

KfW Start-up Monitor 2013

Tables and Methodology

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Executive Summary of the Analytical Report

Start-up activity continues to decline: The number of people who started their own business in Germany dropped again in 2012 (-7 % against 2011). At 775,000 new entrepreneurs i. e. new self-employed persons and business founders, this was the lowest level since surveys began in the year 2000. The main reasons were the weak economy, the good job market situation and most recent changes to support schemes offered by the Federal Employment Agency for newly self-employed persons. **We do not expect a noticeable recovery of entrepreneurial activity in the current year.**

The decline in the number of new entrepreneurs reduces the direct gross employment effect of new businesses: They created 383,000 full-time-equivalent jobs overall (14 % less than in 2011). Of this total, 212,000 jobs were for the full-time business founders themselves and 171,000 for employees.

There are significantly more opportunity entrepreneurs: This means that more new entrepreneurs of the year 2012 implemented an explicit business idea with their start-up project than prior-year business founders (2012: 47 %; 2011: 35 %).

More new entrepreneurs in liberal professions: In 2012 the share of new entrepreneurs in liberal professions increased to 39 % (2011: 36 %). That share has increased almost continuously since 2005. Thus the number of new entrepreneurs in liberal professions has bucked the trend (2005: 187,000; 2012: 303,000).

The following obstacles to entrepreneurship are more widespread than five years ago: Bureaucratic hurdles and delays, the strain on the family, financial risk, financing difficulties and having to sacrifice benefits provided by paid employment (such as job security aspects or limits to working hours).

Start-up plans are implemented quickly: Three quarters of full-time founders usually take much less than a year from the first idea until their business is set up. On average, it takes new entrepreneurs seven months to turn their idea into a business. Half of the founders take less than three months.

New entrepreneurs work more on average than employees: Full-time founders have a 48-hour week on average while sideline entrepreneurs work an average of 13 hours per week in their business. Most sideline entrepreneurs continue to be in full-time employment. The hours they work in their own business and as paid employees add up to a total similar to that of full-time entrepreneurs.

Measured by the change in household income, self-employment usually pays off. However, because of the long working hours the arithmetic hourly earnings rate of start-up entrepreneurs is often on the minimum wage level. Entrepreneurs' household income often falls into higher income categories than that of paid employees. Self-employment enables a large portion of new entrepreneurs (42 %) to earn higher net household income than before.

Fewer new entrepreneurs came from unemployment: As expected, because of the restrictions on grants from the Federal Employment Agency, fewer business founders came from unemployment (-32 % against 2011). However, many people who were previously unemployed ventured into self-employment even without support from the Federal Labour Office. The number of part-time entrepreneurs in this group increased to 41 % (10 percentage points above the average 2008–2011).

Survey concept of the KfW Start-up Monitor

Germany does not have any official statistics on start-up activity. The KfW Group therefore has been conducting the KfW Start-up Monitor as a representative survey of the population on start-up activity in Germany since the year 2000. Today there are twelve survey waves in the annual cross-cutting data collection; not only do they each individually provide important structural information on start-up activity in a particular year, but through their combination they also provide valuable insights into entrepreneurship dynamics. The survey programme has been developed further over the years and aligned with current issues, so that the KfW Start-up Monitor now represents a very comprehensive source of information on start-up activity in Germany. The collected data and the resulting publications have evolved to become a fixed parameter in Germany's entrepreneurship research. In addition, the KfW Start-up Monitor provides political decision-makers, the media and the public at large with easy-to-understand, detailed and current analyses of start-up activity in Germany.

Survey methodology

The KfW Start-up Monitor is conducted using computer-assisted telephone interviewing (CATI). The current survey for the year 2012 interviewed 50,000 randomly selected residents of Germany. Special state-of-the-art market research methods ensure that the generation of samples and the interviews create a data set that is broadly representative of the population residing in Germany.

Target group

The targeted parent population about which the net sample (that is, the total number of persons with a completed interview) is to provide representative data is composed of all 51.5 million persons resident in the Federal Republic of Germany in the "entrepreneurially relevant" age of 18 to 65 years.

Surveying method and field phase

The interviews conducted under the KfW Start-up Monitor apply modern CATI procedures because the questionnaire has a very complex filter structure requiring a guide through its contents through an automated (computer-assisted) system. In addition, the short timeframe within which the necessary interviews must be conducted require a telephone-based survey. Since 2003 the period from the beginning of August to mid-December has been available for the field phase of each year. Surveys have so far taken place in the following periods: 02.08.–26.10.2000, 14.05.–06.07.2001, 15.04.–19.07.2002, 18.08.–22.11.2003, 16.08.–16.11.2004, 22.08.–23.11.2005, 21.08.–28.11.2006, 27.08.–04.12.2007, 20.08.–23.12.2008, 27.07.–23.12.2009, 29.07.–18.12.2010, 20.07.–17.12.2011 and 07.08.–06.12.2012. In the survey on the KfW Start-up Monitor 2013 the daily telephone times for initial fixed-network calls were Monday to Friday from 6 PM to 9 PM and Saturdays from 10 AM to 6 PM. Appointments were also made for interviews outside the specified times. The interview language was German.

Contents of the questionnaire and evaluation potential

The first question identifies business founders by asking whether the interviewee started full-time or sideline commercial or freelance self-employment in the 36 months before the date of the interview. The survey captures individuals with an ongoing self-employment project as well as founders who have already abandoned their business again. The interview continues with a detailed programme of currently around 70 questions pertaining to the person and their start-up project. Questions relate to the sequence and type of business foundation, employees and financing, the continuation of the business and personal income history, professional qualifications and other socio-demographic characteristics. In order to be able to compare entrepreneurs with non-entrepreneurs, socio-demographic data is also collected for around 7,500 non-entrepreneurs. By way of exception, in the 2011 survey this subsample comprised some 11,400 non-founders.

The chosen survey design offers a variety of evaluation options. For one thing, it allows structural parameters of entrepreneurial activity and its development over time to be analysed. For another, the comparison between entrepreneurs and non-entrepreneurs in the population enables surveys of individual start-up decisions. The information on the continuation of the start-up project can be used to analyse the survival of newly founded businesses as a central measure of entrepreneurial success (Brüderl et al., 2007).

Sample structure

The sampling is based on the methodology of the working group Media Analysis (MA), which is generally recognised

in market research for CATI studies and recommended by the Arbeitskreis Deutscher Markt- und Sozialforschungsinstitute (ADM) (*Working Group of German Market and Social Research Institutes*). The sum of selected telephone connections comprises the universe of all telephone numbers that are possible in Germany so as to reach not only numbers listed in public directories but unlisted numbers as well.

The selected population of fixed-network telephone numbers is taken to draw a regionally stratified gross sample (of the total of all fixed-network numbers that can potentially be called). Business phone numbers are excluded from the selected population if they were unmistakably identified a priori. The interview is aborted if the number called turns out to be a business number.

Although restricting the sample selection to fixed-network telephone numbers was undisputed and unproblematic until a few years ago, recently there has been an increase in the number of households that can only be contacted through a mobile telephone network. For Germany the share of these mobile-only households was 12 % in 2011 (European Commission, 2011). Particularly among singles and persons under 30 years of age, households using exclusively mobile services are widespread.¹ In order to reach this population group as well and to capture it in a representative manner, the inclusion of mobile telephone numbers is imperative. In the 2010 survey the sample generation for the KfW Start-up Monitor resorted to a corresponding dual-frame approach for the first time, feeding not only a fixed-network tranche but a mobile tranche as well. Since mobile telephone numbers do not carry any regional information, no regional stratification is performed for the mobile sample. However, the postcode or municipality of the interviewee is captured for the purpose of sample weighting (see Hoffmann, 2007, Gabler and Häder, 2009).

During the field phase, the survey dials the telephone numbers of the gross sample successively until it achieves a total of 50,000 completed interviews with private households. These 50,000 feature bearers constitute the net sample of the KfW Start-up Monitor. Under the dual-frame approach used since 2010 and 2011, the share of completed mobile telephone interviews determined in advance out of the total net sample was 35 %, in 2012 it was set at 30 %.

