Swiss Research Institute of Small Business
and Entrepreneurship

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# Regional Entrepreneurship in Switzerland: Recent Developments

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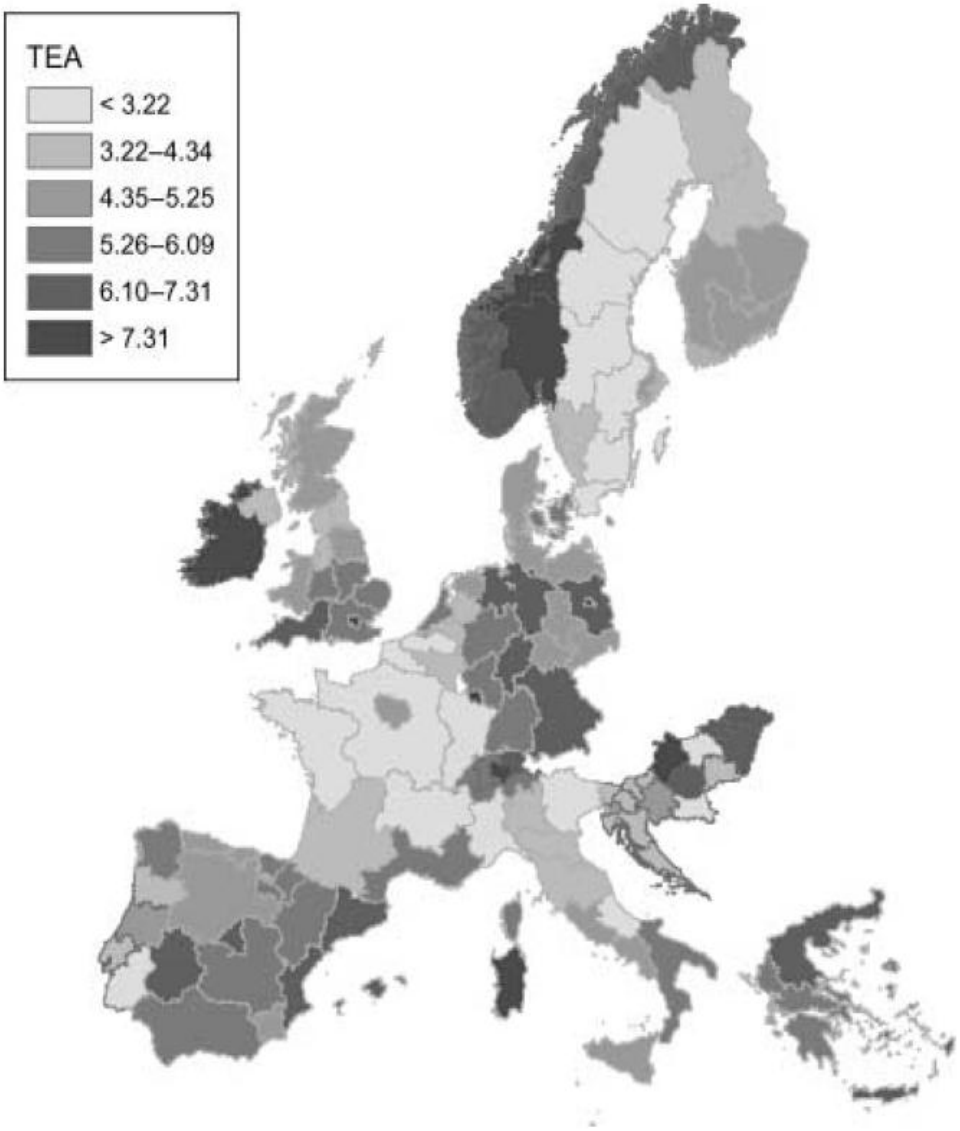
regiosuisse
Bern, September 26, 2012

