

**Volunteer Organisations:
Odds or Obstacle for Small Business formation in rural areas?
Evidence from Swiss municipalities***

Daniel Baumgartner[†] and Tobias Schulz
Swiss Federal Institute for Forest, Snow and Landscape
Birmensdorf, Switzerland

Paper to be presented at the
Annual Meeting of the Regional Studies Association
May 24-26, 2010, Pécs

Abstract

In many rural areas, policy aims at stimulating entrepreneurship and new firm foundations. To foster entrepreneurial activities in these areas, the enhancement of local 'entrepreneurship fostering social capital' may be a means. An important pillar of social capital consists of locally active volunteer organisations. In this paper, different characteristics of volunteer organisations and their influence on new firm foundations in rural areas are studied. Basing on survey data collected in 254 municipalities in rural Switzerland, five hypotheses concerning 'entrepreneurship fostering' and 'entrepreneurship hindering' characteristics of volunteer organisations are tested applying a zero-inflated poisson-regression approach. Results suggest that volunteer organisations in general positively influence local new firm foundation rates. Too many "bonding" associations for economic development per municipality, however, lead to decreasing firm foundation rates. This means in conclusion that fostering entrepreneurial activities in rural areas by only creating new 'entrepreneurship fostering' organisations' may not be appropriate.

Keywords: Entrepreneurship, small business foundation, non-core regions, Switzerland, civic engagement, volunteer organisation, social capital

* This research was supported by the Schweizerische Gemeinnützige Gesellschaft, SGG (Swiss Charitable Association). We greatly acknowledge the excellent research assistance of Ilona Imoberdorf.

[†] daniel.baumgartner@wsl.ch, WSL, Zürcherstrasse 111, 8903 Birmensdorf, Switzerland, Tel: +41 44 7392 545, tobias.schulz@wsl.ch, WSL, Zürcherstrasse 11, 8903 Birmensdorf, Switzerland, Tel: +41 44 7392 477

1. Introduction

Entrepreneurship and new firm foundations increasingly gain importance by policy programs that aim at fostering economic development in rural areas in Europe (Organisation for Economic Co-Operation and Development (OECD) 2006). These areas, however, exhibit a particular environment for small and medium sized enterprises (SMEs) and firm foundations (Stathopoulou, Psaltopoulos et al. 2004; North and Smallbone 2006). Firm foundation rates in general are as lower as more remote from metropolitan areas rural areas lay (North and Smallbone 2006; Tamasy and Le Heron 2008) while especially fast growing “gazelles” are not likely to be located in the periphery (Stam 2005; Bosma and Schutjens 2007). New firm foundation and successfully growing SMEs in the European periphery, however, seem to take advantage of particular “locational windows of opportunities” (Skuras, Meccheri et al. 2005: 343). These windows of opportunities are on one hand shaped by particular characteristics of individual entrepreneurs and their businesses, but on the other hand, they are strongly influenced by the specific local social structures these businesses interact with (Skuras, Meccheri et al. 2005). These particular local social structures, such as the availability of role-models, norms, or local culture even seem to play a more prominent role to predict entrepreneurial activity in non-core areas than the “hard” factors such as education or the age of individual entrepreneurs (Meccheri and Pelloni 2006; Vaillant and Lafuente 2007).

Local social structures that foster new firm foundation and SME activities in rural areas represent a particular “entrepreneurship facilitating” form of local social capital (Westlund and Bolton 2003: 94). Social capital as a research concept, however, remains a “genotype with many phenotypic applications” (Adam and Roncevic 2003: 158). The main phenotypic applications of the concept regarding the role of social capital for new firm foundation and SME performance hereby embrace:

- social capital as networking capital, individual entrepreneurs invest during the start-up process to gain and maintain control over particular resources (Davidsson and Honig 2003; Casson and Giusta 2007);
- social capital as personal networks, especially regarding the ethnic (Aldrich and Waldinger 1990) or migrant (Kalantaridis and Bika 2006; Kalantaridis and Bika 2006; Stockdale 2006) background of emerging entrepreneurs;
- social capital as emerging entrepreneur’s investment to “embed” their business in local social structures and culture (Jack and Anderson 2002).

All these applications take the individual emerging entrepreneur as a starting point of which social capital is an asset. In contrast, there is also an approach by Westlund and Bolton (2003) who understand social capital as a generator of a “place surplus” for local new firm foundations. In such an approach, social capital, hence, is an asset of the community in which emerging entrepreneurs are embedded (Flora, Sharp et al. 1997; Flora 1998). If conceptualized from this community-perspective, empirical analyses suggest that higher stocks of social capital lead the higher rates of economic development in rural communities (Woodhouse 2006; Callois and Aubert 2007).

A vital challenge for empirical research from the community-perspective on social capital, however, remains: an adequate measurement of stocks and quality of social capital in local communities (Callois and Aubert 2007). In this paper, we focus on locally active volunteer organisations as a measure to assess both stocks and quality of social capital in rural

communities. Our key question is to ask what is the influence of different types of voluntary organisations on the foundation of new firms in rural areas.

To investigate this research question, we present in the following section different measures to assess the quality of local volunteer organisations and formulate working hypotheses about how different types of volunteer organisations may influence the probability for the foundation of new ventures in rural areas. These hypotheses will be tested in a following section on behalf a data set that has been collected in 254 municipalities in rural Switzerland.

2 Volunteer organisations and local development

2.1 Volunteer organisations – a key concept of local social capital

According to Bourdieu (1983), social capital “is an attribute of an individual in a social context. One can acquire social capital through purposeful actions and can transform social capital into conventional economic gains. The ability to do so, however, depends on the nature of the social obligations, connections, and networks available”. This definition emphasises that social capital is a concept at the individual level that is, however, conditional on preconditions that are provided at the group level. In other words, no individual is able to produce social capital by itself. The production of individual social capital, instead, contributes to the aggregated social capital of the group or ‘network’ (Granovetter 1973). A particular, formalised type of such networks, is represented through locally active volunteer organizations that therefore make vital part of the locally available social capital.

Theoretically, already De Toqueville (1835/1962) argued that being a member and participating in volunteer organisations should help individuals to develop their social skills and democratic virtues and hence increases social capital. More recently, Putnam (1993: 173) assesses networks of civic engagement as “an essential form of social capital” that significantly improve the institutional and economic performance of regions. Locally active networks of civic engagement “generate social networks that expand the range of weak ties among citizens who otherwise would not interact and that can be used for productive means” (Morales 2002: 499). Interaction and networking in volunteer organisations, moreover, might also lead to higher levels of generalized trust of the members and therefore facilitates collective action (Morales 2002: 499).

Empirically, however, the role of volunteer associations for social capital formation is hard to grasp. Although Almond and Verba (1963) came to the early conclusion that it is membership in an organisation itself that has the most effect on social capital, if membership is compared to other individual traits, its effect seems to be limited (Freitag 2003). A high priority on the research agenda, therefore, is given to the question whether different types of membership (active, passive) and, more importantly, whether performing specific tasks in the organisation (different forms of active membership) affect social capital formation at the individual level (Brady, Verba et al. 1995; Howard and Gilbert 2008; Li and Marsh 2008).

These studies all have in common that they take the individual as a starting point for analysis and that they study the role of organisations insofar, as they are looking at different forms of involvement. However, taking into account the characteristics of the organisation by explicitly focusing on this level of analysis is less common since most data on this matter had been collected at the individual level and including the organisational level into the sampling strategy is an excessively involved undertaking (Kriesi and Baglioni 2003; Maloney and van Deth 2010).

Correspondingly, studies about the associational context of social capital are rare and hence, more specifically, a systematic assessment of the role that locally active volunteer organisations might play for new firm foundation and local economic development does not yet exist. In what follows, we look at the literature that tries to differentiate types of volunteer organisations from the social capital perspective, in order to derive criteria about the quality of volunteer organisations as 'entrepreneurship-fostering' or 'entrepreneurship-hindering' (Westlund and Bolton 2003).

2.2 Differentiating types of volunteer organisations

To identify 'entrepreneurship-fostering' characteristics of volunteer organisations, three main measuring approaches are viable. These are taken from the relatively large theoretical and particularly also empirical sociological and political science literature about the role of voluntary associations on social interaction and political behaviour.

First, voluntary organisations may be qualified according to their *goals and main objectives*. Using data from a study of the population of associations in a small number of European towns, Maloney and Roßteutscher (2006) define different 'sectoral types' of organisations based on information about the goals these organisations are pursuing. Their typology, however, remains purely descriptive and does not imply expectations about what kind of "sectoral types" might foster which kind of social capital. There are, of course, some expectations, however, about how associations belonging to different sectors or providing different functions might differ with respect to the support of the formation of social capital. For example, generalised trust seems to be higher in political groups as opposed to apolitical groups (Stolle 2001; Knack 2003; Wollebaek and Selle 2003). Examining political interest and political participation as a manifestation (or rather a result, according to Sobel 2002) of social capital, these authors – as well as related authors working with the same data (Lelieveldt, Astudillo et al. 2006; Maloney, Deth et al. 2008) – conclude that "community groups" and groups dealing with politics and economic affairs, should have a higher impact on individual social capital of their members than organisations in the realm of sports and leisure, because members of such groups have higher rates of political participation and interest. Hence, being part of a network that was established to foster certain goals should be helpful in reaching this goal. Along the same line, one might argue that volunteer organisations that aim at stimulating economic development or offer networking platforms for SMEs may gain particular interest for local development (Johannisson, Ramirez-Pasillas et al. 2002).