Sample weightings and extrapolation of the survey results

The survey results are weighted in order to apply the net sample to the parent population. This is done with the note of weighting factors that are selected in such a way that the distribution of the features of federal state, municipality size category, gender, age, educational attainment, nationality and household size of the weighted sample corresponds to the distribution of these features in the parent population of 18 to 64-year-old residents in Germany. The purpose of weighting the results on the basis of these features is to achieve a representative image of the captured start-up activity. The annual survey waves each contain two weighting factors, one for weighting the total sample of the 50,000 persons and one for weighting the subsample of the just over 7,500 persons – in the survey wave for 2011 for weighting the subsample of the roughly 11,400 persons – which also contain detailed socio-demographic features for the non-entrepreneurs.

Possible impairments to representativeness

Failure to interview persons without adequate German language skills, conducting interviews outside the above time-frame and limiting the parent population to persons with fixed-network telephone numbers can generally impair the representativeness of the KfW Start-up Monitor for business start-up activity in Germany.

- Interviews in German language only
To the extent that persons residing in Germany without adequate German language skills differ systematically from other persons, a start-up survey operating exclusively with German-speaking interviewees has limited representativeness for the overall population. The sample weighting on the basis of citizenship, which was performed for the year 2008 for the first time, cancels out this problem because holding German citizenship strongly correlates with adequate command of the German language.
- Interviews begin Monday to Friday from 6 PM
It cannot be ruled out that entrepreneurs are harder to reach privately than non-entrepreneurs (particularly those who are not economically active). Therefore, starting interviews too early may impair their representativeness. This is the reason that initial contacts via fixed-network numbers do not begin until 6 PM on weekdays. Possible distur-

¹ Slightly older surveys, such as those based on the Income and Consumption Survey, arrive at similar results. Thus around 35 % of households in which the main income earner is younger than 25 years do not have a fixed-network telephone connection (Results of the 2008 Income and Consumption Survey of the Federal Statistical Office; Behrends and Kott, 2009). See also Schneid and Stiegler (2006) and the contributions in the volumes of Gabler and Häder (2007) as well as Häder and Häder (2009) on the discussion of the viability of telephone surveys.

tions are also mitigated by the long interview period on Saturday and by flexible appointment scheduling.

- Differences in start-up behaviour between fixed and mobile telephony users
To the extent that persons who are reachable exclusively through the mobile telephone network are systematically distinct from persons with fixed-network connections with respect to entrepreneurial prevalence or to the features of their start-up projects, failure to take mobile telephone connections into account may lead to distorted entrepreneurship rates or structural information. Interviews were therefore carried out through mobile telephone networks under the dual-frame approach for the first time in the 2010 survey.
- General willingness of entrepreneurs to be interviewed
Finally, representativeness can be impaired by the reduced or increased willingness of entrepreneurs in general or specific groups of entrepreneurs to participate in (telephone) interviews than non-entrepreneurs. The extrapolation of the entrepreneurship rate takes into account the higher probability of longer interviews with entrepreneurs being aborted.

Main definitions and conventions

The particularities of the diverse data sets relating to start-up activity result in distinctions reflected by basic definitions of terms used to describe start-up activity. The most important definitions of the KfW Start-up Monitor are as follows:

- Self-employment
Independent full-time or sideline commercial or freelance activity.
- Full-time / sideline self-employment
It is up to the entrepreneur to classify their business into one of the categories of full-time or sideline occupation without a more detailed specification of the meanings of the concepts (of full-time and sideline). They may categorise their occupation by the time they spend working for themselves (relative to other work) and / or by the contribution of self-employment income to household income. However, an a priori definition does not shift the by no means trivial task of distinguishing between full-time and sideline business activity from the interviewee to the researcher collecting the data, which is why such an a priori definition is avoided. Where the 2012 survey asked the number of hours spent working independently, the median² for full-time entrepreneurs was 50 hours per week at the time of the survey. For sideline entrepreneurs the median was a significantly lower 10 hours. Evidently, the time spent working independently played a role in whether the entrepreneurs regarded themselves as full-timers or sideline entrepreneurs.
- Entrepreneurs
Entrepreneurs are defined as persons who started an independent occupation within 12 months prior to the interview. This independent occupation may be both the formation of a new business and the takeover of or participation in already existing businesses. It is irrelevant whether the independent occupation still exists at the time of the interview or has been discontinued. This 12-month concept is applied in determining the entrepreneurship rate and number of entrepreneurs and is used in the analyses on the structure of entrepreneurial activity. It is only in the analyses of surviving start-up businesses that the survey additionally considers those persons who have initiated their start-up project up to 36 months prior to the time of the interview.
- Entrepreneurship rate
Quota of entrepreneurs (12-month concept) aged 18 to 65 years in the population of the same age. The concept is also applied in a separate analysis of full-time and sideline entrepreneurs.

In order to achieve better readability, the text of the present report is simplified as follows:

- Without explicitly mentioning it in every instance, the following analyses apply exclusively to persons aged 18 to 65 years. This accounts for the circumstance that only a small portion of all entrepreneurs and an even significantly smaller portion of full-time entrepreneurs are adolescents or persons of (current) retirement age. Thus in the year 2005, when persons aged younger than 18 and older than 67 years were interviewed as well for the last time, 10 % of all entrepreneurs and 4 % of all full-time entrepreneurs did not belong to the age group of 18 to 65-year-olds. Persons aged 65 to 67 years are also interviewed since the 2008 survey. The information they supply, however, is

² The median is the value that separates the smaller 50 % from the larger 50 % of the values. If the median is 45 hours this means that 50 % of full-time entrepreneurs work more than 45 hours and 50 % of full-time entrepreneurs work less than 45 hours. The advantage of the median over the more commonly used arithmetic mean is that the median is robust compared with so-called "outliers" among the values.

not considered in the analyses of the present report. The concept of applying an entrepreneurially relevant age of 18 to 65 years is in line with gainful activity in the life-cycle and is also used by other studies on entrepreneurial activity such as the Global Entrepreneurship Monitor (GEM).

- As was the case for the survey results of earlier years, the results of 2011 are taken to reflect the start-up activity of the corresponding year. However, given the survey design of the KfW Start-up Monitor (capturing businesses founded within the last 12 months with reference to the date of the survey, which is usually always in late summer or autumn) it is in fact not possible to capture start-up activity exactly for the calendar year. Thus, for example, 22 % of the entrepreneurs identified in the 2012 survey year already set up their business in 2011. For the survey years 2006 to 2011 the corresponding shares were between 15 and 25 %. For the survey years 2000 to 2005 the precise date of business establishment was not captured. Taking into account the presented periods of the field phase, the share of respective prior-year business founders for the survey years 2000, 2003, 2004 and 2005 can also be assumed to be around one quarter. In the years 2001 and 2002 these shares are likely to have been around 50 % because the field phases were earlier.
- In methodological terms, this study accounts for the fact that statements pertaining to the parent population that are based on samples are fraught with a statistical uncertainty. Under otherwise identical conditions, this uncertainty is higher the smaller the sample is on which an analysis is based. The weighted values presented in the charts are therefore usually reported with fluctuation margins (confidence intervals of 95 %). For example, the smaller the 95 % confidence interval in a bar figure is relative to the length of the corresponding bar (or the share or mean value), the closer the value estimated on the basis of the sample is to the true value. Confidence intervals also serve to compare different bars. Only when the confidence intervals of values to be compared do not overlap can these values be assumed to actually differ from one another (that is, in the parent population). In the presented regression analyses the standard errors and t-values permit conclusions to be drawn on the statistical significance of the estimated effects.

