

# A Policy-Centred Approach to Inter-Municipal Cooperation\*

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April 9, 2021

Paper prepared for the 78<sup>th</sup> MPSA Annual (Virtual) Conference  
April 14-18, 2021

## Abstract

In this paper we demonstrate how policy-specific characteristics affect inter-municipal cooperation. We argue that it is not enough to look at local government characteristics - such as a municipality's population size, or its economic situation - in order to understand inter-municipal cooperation. Instead, we illustrate that these characteristics - whether a policy is considered relevant or politicized by local officials - are linked to why a municipality cooperates in a certain policy area or not. We combine two surveys of Swiss local administrators and officials conducted in 2017 that include detailed questions on specific policies and their way of provision. We, first, show that there is strong variation in the cooperation intensity across different policies – in addition to cross-municipal variation. Second, we find that the perceived relevance of a policy for a municipality is associated with more inter-municipal cooperation whereas the perceived politicization goes along with less inter-municipal cooperation. These results suggest that policy-specific characteristics play a crucial role in explaining inter-municipal cooperation.

**Keywords:** Local Government, Public Service Provision, Switzerland, Public Administration, Public Policy

**Words:** 8,594

**Brief Overview:** This paper analyzes the impact of the perceived relevance and politicization of a policy field on the likelihood of inter-municipal cooperation in Swiss municipalities.

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\*A previous version of this paper has been presented at the Dreiländertagung of the Austrian, the German, and the Swiss Political Science Association at the ETH Zurich, February 14-16, 2019. We would like to thank Philippe Koch and the participants of this conference for helpful comments and suggestions.

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# 1 Introduction

Local governments serve as outposts of national states, as they operate closest to the population by offering various services. They do not only choose which policies they implement, but also how they deliver them. Besides producing services themselves, they can also decide to cooperate with other political units in order to reduce transaction costs. In particular, inter-municipal cooperation is one of the most widespread phenomenon in modern democracies (Denters and Rose, 2005; Teles and Swianiewicz, 2018). Research in public administration has shown a strong interest in the reasons behind that cooperation (Kwon and Feiock, 2010; Bel, Fageda and Mur, 2013; Gerber, Henry and Lubell, 2013; Bel and Warner, 2016), their institutional settings (Hulst and van Montfort, 2007, 2012), and their effects (Steiner, 2003; Bel, Fageda and Mur, 2012; Bel and Warner, 2015; Silvestre et al., 2020). As a consequence, many studies have mainly focused on the characteristics of the municipalities in order to explain the intensity of inter-municipal cooperation. However, other studies show that individual municipalities cooperate more intensely in some policy areas than in others (Ladner et al., 2017; Aldag, Warner and Bel, 2020; Schoute, Gradus and Budding, 2020). If the institutional context and local government preference structures are the main driver of inter-municipal cooperation, how can we explain that the policy-specific differences in cooperation intensity?

In the following, we argue that it is not enough to look at local government characteristics — such as a municipality’s population size, or its economic situation — for understanding inter-municipal cooperation. Bel and Warner (2015) suggest that differences across policy domains might be related to the perceived transaction costs. Since transaction costs vary by policy area, there are varying incentives for cooperation. Based on this theory, we argue that local governments are less likely to cooperate in policy fields where the expected transactions costs are lower that are more relevant and more politicized.

Empirically, we rely on data on inter-municipal cooperation schemes in Switzerland. Using data from two different surveys of local administrators and officials (Ladner et al., 2017; Freitag, Bundi and Witzig, 2019), we show that the variation in the cooperation

intensity is higher across policies than across municipalities. Furthermore, we find that municipalities are less likely to cooperate if local officials perceive a policy as politicised, while inter-municipal cooperation can be found more frequently in policy domains perceived to be more relevant. Moreover, municipalities tend to cooperate more when the perceived functional pressure – reaching capacity limits – grows. These findings make an important contribution to the broader literature on government service production as they indicate that policy attributes, and not only government structures, might play a crucial role in explaining inter-municipal cooperation.

The paper is structured as follows: the second section provides a review of the origins of inter-municipal cooperation and identifies the research gap in previous studies. The third section develops our policy-centered approach and proposes two hypotheses. In the fourth section, we describe the data used for the analysis and how we operationalized the variables. A discussion of our findings is then followed by a discussion of methodological limitations. The last section concludes the results and discusses the implications of the study.

## 2 Origins of Inter-Municipal Cooperation

Numerous studies show that inter-municipal cooperation has increased in the last decades (Hulst and van Montfort, 2007; Bel and Warner, 2015; Teles and Swianiewicz, 2018; Aldag, Warner and Bel, 2020). In part, this is due to a change in our understanding of the state. Since the 1970s, states have shifted from hierarchical top-down modes of governance to more cooperative forms where stakeholders participate more actively in the policy implementation process. This development has led to the delegation of public services to both public and private actors, which provides many advantages. However, it has also led to institutional collective action dilemmas. According to Feiock (2013, 397), these dilemmas “arise directly from the division or partitioning of authority in which decisions by one government in one or more specific functional area impact other governments and other governmental functions”. Notably, the dilemmas manifest themselves vertically and horizontally. Institutional collective action dilemmas occur horizontally if governments

are too small to efficiently produce a public service. This is why municipalities engage with other entities in order to make services more efficient and to benefit from *scale economies* (Blom-Hansen et al., 2016).

The underlying rationale of this idea is that service production becomes more efficient and less costly, the more one can produce of a certain public good at once. With that rationale, one would expect that more populous government units cooperate less, because they already have a sufficiently large constituency to serve. Indeed, several empirical studies show that cooperation contributes to reach economies of scale (Hefetz and Warner, 2011; Bel, Fageda and Mur, 2013; Bel and Warner, 2016; Zafra-Gómez et al., 2013; Warner, Aldag and Kim, 2020). Steiner (2003) finds that smaller Swiss municipalities are more likely to rely on inter-municipal cooperation to provide their services than larger ones. This finding is confirmed by Bel, Fageda and Mur (2013) in a study of Spanish municipalities: small municipalities were more likely to rely on inter-municipal cooperation for public service provision than larger ones. Yet, scale economies are not the only motivation beyond cooperation. According to Olson (1969), government boundaries should be identical with the area that they serve in order to achieve fiscal equivalence. If this is not the case, cooperation can be a way to achieve fiscal equivalence – this is often preferred over the alternative of consolidating jurisdictions through amalgamation (Soguel, 2005).