# Early-stage Entrepreneurial Activity (TEA) in Europe: A regional perspective



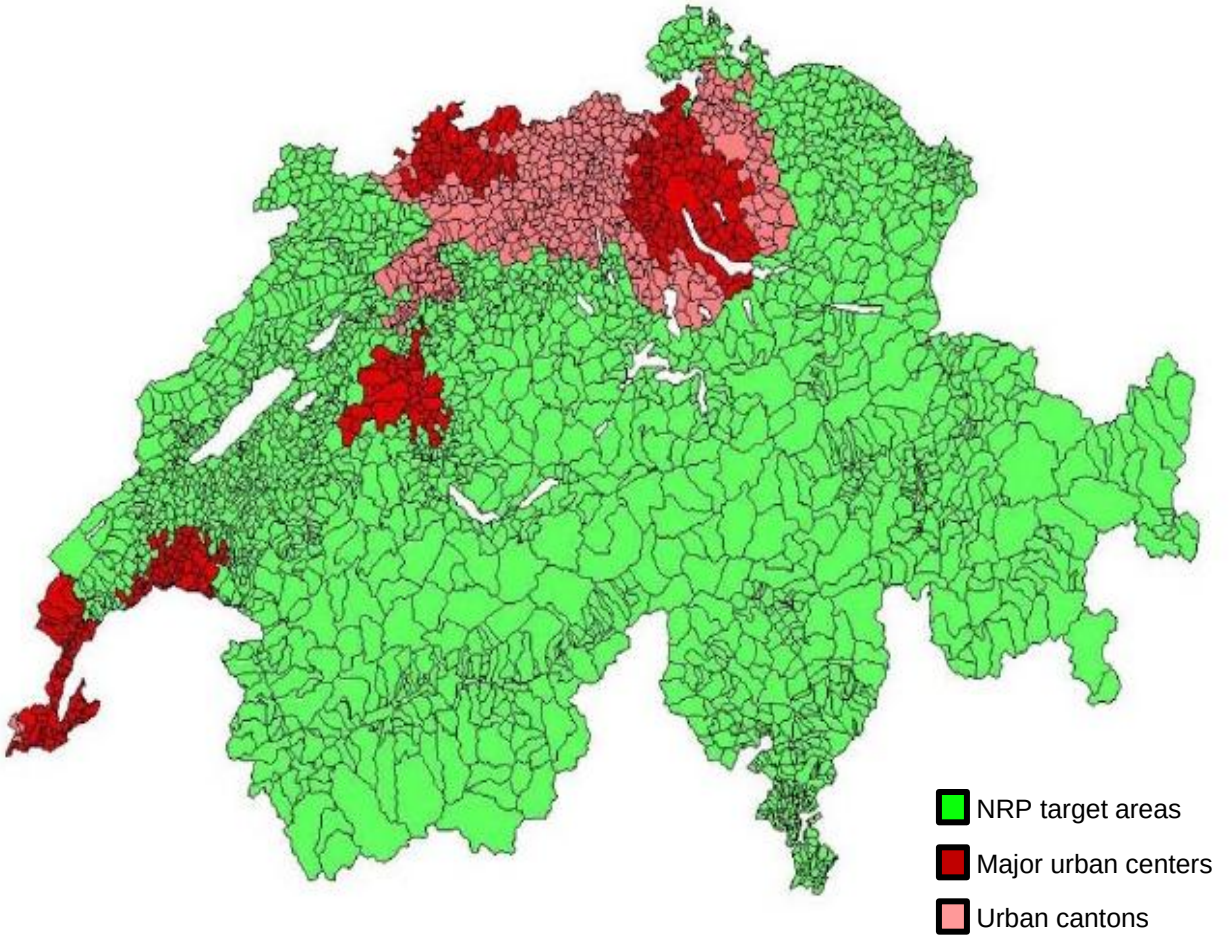

Source: Bosma & Schutjens (2007)