Tables and Figures

Socio-demographic Characteristics

Table 1: Selected characteristics of new entrepreneurs 2012 (Shares in percent)

	All start-up entrepreneurs	Full-time entrepreneurs	Sideline entrepreneurs	Population
Women	38.7	31.9	43.7	49.4
Age				
18 to 24 years	13.9	8.3	18.0	12.8
25 to 34 years	29.3	33.1	27.0	19.0
35 to 44 years	26.0	27.1	24.7	21.4
45 to 54 years	20.1	23.7	17.6	26.0
55 to 64 years	10.6	7.8	12.7	20.9
Migration background				
German citizenship	81.0	81.0	81.2	82.1
obtained German citizenship	5.7	3.4	6.9	7.1
EU27 citizens (without Germans)	5.8	6.7	5.2	4.8
non-EU citizens	7.5	8.9	6.8	5.9
Educational attainment				
University	16.7	15.5	17.5	9.6
Technical college	11.5	12.4	10.8	9.6
Technical school	6.3	8.8	4.6	5.3
Vocational training	49.1	51.4	47.9	52.1
No degree	16.3	11.9	19.1	23.4
Content of education				
Degree in MINT disciplines*	27.1	28.0	27.1	31.0
Technical education ⁺	42.0	46.6	38.4	40.0
Labour market status				
Employed manager	4.8	8.7	2.4	3.0
Executive employee	17.6	19.1	16.9	13.1
Other employee	23.5	17.2	27.6	29.0
Civil servant	1.7	0.4	2.5	3.4
Skilled worker	5.7	6.3	5.5	8.8
Other worker	2.8	0.6	4.3	6.4
Self-employed	11.6	18.5	7.0	8.2
Unemployed	10.4	14.7	6.7	5.8
Out of labour force	21.9	14.5	27.1	22.5
Main start-up motive				
Opportunity	46.6	49.6	44.9	---
Necessity	30.4	30.9	29.8	---
Other	23.0	19.4	25.3	---
Residence in Eastern Germany	15.2	19.2	12.7	17.6
City size				
< 5,000 inhabitants	13.5	14.0	13.4	14.0
5,000 up to 20,000 inhabitants	22.5	19.8	24.3	26.8
20,000 up to 100,000 inhabitants	24.9	24.2	25.2	27.6
100,000 up to 500,000 inhabitants	17.1	17.3	17.2	15.0
> 500,000 inhabitants	22.1	24.7	19.9	16.5

* MINT degrees at universities encompass degrees in mathematics, sciences and engineering as well as technical subjects at universities of applied sciences and universities of cooperative education. Technical vocational degrees are defined as vocational degrees (see definition of the Federal Employment Agency) in „Production of Raw Materials, Production, Manufacturing“, „Construction, Architecture, Surveying, Building Services Engineering“ and „Sciences, Geography, Computer Science“. Note that it is possible for one person to have more than one university subject area (MINT) or vocational degree (technical). The respective variable was coded so that persons are counted as soon as they have a certain degree.

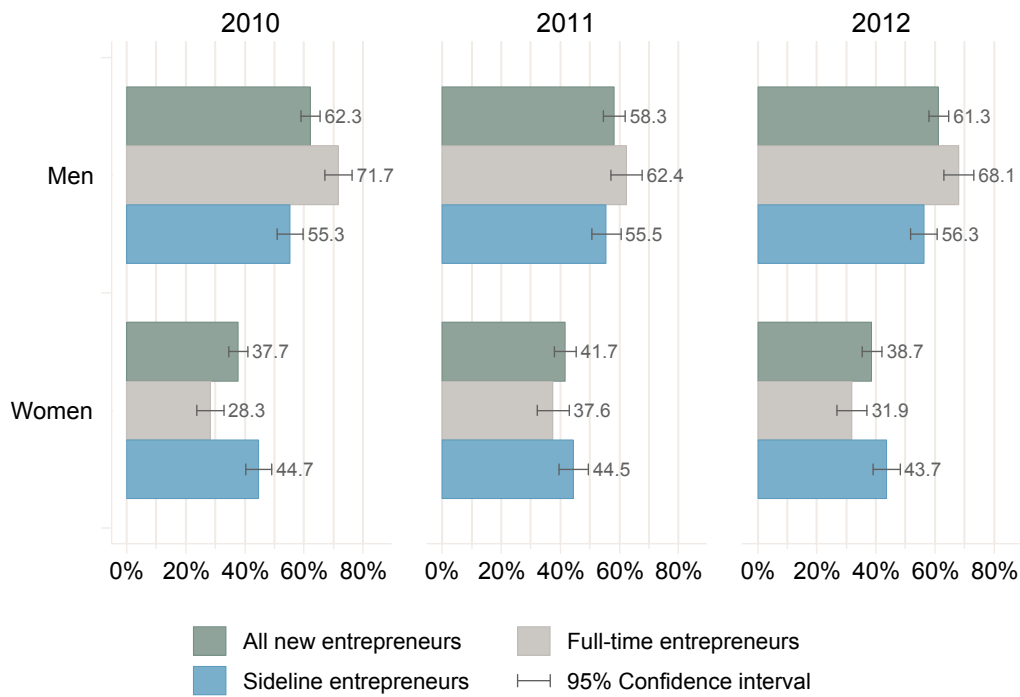
Figures of selected socio-demographic characteristics of new entrepreneurs including sample size, year-on-year comparisons and confidence intervals are found on the following pages. Sample sizes for the distribution of university degrees in mathematics and sciences as well as technical vocational degrees are n=(327, 134, 190, 3,535) and n=(360, 162, 198, 28,578).

In the last column, the distribution of characteristics for all respondents (new entrepreneurs as well as no entrepreneurs) of the KfW Start-up Monitor is listed for comparison reasons. The calculations for characteristics are based on n=46,781 observations at the minimum and n=48,088 observations at the maximum with the exception of the labour market status (n=9,994).

Table 2: Influencing factors on individual start-up propensity

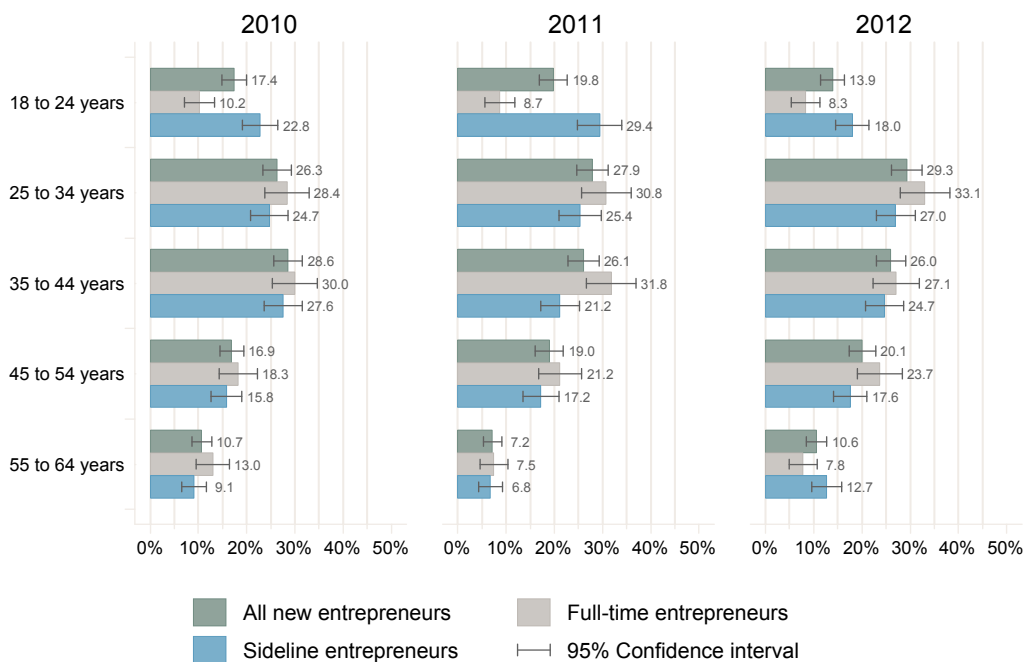
Dependent variable: start-up decision										
Models:	Probit			Multinomial probit						
	(1) all start-up entrepreneurs (entrepreneur: y=1, no entrepreneur: y=0)			(2) sideline entrepreneurs (entrepreneur: y=1, no entrepreneur y=0)			(3) full-time entrepreneurs (entrepreneur: y=2, no entrepreneur y=0)			
	dF / dx	t-value		dF / dx	t-value		dF / dx	t-value		
Gender (= female)	-0.016	***	-7.02	-0.002	-1.36		-0.013	***	-8.78	
Age (Ref.: 35–44 years)										
18 to 24 years	0.003		0.63	0.009	**	1.99	-0.005		-1.37	
25 to 34 years	0.014	***	3.61	0.009	***	2.94	0.006	**	2.18	
45 to 54 years	-0.022	***	-7.34	-0.014	***	-6.21	-0.008	***	-3.74	
55 to 64 years	-0.041	***	-13.47	-0.021	***	-9.36	-0.019	***	-9.40	
Nationality (Ref.: German)										
Obtained German citizenship	-0.004		-0.83	-0.005	*	-1.71	0.002		0.47	
EU27 citizen (w/out Germans)	0.000		0.07	-0.004		-0.86	0.005		1.03	
Non-EU citizens	0.011		1.48	-0.004		-0.84	0.016	***	2.71	
Educational attainment (Ref.: vocational training)										
University	0.033	***	8.72	0.016	***	6.04	0.015	***	6.07	
Technical college	0.020	***	5.15	0.007	***	2.74	0.011	***	4.40	
Technical school	0.027	***	4.19	0.003		0.72	0.022	***	4.87	
No degree	0.014	***	-4.36	-0.005	**	-2.29	-0.008	***	-4.20	
Labour market status (Ref.: employee)										
Self-employed	0.031	***	7.19	0.018	***	5.40	0.012	***	4.54	
Unemployed	0.075	***	12.88	0.008	**	2.32	0.065	***	13.04	
Out of labour force	0.017	***	5.07	0.011	***	4.39	0.005	**	2.17	
Region (= Eastern Germany)	-0.017	***	-6.73	-0.012	***	-6.45	-0.005	***	-2.68	
Number of observations	47,536								47,529	
Observed probability	5.96			3.25			3.25			
Estimated probability	5.96			2.69			2.69			
Log likelihood	-10,258.8								-12,070.314	