As Lelieveldt, Astudillo et al. (2006) remind – "most association are relevant [...] for more than one reason" and therefore a classification of associations that hinges on the goals of the associations only may not be comprehensive enough. A second possibility therefore is, to classify voluntary organisations by their *main activities*. To this end, Kriesi and Baglioni (2003) derive a theoretical typology of voluntary associations that combines two functional differentiations between associations: agency vs. service orientation and high vs. low membership involvement, i.e. high vs. low activation of members. Consequently, these authors distinguish between associations that provide services to their members or others, namely clubs (high membership involvement and hence strong in activating) and associations for professional assistance (low membership involvement), and associations that merely provide advocacy for their members or others, i.e. interest groups (low membership involvement) and citizen groups (high membership involvement). From such a perspective, again, the main interest regarding local economic

development may lay on organisations that activate their members and therefore might be able to foster community entrepreneurial activities (Laukkanen and Niittykangas 2003).

As a third approach, different types of associations might be identified by their *functional characteristics* from a sociological point of view. Paxton (1999) and Putnam (1995; 2000) eventually have introduced a functional approach in which they suggest to distinguish whether a volunteer organisation provides bridges between different kinds of people and cultures or towards the outside of a local community by either being “inclusive” or by helping to tie networks with other organisations and actors outside the local context. In contrast to such ‘bridging’ organisations, ‘bonding’ organisations, which are rather homogenous in their composition, hierarchically structured and not connected very much to other organisations or actors in a community, provide for their members a possibility to isolate from unwanted influences and at the same time may strengthen a ‘sense of belonging to the group’ that facilitates collective action at the group level. Consequently, certain associations, possibly including associations concerned with economic development or even more narrow interests, might even be more effective in reaching their goals if they are organised in a more ‘bonding’ fashion. On the other side of the spectrum, bridging associations are expected to increase ‘positive’ social capital (generalised trust, reciprocity) in a community which can also have positive effects on economic development, although in a more indirect way.

Such functional characteristics, however, are not easy to measure. Basically, two possibilities have been suggested, to empirically distinguish between bridging and bonding associations that go beyond the mere guessing of these characteristics from the goals of the organisation. The first builds on the network metaphor and assumes associations to be ‘bridging’ when they are connected with other organisations within or outside the local setting and as ‘bonding’ when members of the particular organisation are mainly connected to each other and the organisation does not provide ties to actors within or outside of the local community (Woolcock 1998; O'Brien, Phillips et al. 2005). The quality of networks provided by volunteer organisations, however, seems to be rather limited in practice, since networking activities also depend on the resources that are available (Zmerli and Newton 2006). With respect to the stimulation of local and regional economic development, however, empirically, both ‘bridging’ as well as ‘bonding’ networking characteristics of volunteer organisations, seem to have a positive impact (Woodhouse 2006; Callois and Aubert 2007).

The second measurement approach for functional characteristics of volunteer organisations emphasises the inclusiveness of organisations, i.e. their ability to offer their members the possibility to get in touch with other people and foster social interaction across societal classes and cultural communities. Accordingly, this approach aims at measuring the heterogeneity of membership of voluntary associations, since “positive experiences with dissimilar individuals will have greater effects on the development of norms and values than [...] the relations with individuals who are similar to oneself in terms of their characteristics or behaviours” (Marshall and Stolle 2004: 130). Coffé and Geys (2007; 2007; 2008) further have shown that differentiating associations according to the heterogeneity of their members clearly offers a possibility to distinguish ‘bridging’ from ‘bonding’ organisations. Coffé and Gey (2007), for example, show that members of more heterogeneous associations show higher values on nearly all measured value-scales associated with social capital (including “utilitarian individualism”, “acceptance of non-conformism” and “feeling of insecurity”). Regarding the impact of volunteer organisations of different inclusiveness on economic development, no studies exist up to date.

'Heterogeneous' volunteer organisations, however, might also have a positive effect on new firm foundations and local economic development since they increase trust along with non-conformism and thus creativity in a municipality and therefore might increase the acceptance for entrepreneurial initiatives. Further, a high number of heterogeneous organisations might also prevent the dominance of bonding networks (as they are described in the next sub-section) within a municipality.

2.3 Measuring entrepreneurship-hindering characteristics of volunteer organisations

Volunteer organisations – such as social capital in general – might not only positively affect entrepreneurial behaviour and local economic development. As Grabher (1993) showed in a seminal study of the evolution of the industrial district in the Rhur district, negative forms of social capital and networks of excessive density may lead to different forms of 'lock-ins' or to an 'over-embeddedness' (Uzzi 1997) of business activities in social structures that finally negatively affect the success of entrepreneurial initiatives. Key characteristics of volunteer organisations that may initiate or reinforce such ossifications of societal structures are best identifiable from the functional approach: Grabher (1993: 263f) identifies "<too> close formal and informal relations among groups [...] colloquially labelled *Filz* (venality)" and networks that leave "no room for 'bridging' relationships" as key characteristics of entrepreneurship-hindering of social capital. This view has been supported by evidence found by Lelieveldt and Caiani (2006) who also point out the danger that less well organised interests might be excluded from professional networks, particularly if they are established between local administrations and local organisations involved in some implementation of policies and that such networks often suffer from a certain inertia and lacking creativity.

2.4 Synthesis and hypotheses for the empirical analysis

The brief assessment of the studies that try to identify the role of volunteer organisations for social capital in general and local economic development in particular leads us to the distinction of three approaches that is summarized in figure 1:

- a *goal oriented approach* that aims at differentiating volunteer organisations by identifying and classifying their main objective
- an *agency oriented approach* that aims at differentiating volunteer organisations by their main activities;
- two *functional approaches* that aim at classifying volunteer organisations by their sociological function. A first one does this by qualifying the networks offered by volunteer organisations while a second focuses on the socio-demographic heterogeneity of the member structure of volunteer organisations.
-

Figure 1. *Different approaches to qualify volunteer organisations for local economic development*

| | Main unit of analysis | Main specifications of unit of analysis | Expected influence on local development | Examples |
|---------------------------------|---|---|---|--|
| Goal oriented approach | Objectives and Goals of volunteer organisations. | Sectoral specification (e.g. 'economy', 'politics', 'environment' o.s.a.), aggregated or individually stated per organisation | <i>Positive</i> , if volunteer organisations pursue economical goals; <i>positive</i> if volunteer organisations pursue (social) goals for the community. | Maloney and Roßteutscher (2007), , Knack (2003), Maloney, van Deth et al. (2008) |
| Agency oriented approach | Activities of volunteer organisations | Theoretically derived specifications (e.g. 'agency- vs. service-orientation') | <i>Positive</i> , if volunteer organisations involve and activate their members | Kriesi and Baglioni (2003), Lelieveldt, Astudillo et al. (2007) |
| Functional approach | Characteristics of networks provided by volunteer organisations | Quality of networks differentiated in 'bridging' vs. 'bonding' | <i>Positive</i> , if volunteer organisations offer both qualities; <i>negative</i> , if volunteer organisations are only 'bonding' | Lelieveldt and Caiani (2007) |
| | Socio-demographic composition of members | Differentiation between 'heterogeneous' vs. 'homogeneous' volunteer organisations | <i>Positive</i> , if volunteer organisations consist of heterogeneous members | Zmerli and Newton (2007) |

Figure 1 further shows the main units of analysis with their main specifications and summarizes the expected influence on new firm foundations and local economic development. These expected influences, moreover, lead us to five hypotheses that will be tested in the following sections:

Hypothesis 1

Associations specialised for economic development are important for economic activity. The number of such association per municipality therefore should be positively related to the number of new firm foundations.

Hypothesis 2

Associations that pursue "social" goals and hence are concerned with "community matters" such as aid to neighbours, social services, the environment or politics are supportive of bonding social capital in a municipality and their number hence should be related positively with new firm foundations (a). In contrast, associations that are mainly pursuing benefits for their members, so called "clubs" (mainly those in the sports, leisure and culture sectors) are rather supportive of bonding social capital and their occurrence hence should prevent new firm foundations (b).

Hypothesis 3

Associations that (independently of their goals) manage to activate their members or the local society facilitate local collective action that may lead to new economic initiatives. The number of such associations per municipality therefore is positively related to the number of new firm foundations.

Hypothesis 4

Local associations that have a ‘heterogeneous’ structure of their members might foster a more tolerant societal local environment. The number of such association per municipality therefore is positively related to the number of new firm foundations. This might particularly be true for associations dealing with “community matters” (a), but possibly not for economic associations, because their “bonding” nature encourages exclusive professional networks (b).