# Clustering by entrepreneurial activity, economic development and population density

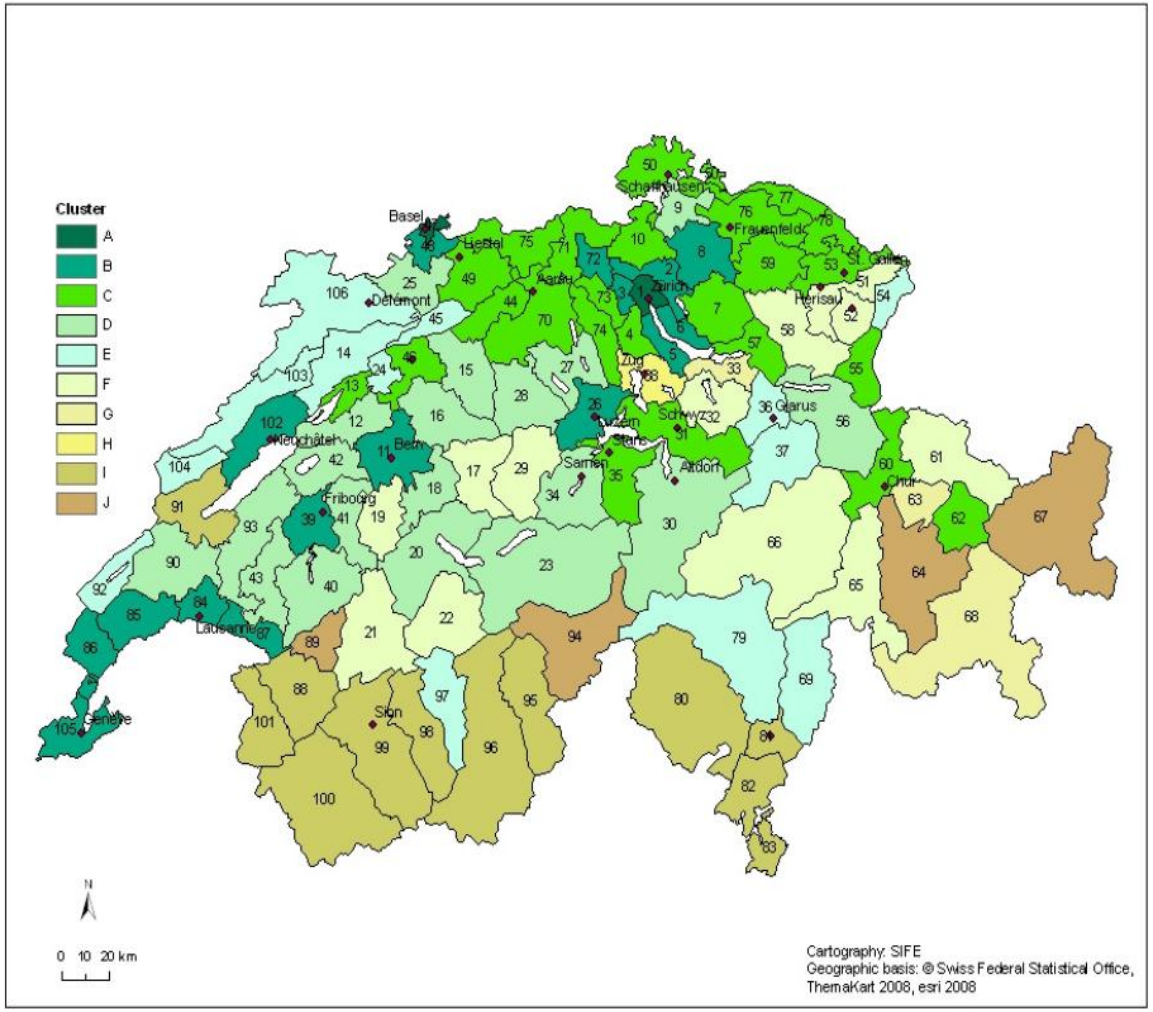
| Group 1: Non-dynamic regions | Group 2: Well-developed regions |
|---|---|
| *Characteristics Entrepreneurship*: Low ambitious entrepreneurship, low nascent entrepreneurial activity<br>*Other Regional Characteristics*: Low population density, average GRP | *Characteristics Entrepreneurship*: High baby business ownership rates, fairly high nascent entrepreneurial activity and ambitious entrepreneurship<br>*Other Regional Characteristics*: High GRP, average population density |
| *Regions*:<br>Belgium: Region Wallone, Vlaams Gewest<br>Finland: North (Pohjois-Suomi), West/Middle (Lansi-Suomi)<br>France: Centre-West, East, North, Parisien Bassin, West<br>Hungary: Central Transdanubia, Southern Great Plain<br>Germany: Sachsen-Anhalt, Schleswig-Holstein<br>Italy: Ambruzo-Molise, Centro, Nord-Est, Nord-Ovest<br>Netherlands: Noord-Nederland, Oost-Nederland, Zuid-Nederland<br>Portugal: Alentejo, Centro, Lisboa e Vale de Tejo, Norte (including Porto)<br>Spain: Andalucia, Aragon, Asturias, Canarias, Cantabria, Castilla La Mancha, Castilla y León, Comm Valenciana, Extremadura, Galicia, La Rioja, Murcia, Navarra, Pais Vasco<br>Sweden: Mellersta Norrland, Norra Mellansverige, Östra Mellansverige, Övre Norrland, Småland med öarna, Sydsverige, Västsverige<br>United Kingdom: Merseyside, North East, North West, Northern Ireland, Scotland, Yorkshire Humberside | *Regions*:<br>Denmark: Funen, Jutland, Sealand and Bornholm<br>Finland: South (Etela-Suomi)<br>France: Ile de France<br>Germany: Baden-Württemberg, Bayern, Brandenburg, Hessen, Niedersachsen, Nordrhein-Westfalen, Rheinland-Pfalz, Saarland<br>Italy: Emilia-Romagna, Lazio, Lombardia, Sardegna<br>Netherlands: West-Nederland<br>Norway: Central, North, Oslo and surroundings, South, West<br>Spain: Baleares, Catalunya, Madrid<br>Sweden: Stockholm area<br>Switzerland: North-East, North-West, South<br>United Kingdom: East Anglia, East Midlands, South East, South West, Wales, West Midlands |