The displayed coefficients are average marginal effects. ***, **, * effects are significant at the 1 %, 5 %, 10 % level, t-values heteroscedasticity consistent. Estimations are based on pooled survey waves 2009–2012. Further explanatory variables: dummy variables for survey years, mobile phones and city size (five categories).



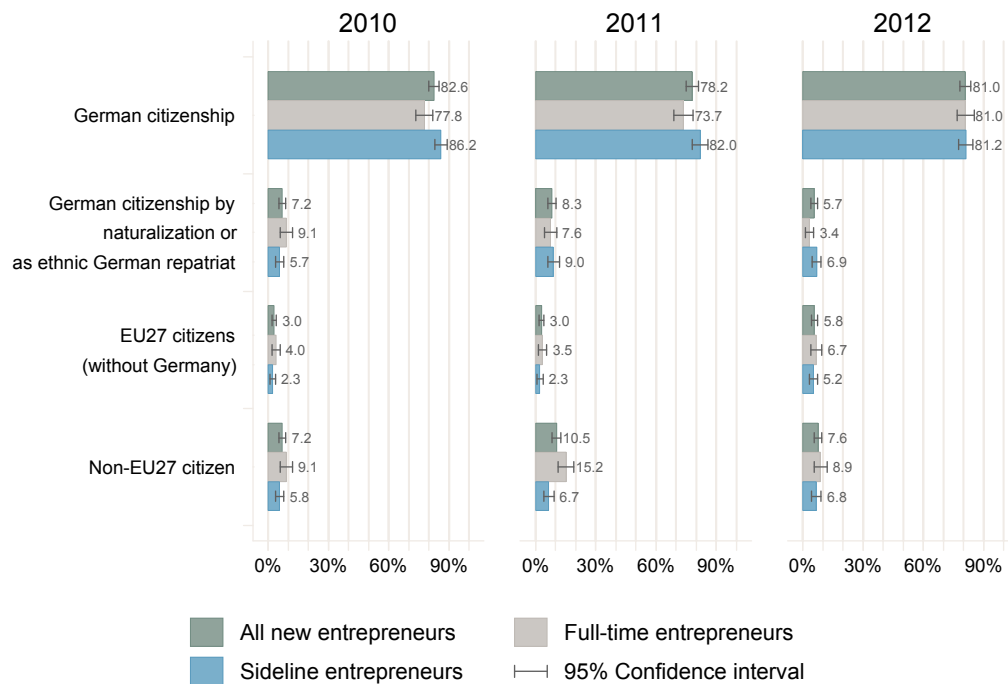
The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=864, 708, 790), full-time entrepreneurs (n=373, 316, 323) and sideline entrepreneurs (n=489, 387, 460) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: 38.7 % of all new entrepreneurs in 2012 were women.

Figure 1: New entrepreneurs by gender



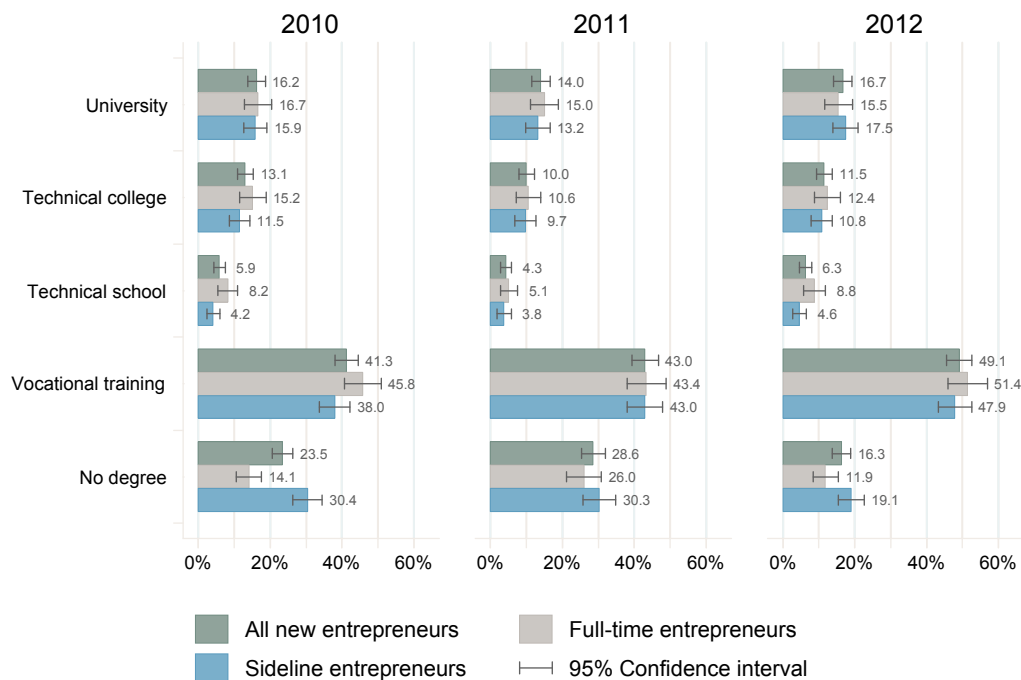
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Figure 2: New entrepreneurs by age group



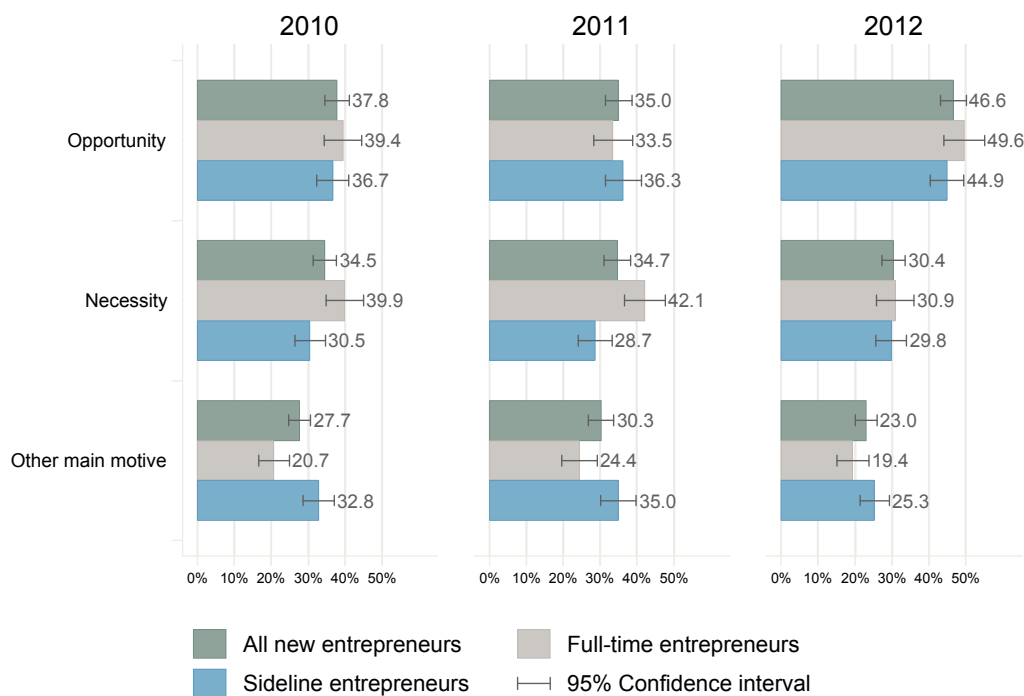
The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=864, 708, 788), full-time entrepreneurs (n=373, 316, 323) and sideline entrepreneurs (n=489, 387, 458) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 12.6 % of all full-time entrepreneurs were non-EU27 citizens.