Hypothesis 5

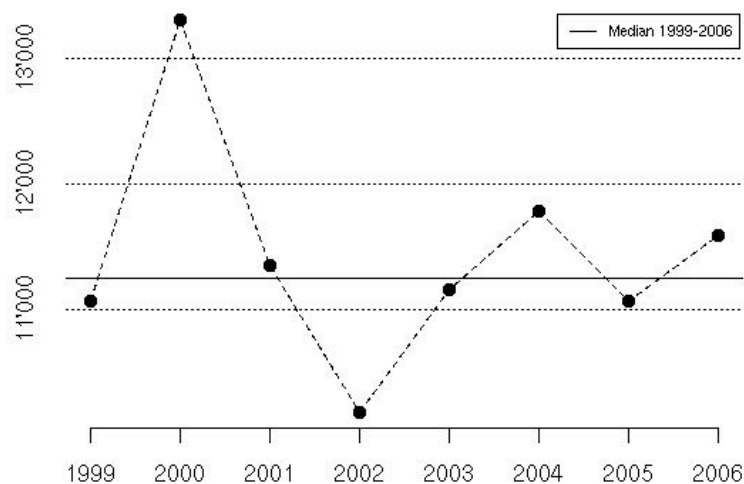
Local associations that are strongly interconnected with the local authorities and other associations might foster inertia through ‘over-embeddedness’. The number of such association per municipality therefore is negatively related to the number of new firm foundations (a). This might particularly be true for economic associations (b), since they tend to build “professional networks” being highly efficient in pursuing well-defined tasks but also lacking creativity.

3. Data and methods

3.1 Dependent variable

As the dependent variable, we measure the yearly number of firm foundations in a municipality, which are taken from the UDEMO database. This database builds on the “Betriebs- and Unternehmensregister” (plant and company register), which is administered by the Swiss Federal Statistical Office. It captures the names, business activities (i.e. industry sector of the venture), legal structure, number of employees and spatial location of all plants and companies in Switzerland from 1999 to 2006 (Grossi 2005). All new entries which are commercially active and which work for at least 20 hours per week can be identified and are included in the UDEMO database as “foundations ex nihilo”. The number of “foundations ex nihilo”, however, is subject to strong cyclical fluctuations. In order to adjust these cyclical effects, the following models are built with the median of firm foundations between 1999 and 2006 (see figure 2).

Figure 2. *New firm foundations in rural areas of Switzerland between 1999 and 2006*



3.2 Independent Variables on Voluntary Associations

The number of voluntary associations was collected with a survey among chief administrators in Swiss rural municipalities. Between May 2009 and September 2009, a sample of about 450 municipalities (stratified by language region as well as by center-periphery classification in order to improve representiveness) received two identically structured questionnaires with seven questions per questionnaire about the structure of the associations in the municipality. The first questionnaire was designed for small municipalities and allowed to answer the questions for each organisation (usually not more than 15) separately and explicitly. The second questionnaire was designed for large municipalities, where the information was asked at an aggregated level. Chief administrators were asked to choose the most appropriate questionnaire for their municipality.

In the first question of both questionnaires, the organisations or aggregated numbers could be listed for different sectors volunteer associations are active in according to the main goal the association is pursuing (namely: sport, leisure, culture, church, social issues, family, neighbour, health, politics, environment, public services and economic development). In the second question, the same information was asked, however, not for different sectors, but rather for an agency-differentiation (clubs, professional services, interest groups and citizen groups). The remaining questions again differentiated between sectors, but asked questions about the functional structure of the respective volunteer organisations. Questions hence were asked about the number of heterogeneous vs. homogenous organisations as well as about the more vs. less connected, those belonging to some network of organisations outside the municipality or to a network for economic development within the municipality.

The questionnaires were returned by a bit more than half of the municipalities, with such of French-speaking tourism regions being less well represented. Hence we are able to employ data of a sample of 254 Swiss rural municipalities. Not all questions had been answered to the same extent, though. Surely, the first two questions about the sectors (church, social, economics etc.) and the activities (clubs, professional services etc.) were answered best. However, we never counted more than 30 missings for any of the variables. 16 of the municipalities that had returned the questionnaire indicated that they did not know of any voluntary organisation, which resulted in the value 0 for every variable. Since we did not allow municipalities with less than 100 inhabitants do to be part of the population (which hence comprises about 1700 municipalities), municipalities without any organisation are rather unlikely. Still, we do not know, how much of those from which we did not receive an answer actually don't have any organisations. We suspect that these sampling issues are of minor importance, however, and we thus refrain from discussing them any further in the remainder of this text.

3.3 Control Variables

Entrepreneurial activities are firstly determined by the attributes and characteristics of the individual potential entrepreneur (Verheul, Wennekers et al. 2002). Second, cultural and geographical attributes of the area where entrepreneurship takes place influences the probability to start up a new firm (Freytag and Thurik 2007). In order to control for the attributes of the individual entrepreneurs, first, three control variables were introduced. As control variables, we took from official statistics the number of inhabitants, the number of people with higher education as well as the number of middle-aged persons. Since these three control variables turned out to be highly correlated ($r > .95$), only the variable for higher

education finally was introduced into the following econometric models. To control for cultural and geographical attributes secondly, the main language spoken (i.e. French, German or Italian) as well the geographical location of a municipality taken from a centre-periphery classification of official statistics (Schuler, Dessemontet et al. 2005) were introduced as control variables.

3.4 Econometric model

Since the dependent variable obviously follows a poisson-distribution, we apply poisson-regression to analyse the data (Cameron and Trivedi 1998). We ran tests to check for overdispersion by fitting the corresponding negative-binomial model and performing an LR-Test to compare the models. Further, we applied the Young-Test to check for an excess number of zeros in the sample relative to the poisson-distributed explanatory model (Long 1997). While there is no indication for overdispersion in our models, zero-inflated poisson regression is applied to take into account the high rate of municipalities without any firm foundations. In addition, to account for the stratified sampling design, we applied sampling weights that represent the probability that an observation was selected into the sample.¹

The results of the various zero-inflated poisson-regression models are listed in tables 1 and 2. These results, however, may not be straightforward to interpret: besides the observed count (here the number of firm foundations) the zero-inflated poisson-regression approach also differentiates between two groups of municipalities: such for which firm foundations are never observed and such for which there is a certain probability to observe a quantity of firm foundations. Both, the belonging to one of the two groups as well as the count of firm foundations for the economically more active municipalities are modelled simultaneously: the former with a logit and the latter with a poisson model. Correspondingly, in the lower panel of table 1 and 2, the coefficients of the logit model explaining the belonging to the group of municipalities without firm foundations are listed. Here, a positive coefficient indicates that higher values of the respective variable increase the probability of never having any firm foundations. The upper panel contains the model explaining the count in the municipalities of the second group (i.e. the group with 0 or more firm foundations). A positive coefficient in this model thus indicates that higher values of the respective variable increase the probability of having certain count of firm foundations.

Obviously, if a variable has positive coefficients in both panels of tables 1 and 2, the variable causes ambiguous effects: on the one hand, higher values of the variable increase the probability of more firm foundations, but on the other hand, they also increase the probability of belonging to the group of municipalities that never experience firm foundations. This may be the case if the effect of the variable is non-linear in the sense that it increases for lower values of the variable but then decreases again if the values become larger. To see which of the effects prevails, predicted probabilities can be computed for the range of the dependent variable of interest and for mean values of the remaining variables. These predicted probabilities are depicted in the various figures that appear in section 4.

¹ Estimating our models by applying probability weights and by accounting for the facts that the weights are contingent on the strata, accounts for the sampling design and will result in more conservative (i.e. larger) standard errors but also prevent biased point estimates. However, whether we weight the data or not does not make any difference with respect to the main conclusions of this study.

A more straightforward approach to model the probability of starting up a new firm depending on the characteristics of local volunteer organisations would be to ‘reduce’ the count data for new firm foundations to a binary variable (0/1) and setting up a standard logistic regression model. The results from such an analysis are given in appendix 1 and they are generally in line with the results derived with the zero-inflated poisson regression-approach. The results from testing hypothesis 1 to 5 applying this approach, however, are discussed in more detail in the following section.

4. Results

Table 1 shows the regression results of four models testing the first three hypotheses stated in section 2.4. The first model (1) of table 1 comprises all control variables as well as the first variable of main interest in hypothesis 1: the number of organisations concerned with economic development according to the corresponding goal category (sector) of our questionnaire. The second model (2) of table 1 aims at testing hypothesis 2a and thus includes all control variables as well as the number of organisations that are concerned with “community matters”, compiled from the following goal categories: social, neighbour, family, health, politics, environment, and public services.² The third model tests hypothesis 3 and thus includes the variable counting the kinds of organisations that have a high degree of involvement of their members. This classification is based on the question concerning the main activity of the volunteer organisation (agency-approach) differentiating between “clubs”, “professional services”, “interest groups” and “citizen groups”. Hence, associations with high membership involvement obviously are “clubs” and “citizen groups”. The last column of table 1 list the results of a model that incorporates all of the variables mentioned so far.