Source: Bosma & Schutjens (2007)

# Geographical area of application of the new regional policy (NRP) in Switzerland



# Spatial distribution of economic clusters in Switzerland




Clusters are based on the following indicators:

- Population density
- Service density
- Manufacturing density
- Share of small firms
- Labour force
- Tertiary qualification
- Diversity index
- Young people (25-40)
- Self employment rate
- Start-up number
- Start-up rate

A: highest economic activity to J: least economic activity

Source: Wagner, Kronthaler & Becker (2009)

# The challenges for Swiss rural regions

- **High share of activities with low productivity rates** (e.g. agriculture, forestry, hotel)**.** As economic input-output analyses in rural and mountainous Swiss regions show (Buser, et al. 2005), such branches rarely contribute to regional added value production
- **Difficult physical accessibility**. The physical conditions to integrate rural regions in “clusters” (Porter 1998) in the midland are still unfavourable for a great part of the Swiss rural regions
- **Social stagnation**. Some rural regions in Switzerland seem to be “locked-in” cognitively as well as politically (Grabher 1993).

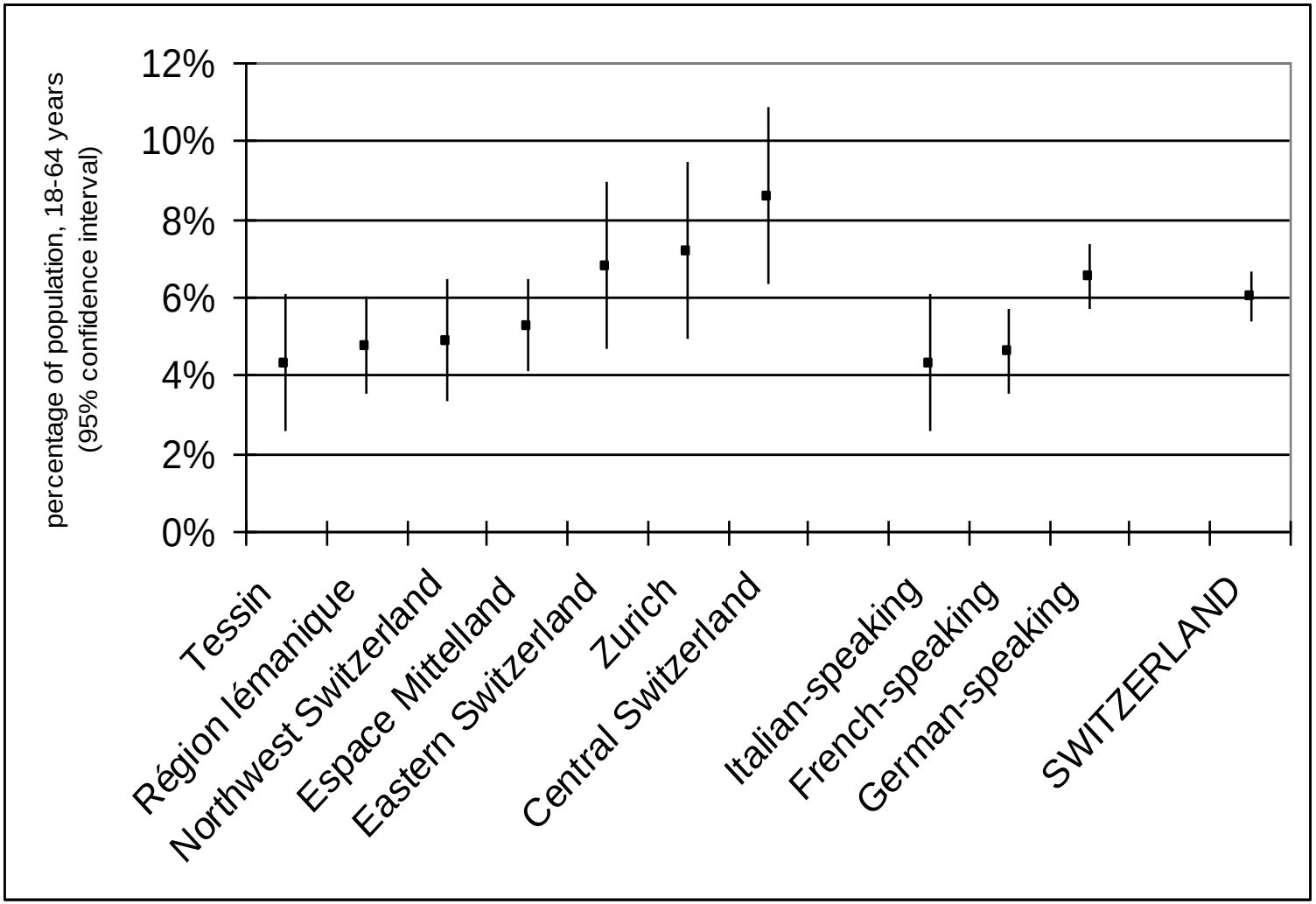
# Research questions

- What determines the decision to start a new business in Switzerland?
- Which person-related and which regional factors are important?
- Is there an influence of factors that are specific to Switzerland:
  - Do taxes on corporate profits and personal income influence the entrepreneurial propensity?
  - Is there a cultural influence (in terms of language regions) on entrepreneurial propensity?

# Method and data

- Official databases lack information about the entrepreneur.
- We use data from 2005 adult population survey of the Global Entrepreneurship Monitor (GEM): 5‘456 randomly selected people (18-64 years). Advantages: micro-level data available, person-related characteristics included, random sample