Municipalities do not only aim to make services more efficient, but they also seek to reduce costs. As a consequence, fiscal stress is often named an important driver for inter-municipal cooperation (Bel and Warner, 2015; Kim and Warner, 2020). This can not only be observed in the municipality's size, but also in its wealth (Warner, Aldag and Kim, 2020). Authors show that richer communities are less likely to engage in cooperation. Governments that face economic problems - e.g. high debt levels - are expected to cooperate more. The rationale is again that through cooperation municipalities can achieve scale economies and thus save costs (Kuhlmann and Wollmann, 2014). Evidence for this is again provided by Steiner (2003, 564) for Swiss municipalities: Performance thresholds and economic hardship are among the most frequent reasons mentioned by

local officials for engaging in inter-municipal cooperation. However, [Aldag, Warner and Bel \(2020, 278\)](#) argue that shared services do not always lead to a reduction of costs due to improvements in service quality or functional duplication. In contrast to the private sector, inter-municipal cooperation should in theory benefit from lower transaction costs, as the public cooperation partners share the same objectives.

Furthermore, studies from the US context emphasize the importance of the spatial context. Local governments located in metropolitan areas have more opportunities to cooperate than those in rural areas ([Brown and Potoski, 2003](#); [Kwon and Feiock, 2010](#)). Yet, large cities are able to internally produce their services, because they reach the respective critical population thresholds. It is thus mostly suburban municipalities that have many options to cooperate, which highlights the role of available cooperation partners. The decision to cooperate is two- or even multi-sided: it depends on at least two, often more, municipalities and not on one municipality alone, whether joint production of services is deemed feasible or not. A frequently invoked factor in this respect is the homo- or heterogeneity of a potential cooperation coalition. On the one hand, one could expect that governments which are more similar are more likely to cooperate, because their preferences are less heterogeneous and hence they more easily reach an agreement ([Kwon and Feiock, 2010](#)). On the other hand, differences might be an asset as well, since governments can benefit from complements - each of them has their distinct strengths - and hence cooperation is more beneficial. Existing empirical studies assessing this question find that more (politically) homogeneous municipalities are more likely to cooperate ([Gerber, Henry and Lubell, 2013](#); [Niaounakis and Blank, 2017](#)).

How important are these factors in comparison? [Bel and Warner \(2016\)](#) conducted a meta-regression analysis of 49 studies assessing the determinants of inter municipal cooperation. They find that fiscal stress and spatial location (city/suburbs vs. rural areas) are found to be associated with higher propensity to cooperate. By contrast, community wealth, population size or ethnic diversity are not associated with higher propensity to cooperate. In addition, [Bel and Sebó \(2021\)](#) show mixed results for cost-savings, but smaller municipalities seem to perceive inter-municipal cooperation as more cost ben-

eficial. Aldag, Warner and Bel (2020, 280) have recently emphasized that differences across policy domains can explain inter-municipal cooperation. Their analysis across 12 services show that cost savings are heavily dependent on the characteristics of services. While some services have limited economies of scale, others have rather high transaction costs, which hinders inter-municipal cooperation. In this paper, we propose to expand on this theoretical considerations by focusing on the policy context. The following section introduces the policy-centered approach to study inter-municipal cooperation.

### 3 A Policy-Centred Approach to Cooperation

Attempts to explain the variance of cooperation across policies were made early on. Williams (1967) suggests a distinction between “system maintenance” and “life-style” services to explain policy variation in inter-municipal cooperation in metropolitan areas.<sup>1</sup> He argues that municipalities are more likely to cooperate in system-maintenance than in life-style services, since the former connect municipalities in a metropolitan area, while the latter differ across municipalities in a metropolitan area - and hence allow municipalities to establish a distinct profile. In a similar vein, Post (2002, 19) distinguishes between capital- and labor-intensive municipal services.<sup>2</sup> Her argument is that potential gains in terms of scale economies are bigger in capital-intensive policies and hence local governments will more often cooperate in these than in labor-intensive ones.

Other studies have approached policy variation in inter-municipal cooperation from the public opinion angle. Holum and Jakobsen (2016) show that Norwegian citizens’ satisfaction with a service does not depend on whether or not their municipality cooperates in garbage collection. Yet, they find that citizens are less satisfied with fire brigades, when the latter are run jointly with other municipalities. The authors explain this difference

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<sup>1</sup>Williams (1967, 304-306) considers the system-maintenance vs. life-style services distinction to be a continuum. On the system-maintenance side, there are services concerning communication networks (public transport, telecommunication) and utility networks (power supply, water, and waste-disposal). In addition, central facilities (universities, hospitals, museums, stadiums, and libraries) also belong to this category. On the life-style end of the continuum, he includes policies such as land-use regulation, education, housing and urban renewal, and recreation.

<sup>2</sup>Capital-intensive services: airports, highways, housing, libraries, natural resources, parking, parks, sewerage, and water transportation; labor-intensive services: administration, corrections, education, fire, health, hospitals, police, protective inspections, welfare, solid waste management and general control

with the characteristics of the service: the more negative evaluation of fire brigades under inter-municipal cooperation is explained by a lower sense of security on the part of the citizens – since fire brigades might be more remote under cooperation – and at the same time the potential benefits and cost savings are not experienced, because the service is funded through taxes. In contrast, citizens experience potential cost efficiency in garbage collection through lower fees. Moreover, in the domain of garbage collection, citizens “simply want to things to run as smoothly and unnoticed as possible, at a reasonable cost” [Holum and Jakobsen \(2016, 606\)](#). In a similar vein, [Elling, Krawczyk and Carr \(2014\)](#) find that US citizens’ attitudes on how to confront fiscal stress<sup>3</sup> in a certain policy area differs across policy areas. In public safety areas (fire and police), tax increases are accepted, and employee lay-offs and wage lowering are not. For other services considered (garbage collection, parks and recreation, street and road maintenance) these forms of dealing with fiscal stress are more easily accepted.

A problem with these studies is that they do not rely on empirical indicators to differentiate different service areas, but the authors classify these services themselves ([Williams, 1967](#); [Post, 2002](#)). While two public opinion studies provide empirical evidence for different service perceptions, the amount of policy areas considered is very small and does not allow for a quantification of policy area differences ([Elling, Krawczyk and Carr, 2014](#); [Holum and Jakobsen, 2016](#)). More recently, [Aldag, Warner and Bel \(2020\)](#) state that the decision to cooperate with other municipalities is affected by differences across policy domains (service characteristics, goals and outcomes, and governments arrangements), but the authors do not provide factors that vary across services in order to account for these differences. We follow [Aldag, Warner and Bel \(2020\)](#) in arguing that these services differ substantially from one another, but we argue that this is rooted in varying policy-perceptions of decision-makers. Since decision-makers decide whether they want to collaborate with another jurisdiction, we also have to account for policy-makers expectations. Building on the transaction cost theory, we argue that the transaction risks that

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<sup>3</sup>The options given to respondents are tax increases, aid-seeking from state/federal government, employee lay-off, lowering wages, contracting out, purchasing from neighbor, inter-municipal cooperation, and vertical authority transfer

are inherent to a service shape the jurisdiction's choice of production mechanism (Brown and Potoski, 2003, 443).