While table 1 is based on a differentiation of associations according to their goals and activities and thus provides tests for hypotheses 1 through 3, hypotheses 4 and 5 can only be tested by further differentiating between functional characteristics of these associations such as their heterogeneity and how strongly they are embedded in local networks. The first model (1) of table 2 hence first introduces a variable counting the homogeneous associations dedicated to economic development. As stated in hypotheses 4b and 5b, according to Grabher’s (1993) argument, a high number of such organisations might create ‘over-embedded’ economic networks, which causes a negative relation to firm foundation³. In addition, model 1 incorporates the number of heterogeneous organisations dealing with “community matters”. This provides a test for hypothesis 4a. The second model (2) of table 2 includes the number of highly embedded organisations that are concerned with community matters, which provides a test of hypothesis 5a. In addition, combinations of hypothesis 2b with hypotheses 4b and 5b are tested by models (3) and (4) of table 2, by looking also to the homogenous and embedded “clubs”, which are suspected to be rather “bonding” in nature and hence might have a hindering effect on ‘entrepreneurship’.

² One could argue that including or excluding categories from the definition of “community matters” is arbitrary. However, different combinations of the usual suspects lead to largely the same results.

³ We replicated the analysis by using the variable counting the embedded economic associations and found exactly the same result. It can thus be showed empirically that the two hypotheses are congruent, however, we refrained from showing these results for reasons of space.

Table 1. Different zero-inflated poisson models differentiating between goals of organisations to explain firm foundation

| | (1) | (2) | (3) | (4) |
|--|-----------------------|-----------------------|-----------------------|----------------------|
| Count model (poisson model) | | | | |
| Number of organisations concerned with economic development | 0.079*** (6.618) | | | 0.068* (2.168) |
| Number of organisations related to community matters | | 0.020*** (5.750) | | 0.011 (1.077) |
| Number of organisations with high involvement of members periphery | -0.051 (-0.346) | -0.022 (-0.141) | 0.009* (2.321) | -0.005 (-1.097) |
| Center | -0.382* (-2.156) | -0.535** (-2.942) | 0.044 (0.266) | -0.306 (-1.447) |
| French speaking | 0.016 (0.098) | 0.067 (0.392) | 0.025 (0.141) | 0.067 (0.363) |
| Number of highly educated | 0.003*** (13.765) | 0.003*** (17.227) | 0.003*** (14.109) | 0.003*** (14.538) |
| Constant | -0.576*** (-4.066) | -0.694*** (-4.340) | -0.659*** (-4.050) | -0.589** (-3.320) |
| Model for excess zeros (logit model) | | | | |
| Number of organisations concerned with economic development | -0.373 (-0.421) | | | 0.497 (0.342) |
| Number of organisations related to community matters | | -0.250** (-2.803) | | -0.235* (-2.211) |
| Number of organisations with high involvement of members periphery | 0.334 (0.328) | 0.069 (0.070) | -0.162 (-0.958) | -0.042 (-0.325) |
| center | -7.050 (-0.948) | -1.486 (-0.248) | 3.354* (2.041) | -4.761 (-0.304) |
| french speaking | -0.718 (-0.563) | -1.089 (-0.690) | -0.753 (-0.645) | -0.847 (-0.378) |
| Number of highly educated | -0.063** (-2.819) | -0.081** (-2.686) | -0.060*** (-3.808) | -0.078* (-2.300) |
| Constant | 4.551* (2.213) | 6.840* (2.495) | 5.004** (3.087) | 6.626 (1.962) |
| Observations | 227 | 227 | 238 | 211 |
| F-test | 112.122 | 108.036 | 43.542 | 68.533 |
| p-value of F-test | 0.000 | 0.000 | 0.000 | 0.000 |
| Wald-test for joint null-hypothesis | | | | 7.54 |
| p-value of Wald-test | | | | 0.000 |

z statistics in parentheses

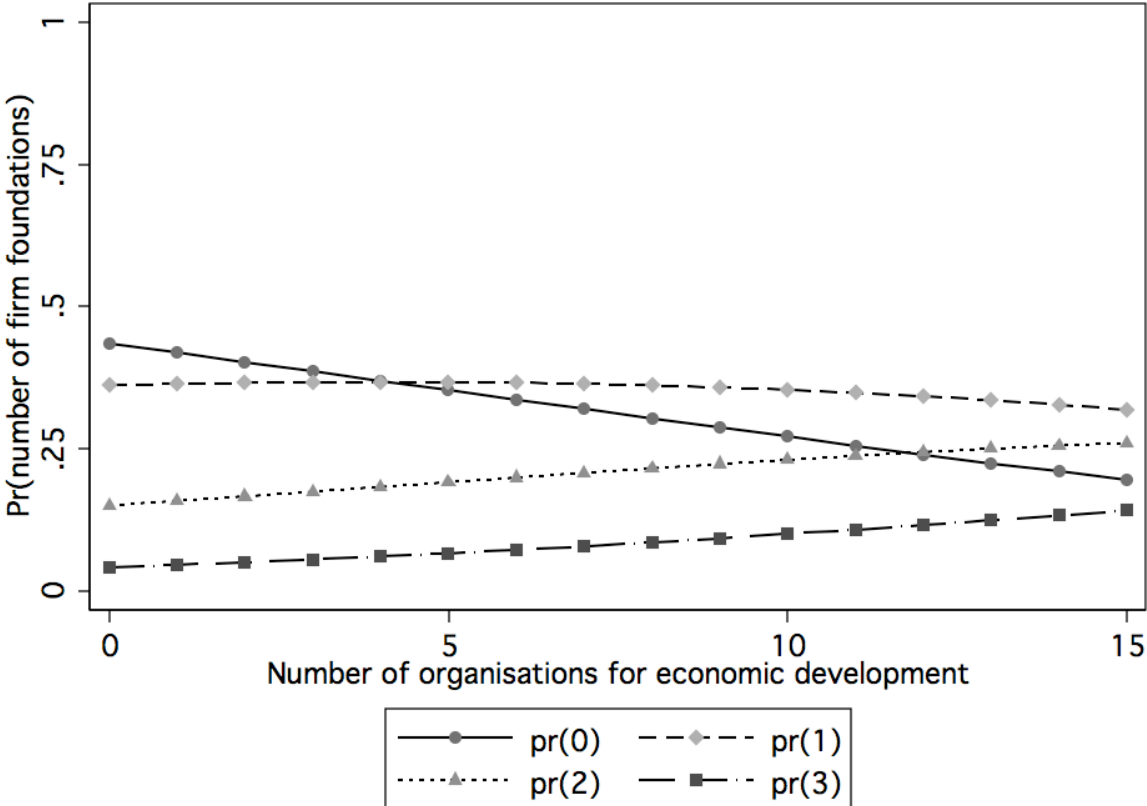
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The problem with all these variables counting various types of associations per municipality is that they are sometimes highly correlated, with pearson's r lying between 0.5 and 0.75. Hence, including all these variables in one and the same model causes serious multicollinearity. This is the reason why in tables 1 and 2 each variable is first tested separately before in the last column of these tables, all variables are jointly tested against the null-hypothesis that they are all zero using a Wald-test.

4.1 Hypothesis 1 through 3: New firm foundations and volunteer organisations concerned with economic affairs, “community matters” and activation

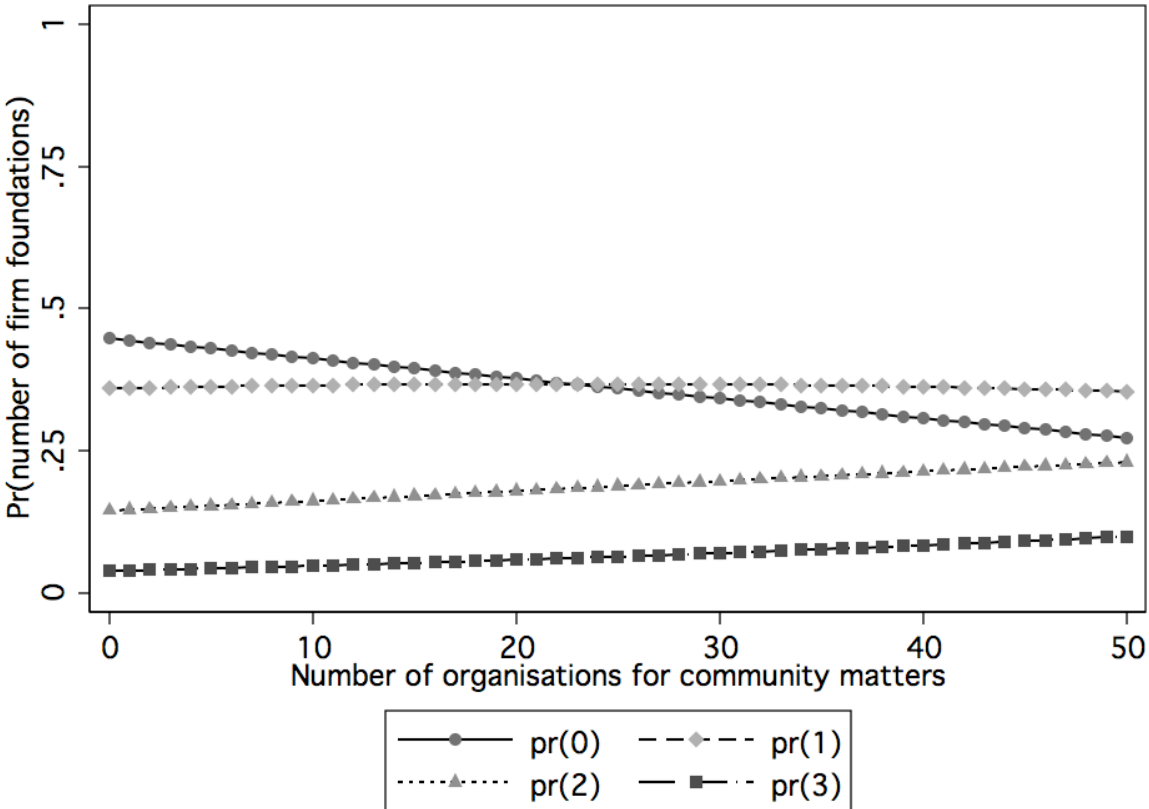
The coefficient of the variable that measures the number of volunteer organisations concerned with economic affairs in the studied municipalities is significantly positive in the upper panel and negative in the lower panel of table 1 (model 1; hypothesis 1). Correspondingly, we expect an unambiguously positive effect of the number of such organisation on the number of firm foundations in a municipality. This is actually the case as can be read from the predicted probabilities for different counts of new firm foundations depicted in figure 3. Obviously, having 15 as compared to 0 such organisations increases the probability of observing two firm foundations in the municipality by about 0.1 and it even increases the probability of observing 3 firm foundations by about the same amount

