significant.

Our results can be summarized as follows: Turnout at local elections in Swiss municipalities depends on the size of the municipalities, on cultural background variables and on variables of the political system.

Smaller municipalities, Catholic municipalities, municipalities not voting in the assembly or using PR voting have a higher electoral turnout. Additionally it can be shown that a higher percentage of elderly citizens, the absence of social problems and competitiveness of elections have a significant positive effect on turnout.

The eight regression models tested have thus considerably helped to reduce the number of variables which have an effect on turnout if we compare the number of significant correlations we found previously. The models have also helped to highlight the most important variables and they have taught us to distrust the first impression that the two cultural variables Italian and French-speaking language area have a positive effect on turnout. In a next and final step we shall test the robustness of these findings in a series of subgroups of municipalities and for elections at other levels. The results for the subgroups are presented in Table 1 in the Appendix.

As we have already seen in model 8, the linguistic differences in turnout are largely due to differences in the local political systems. This result is confirmed if we only look at municipalities which elect their executive at the polls and not at the assembly: The percentages of French and Italian-speaking citizens in a municipality are no longer significant. If we restrict our model to municipalities not using PR voting, the percentage of French-speaking citizens starts having a negative influence. The same is true for municipalities without PR and assembly voting. At the same time, the competitiveness of the elections begins to play a more important role. It is also interesting to note that if we control for the variables of the political system it is the economic structure of the municipality and demographic variables which show no significant effects on turnout. In agrarian municipalities, in municipalities with higher percentages of educated and elderly people turnout is higher, whereas in municipalities with higher percentages of citizens working in the second and third sectors turnout tends to be lower. The size of the municipality has a negative effect throughout the different models with institutionally more homogeneous municipalities and the same is true for social problems.

If we repeat the analysis for groups of cantons of different religious denominations social problems do no longer have a negative effect. Apart from the important institutional variables assembly and PR voting, it is once more the size variable which retains a strong influence. If we look at the Catholic cantons only, we see that a higher percentage of people working in the agrarian sector goes in hand with a higher turnout. If we look at the denominationally mixed cantons, we again find a positive impact of the Catholic denomination.

If we test the models in the different language areas we lose the explanatory power of some of the institutional variables since assembly voting only takes place in the German-speaking part of Switzerland. In the German-speaking municipalities, assembly voting proves to be by far the most important explanatory variable. Additionally, it is also size, PR voting, the percentage of Catholics, the influence of associations, the lack of social problems and a higher percentage of educated people which have a significant positive effect on turnout. The percentage of people working in the second sector has a slightly negative effect. In the French-speaking municipalities it is size, the existence of local parties, the percentage of Catholics and PR voting which are significantly related to turnout at local level. As for the Italian-speaking municipalities, it is only the lack of social problems and no increase in the polarization of the party system which have a significant effect.

A final glance at the impact of these variables on participation at higher political level faces the problem that some of the independent variables such as assembly or PR voting are directly related to local elections and do not make sense in a model explaining turnout at higher level. The explanatory power of the models is considerably smaller, which is not astonishing since we do not concentrate on variables specifically related to elections at higher level. Altogether, we see a reappearance of education as a positive impact. Size and the existence of social problems still have a negative impact and in Catholic municipalities turnout is also higher here. When we add the institutional variables PR voting and assembly it is

interesting to note that the positive impact of the French language disappears. Without institutional variables it is furthermore the existence of local parties which has a positive impact. This leads to the conclusion that these variables probably not only directly influence turnout but rather contribute to a more politicized political culture which leads citizens to generally take more part in politics.