- Individual data from telephone survey are combined with regional data from official statistics
- Binary dependent variable: Early-stage Entrepeneurial Activity (TEA) = nascent entrepreneurs + firms that have been set up within the last 3 ½ years
- Logit model; special survey estimator to take the clustering of the data into account („svylogit“)

# Descriptive Results: Early-stage Entrepreneurial Activity by Region




Source: Volery & Bergmann (2007)

# Results of Logit-Regressions

| | Model 1 | | | Model 2 | | |
|---|---|---|---|---|---|---|
| ***Person-related variables*** | Coef. | T | | Coef. | t | |
| Gender (1=male) | -0.1755 | -1.09 | | -0.2010 | -1.29 | |
| Age (in years) | 0.1444 | 3.31 | *** | 0.1454 | 3.31 | *** |
| Age squared | -0.0020 | -3.85 | *** | -0.0020 | -3.88 | *** |
| Combined signific. of two age variables[a] | | | *** | | | *** |
| Secondary education (1= yes) | 0.8183 | 2.28 | ** | 0.8018 | 2.23 | ** |
| Tertiary education (1= yes) | 1.1932 | 2.77 | ** | 1.1716 | 2.73 | ** |
| Housewife/-man; student; retired (1=yes) | -0.4301 | -2.76 | ** | -0.4349 | -2.75 | ** |
| Former business owner (1=yes) | 0.6204 | 1.70 | (*) | 0.6675 | 1.87 | * |
| ***Regional variables*** | | | | | | |
| Language area (1=French or Italian) | -0.3100 | -3.17 | *** | 0.1772 | 0.72 | |
| Self-employment rate 2000 (in %) | | | | 0.1281 | 1.89 | * |
| Unemployment rate 2004 (in %) | | | | -0.3279 | -2.33 | ** |
| Purchasing Power 2005 (in 1000 CHF) | | | | 0.0864 | 3.79 | *** |
| Taxes on income and wealth (index) | | | | -0.0008 | -0.28 | |
| Taxes on comp. profits and capital (index) | | | | -0.0007 | -0.14 | |
| *Constant* | -5.5338 | -4.81 | *** | -9.0258 | -6.29 | *** |
| | | | | | | |
| N | 5406 | | | 5406 | | |
| F (8, 18) / F(13, 13) / F(17, 9) | 23.35 | | | 21.06 | | |
| Prob > F | 0.00 | | | 0.00 | | |