In general, organizations have the dilemma whether they internalize production (make it themselves) or externalize it (buy it through contracting). Transaction cost scholars argue that this choice reflects the relative costs of traditional production factors (fixed assets, labor, and capital) and the transaction costs. According to Williamson (1981), transaction costs are essentially the management costs associated with either internally producing the service or buying through a third actor and are determined by limited information and uncertainty. In the case of contracting-out, an organization cannot fully predict all possible outcomes, which is why an information asymmetry occurs. In this case vendors have more information about their activities and performance than the organization which has delegated the service. Hence, when the risk of vendor opportunism is high, the contracting organization must engage in post contract oversight, which results in high transaction costs and might be finally more expensive than producing the good itself. Aldag and Warner (2018) show that the longevity of shared service agreements can be explained by the decline of transaction costs. However, we know from the literature on bounded rationality that public managers' logical capacity is limited beyond a certain level of complexity (Simon, 1947; Hong, 2019; Hong, Kim and Son, 2020). As a consequence, they will rather choose shortcuts and choose actions which are perceived as "good enough" instead of finding the best solution.

The literature on policy instruments provides different reasons for decision-makers' behavior. In general, policy instruments<sup>4</sup> are seen as the convergence of "rational" design by decision makers and a by-product of contextual factors (Linder and Peters, 1991). In a similar vein, Capano and Lippi (2017) argue that the basic motivation to use policy instruments can be reduced to two analytical dimensions: Instrumentality and legitimacy. While instrumentality influences the way instruments are individually perceived to be useful for the purpose of decision makers, legitimacy is strictly related to the political context of them. First, the instrumentality dimension is shaped by the perceived effectiveness and

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<sup>4</sup>Interventions made by government or public authorities in local, national or international states in order to achieve specific political outcome

problem-solving capacity of the policy tools. Inter-municipal cooperation, which can be conceived as a policy tool in a broader sense, is expected to reduce transaction costs that the decision-makers believe to achieve when they collaborate with another municipality. However, decision-makers might only consider cooperation if they do not have to give up too much power. Several studies show that cooperation reduces accountability and transparency, which might lead to the exploitation of power asymmetries (Feiock, 2009; Andersen and Pierre, 2010; Rayle and Zegras, 2013). In addition, cooperation might also lead to the predominance of a single municipality in a cooperative governance scheme. Thus, cooperation bears an important instrumental risk for local governments, which is why their perception of the policy domain is crucial. If decision makers perceive a service as particularly relevant, they will more likely be worried about a potential loss of power and therefore will avoid to collaborate with other municipalities. Hence, we are formulating the following hypothesis:

H<sub>1</sub>: The higher the perceived relevance of a policy field, the lower the probability of inter-municipal cooperation in this policy field.

In addition, Capano and Lippi (2017) identifies legitimacy as a second factor that drives decision-makers' choice of policy instruments. Related to inter-municipal cooperation, the decision for local governments can depend on the political context of the policy domain. In principle, managers can not only select a policy instrument on the basis of personal preferences, but they are "also obliged to take account of the symbols, opinions, coalitions, interests, and trust." (Capano and Lippi, 2017, 276). The authors distinguish between internal and external legitimacy. While the former implies that the decision-makers are the source of legitimation, the latter is exogenous and related to the specific policy area. Internal legitimacy is established by practices, the legal framework and the ethical culture of the policy domain, while external legitimacy can be shaped by outsiders, e.g. by challenging current policies. In relation to inter-municipal cooperation, decision makers can thus be influenced by the (internal and external) context of the policy, which can also be described as the policy domain's politicization. According to (Lancaster, 2017, 93), politicized policy domains are those where professional, personal and political stakes

are thus making their actors vulnerable. In this sense, decision makers feel either internal or external pressure to legitimize their activities in politicized policy domains, which leads them to be more careful when cooperating. Even though transaction costs might be smaller by cooperating with other municipalities, they might refuse to cooperate, since the domain is too delicate and they want to keep the control. Therefore, we postulate the following hypothesis:

H<sub>2</sub>: The more politicized a policy field, the lower the probability of inter-municipal cooperation in this policy field.

## 4 Research Design

### 4.1 Case Selection

Inter-municipal cooperation is a phenomenon, which can be widely observed around the world. There is a strong tradition in the United States (Warner, 2006; Aldag and Warner, 2018; Aldag, Warner and Bel, 2020), but it is also fairly common in Europe (Hulst and van Montfort, 2007, 2012; Teles and Swianiewicz, 2018) and more and more frequent outside occidental countries (Braadbaart, Zhang and Wang, 2009; Dollery, Akimov and Byrnes, 2009; Yi et al., 2018). We focus our analysis on the case of Switzerland. Even though our case is very specific, our selection has many advantages. Municipalities in Switzerland are important entities – both for political participation and for public service provision (Ladner, 2011). Inter-municipal cooperation is a very widespread phenomenon in Switzerland and it exists in all local policy areas (Steiner, 2003, 558-559), which is why this case allows us to track policy characteristics across multiple policy domains. This makes Switzerland a typical case in cross-national comparison, since its municipalities constitute the lowest level of government in the Swiss federalist system and they account for roughly a third of total government spending (Linder and Mueller, 2017, 152).

**Table 1:** Dependent Variable

Type of Provision	N	%
Internal Production	27,271	48.6
IMC (Public)	7,985	14.2
IMC (Contract)	5,071	9.0
Outsourcing	4,170	7.4
IMC (Private)	2,727	4.9
NA	8,894	15.8
Total	56,118	100.0

*Note:* N = policy per municipality.

## 4.2 Data

For our analysis, we combine data from three different sources.<sup>5</sup> For the dependent variable inter-municipal cooperation, we rely on a survey of local top-level clerks (Gemeindegemeinschafter) conducted in 2017 (Ladner et al., 2017). For this survey, all Swiss municipalities were contacted and asked to participate in the survey. Out of the 2,255 Swiss municipalities that existed in 2017, 1,779 participated. One question in the survey asks participants to indicate in which ones out of 32 policy areas their municipality cooperates with other municipalities or with private enterprises to provide the respective services and fulfill the associated tasks.<sup>6</sup> Respondents had six different answer options: internal production, inter-municipal cooperation by contract (i.e. buying services from other municipalities), inter-municipal cooperation under public law, inter-municipal cooperation under private law, cooperation with a private provider (i.e. outsourcing), and does not apply (e.g. because the policy is not a local task). Table 1 presents an overview of the responses of the 1779 local bureaucrats. Not surprisingly, internal production is still the most frequent way of providing a service. Yet, 35.5 % of the services are provided in cooperation with other municipalities or with private enterprises among the municipalities represented in the survey. For the empirical analysis, we collapse all forms of cooperation into one category, since we are interested in whether a municipality cooperates or not and not in what type of cooperation it chooses. However, we will also present results that distinguishes types of provision.

<sup>5</sup>Descriptive statistics are presented in Table A.1 in Appendix A.

<sup>6</sup>Question wording and policy areas in Tables A.2 and A.3 in Appendix A.