Table 4: Determinants of electoral turnout at local elections in Swiss municipalities (linear regression models)

Variable	Expected influence	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Socio-economic and socio-demographic variables									
Education	positive	0.054**	0.01	0.015	0.036	0.039	0.035	0.033	0.065
Age	positive	0.086***	-0.007	0.007	0.000	0.008	0.058*	0.037	0.089*
Sector 1	positive		-0.208***	-0.233***	-0.302***	-0.298***	-0.054	-0.02	0.082
Sector 2	negative		-0.217***	-0.181***	-0.138***	-0.153***	0.025	-0.084*	-0.075
Sector 3	positive		-0.213***	-0.206***	-0.167***	-0.162***	0.062	-0.041	-0.044
Wealth	positive/negative			0.074**	0.066**	0.078**	0.010	-0.004	-0.006
Limits of performance	positive/negative			0.092***	0.092***	0.083***	-0.038	0.004	0.035
Problems	positive/negative			-0.154***	-0.082**	-0.086**	-0.095***	-0.072**	-0.101***
Size (log.)	positive/negative				-0.221***	-0.305***	-0.231***	-0.285***	-0.316***
Cultural and political background variables									
Local parties	positive					0.190***	0.180***	-0.029	0.009
Influence of local parties	positive					-0.002	0.007	0.016	-0.033
Influence of associations	positive					0.093***	0.036	0.041	0.055*
Catholics	positive						0.297***	0.198**	0.241***
French	positive						0.269***	0.016	0.007
Italian	positive						0.151***	0.054	0.027
Political institutions and politics									
Parliament	positive							-0.007	0.012
Assembly voting	negative							-0.526***	-0.554***
PR	positive							0.177***	0.209***
Fragmentation	positive								-0.018
Polarization	positive								0.000
Competitiveness	positive								0.099***
Adj. Rsquare		0.009	0.043	0.067	0.091	0.121	0.265	0.495	0.518
		1851	1851	1714	1714	1648	1648	1202	832

*. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed); ***. Correlation is significant at the 0.001 level (2-tailed).

CONCLUSION AND DISCUSSION

The level of electoral turnout in Swiss municipalities depends to an important extent on institutional variables. If the executive is elected in a citizens' assembly there are considerably fewer people participating than in elections at the polls. PR also has a positive effect on turnout, whereas it cannot be shown that having a local parliament leads to higher turnout (and thus to increased interest in politics). Since there are only a few municipalities electing their executive in the assembly there is not much room to increase local level turnout in general by means of a change to the more normal elections at the polls. The situation for PR voting is different. If the over 70 percent of municipalities not employing it now were to introduce PR voting turnout at local level would probably be considerably higher.

Another important variable is the size of a municipality. In smaller municipalities turnout is consistently higher than in bigger municipalities and this cannot be explained by other variables. This supports the rational choice type of argument that a single vote counts more in a smaller context. Nevertheless, we have to admit that with aggregate level data we cannot control for all variables necessary when it comes to an individual's propensity to participate. Trust, political knowledge, internal and external efficacy, for example, would have to be controlled for to make sure that size really matters directly. It may still be the case, for example, that citizens in small units care more about their municipality and feel less alienated with local politicians, which leads to higher turnout. The results, in any case, confirm previous studies on size and turnout at local assemblies (Ladner 1991b).

A more puzzling result is the almost consistent impact of the absence of social problems, which seems to foster local electoral turnout. Only if we analyze the denominationally different areas separately is the effect of this variable no longer significant. Further investigations are definitely needed here.

As for the importance of Catholicism for turnout, our study confirms the findings of Freitag (2005) at the cantonal level. Still today, the Catholic context has a positive impact on participation. Not confirmed, however, is the first sight impression that the stronger orientation towards representative democracy in the French and Italian-speaking municipalities leads to higher electoral turnout. Once we control for the variables of the political institutions these effects disappear.

The analyses throughout this paper show how difficult it is to get hold of the determinants of electoral participation at aggregate level. Even if the Swiss case offers an attractive laboratory to study the impact of different variables the results still depend on the kind of variables you are able to enter into your model and on the type of municipalities you look at. In this sense, we cannot conclude that all the other variables which did not show any significant effects in the final model are completely ineffective. They simply do not have any explanatory power if we try to explain the differences for all Swiss municipalities.