Figure 3: New entrepreneurs by migration background



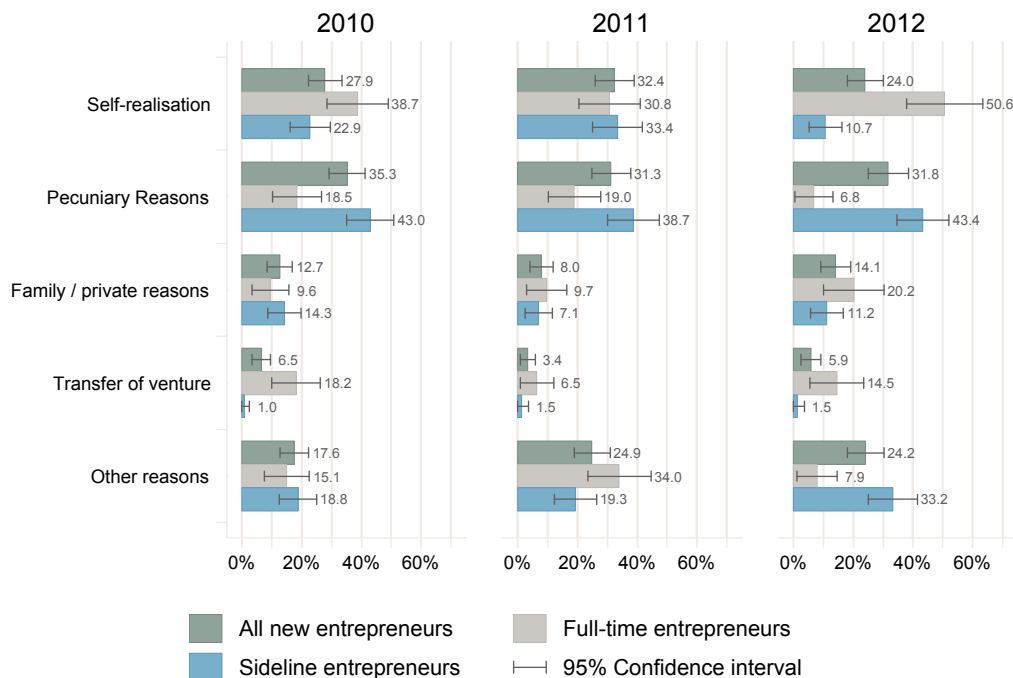
The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=864, 708, 782), full-time entrepreneurs (n=373, 316, 322) and sideline entrepreneurs (n=489, 387, 453) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 15.6 % of all full-time entrepreneurs have a university degree.

Figure 4: New entrepreneurs by educational attainment



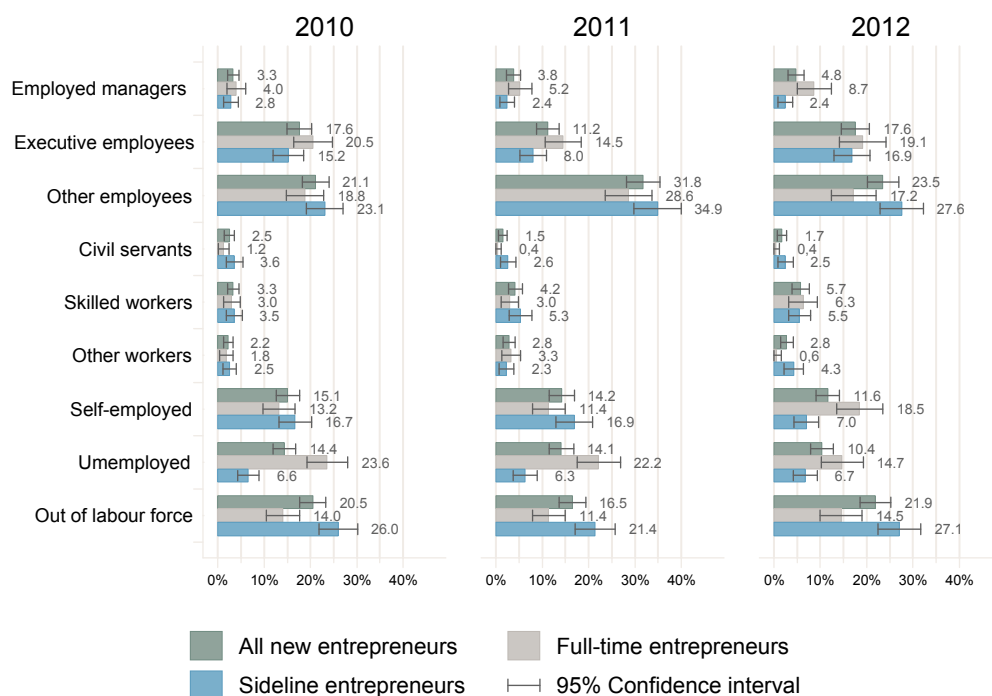
The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=842, 690, 788), full-time entrepreneurs (n=364, 309, 322) and sideline entrepreneurs (n=476, 377, 459) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 49.7 % of all full-time entrepreneurs were opportunity entrepreneurs.

Figure 5: New entrepreneurs by main start-up motive



The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=240, 199, 189), full-time entrepreneurs (n=87, 77, 70) and sideline entrepreneurs (n=152, 121, 126) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 43.6 % of all sideline entrepreneurs with other start-up motives entered into self-employment because of pecuniary reasons.

Figure 6: Distribution of other start-up motives



The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=793, 648, 780), full-time entrepreneurs (n=358, 308, 321) and sideline entrepreneurs (n=435, 340, 452) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 14.5 % of all full-time entrepreneurs were out of the labour force.

For the year 2012, the calculation of shares is based on entries into self-employment that actually took place in 2012. In prior years, the shares are based on survey wave delimitation. This exception is necessary to ensure comparability with institutional changes of the start-up grant by the Federal Employment Agency. If shares are calculated in the usual way, the numbers are: 56.7 % employed, 10.9 % self-employed, 12.7 % unemployed and 19.7 % out of the labour force.