**Figure 1:** Cooperation Intensity by Policy Field

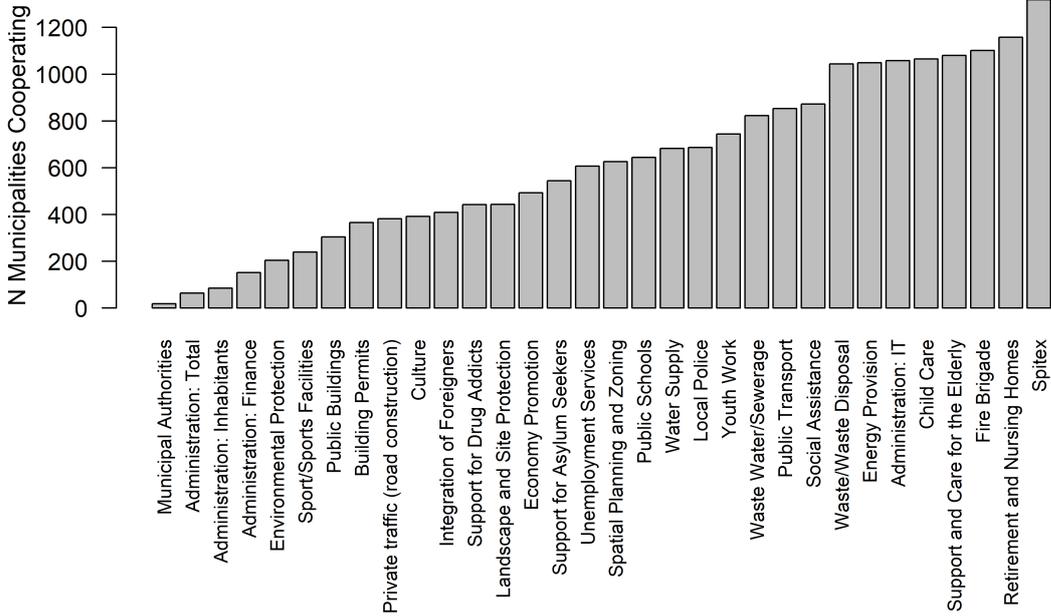


Figure 1 and 2 show the univariate distribution of this binary variable across policy fields and across municipalities. We can see that there is substantive variation in the amount of cooperation both across policy fields and across municipalities – an additional empirical motivation for our analysis. While there is less cooperation in the policy domains of education and culture, Swiss municipalities cooperate more often in the domains of health (Retirement and Spitex) and digitalization. The latter is not surprising, since the implementation of digitalization programs is a substantial challenge for local governments (Cahlikova and Bundi, 2020). Moreover, Figure 2 reveals also that there are significant differences across municipalities. While some municipalities cooperate in very few domains, others use cooperation very intensively to provide public services. In addition, there are hardly any municipalities that do not participate in such an agreement in order to produce a public service.

The data on perceptions of policy characteristics comes from a survey of local office holders in 75 Swiss municipalities that was conducted between October 2017 and January

**Figure 2:** Cooperation Intensity by Municipality



2018 (Freitag, Bundi and Witzig, 2019).<sup>7</sup> A total of 1,792 local office holders took part in the survey, which corresponds to a response rate of 47.5%. The respondents were asked to select one out of 21 policy fields with which they most frequently deal with. In a subsequent step, they were asked to evaluate five characteristics of that policy area in their municipality:<sup>8</sup> (1) its importance, (2) the autonomy a municipality has in it, (3) its public salience, (4) its conflictivity, and (5) legitimacy pressures coming from outside actors. For our analysis, we aggregate respondents' perceptions by policy area for each of the five indicators.<sup>9</sup> In addition, we assess, whether the five indicators cluster on latent dimensions. A principal component analysis of the five indicators yields two components (see Table 2).

The first component encompasses salience, conflictivity, and legitimacy pressures and is thus labelled 'politicization'. The second component consists of a policy field's impor-

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<sup>7</sup>60 municipalities were selected on the basis of the Swiss Volunteer Monitor 2010 (Stadelmann and Freitag, 2011). The 60 municipalities were supplemented by 20 municipalities with a municipal parliament, as this type was underrepresented in the sample. The municipalities Biasca, Birsfelden, Rothenturm and Savosa and Thal (SG) decided not to take part in the survey despite being invited, so that 75 municipalities were ultimately included in the survey.

<sup>8</sup>For question wording and policy fields see Tables A.2 and A.3 in Appendix A.

<sup>9</sup>N respondents = 1375.

**Table 2:** Principal Component Analysis: Policy Perceptions

	Politicization	Relevance
Importance	0.340	<b>0.771</b>
Autonomy	-0.314	<b>0.767</b>
Saliency	<b>0.971</b>	0.065
Conflictivity	<b>0.933</b>	-0.224
Legitimacy Pressure	<b>0.942</b>	0.151
Eigenvalues	2.916	1.258
% Variance	0.583	0.252

*Note:* Data from Freitag, Bundi and Witzig (2019): Perceptions of local militia politicians on 20 different policy areas in 75 Swiss municipalities.

tance and a municipality’s decision-making autonomy in it and is thus termed ‘relevance’. We run our subsequent regression analyses with these two components as independent variables.<sup>10</sup>

An additional measure of policy characteristics stems from the local top-level clerks survey, namely the extent to which their municipality experiences capacity problems in a particular policy area. We use this policy-level factor as a measure for the ‘functional pressure’ a municipality experiences in a particular policy domain, the idea being that higher functional pressure is associated with a higher probability to cooperate. In addition to this policy-specific indicator, we incorporate indicators at the level of the municipality in the analysis. Larger municipalities might be better equipped to provide local services for themselves. Moreover, municipalities located in urban areas might have more opportunities to cooperate than rural ones.

### 4.3 Estimation Strategy

The structure of our data set is quite complex due to the hierarchies we have in our data. On the one hand, we have policies that are nested in municipalities. On the other hand, we also have municipalities that are nested in policies. Unlike in an analysis of municipalities nested in provinces or individuals nested in countries, the hierarchy between policy and municipality in our data is thus not a priori clear. In addition, we have predictor variables at the level of the policy-municipality (local officials’ perceived functional pressure in a

<sup>10</sup>As a robustness check, we provide results with the disaggregated indicators in Appendix B.

policy area), at the level of the policy (i.e. invariant across municipalities: relevance and politicization), and at the level of the municipality (i.e. invariant across policies: population size, urbanization, net assets/capita, and taxes/capita). This poses challenges for regression analysis, which we tackle with multilevel logistic regression models with policies as level-1 and municipalities as level-2.<sup>11</sup> We estimate the following model:

$$y_{ij} = \alpha + \beta_{ij}X_{ij} + \gamma_jX_j + \lambda_iX_i + \epsilon_{ij}$$

where

$$\alpha = \delta_{ij} + \eta_i$$

$y_{ij}$  depicts the binary dependent variable (intermunicipal cooperation=1),  $\beta_{ij}$ ,  $\gamma_j$ , and  $\lambda_i$  are coefficient vectors for policy- and municipality-variant ( $X_{ij}$ ), policy-variant ( $X_j$ ), and municipality-variant ( $X_i$ ) predictors.  $\delta_{ij}$  designates the grand mean of the dependent variable, and  $\eta_i$  the municipality-level variation around that grand mean. We thus estimate a random intercept regression model with municipalities as level-2.