Figure 3. Predicted probabilities for up to three firm foundations contingent on the number of organizations for economic development (model 4, table 1)



Virtually the same result can be found for a very different class of local associations, namely those concerned with “community matters” (hypothesis 2a) as defined above. Here, the corresponding coefficients again show the expected signs and they are even both significant (model 2). Looking at the predicted probabilities in figure 4 confirms that the effect is virtually the same as for the economic associations.

Figure 4. Predicted probabilities for up to three firm foundations contingent on the number of organizations for community matters (model 4, table 1)



Hypothesis 3 suggested volunteer organisations that manage to activate their own members or the local community to be positively related to the number of newly founded firms. The coefficients for the dependent variable under study in model 3 of table 1 again show the expected signs in both panels, however, only the coefficient for the count model is significant. What is more important, however, is that the effect remains very small and thus can be neglected. We have hence not plotted the predicted probabilities since the effect is hardly perceivable.

Including all three variables (economic affairs, community matters as well as activation) in the same regression equation (model 4, table 1) causes multicollinearity due to the high correlation of the variables. However, the variable for the activating association now even has a negative sign and we might hence conclude that hypothesis 3 cannot be confirmed with our data and econometric model. According to the Wald-test listed at the bottom of the table, the hypothesis that the coefficients of the remaining variables are jointly zero can clearly be rejected. We hence are confident to conclude that hypotheses 1 and 2a can be confirmed while hypothesis 3 has to be rejected.

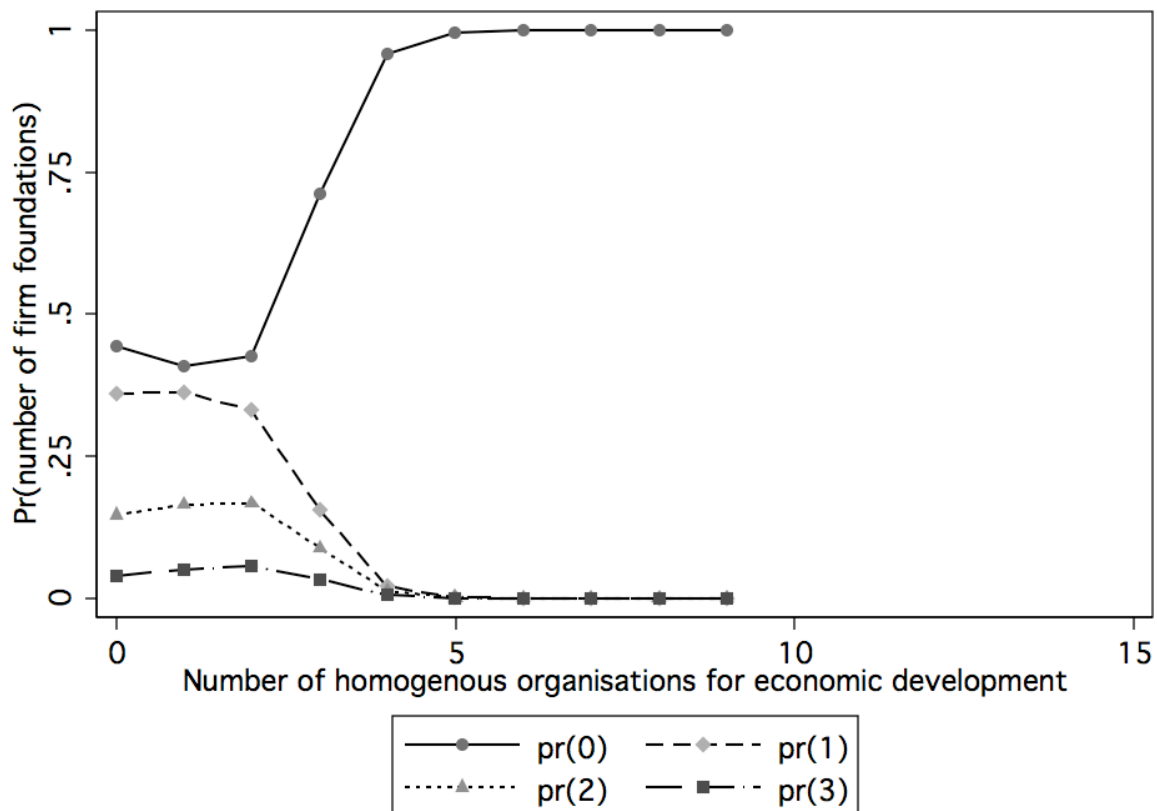
Table 2. Different zero-inflated poisson models differentiating between goals as well as bonding and bridging types of organisations to explain firm foundation

| | (1) | (2) | (3) | (4) | (5) |
|--|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Count model (poisson model) | | | | | |
| Number of heterogeneous organisations related to community matters | 0.020** (2.670) | | | | 0.011 (0.962) |
| Number of homogenous organisations concerned with economic development periphery | 0.070*** (8.926) | 0.062*** (6.860) | 0.076** (3.126) | 0.079*** (7.694) | 0.109*** (3.521) |
| center | -0.044 (-0.264) | -0.036 (-0.213) | -0.031 (-0.174) | -0.063 (-0.370) | -0.004 (-0.025) |
| french speaking | 0.126 (0.786) | 0.077 (0.478) | 0.140 (0.887) | 0.082 (0.508) | 0.174 (1.008) |
| Number of highly educated | 0.144 (0.831) | 0.142 (0.825) | 0.080 (0.453) | 0.119 (0.643) | 0.184 (0.993) |
| Number of well connected organisations related to community matters | 0.003*** (16.119) | 0.003*** (15.117) | 0.003*** (13.229) | 0.003*** (15.340) | 0.003*** (15.308) |
| Number of homogenous clubs | | 0.018* (2.544) | | | -0.001 (-0.065) |
| Number of well connected clubs | | | 0.001 (0.072) | 0.010* (2.097) | 0.012 (1.101) |
| Constant | -0.712*** (-3.765) | -0.717*** (-3.760) | -0.629*** (-3.451) | -0.683*** (-3.772) | -0.718*** (-3.610) |
| Model for excess zeros (logit model) | | | | | |
| Number of heterogeneous organisations related to community matters | -0.264** (-3.319) | | | | -0.049 (-0.520) |
| Number of homogenous organisations concerned with economic development periphery | 3.096*** (3.533) | 1.512* (2.463) | 3.088* (2.451) | 1.992 (1.771) | 2.493* (2.350) |
| center | -0.138 (-0.145) | 0.079 (0.081) | 0.573 (0.581) | 0.371 (0.382) | 0.242 (0.259) |
| french speaking | -28.946*** (-5.978) | 2.861 (0.746) | 3.215* (1.989) | 2.184 (1.291) | 3.504 (1.870) |
| Number of highly educated | -0.497 (-0.445) | -0.211 (-0.193) | -0.850 (-0.689) | -0.722 (-0.587) | -0.547 (-0.397) |
| Number of well connected organisations related to community matters | -0.069*** (-3.746) | -0.067*** (-4.015) | -0.059*** (-3.372) | -0.052** (-3.302) | -0.066*** (-3.445) |
| Number of homogenous clubs | | -0.260*** (-3.743) | | | -0.131 (-0.826) |
| Number of well connected clubs | | | -0.469 (-1.782) | | -0.243 (-1.762) |
| Constant | | | | -0.287 (-1.366) | -0.022 (-0.159) |
| Constant | 5.507** (3.222) | 5.159** (3.314) | 4.978** (2.849) | 4.553* (2.543) | 5.514** (2.788) |
| Observations | 226 | 225 | 226 | 225 | 225 |
| F-test | 98.397 | 80.114 | 111.542 | 74.424 | 68.316 |
| p-value for F-test | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Wald-test for joint null-hypothesis | | | | | 2.56 |
| p-value for Wald-test | | | | | 0.011 |

z statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 5. Predicted probabilities for up to three firm foundations contingent on the number of homogenous organizations for economic development (model 5, table 2)