*** : significant on 1%-level
** : significant on 5%-level
* : significant on 10%-level

Source: Heiko Bergmann (2011)

# Summary of Results

- entrepreneurial propensity dependent on:
  - age ( +, -)
  - education (+)
  - employment (+)
  - entrepreneurial experience (+)
  - regional self-employment rate *(+)*
  - regional unemployment rate (-)
  - regional purchasing power (+)
- no influence of gender
- no influence of language area
- no influence of taxes

# Rural entrepreneurship or entrepreneurship in rural areas?

"*Innovation appears to be a large city phenomenon*." (Feldman/ Audretsch 1999)

„*The Entrepreneurial Advantage of World Cities*" (Acs et al. 2008)

"*Despite the recognition of entrepreneurship as one of the main determinants of rural economic development, empirical research in this field is relatively sparse. Thus there is little evidence on the role and function of rural entrepreneurs*" (Meccheri/Pelloni 2006)

"entrepreneurship in rural areas" or „rural entre-preneurship" ?

implies that eship is basically the same in urban and rural areas

implies that eship in rural areas is idiosyncratic

# Aim and research question

**Research Aim** is

- to broaden our understanding of entrepreneurship in rural areas (compared to urban areas) in developed countries.

**Research Questions** are

1. What factors explain entrepreneurial activity in rural areas compared to urban areas? ➡ *Entrepreneur level*

2. What are the characteristics of new businesses in urban and rural areas? ➡ *Enterprise level*

# Two main data sources

Empirical evidence from Switzerland is based on:

1. Adult population survey of the **Global Entrepreneurship Monitor (GEM)** Switzerland
   - telephone survey in Swiss households;
   - 2005 and 2007 data combined, N=7554

   ➡ *Entrepreneur and enterprise level*

2. **Statistics of company demographics (UDEMO)** provided by the Federal Statistical Office Switzerland
   - Complete count based on events in the commercial register
   - available items: industry branch, legal form, number of employees with respect to employment rate and sex

   ➡ *Enterprise level*

# Results I: Determinants of start-up activity at the entrepreneur-level

| | Model 1: Urban Areas | | Model 2: Rural Areas | |
|---|---|---|---|---|
| | Coef. B | Sign. | Coef. B | Sign. |
| ***Person-related variables*** | | | | |
| gender (1=male) | 0.2954 | * | 0.6078 | * |
| age (in years) | 0.1775 | ** | 0.2113 | ** |
| age squared | -0.0023 | ** | -0.0027 | ** |
| combined signific. of two age variables | | ** | | ** |
| vocational training (1= yes) | 0.8978 | ** | 0.5826 | |
| grammar school (1= yes) | 0.9839 | ** | 1.6122 | ** |
| tertiary education (1=yes) | 1.2715 | ** | 0.9923 | * |
| unemployed (1=yes) | 0.4962 | * | 0.9867 | * |
| homemaker (1=yes) | -0.3682 | * | 0.2154 | |
| former business owner (1=yes) | 1.3358 | ** | 0.6160 | |
| business angel (1=yes) | 0.6720 | ** | 0.3569 | |
| ***Regional variables*** | | | | |
| self-employment rate 2000 (in %) | 0.2044 | ** | -0.0414 | |
| purchasing Power 2005 (in 1000 CHF) | 0.0306 | * | 0.0269 | |
| year 2007 (1=yes) | 0.0968 | | -0.1191 | |
| *Constant* | -10.5616 | ** | -8.4623 | ** |
| N | 5338 | | 2216 | |
| Nagelkerke R-Square | 0.076 | | 0.063 | |