To assess the robustness of our empirical models, we run several alternative specifications. First, and foremost, we estimate multinomial regression models with a nominal dependent variable. This allows to see whether the correlations between our predictor and our dependent variable operate in the same way across different forms of cooperation, or whether there are differences depending on the type of cooperation. Second, we also report results for the individual indicators of the two policy perception dimensions that we identified in subsection 4.2. Third, we replicate our analysis with a subset of the data for the largest canton of Switzerland, the canton of Zurich. For this canton, we have additional information at the policy-level as well as on the municipality level which we (currently) do not have at our disposal for the other Swiss cantons. Importantly, this concerns the percentage of total local spending that concerns a certain policy area, as well as indicators for fiscal stress at the municipality level.

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<sup>11</sup>The choice of the levels is somewhat arbitrary. We decided to use municipalities as level-2, because we have 1779 municipalities (compared to only 32 policy fields), which gives us more leverage in the estimation.

## 5 Results

### 5.1 Internal Production vs. Cooperation

Table 3 shows the results of several multilevel logistic regression model. All continuous variables are standardized to a mean of 0 and a standard deviation of 1. Model 1 displays the coefficients for a model with our two independent variables only, Model 2 is a model where we include perceived functional pressures in a policy area and Model 3 is the full model that also includes municipality-level covariates.

**Table 3:** Intermunicipal Cooperation: Multilevel Logistic Regression Models

	(1)	(2)	(3)
Relevance	0.454*** (0.010)	0.464*** (0.011)	0.464*** (0.011)
Politicization	-0.174*** (0.009)	-0.153*** (0.010)	-0.153*** (0.010)
Functional Pressure (Basis=None)			
Low Pressure		0.095*** (0.026)	0.100*** (0.026)
Medium Pressure		0.018 (0.039)	0.025 (0.039)
High Pressure		0.038 (0.069)	0.041 (0.069)
Log. Population Size			-0.136*** (0.023)
Urbanization (Basis=Medium)			
Low			-0.080* (0.045)
High			0.052 (0.094)
Constant	-0.671*** (0.018)	-0.715*** (0.021)	-0.672*** (0.032)
Observations	56,118	47,094	47,094
Level-2 (Municipalities)	1,779	1,771	1,771
Log Likelihood	-34,290.220	-28,743.390	-28,724.570
Akaike Inf. Crit.	68,588.430	57,500.780	57,469.140
Bayesian Inf. Crit.	68,624.170	57,562.100	57,556.740

*Note.* Coefficients are log odds from multilevel logistic regression models (glmer(,family="binomial") in R); \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

In all three models, the relevance of a policy area as perceived by local office holders is positively linked to the probability of joint service provision, whereas the perceived politicization of a policy area is negatively linked to cooperation probability. When the perceived relevance increases by one standard deviation, the probability of inter-municipal cooperation is 1.6 times higher.<sup>12</sup> The same change in perceived politicization is associated with a 1.2 times lower cooperation probability.<sup>13</sup> Hence, the more relevant and the less politicized a policy at the local level, the more likely it is that municipalities cooperate with one another or with private actors to provide it.

These results remain robust to the inclusion of perceived functional pressures in the regression equation (model (2)). Functional pressures are positively linked to the probability of cooperation – even if the coefficient only reaches statistical significance for the difference between no and low functional pressures. Compared to policy areas where policy makers do not perceive any performance limits, policy areas where performance limits are in sight have a 1.1 times higher cooperation probability.<sup>14</sup> At the level of the municipality, we find that higher population size is associated with a lower probability of inter-municipal cooperation and that more rural municipalities are also less likely to cooperate. This is in line with existing studies on municipality-level differences with respect to inter-municipal cooperation (Brown and Potoski, 2003; Kwon and Feiock, 2010).

These results are largely robust when we look at the individual indicators that constitute the factors ‘relevance’ and ‘politicization’ (see Table B.1 in Appendix B). One difference is noteworthy, however. One of the three indicators for politicization – legitimacy pressure – is positively and not negatively linked to the probability of inter-municipal cooperation. This might indicate the presence of other actors in inter-municipal cooperation. In policy areas in which municipalities cooperate more often, local office holders might hence indicate more frequently that there are pressures from other actors so that they have to cooperate. Moreover, the results are also robust when we focus on the canton of Zurich only. This allows us to include additional policy- and municipality-level controls

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<sup>12</sup> $e^{0.464} = 1.59$ .

<sup>13</sup> $e^{-0.153} = 0.86 \mid \frac{1}{0.86} = 1.16$ .

<sup>14</sup> $e^{0.1} = 1.1$ .

(see Table C.1 in Appendix C). The inclusion of the share of total spending in a policy area as well as indicators for fiscal stress do not alter the results.

To sum up, we see that the relevance local office holders attribute to a policy area is positively linked to inter-municipal cooperation, while the perceived politicization is negatively associated. This result remains robust to the inclusion of control variables. Thus, our empirical analyses suggest that we have to reject our first hypothesis, while there is empirical evidence for the second hypothesis. Yet how can we explain that municipalities cooperate more often in policy domains, which are perceived as more relevant?

In general, municipalities usually seek multi-sectoral collaborations to bring together a wide range of expertise, knowledge and resources that facilitates the production of public services (Head, 2008, 733). As a consequence, the decision to collaborate might not only be due to the fact that local office holders aim to make services more efficient and to reduce transaction costs, but also to produce better goods. Several studies show that the quality of public goods provision is linked to electoral incentives (Lizzeri and Persico, 2001; James and John, 2007). Office holders might seek collaborations with other institutions in order to recommend themselves for re-election with better services. However, we should only observe this behavior for policies that are more important to them. The literature on issue ownership shows that politicians focus on specific policy domains to appeal to their voters (Bélanger and Meguid, 2008), while local governments in particular concentrate on policy matters of direct concern to the local community (Breeman, Scholten and Timmermans, 2015).

## 5.2 Types of Inter-municipal Cooperation

Do we find the same results if we disentangle inter-municipal cooperation into its different components? Table 4 provides answers to this question. It contains the results of a multinomial regression model, with internal production as a baseline category. The results for our two independent variables remain the same. The perceived relevance of a policy area for the municipality is positively linked to the probability of different forms of inter-municipal cooperation and outsourcing as compared to internal production.