4.2 Hypothesis 4 and 5: New firm foundations and heterogeneous vs. homogenous as well as strongly vs. weakly embedded volunteer organisations

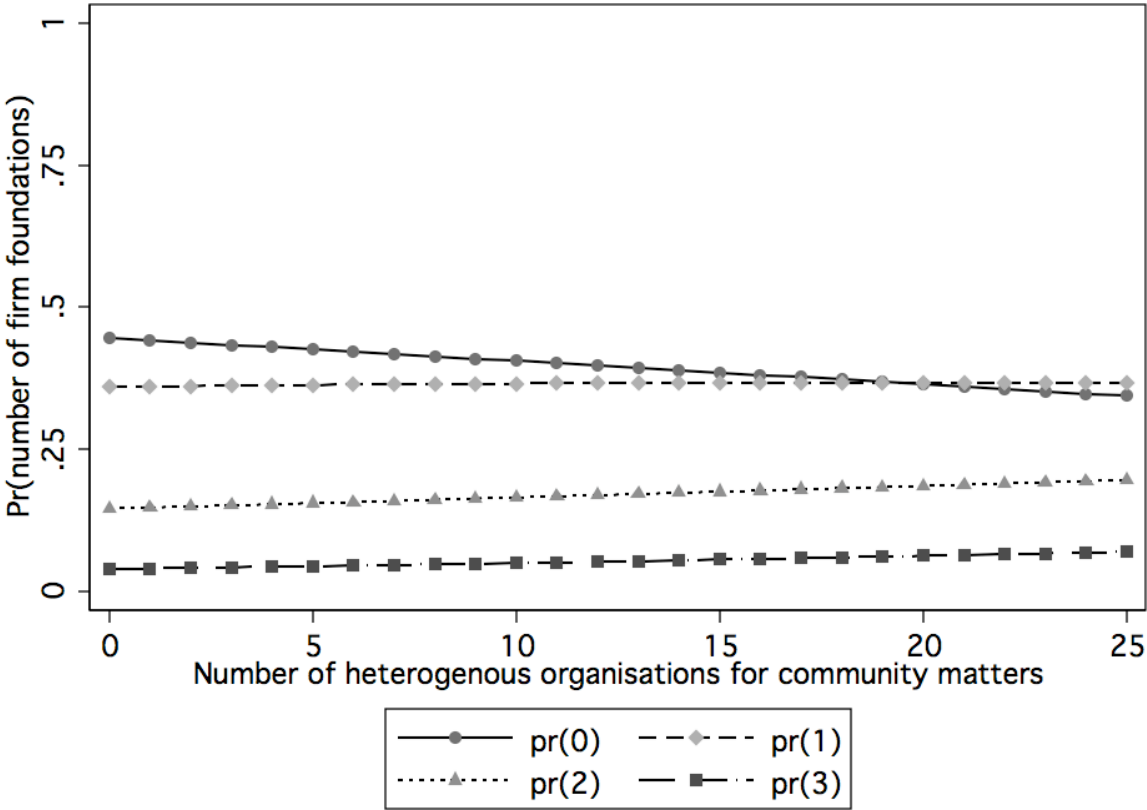
Hypothesis 4 suspected a positive relation between the number of newly founded firms and volunteer organisations showing a heterogeneous membership structure. Hypotheses 4a and 4b as well as 5a and 5b further make the distinction according to goal category to take into account that the effect of this functional differentiation might also be contingent on the realm an association is active in.

Hypotheses 4b and 5b are virtually the same, since they both suggest that associations for economic development can be an obstacle for entrepreneurial activity if they are either strongly embedded or simply homogeneous. This partly runs counter hypothesis 1 but refers to Grabher's (1993) suggestion that such organizations may lead to an ossification of economic structures and thus may hinder the foundation of new firms. Interestingly enough, in our empirical model, the influence of these organizations actually shows a non-linear effect, as can be read from model 1 through 5 in table 2, since the coefficient of this variable is positive (but relatively small) for the count model but also strongly positive for the logit model. Hence, as is depicted in figure 5, the probability of observing i.e. two firm foundations increases with higher counts of bonding economic organizations until there are three such associations in a municipality. Above that, the effect is actually negative and the probability for higher counts of foundations decreases drastically. This observation strongly reminds on Uzzi's (1997) caveat for an 'overembeddedness' of economic activities: while lacking homogenous economic volunteer

organizations seem to hinder new firm foundations, too many of these organizations seem to have the same effect. There seems to be a ‘golden mean’ of the number of bonding economic organizations that has to be kept to stimulate new firm foundations in rural areas.

In addition, model 1 of table 2 tests hypothesis 4a, namely whether heterogeneous associations for “community matters” have a positive effect on new firm foundations. According to the results in table 2 and also according to the predicted probabilities plotted in figure 6, this seems to be the case, although the probabilities are not generally larger than those in figure 4, which shows the effect of the number of all organizations for “community matters”.

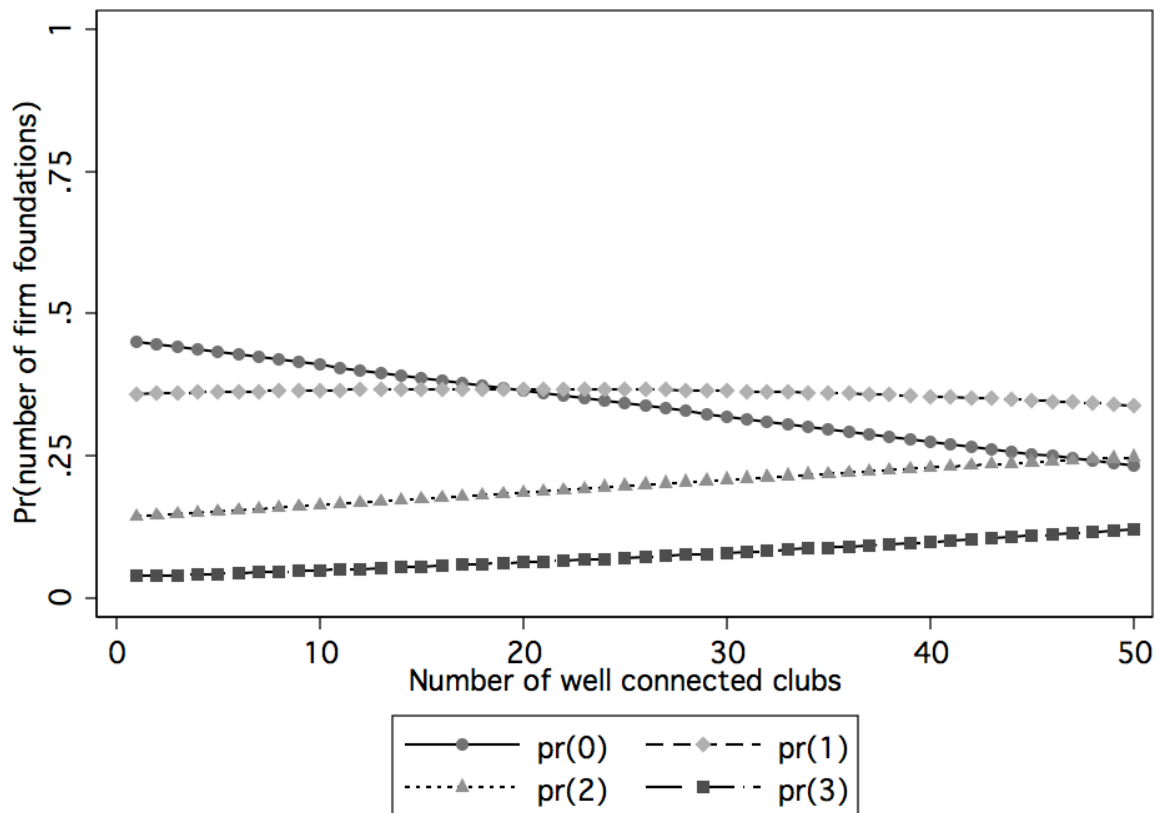
Figure 6. Predicted probabilities for up to three firm foundations contingent on the number of heterogeneous organizations community matters (model 5, table 2)



Model 3 of table 2 provides a test for a combination of hypothesis 2b and 4b and hence provides a possibility to test “toxic” combinations of associational characteristics that might prevent entrepreneurial activity in a municipality. The number of homogeneous “clubs” might be such an obstacle, however, from the figures of model 3 in table 2 one might conclude that homogenous clubs rather have a positive impact on firm foundations or at least on the probability that a municipality belongs to the group of municipalities for which firm foundations actually are observed. However, this result is not significant on a conventional level. As far as the combination of hypotheses 2b and 5b is concerned, virtually the same can be concluded: the direction of the effect is the opposite of what should be expected and here the coefficient of the count model is even significant. We therefore have plotted the corresponding predicted

probabilities in figure 7: obviously, the effect is about as large as the one for the “community matters”-type of associations. Hypothesis 2b can thus clearly be rejected by our evidence.