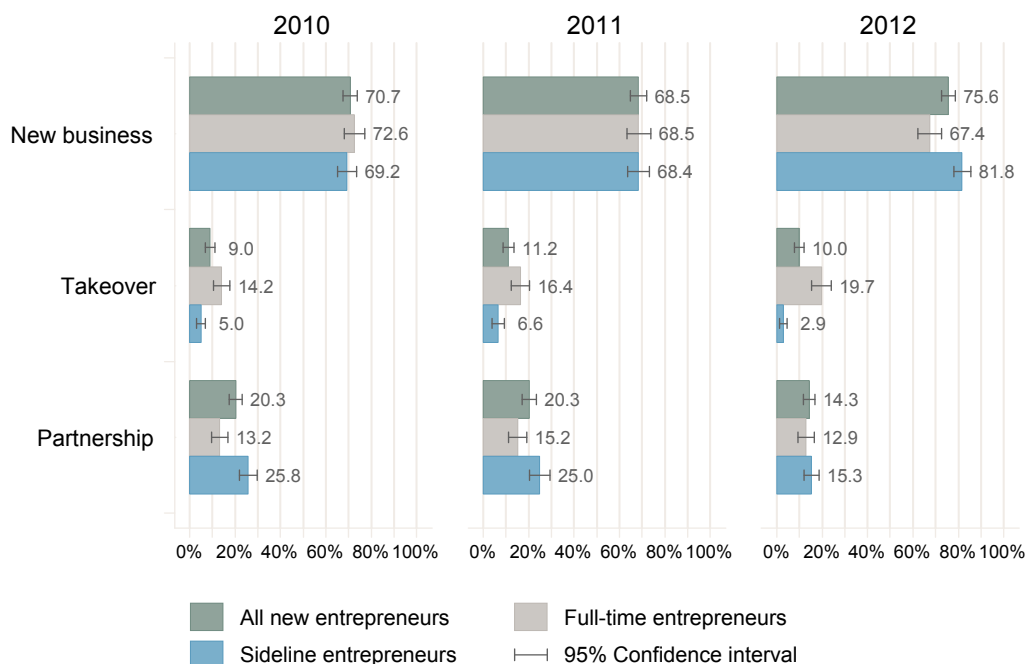
Figure 7: New entrepreneurs by labour market status

Characteristics of Start-up Projects

Table 3: Selected characteristics of start-up projects 2012 (Share in percent)

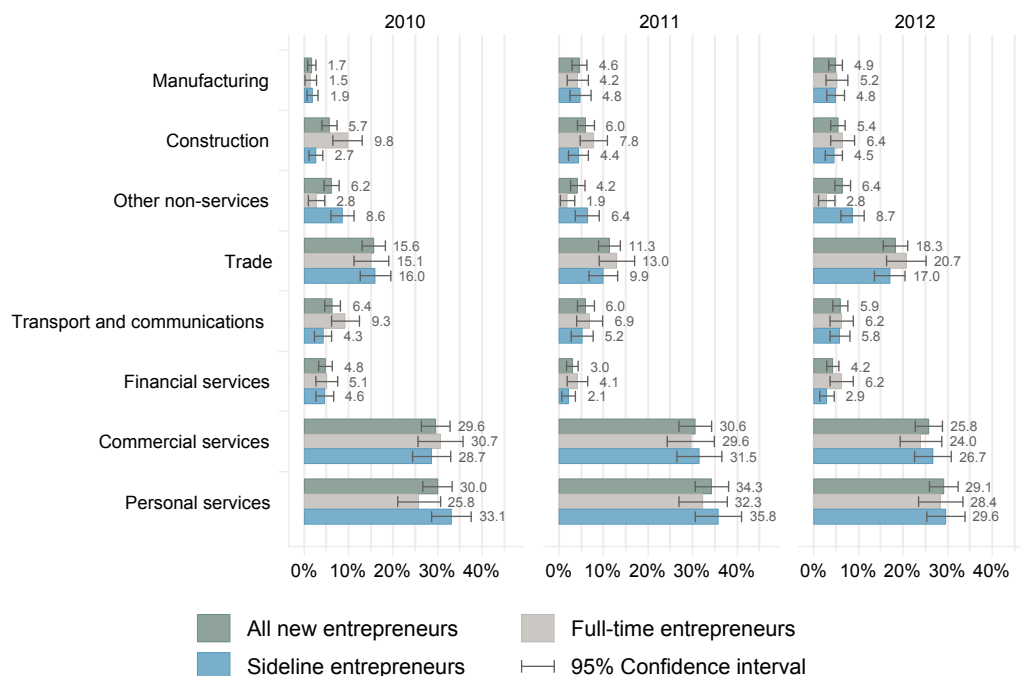
	All new entrepreneurs	Full-time entrepreneurs	Sideline entrepreneurs
Type of business formation			
Establishment of a new firm	75.6	67.4	81.8
Takeover	10.0	19.7	2.9
Partnership	14.3	12.9	15.3
Industry			
Manufacturing	4.9	5.2	4.8
Construction	5.2	6.4	4.5
Other non-services	6.4	2.8	8.7
Trade	18.3	20.7	17.0
Transport and communications	5.9	6.2	5.8
Financial services	4.2	6.2	2.9
Commercial services	25.8	24.0	26.7
Personal services	29.1	28.4	29.6
Innovative products / services			
No market novelty	82.2	78.8	84.3
Regional market novelty	9.7	11.2	8.9
Domestic market novelty	4.5	4.5	4.6
Worldwide market novelty	3.5	5.4	2.3
Start-up size			
Without team partners, without employees	66.4	58.0	75.2
Without team partners, with employees	15.4	26.4	8.1
With team partners, without employees	8.2	6.1	9.7
With team partners, with employees	10.0	14.5	7.0
For information: start-up size of new businesses			
Without team partners, without employees	70.6	61.2	75.9
Without team partners, with employees	13.1	21.0	8.4
With team partners, without employees	9.1	7.6	10.0
With team partners, with employees	7.3	10.1	5.7

Figures for start-up characteristics including sample sizes, year-on-year comparisons and confidence intervals are found on the following pages.



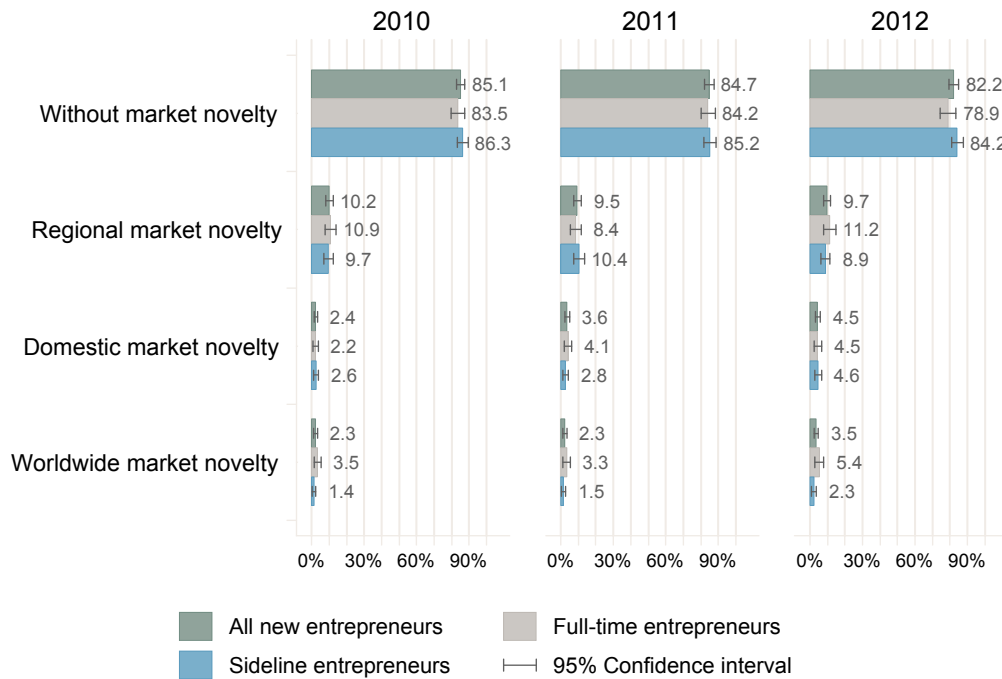
The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=809, 662, 754), full-time entrepreneurs (n=356, 305, 319) and sideline entrepreneurs (n=453, 353, 429) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 67.5 % of all full-time entrepreneurs founded a new business.