**Table 4: Inter-Municipal Cooperation: Multinomial Logistic Regression Models**

	No Controls						
	Intermunicipal Cooperation Form			Outsourcing			
	Public	Private	Contract	Public	Private	Contract	
Relevance	0.307*** (0.013)	0.684*** (0.025)	0.316*** (0.015)	0.670*** (0.020)	0.650*** (0.026)	0.324*** (0.016)	0.643*** (0.020)
Politicization	-0.147*** (0.012)	-0.039** (0.019)	-0.247*** (0.014)	-0.122*** (0.016)	-0.022 (0.021)	-0.236*** (0.015)	-0.112*** (0.016)
Functional Pressure (Basis=None)							
Low Pressure					0.078 (0.051)	0.148*** (0.038)	0.367*** (0.039)
Medium Pressure					0.105 (0.070)	-0.117** (0.058)	0.319*** (0.055)
High Pressure					0.134 (0.083)	-0.097 (0.109)	0.334*** (0.102)
Log. Population Size					-0.156*** (0.018)	-0.296*** (0.021)	0.002 (0.023)
Urbanization (Basis=Medium)							
Low					0.067* (0.034)	-0.176*** (0.040)	-0.217*** (0.043)
High					0.225*** (0.071)	-0.272*** (0.104)	-0.012 (0.083)
Constant	-1.511*** (0.013)	-2.694*** (0.022)	-1.981*** (0.015)	-2.271*** (0.018)	-2.694*** (0.042)	-1.906*** (0.030)	-2.230*** (0.034)
Observations			56,118			47,094	
Akaike Inf. Crit.			122,424.600			103,286.200	

*Note.* Coefficients are log odds from multinomial logistic regression models (multinom() from nnet- package in R); \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. Baseline=Internal Production.

Moreover, perceived politicization is negatively linked to different forms of cooperation as compared to internal production. However, there are also some nuances worth pointing out.

First, the coefficient of perceived relevance is weaker for some cooperation types than for others. When perceived relevance increases by one standard deviation in the full model, buying services or providing them through an inter-municipal cooperation scheme under private law instead of internally providing them is 1.9 times more likely, whereas cooperating with other municipalities in a public scheme or through contracting-out is 1.4 times more likely than providing the services autonomously. This result provides some evidence for our interpretation of relevance. [Thümler \(2011\)](#) argues that an important driver of public-private partnerships is the generation of legitimacy due to the claim that this improves the performance of the system - even though this might not be the case.<sup>15</sup>

Second, politicization is not linked to lower cooperation probability for inter-municipal cooperation schemes under private law – when control variables are included in the model. In addition, the association between politicization and contracting-out is stronger than for the other forms of joint-service provision.

Third, changes in functional pressure are not linked to the probability of inter-municipal cooperation under public and private law compared to internal production but more strongly linked to contracting-out and particularly outsourcing as compared to internal production. At the level of the municipality, we also witness some interesting variation. Population size is not linked to the probability of jointly providing services with other municipalities under private law and to outsourcing, whereas rural municipalities are less likely to buy services from other municipalities or to outsource services to private enterprises compared to suburban ones but more likely to cooperate in public inter-municipal cooperation schemes whereas urban centres are more likely to engage in public or private inter-municipal cooperation schemes but less likely to contract-out services to other municipalities.

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<sup>15</sup>[Andrews and Entwistle \(2010\)](#) show in a study of 46 UK local government service departments that public-public partnerships are positively associated with effectiveness, while public-private partnerships are negatively connected.

Again, these results are generally robust to a specification of the model including the individual indicators instead of the factors ‘relevance’ and ‘politicization’ (see Table B.2 in Appendix B). The pattern is the same as above for the binary dependent variable: the perceived legitimacy pressures are positively linked to cooperation probability. Yet, we also find that perceived conflictivity is negatively linked to the probability of contracting-out and outsourcing, but positively to inter-municipal cooperation under public or private law.

### 5.3 Limitations

Like any scientific enquiry, our study has several limitations and methodological problems. First, we have to rely on different data sources to measure the different concepts in our study. While this is not a problem in itself, it poses challenges in the case at hand: each of the data sources has a different classification and number of policy areas. For some policy areas, the assignment was clear and simple, for others it was quite a stretch and for still others, there was no appropriate correspondence.<sup>16</sup>

A second problem concerns causal inference. A problem of our analysis is that we do not know *when* municipality  $i$  started to cooperate in policy area  $j$ . Moreover, our data only allows cross-sectional and not longitudinal analysis. This means that many decisions to cooperate were made before the measurement of our independent variables. This has several consequences. First, we cannot make any statements about causal relationships, only about correlations. Second, the fact that we only have a cross-sectional snapshot of the situation means that we – strictly speaking – cannot make any statements about other time points, unless we make a rather strong assumption. The assumption is that the relationships between different indicators and the differences of the indicators across municipalities and policy areas remain constant over time. If this does not apply, our analysis just provides a snapshot of the year 2017 for Switzerland.

A third problem concerns potential omitted variable bias. Municipalities are not alone in taking their decision to cooperate in a certain policy area. They also need partners

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<sup>16</sup>An overview of the policy areas in the three different data sources and our assignment can be found in Table A.2 in Appendix A.

that want to cooperate with them. Inter-municipal cooperation is thus a result of an at least two- and frequently multi-sided decision. We do not have any information with which other municipalities the municipalities in our analysis cooperate and we do not know whether some municipalities would like to cooperate, but cannot because they do not find a partner. Again, we thus have to make a strong assumption, namely that all municipalities face equally favorable environments for cooperation.

## 6 Conclusion

The level of interest for inter-municipal cooperation is persistently high. While previous studies have focused on structural and economic issues, there is still little research that explains differences in inter-municipal cooperation with policy-specific characteristics. This study investigates the relationship between inter-municipal cooperation and policy domain attributes - relevance and politicisation - in Swiss municipalities. We use two novel data sources for our study, which makes an important empirical and theoretical contribution to the public administration literature.

First, there are substantial differences in inter-municipal cooperation across policy domains. While many studies have acknowledged this variation (Hulst and van Montfort, 2007, 2012; Bel and Warner, 2016; Ladner et al., 2017; Teles and Swianiewicz, 2018; Schoute, Gradus and Budding, 2020), only few studies have tried to explain these differences empirically (Aldag, Warner and Bel, 2020). The differences are not randomly assigned, but follow clear patterns. Health and infrastructure services are more often collaboratively provided, while cultural, public finance and immigration services are less prone to cooperation. The determinants for such patterns might provide important insights in the functioning of local governments and inter-municipal cooperation.

Second, one of the arguments often advanced for differences across policy domains is that office holders expect lower transaction costs in certain policy domains, which is why they are more likely to cooperate (Bel and Warner, 2016). However, previous studies disagree about the effect of inter-municipal cooperation on transaction costs. While some scholars argue that the complexity of cooperation can raise transaction costs (Feiock,

2013; Bel and Warner, 2015), other argue that transaction costs decline over time due to institutional learning (Ansell and Gash, 2008; Dollery, Akimov and Byrnes, 2009). Our results suggest that cooperation can not be reduced to the issue of saving transaction costs, but also entail political aspects that provide office holders with incentives (or disincentives) to cooperate.