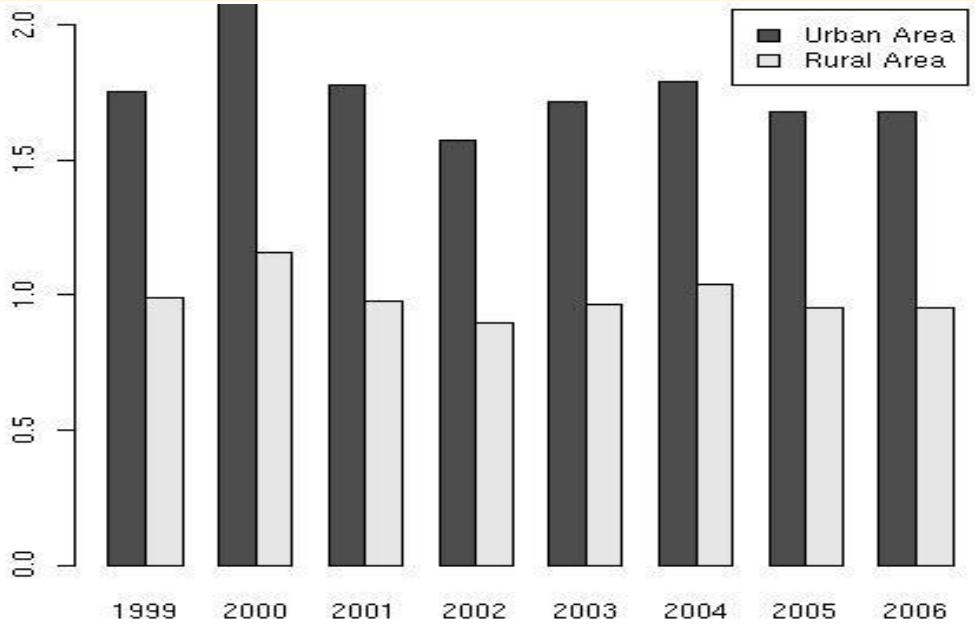
**: significant on 99%-level *: significant on 95%-level

Source: Bergman & Baumgartner (2010)

# Results II: Start-up activity (enterprise level)

| | entrepreneurs (TEA) in urban area | entrepreneurs (TEA) in rural areas | |
|---|---|---|---|
| **TEA (% total population)** | 6,0% | 5,0% | *GEM* |

**Annual New Venture Creation rate per 1‘000 Inhabitants** *UDEMO*




Source: Bergman & Baumgartner (2010)

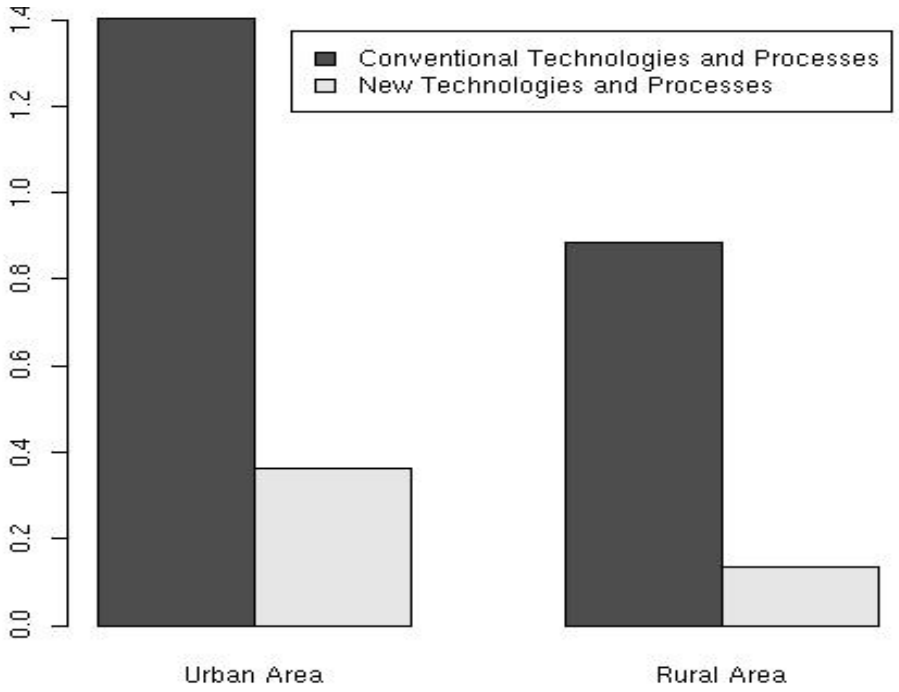
# Results III: characteristics of new businesses: Use of new technologies

| | entrepreneurs (TEA) in urban area (n = 337) | entrepreneurs (TEA) in rural areas (n = 98) |
|---|---|---|
| The technologies or procedures required for the product or service been available for less than a year (% yes) | 16.3% | 9.2% |