Figure 8: New entrepreneurs by type of start-up (new business, takeover or partnership)



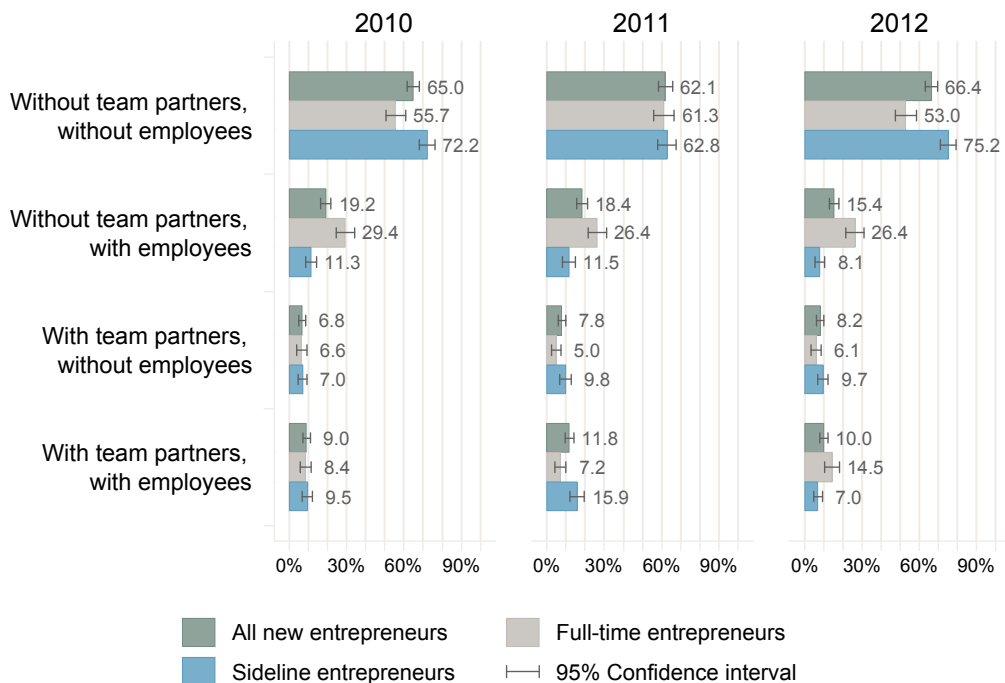
The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=756, 614, 765), full-time entrepreneurs (n=323, 283, 317) and sideline entrepreneurs (n=432, 326, 441) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 6.4 % of all full-time entrepreneurs choose self-employment in the construction sector.

Figure 9: New entrepreneurs by industry



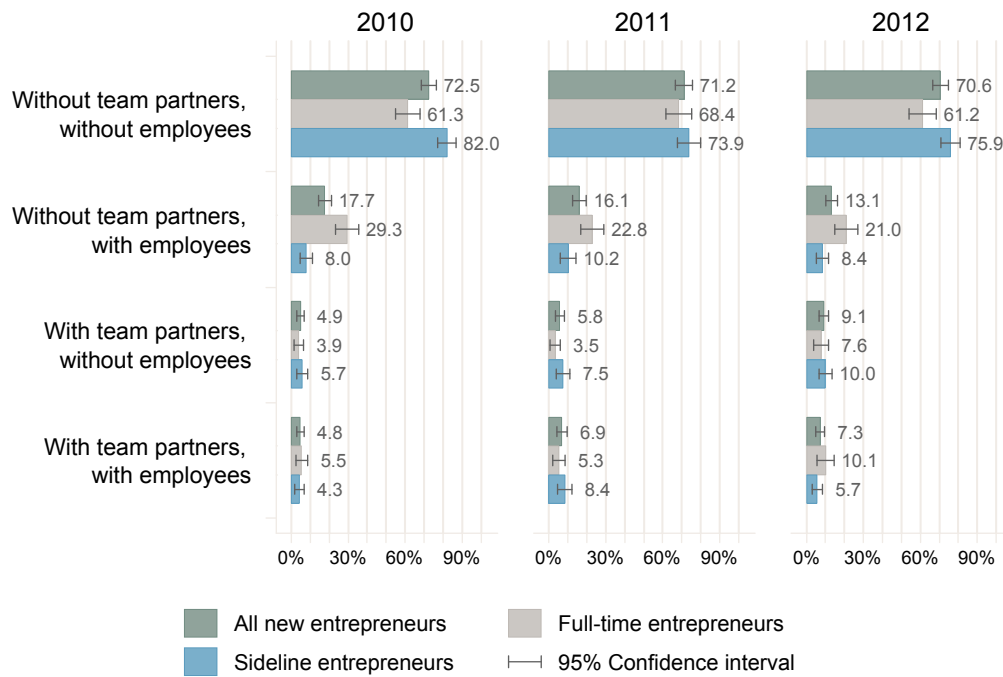
The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=838, 688, 786), full-time entrepreneurs (n=362, 307, 320) and sideline entrepreneurs (n=475, 376, 459) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 11.3 % of all full-time entrepreneurs supply a regional market novelty.

Figure 10: Innovative degree of products and services



The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=839, 691, 777), full-time entrepreneurs (n=366, 313, 318) and sideline entrepreneurs (n=473, 375, 453) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). Reading note: In 2012, 26.4 % of all full-time entrepreneurs founded their business alone (without other team members), but with employees.

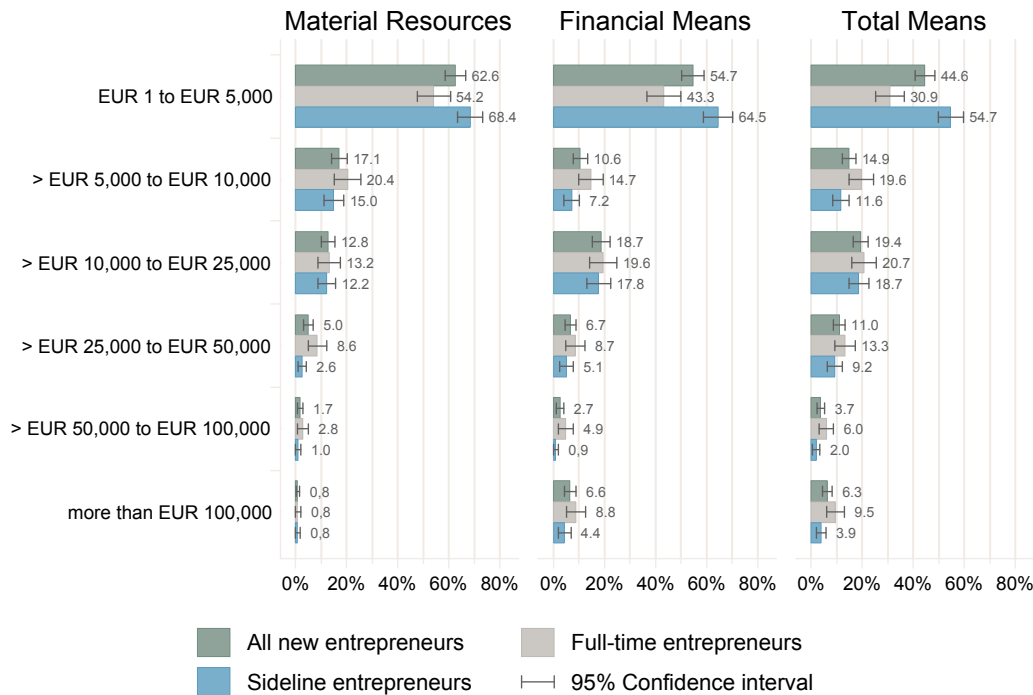
Figure 11: Size of all start-up projects



The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=585, 485, 581), full-time entrepreneurs (n=267, 227, 229) and new sideline entrepreneurs (n=318, 255, 348) (the first data displays sample size for survey wave 2010, the second for 2011 and the third for 2012). These shares are the basis for calculating the direct gross employment effect. Reading note: In 2012, 21.1 % of all new full-time founded their business alone (without other team members), but with employees.