Finally, we discussed in the course of this article the distinction between different types of inter-municipal cooperation. In Table 4 we tested whether the office holders' perception of policy areas could explain different inter-municipal cooperation types. The results suggest that office holders' perceptions make almost no difference to the type of cooperation. Municipalities significantly cooperate more or less if the policy area is perceived as relevant or politicized. However, we cannot control for all the potential factors that cause office holders to engage in inter-municipal cooperation. Future research may consider other important determinants, including how the perception of office holders influence the expected transaction costs for cooperation.

Even though we cannot definitively identify the causal relationship between the office holders perception and the municipalities decision to engage in cooperation, our results have important implications for the state of inter-municipal cooperation. Together with ongoing research that identifies the need for studies to differentiate between policy areas, our analysis suggests new theoretical mechanism beyond economic and institutional considerations. Policy contexts matter for local governments and it might not necessarily be the actual reality but the perceived one. While municipalities are said to be driven by economic efficiency and were given the aspiration and label to be apolitical (Holling, 1938), local officials actions are still driven by non-technical aspects such as their perception of a policy area. This study shows us that we should invest more time to study these arenas.

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# Appendix

## A Descriptive Statistics and Data

**Table A.1:** Descriptive Statistics

	N	Mean	SD	Min	P25	P75	Max
Intermunicipal Cooperation	56,118	0.355	–	0	0	1	1
Relevance	56,118	3.146	0.178	2.795	3.070	3.285	3.500
Importance	56,118	3.666	0.201	3.000	3.570	3.810	4.000
Autonomy	56,118	2.626	0.257	2.140	2.500	2.760	3.270
Politicization	56,118	2.790	0.348	1.667	2.593	3.060	3.227
Saliency	56,118	2.941	0.327	2.000	2.670	3.200	3.420
Conflictivity	56,118	2.767	0.464	1.000	2.570	3.100	3.480
Legitimacy Pressure	56,118	2.662	0.299	2.000	2.390	2.910	3.120
Functional Pressure							
No Pressure	56,118	0.491	–	0	0	1	1
Low Pressure	56,118	0.230	–	0	0	0	1
Medium Pressure	56,118	0.094	–	0	0	0	1
High Pressure	56,118	0.023	–	0	0	0	1
NA	56,118	0.161	–	0	0	0	1
Log. Population Size	56,118	7.379	1.225	2.565	6.590	8.198	12.877
Population Size (1,000)	56,118	3.631	11.419	0.013	0.728	3.633	391.359
Urbanization							
Low	56,118	0.534	–	0	0	1	1
Medium	56,118	0.422	–	0	0	1	1
High	56,118	0.044	–	0	0	0	1

**Table A.2:** Policy Fields: Assignment

Data Sources			
ID	Public Expenses Zurich 2016 (Statistical Office Zurich, 2020)	Local Militia Survey (Freitag, Bundi and Witzig, 2019)	Local Bureaucrats Survey (Ladner et al., 2017)
1	Net expenditure Authorities/administration	State order (people, fundamental rights, institutions and people's rights, elections)	Municipal administration: total; Municipal administration: population services; Municipal authorities
2		Civil rights (minorities, equality, data protection)	
3	Net expenditure Budget/Taxes	Public finances (taxes, subsidies, austerity measures)	Municipal administration: Financial administration
4	Net expenditure Public economy	Economy (industry, trade, commerce)	Economic promotion
5		Work (occupational safety, trade unions, unemployment)	Support and assistance for the unemployed
6		Energy (electricity, water, nuclear and renewable energy)	Energy supply
7		Migration (naturalization, integration, refugees, asylum)	Care for asylum seekers; Integration of foreigners
8		Crime (prisons, juvenile delinquency)	
9	Net expenditure Environment and spatial planning	Construction/real estate (spatial planning, urban development, housing)	Spatial planning and zoning; Public buildings; Approval of planning applications
10	Net expenditure Education	Education (schools, universities, kindergartens)	Public schools
11		Forestry/Agriculture	Landscape and site protection
12	Net expenditure Health	Health (health care, food, veterinary, health promotion and prevention)	Support and care for the elderly; Spitex; Retirement and nursing homes;
13	Net expenditure Environment and Spatial planning	Environment (drinking water, air pollution, waste, recycling)	Environmental protection; Water supply

*Continued on next page*

Table A.2 – *Continued*

ID	Public Expenses Zurich 2016 (Statistical Office Zurich, 2020)	Local Militia Survey (Freitag, Bundi and Witzig, 2019)	Local Bureaucrats Survey (Ladner et al., 2017)
14		Sports/Recreation	Sport/Sports Facilities
15	Net expenditures Culture and Recreation	Culture	Culture
16		Infrastructure (disposal, recycling, roads, water supply)	Waste water/sewage system; Waste/disposal
17	Net expenditures Legal protection and security	Security (military, defence, civil protection, police)	Fire brigade; Municipal police tasks
18	Net expenditures Transport	Transport (private and public transport)	Public transport; Private transport (road construction/traffic calming)
19	Net expenditures Social welfare	Social policy (family policy, social insurance, social assistance, social services, external child care)	Youth work; Social assistance; Supplementary childcare for families; Care for drug addicts;
20		Technology (science, telecommu- nications, broadcasting, meteorology)	Municipal Administration: IT
21		External relations of the municipality	

*Note.* The basis for the assignment of policy areas is column 3 (two policy areas have no correspondence in the other two data sources: ID 2 and 21). “;” separates individual policies in column 4. Data on local expenditures is not available for all policy areas. For two policy areas (ID 9 and 13), the same expenditure indicator is assigned.

**Table A.3:** Question Wording: Surveys

Variable	Question	Source
Inter-Municipal Cooperation	Do you perform the following tasks yourself, in intercommunal cooperation schemes (IMC) or with private providers? [List of 32 tasks from Table A.2, column 4] Internal Production (=0) IMC (buying services from other municipality) (=1) IMC (scheme under public law) (=1) IMC (scheme under private law) (=1) Private Provider (=1) No Local Task/Does Not Apply (=0)	(Ladner et al., 2017)
<i>Independent Variables</i>	Which policy area do you most frequently deal with in your militia work? [List of 21 policy areas from Table A.2, column 3] Please tick the box to indicate the extent to which you agree with the individual statements on your priority area [Don't agree at all–Totally agree]	(Freitag, Bundi and Witzig, 2019)
Importance	This area is relevant for my municipality	
Autonomy	In this area, there is a lot of room for manoeuvre at the municipal level (in comparison to other areas)	
Saliency	The area is often discussed in the media/public	
Conflictivity	The area is often the subject of political conflicts	
Legitimacy	Pres- The tasks performed in this area are often challenged by other actors (political actors, population)	
<i>Functional sure</i>	Pres- There may be problems that the municipalities can hardly handle in an adequate way due to workload or lack of expertise. Are such performance limits visible in your municipality? [List of 32 policy areas from Table A.2, column 4] Please answer this question for all of the following tasks. 0=no performance limits in sight (=none) 1=limits in sight (=low) 2=limits reached (=medium) 3=limits passed (=high) NA=task does not concern municipality	(Ladner et al., 2017)