*GEM*

**Start-Ups (mean 2000-2005) per industry sector and per 1‘000 Inhabitants**

*UDEMO*




| | |
|---|---|
| %newtechURB | 20.5 % |
| %newtechRUR | 13.4 % |

Source: Bergman & Baumgartner (2010)

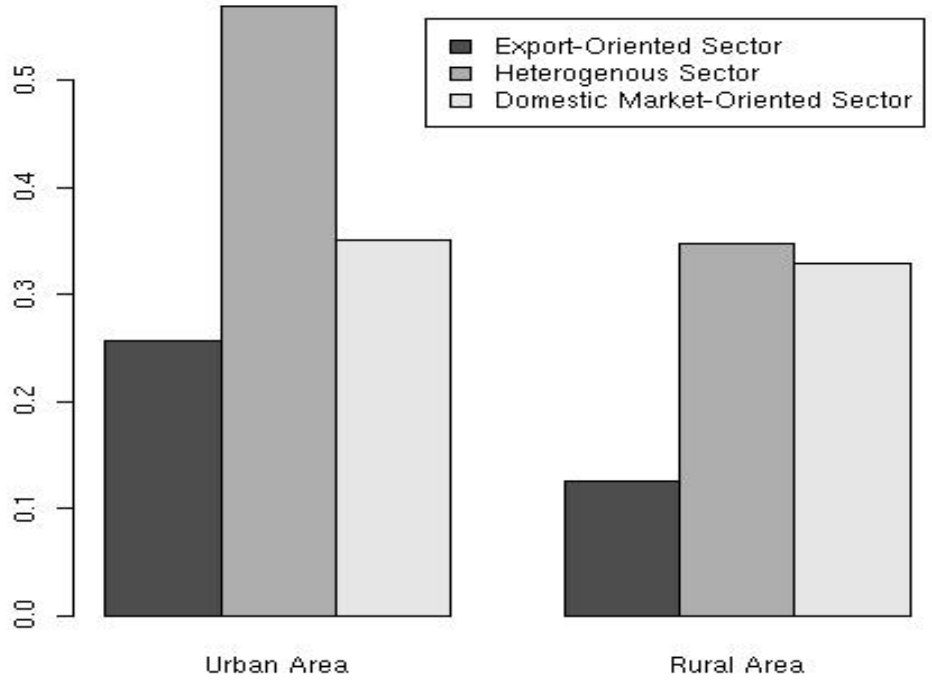
# Results IV: characteristics of new businesses: Export Orientation

| | entrepreneurs (TEA) in urban area (n = 337) | entrepreneurs (TEA) in rural areas (n = 98) |
|---|---|---|
| % of exporting business | 39.4% | 39.5% |
| average share of exports | 14.5% | 15.8% |

*GEM*

**Start-Ups (mean 2000-2005) per export-orientation and per 1‘000 Inhabitants**

*UDEMO*




| | |
|---|---|
| %exportURB | 21.8 % |
| %exportRUR | 15.7 % |

Source: Bergman & Baumgartner (2010)

# Summary of results

- On the entrepreneur-level
  - The influencing factors on start-ups in rural areas are more difficult to determine. The results for rural areas are often not in line with the theoretical predictions.
- On the enterprise-level (GEM vs. UDEMO)
  - **Consistent results**
    - *Start-up activities* (measured by new firm foundation rate (UDEMO) vs. TEA-rate (GEM)) are higher in urban areas
    - Start-ups in rural areas make less *use of new technologies* (cf. North&Smallbone 2000);
  - **Contrasting results**
    - *Export orientation of start-ups* (measured by entrepreneur's self declaration (GEM) vs. industry branch classification (UDEMO))

# Conclusion

- On the entrepreneur-level
  - While the determinants for „urban“ entrepreneurship are quite well understood, determinants for „rural“ entrepren-eurship are to a lesser extent. Other determinants and chance seem to be more relevant.
- On the entreprise level:
  - The appliance of new technologies and procedures in newly founded SMEs seems to be an „urban phenomenon“;
  - Difficult measurement of „export-orientation“ on the industry-sector level (UDEMO)
- Limitation
  - Sector-related classification of new businesses (UDEMO) vs. self-declaration of new business activities by the (potential) founder-owner (GEM)

# Thank you for your attention!

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