Figure 7. Predicted probabilities for up to three firm foundations contingent on the number of embedded clubs (model 5, table 2)



Finally, in model 5 of table 2, all variables are included at once and again, it has to be suspected that the standard errors of the respective coefficients are inflated due to multicollinearity. Testing the coefficients for the joint null-hypothesis that they are all zero again leads to a clear rejection of this null-hypothesis. We are hence confident to conclude that hypotheses 4a and 5a as well as 4b and 5b (which are actually the same hypothesis) can clearly be confirmed.

5. Conclusions

Volunteer organisations actually may build a relevant part of the local ‘entrepreneurship fostering social capital’ (Westlund and Bolton 2003) in rural areas. By testing five hypotheses concerning the role of different attributes of locally active volunteer organisations in rural municipalities in Switzerland, also ‘entrepreneurship hindering’ characteristics of volunteer organisations have been identified. Volunteer organisations thus might be odds as well as obstacle for new firm foundation in rural areas simultaneously. The main conclusions of this study, however, might be threefold:

First, the rejection of hypothesis 3 leads us to the conclusion that an assessment of attributes of volunteer organisations concerning their role for local development that builds on the agency-approach as presented in figure 1 may be not productive. Our evidence, moreover, suggests that the goals of volunteer organisations are better predictors for their influence on local

development than their agency. This might be true even if the classification of an organisation's agency has been made by the municipality's chief administrators in this study rather than by the representatives of the organisations themselves.

Second, as expected in hypotheses 1, 2 and 4a, there are some key characteristics of volunteer organisations that turn them to generally 'entrepreneurship fostering' organisations. Firstly, volunteer associations that are clearly dealing with economic goals should be considered important. As predicted in hypothesis 1, such organisations significantly contribute to foundation of new ventures in rural areas. Secondly, volunteer organisations that are concerned with community matters, also seem to contribute to an "entrepreneurial social infrastructure" (Flora 1998). In that respect, it does not make a difference whether we look at heterogeneous such associations: although they might be better able to collate individuals from different socio-demographic backgrounds and therefore might offer an additional 'bridging' function for their members (hypothesis 4a), this did not turn out to matter much.

Third, the conjecture in hypothesis 5 and 4b that there are also 'entrepreneurship hindering' characteristics of volunteer organisations, has also been generally confirmed. This seems to be particularly the case for "bonding" economic associations: owing to the chosen econometric approach, the analysis has also shown that the hypothesis brought forward by Uzzi (1997) concerning the negative effect of an 'overembeddedness' of networking activities on the firm level seems also to hold on the municipality level: if the number of homogeneous or embedded economic volunteer organisations exceed a certain level, their influence on new firm foundations turns to be negative (hypotheses 4b and 5b). Too many organisations being absorbed by network management or even being at war with each others might absorb potential entrepreneurs or might even cause them to invest their entrepreneurial initiative in a rather "destructive" way, as Baumol (1990) might put it. However, the potentially toxic combination of homogenous or embedded "clubs" did not turn out to be that toxic, after all. At least embedded "clubs" seem to have some positive influence in rural areas. Given that they are the type of associations that is most common particularly in the periphery, this is actually good news.

If regional policy therefore aims at stimulating local entrepreneurial initiative, the role of local volunteer organisations should be kept in mind. Clubs are possibly not as bad as their image might be. These organisations – particularly the ones in the realm of sports, culture or leisure – usually build the backbone of the rural volunteer sector and thus are an interesting target group for political measures aiming at fostering more local 'bottom-up' initiatives. Special attention, however, should be given to organisations that are concerned with "community matters" and hence are more directly fostering "bridging" social capital. To solely promote or support third sector activities that are concerned with economic affairs, however, might not be the right way to foster entrepreneurship in rural areas: as this study has shown the Paracelsus' proverb that the 'dose distinguishes a medicine from a poison' might also fit for economic support activities in the third sector that aim at stimulating rural economic regeneration.

6. Appendix

Table 3. *Different empirical Logit-Models differentiation between goals of organisations to explain firm foundation*

| | (1) | (2) | (3) | (4) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Number of organisations concerned with economic development | 0.718* (2.160) | | | 0.431 (1.314) |
| Number of organisations related to community matters | | 0.152*** (3.818) | | 0.155** (3.013) |
| Number of organisations with high involvement of members | | | 0.028 (1.071) | -0.023 (-0.761) |
| periphery | -0.428 (-1.145) | -0.239 (-0.653) | -0.338 (-0.949) | -0.329 (-0.833) |
| center | | | 1.213 (1.230) | |
| french speaking | -0.021 (-0.054) | 0.272 (0.714) | 0.168 (0.435) | 0.346 (0.866) |
| Number of highly educated | 0.015*** (5.217) | 0.014*** (5.022) | 0.014*** (5.258) | 0.014*** (4.922) |
| Constant | -2.104*** (-5.538) | -2.703*** (-6.229) | -2.198*** (-5.600) | -2.611*** (-5.838) |
| Observations | 219 | 219 | 238 | 204 |
| F-tes | 9.160 | 11.160 | 8.964 | 7.767 |
| p-value of F-test | 0.000 | 0.000 | 0.000 | 0.000 |

z statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4. *Different empirical Logit-Models to explain firm foundation**

| | (1) | (2) | (3) | (4) | (5) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Number of homogenous organisations concerned with economic development | -0.174 (-0.786) | -0.515** (-2.728) | -0.346 (-1.036) | -0.394** (-2.688) | -0.366* (-1.989) |
| Number of heterogeneous organisations related to community matters | 0.192** (3.470) | | | | 0.129* (2.011) |
| Number of well connected organisations related to community matters | | 0.187** (3.123) | | | -0.005 (-0.061) |
| Number of homogenous clubs | | | 0.050 (0.738) | | -0.048 (-0.620) |
| Number of well connected clubs | | | | 0.158** (2.912) | 0.126* (2.068) |
| periphery | -0.256 (-0.673) | -0.194 (-0.508) | -0.276 (-0.753) | -0.272 (-0.711) | -0.288 (-0.736) |
| center | 1.758 (1.423) | 1.389 (1.404) | 1.347 (1.285) | 1.562 (1.542) | 1.643 (1.661) |
| french speaking | 0.255 (0.629) | 0.241 (0.601) | 0.205 (0.515) | 0.360 (0.886) | 0.356 (0.850) |
| Number of highly educated | 0.014*** (5.360) | 0.015*** (5.373) | 0.015*** (5.439) | 0.014*** (5.398) | 0.015*** (5.522) |
| Constant | -2.637*** (-6.100) | -2.656*** (-6.098) | -2.345*** (-5.732) | -2.772*** (-6.345) | -2.863*** (-6.422) |
| Observations | 226 | 225 | 226 | 225 | 225 |
| F-test | 8.505 | 9.621 | 7.532 | 8.951 | 6.889 |
| p-value of F-test | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

z statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

* In some models, the indicator for regional centers (“center”) has been dropped from the regression equation, since there was no variance in the dependent variables for these observations.

7. References

- Adam, F. and B. Roncevic (2003). "Social Capital: Recent Debates and Research Trends." Social Science Information **42**(2): 155-183.
- Aldrich, H. E. and R. Waldinger (1990). "Ethnicity and Entrepreneurship." Annual Review of Sociology **16**: 111-135.
- Almond, G. A. and S. Verba (1963). *The civic culture : political attitudes and democracy in five nations*. Princeton, Princeton University Press.
- Baumol, W. J. (1990). "Entrepreneurship - Productive, Unproductive, and Destructive." Journal of Political Economy **98**(5): 893-921.
- Bosma, N. and V. Schutjens (2007). "Patterns for promising entrepreneurial activity in Europe." Tijdschrift Voor Economische En Sociale Geografie **98**(5): 675-686.
- Bourdieu, P. (1983). *Ökonomisches Kapital, kulturelles Kapital, soziales Kapital. Soziale Ungleichheiten*. R. Kreckel. Göttingen, Otto Schwartz: 183-198.
- Brady, H. E., S. Verba, et al. (1995). Beyond SES: A Resource Model of Political Participation. The American Political Science Review. **89**: 271-294.
- Callois, J.-M. and F. Aubert (2007). "Towards indicators of social capital for regional development issues: The case of french rural areas." Regional Studies **41**(6): 809-821.
- Cameron, A. C. and P. K. Trivedi (1998). Regression Analysis of Count Data. Cambridge, Cambridge University Press.
- Casson, M. and M. D. Giusta (2007). "Entrepreneurship and Social Capital: Analysing the Impact of Social Networks on Entrepreneurial Activity from a Rational Action Perspective." International Small Business Journal **25**(3): 220-244.
- Coffé, H. and B. Geys (2007). "Participation in Bridging and Bonding Associations and Civic Attitudes: Evidence from Flanders." Voluntas **18**: 385-406.
- Coffé, H. and B. Geys (2007). "Toward an empirical characterization of bridging and bonding social capital." Nonprofit and Voluntary Sector Quarterly **36**(1): 121-139.
- Coffé, H. and B. Geys (2008). "Measuring the Bridging Nature of Voluntary Organizations: The Importance of Association Size." Sociology **42**(2): 357-369.
- Davidsson, P. and B. Honig (2003). "The role of social and human capital among nascent entrepreneurs." Journal of Business Venturing **18**(3): 301-331.
- de Toqueville, A. (1835/1962). De la démocratie en Amérique. Paris, Galimard.
- Flora, J. L. (1998). "Social capital and communities of place." Rural Sociology **63**(4): 481-506.
- Flora, J. L., J. S. Sharp, et al. (1997). "Entrepreneurial social infrastructure and locally initiated economic development in the nonmetropolitan United States." Sociological Quarterly **38**(4): 623-645.
- Freitag, M. (2003). "Beyond Tocqueville: The origins of social capital in Switzerland." European Sociological Review **19**(2): 217-232.
- Freytag, A. and R. Thurik (2007). "Entrepreneurship and its determinants in a cross-country setting." Journal of Evolutionary Economics **17**(2): 117-131.
- Grabher, G. (1993). *The Weakness of Strong Ties: The Lock-in of Regional Development in the Ruhr Area. The Embedded Firm: On the Socioeconomics of Industrial Networks*. G. Grabher. London and New York, Routledge: 255-277.
- Granovetter, M. (1973). "The Strength of Weak Ties." The American Journal of Sociology **78**(6): 1360-1380.
- Grossi, A. (2005). *Statistik zur Unternehmensdemographie (UDEMÖ): Grundlagen und Methoden*. Neuchâtel, Bundesamt für Statistik (BFS): 28.