## B Policy Perceptions as Individual Indicators

**Table B.1:** Intermunicipal Cooperation: Multilevel Logistic Regression Models

	(1)	(2)	(3)
Importance	0.361*** (0.013)	0.349*** (0.014)	0.347*** (0.014)
Autonomy	0.226*** (0.011)	0.231*** (0.013)	0.232*** (0.013)
Saliency	-0.334*** (0.035)	-0.306*** (0.040)	-0.306*** (0.040)
Conflictivity	-0.109*** (0.030)	-0.159*** (0.033)	-0.160*** (0.033)
Legitimacy Pressure	0.223*** (0.023)	0.288*** (0.025)	0.290*** (0.025)
Functional Pressure (Basis=None)			
Low Pressure		0.070*** (0.027)	0.076*** (0.026)
Medium Pressure		-0.008 (0.039)	-0.0005 (0.039)
High Pressure		0.007 (0.070)	0.010 (0.070)
Log. Population Size			-0.136*** (0.024)
Urbanization (Basis=Medium)			
Low			-0.082* (0.045)
High			0.052 (0.095)
Constant	-0.674*** (0.018)	-0.713*** (0.021)	-0.669*** (0.032)
Observations	56,118	47,094	47,094
Level-2 (Municipalities)	1,779	1,771	1,771
Log Likelihood	-34,103.500	-28,585.850	-28,567.440
Akaike Inf. Crit.	68,221.000	57,191.710	57,160.890
Bayesian Inf. Crit.	68,283.550	57,279.310	57,274.770

*Note.* Coefficients are log odds from multilevel logistic regression models (glmer(,family="binomial") in R); \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

**Table B.2: Inter-Municipal Cooperation: Multinomial Logistic Regression Models**

	No Controls						Full Model					
	Intermunicipal Cooperation Form			Outsourcing			Intermunicipal Cooperation Form			Outsourcing		
	Public	Private	Contract	Public	Private	Contract	Public	Private	Contract	Public	Private	Contract
Importance	0.225*** (0.016)	0.566*** (0.029)	0.283*** (0.021)	0.559*** (0.025)	0.503*** (0.032)	0.267*** (0.023)	0.209*** (0.019)	0.503*** (0.032)	0.267*** (0.023)	0.513*** (0.026)		
Autonomy	0.230*** (0.015)	0.497*** (0.027)	0.028 (0.019)	0.224*** (0.022)	0.470*** (0.029)	0.056*** (0.021)	0.250*** (0.016)	0.470*** (0.029)	0.056*** (0.021)	0.214*** (0.023)		
Salience	-0.385*** (0.047)	-0.817*** (0.075)	-0.208*** (0.058)	-0.044 (0.061)	-0.777*** (0.084)	-0.240*** (0.066)	-0.315*** (0.055)	-0.777*** (0.084)	-0.240*** (0.066)	-0.063 (0.067)		
Conflictivity	0.092** (0.040)	0.376*** (0.064)	-0.399*** (0.048)	-0.429*** (0.054)	0.278*** (0.071)	-0.386*** (0.054)	0.047 (0.045)	0.278*** (0.071)	-0.386*** (0.054)	-0.477*** (0.058)		
Legitimacy Pressure	0.116*** (0.031)	0.372*** (0.053)	0.316*** (0.038)	0.315*** (0.043)	0.472*** (0.058)	0.380*** (0.042)	0.133*** (0.035)	0.472*** (0.058)	0.380*** (0.042)	0.434*** (0.045)		
Functional Pressure (B=None) Low Pressure							0.049 (0.033)	0.057 (0.051)	0.123*** (0.038)	0.323*** (0.040)		
Medium Pressure							0.010 (0.046)	0.088 (0.070)	-0.141** (0.058)	0.268*** (0.055)		
High Pressure							0.138* (0.083)	0.050 (0.134)	-0.128 (0.109)	0.269*** (0.103)		
Log. Population Size							-0.158*** (0.018)	-0.048* (0.028)	-0.297*** (0.021)	0.002 (0.023)		
Urbanization (Basis=Medium) Low							0.066* (0.034)	-0.031 (0.053)	-0.179*** (0.040)	-0.221*** (0.043)		
High							0.226*** (0.071)	0.204** (0.102)	-0.271*** (0.104)	-0.012 (0.083)		
Constant	-1.512*** (0.013)	-2.722*** (0.023)	-1.994*** (0.016)	-2.303*** (0.019)	-2.710*** (0.043)	-1.910*** (0.031)	-1.625*** (0.027)	-2.710*** (0.043)	-1.910*** (0.031)	-2.249*** (0.034)		
Observations	56,118						47,094					
Akaike Inf. Crit.	121,693.000						102,299.900					

Note. Coefficients are log odds from multinomial logistic regression models (multinom() from mnet- package in R); \* p<0.1; \*\* p<0.05; \*\*\* p<0.01. Baseline=Self-Provision.

## C Additional Policy-Level Indicators: Canton of Zurich

**Table C.1:** Intermunicipal Cooperation: Multilevel Logistic Regression Models (Zurich)

	(1)	(2)	(3)
Relevance	0.381*** (0.035)	0.520*** (0.054)	0.531*** (0.054)
Politicization	-0.206*** (0.034)	-0.213*** (0.056)	-0.227*** (0.056)
Functional Pressure (Basis=None)			
Low Pressure	‡	0.144 (0.114)	0.237** (0.111)
Medium Pressure		-0.497*** (0.167)	-0.351** (0.161)
High Pressure		-0.568* (0.318)	-0.427 (0.308)
Policy Spending/Total Spending		-0.253*** (0.053)	-0.234*** (0.053)
Log. Population Size			-0.401*** (0.081)
High			-0.224 (0.190)
Low			-0.168 (0.150)
Net Assets/Capita (1,000 CHF)			-0.015 (0.066)
Taxes/Capita (1,000 CHF)			0.008 (0.060)
Constant	-0.530*** (0.059)	-0.489*** (0.077)	-0.447*** (0.080)
Observations	4,128	2,258	2,258
Level-2 (Municipalities)	130	129	129
Log Likelihood	-2,613.443	-1,392.535	-1,370.865
Akaike Inf. Crit.	5,234.886	2,801.071	2,767.729
Bayesian Inf. Crit.	5,260.189	2,846.849	2,842.118

*Note.* Coefficients are log odds from multilevel logistic regression models (glmer(,family="binomial") in R); \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.