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Appendix: Table 1

Variable	Model 8	Cantonal elections	Cantonal elections2	National elections	National elections2	German speaking mun.	French speaking mun.	Italian speaking mun.	Catholic cantons	Protestant cantons	Mixed cantons	No assembly voting - polls	No PR voting	No PR no assembly	No PR no assembly2
Socio-economic and socio-demographic variables															
Education	.065	0.148***	0.083**	0.273***	0.178***	0.092**	-0.103	-0.259	-0.135*	0.087*	-0.02	0.067	0.093*	0.146**	0.091
Age	.089*	-0.016	0.017	-0.03	0.012	0.051	0.046	0.049	0.076	0.026	0.053	0.082	0.095**	0.068	0.019
Sector 1	0.082	0.008	0.039	0.002	0.053	0.068	-0.108	-0.32	-0.253***	0.023	0.039	0.072	0.110*	0.144*	0.036
Sector 2	-0.075	0.012	0.017	-0.094	-0.021	-0.098*	-0.101	0.104	-0.065	-0.085	-0.117	-0.144**	-0.122*	-0.204**	-0.204**
Sector 3	-0.044	-0.084	0.026	-0.112	0.035	-0.084	0.012	0.259	-0.079	-0.028	-0.086	-0.115*	-0.088	-0.201**	-0.189**
Wealth	-0.006	0.088**	0.024*	0.027	0.022	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	-0.006	-0.014	-0.062	-0.008
Limits of performance	0.035	0.005	-0.001	-0.003	0.008	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	-0.005	0.06	0.011	0.005
Problems	-0.101***	-0.152***	-0.126***	-0.191***	-0.170***	-0.070*	0.01	-0.255*	-0.018	-0.068	-0.05	-0.113**	-0.117**	-0.152***	-0.110***
Size (log.)	-0.316***	-0.213***	-0.225***	-0.112*	-0.103***	-0.293***	-0.405***	-0.178	-0.316***	-0.035***	-0.325***	-0.347***	-0.318***	-0.335***	-0.332***
Cultural and political background variables															
Local parties	0.009	0.095*	0.170***	0.055	0.146***	-0.015	0.122*	0.143	0.087	-0.011	0.107	0.007	-0.021	-0.037	0.009
Influence of local parties	-0.033	-0.028	-0.029	-0.008	-0.02	n.e.	n.e.	n.e.	0.043	-0.003	0.051	-0.018	-0.027	-0.019	0.052
Influence of associations	.055*	-0.011	-0.03	0.039	0.018	0.064*	n.e.	n.e.	0.024	0.065	0.057	0.013	0.067*	0.059	0.071
Catholics	.241***	0.334***	0.337***	0.242***	0.214***	0.119***	0.229***	0.053	n.e.	n.e.	0.221***	0.245***	0.103**	0.049	0.042
French	.007	0.03	0.174***	-0.092*	-0.012	n.e.	n.e.	n.e.	-0.06	-0.083	n.e.	-0.014	-0.088*	-0.164***	-0.121*
Italian	0.027	0.132***	.0.140***	-0.091*	-0.017	n.e.	n.e.	n.e.	0.002	-0.037	n.e.	0.035	0.043	0.076	0.07
Political institutions and politics															
Parliament	0.012	0.03	n.e.	0.075	n.e.	0.011	-0.061	-0.021	-0.054	0.035	-0.074	0.026	0.03	-0.053	0.027
Assembly voting	-.554***	-0.150***	n.e.	-0.149***	n.e.	-0.718***	n.e.	n.e.	-0.156***	-0.693***	-0.650***	n.e.	-0.722***	n.e.	n.e.
PR	.209***	0.076*	n.e.	0.140***	n.e.	0.107***	0.183**	0.071	0.387***	0.113***	0.132***	0.240***	n.e.	n.e.	n.e.
Fragmentation	-0.018	-0.021	n.e.	0.019	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	-0.049	-0.04	-0.034	n.e.
Polarization	0.000	-0.029	n.e.	0.015	n.e.	0.023	-0.033	-0.285*	n.e.	n.e.	n.e.	0.015	0.057	0.084*	n.e.
Competitiveness	0.099***	0.060	n.e.	0.048	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	0.095**	0.127***	0.130**	n.e.
Adj. Rsquare	0.518	0.308	0.255	0.184	0.102	0.426	0.298	0.147	0.31	0.462	0.416	0.445	0.475	0.369	0.309
N	832	826	1638	829	1647	898	465	80	342	605	332	703	599	482	689

*. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed); ***. Correlation is significant at the 0.001 level (2-tailed).