- Howard, M. M. and L. Gilbert (2008). "A Cross-National Comparison of the Internal Effects of Participation in Voluntary Organizations." Political Studies **56**: 12-32.
- Jack, S. L. and A. R. Anderson (2002). "The effects of embeddedness on the entrepreneurial process." Journal of Business Venturing **17**(5): 467-487.
- Johannisson, B., M. Ramirez-Pasillas, et al. (2002). "The institutional embeddedness of local inter-firm networks: a leverage for business creation." Entrepreneurship & Regional Development **14**(4): 297-315.
- Kalantaridis, C. and Z. Bika (2006). "In-migrant entrepreneurship in rural England: beyond local embeddedness." Entrepreneurship & Regional Development **18**(2): 109 - 131.
- Kalantaridis, C. and Z. Bika (2006). "Local embeddedness and rural entrepreneurship: case-study evidence from Cumbria, England." Environment and Planning A **38**(8): 1561-1579.
- Knack, S. (2003). "Groups, growth and trust: Cross-country evidence on the Olson and Putnam hypotheses." Public Choice **117**: 341-355.
- Kriesi, H. and S. Baglioni (2003). "Putting local associations into their context. Preliminary results from a Swiss study of local associations." Swiss Political Science Review **9**(3): 1-34.
- Laukkanen, M. and H. Niittykangas (2003). "Local developers as virtual entrepreneurs - do difficult surroundings need initiating interventions?" Entrepreneurship and Regional Development **15**(4): 309-331.
- Lelieveldt, H., J. Astudillo, et al. (2006). The spectrum of associational activities: From self-help to lobbying. Social Capital and Associations in European Democracies: A Comparative Analysis. W. A. Maloney and S. Rossteutscher. London, Routledge: 81-95.
- Lelieveldt, H., J. Astudillo, et al. (2007). The spectrum of associational activities: From self-help to lobbying. Social Capital and Associations in European Democracies: A Comparative Analysis. W. A. Maloney and S. Rossteutscher. London, Routledge: 81-95.
- Lelieveldt, H. and M. Caiani (2006). The political role of associations. Social Capital and Associations in European Democracies: A Comparative Analysis. W. A. Maloney and S. Rossteutscher. London, Routledge: 175-191.
- Lelieveldt, H. and M. Caiani (2007). The political role of associations. Social Capital and Associations in European Democracies: A Comparative Analysis. W. A. Maloney and S. Rossteutscher. London, Routledge: 175-191.
- Li, Y. J. and D. Marsh (2008). "New forms of political participation: Searching for Expert Citizens and Everyday Makers." British Journal of Political Science **38**: 247-272.
- Long, J. S. (1997). Regression Models for Categorical and Limited Dependent Variables. Thousand Oaks, Sage.
- Maloney, W. and J. W. van Deth, Eds. (2010). Civil Society and Activism in Europe: Contextualising Engagement and Political Orientation. London, Routledge.
- Maloney, W. A., J. W. v. Deth, et al. (2008). Civic Orientations: Does Associational Type Matter? Political Studies. **56**: 261-287.
- Maloney, W. A. and S. Roßteutscher (2006). Assessing the significance of associational concerns: Leisure, politics and markets. Social Capital and Associations in European Democracies: A Comparative Analysis. W. A. Maloney and S. Rossteutscher. London, Routledge: 52-78.
- Maloney, W. A. and S. Roßteutscher (2007). The associational universe in Europe: Size and participation. Social Capital and Associations in European Democracies: A Comparative Analysis. W. A. Maloney and S. Rossteutscher. London, Routledge: 39-51.
- Marshall, M. J. and D. Stolle (2004). "Race and the city: Neighborhood context and the development of generalized trust." Political Behavior **26**: 125-153.
- Meccheri, N. and G. Pelloni (2006). "Rural Entrepreneurs and institutional Assistance: an empirical study from mountainous Italy." Entrepreneurship and Regional Development **18**(5): 371-392.

- Morales, L. (2002). "Associational Membership and Social Capital in Comparative Perspective: A Note on the Problems of Measurement." POLITICS & SOCIETY **30**(3): 497-523.
- North, D. and D. Smallbone (2006). "Developing Entrepreneurship and Enterprise in Europe's Peripheral Rural Areas: Some Issues facing Policy-makers." European Planning Studies **14**(1): 41-60.
- O'Brien, D., J. Phillips, et al. (2005). "Linking indigenous bonding and bridging social capital." Regional Studies **39**(8): 1041 - 1051.
- Paxton, P. (1999). Is Social Capital Declining in the United States? A Multiple Indicator Assessment. American Journal of Sociology. **105**: 88-127.
- Putnam, R. (2000). Bowling Alone: The Collapse and Renewal of American Community. New York, Simon and Schuster.
- Putnam, R. D. (1993). Making democracy work. Princeton, Princeton University Press.
- Putnam, R. D. (1995). "Bowling alone: America's declining social capital." Journal of Democracy **6**(1): 65-78.
- Schuler, M., P. Dessemontet, et al. (2005). Die Raumgliederung der Schweiz. Eidgenössische Volkszählung 2000. Neuchâtel, Bundesamt für Statistik (BFS).
- Skuras, D., N. Meccheri, et al. (2005). "Business growth and development trajectories in lagging and remote areas of Southern Europe." European Urban and Regional Studies **12**(4): 335-351.
- Sobel, J. (2002). "Can we trust social capital?" Journal of Economic Literature **40**(1): 139-154.
- Stam, E. (2005). "The Geography of Gazelles in the Netherlands." Tijdschrift Voor Economische En Sociale Geografie **96**(1): 121-127.
- Stathopoulou, S., D. Psaltopoulos, et al. (2004). "Rural entrepreneurship in Europe: A research framework and agenda." International Journal of Entrepreneurial Behaviour and Research **10**(6): 404-425.
- Stockdale, A. (2006). "Migration: Pre-requisite for rural economic regeneration?" Journal of Rural Studies **22**(3): 354-366.
- Stolle, D. (2001). Clubs in congregations: The benefits of joining an association. Trust in Society. S. C. Karen. New York, Russel Sage Foundation: 202-244.
- Tamasy, C. and R. Le Heron (2008). "The geography of firm formation in New Zealand." Tijdschrift Voor Economische En Sociale Geografie **99**(1): 37-52.
- Uzzi, B. (1997). "Social structure and competition in interfirm networks: The paradox of embeddedness." Administrative Science Quarterly **42**(1): 35-67.
- Vaillant, Y. and E. Lafuente (2007). "Do different institutional frameworks condition the influence of local fear of failure and entrepreneurial examples over entrepreneurial activity?" Entrepreneurship and Regional Development **19**(4): 313-337.
- Verheul, I., S. Wennekers, et al. (2002). An Eclectic Theory of Entrepreneurship: Policies, Institutions and Culture. Entrepreneurship: Determinants and Policy in a European-US comparison. D. Audretsch. New York, Springer: 11-81.
- Westlund, H. and R. Bolton (2003). "Local Social Capital and Entrepreneurship." Small Business Economics **21**(2): 77-113.
- Wollebaek, D. and P. Selle (2003). The importance of passive membership for social capital formation. Generating social capital : civil society and institutions in comparative perspective. M. Hooghe and D. Stolle. New York, Palgrave Mcmillan: 67-88.
- Woodhouse, A. (2006). "Social capital and economic development in regional Australia: A case study." Journal of Rural Studies **22**(1): 83-94.
- Woolcock, M. (1998). "Social capital and economic development: Toward a theoretical synthesis and policy framework." Theory and Society **27**(2): 151-208.

- Zmerli, S. and K. Newton (2006). Networking among voluntary associations: Segmented or integrated? Social Capital and Associations in European Democracies: A Comparative Analysis. W. A. Maloney and S. Rossteutscher. London, Routledge: 153-174.
- Zmerli, S. and K. Newton (2007). Networking among voluntary associations: Segmented or integrated? Social Capital and Associations in European Democracies: A Comparative Analysis. W. A. Maloney and S. Rossteutscher. London, Routledge: 153-174.