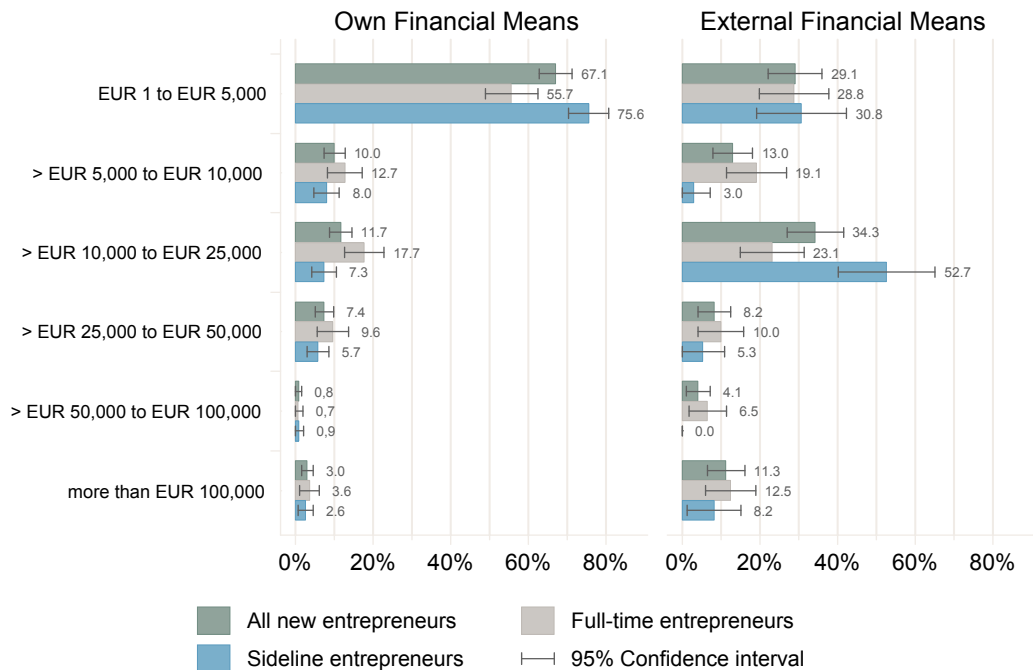
Figure 12: Size of new businesses

Start-up Financing



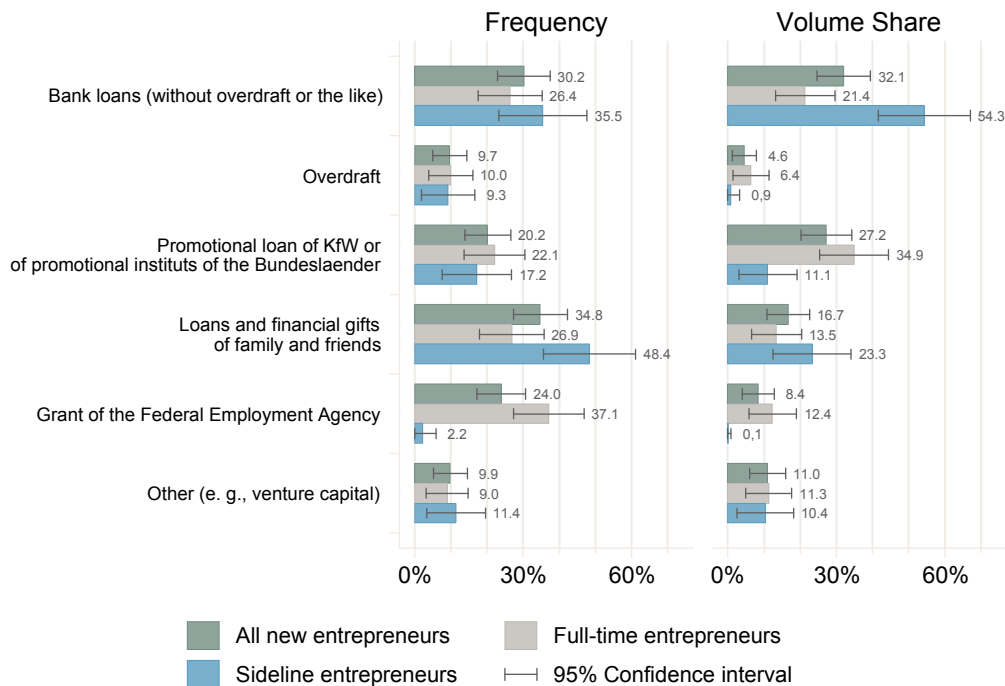
The row "Total means" displays the set union of information on new entrepreneurs using material resources and financial means. The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=575, 487, 652), full-time entrepreneurs (n=231, 218, 270) and sideline entrepreneurs (n=342, 265, 378) conditional on having used material resources (first data entry resp.), financial means (second data entry) and having used material resources or financial means (third data entry).

Figure 13: Amount of used resources by material resources and financial means, 2012



The numbers beside the bars display the share of the designated group of new entrepreneurs on the basis of all new entrepreneurs (n=475, 163), full-time entrepreneurs (n=209, 100) and sideline entrepreneurs (n=264, 61) conditional on having used own financial resources (first data entry resp.) and having used external financial means (second data entry).

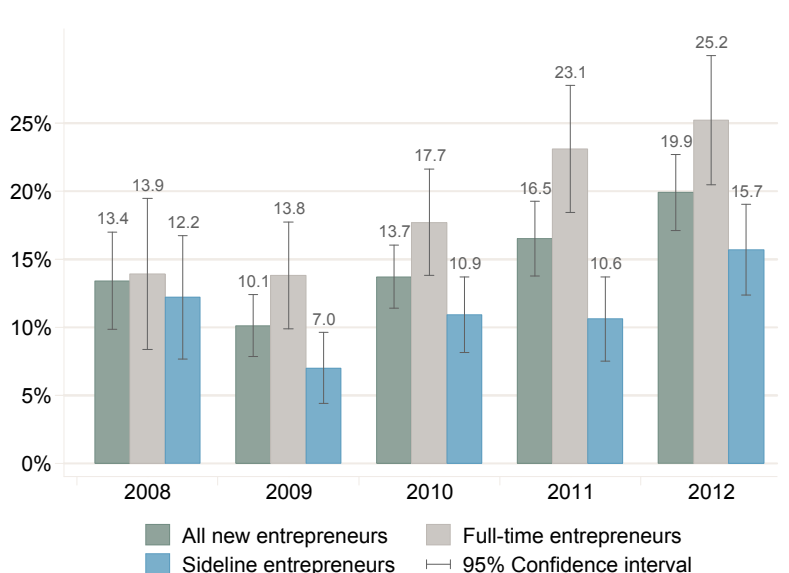
Figure 14: Amount of financial means by own financial means and external financial means, 2012



Left-hand side of the figure: Frequencies (Shares in percent, multiple choice allowed) for all new entrepreneurs (n=155), full-time entrepreneurs (n=95) and sideline entrepreneurs (n=59) conditional on using external financial means.

Right-hand side of the figure: Volume shares of the respective financing sources in the total volume of external financing. To reduce the influence of outliers, the calculation is based on the 95 % of new entrepreneurs with the lowest financing amounts (95 % percentile). The financing source "Overdraft" entails credit lines, checking accounts and overdraft as well as credit lines of credit cards.

Figure 15: External financing sources by frequency and volume share, 2012



Share of new entrepreneurs with financing difficulties in the years 2008–2012. Sample sizes: all new entrepreneurs n=(653, 671, 850, 699, 788), full-time entrepreneurs n=(284, 297, 366, 312, 323), and sideline entrepreneurs n=(366, 370, 482, 382, 459).

Figure 16: New entrepreneurs with financing difficulties

Table 4: Financing structure of start-up projects 2010–2012, Shares (conditional frequencies) in percent

	All new entrepreneurs			Full-time entrepreneurs			Sideline entrepreneurs		
	2012	2011	2010	2012	2011	2010	2012	2011	2010
Fund utilization by type: material and financial resources									
Neither material nor financial resources	8.2	10.6	14.7	6.2	5.9	9.7	9.6	14.4	18.1
Only material resources	25.1	22.6	20.0	21.0	22.0	14.8	28.2	23.3	23.6
Only financial resources	12.5	19.6	18.6	17.8	24.7	24.6	8.7	15.2	14.4
Material and financial resources	54.1	47.2	46.8	55.0	47.4	50.9	53.5	47.1	44.0
Fund utilization by type: own and external funds									
Only own funds	68.6	66.5	66.8	55.7	55.1	53.1	79.2	76.8	79.9
Only borrowed funds	10.6	8.2	10.3	12.3	9.9	13.6	8.7	6.8	7.1
Own and borrowed funds	20.8	25.3	22.9	32.0	34.9	33.3	12.1	16.4	13.0
Utilization of external financing sources									
Bank loan (without current account)	30.2	43.5	40.5	26.4	30.2	35.0	35.5	68.8	55.2
Overdraft facility	9.7	20.2	15.4	10.0	21.3	15.4	9.3	15.8	15.5
Promotional loans	20.2	24.6	25.9	22.1	31.6	24.3	17.2	12.8	29.1
Loans, donations from relatives, friends etc.	34.8	26.2	33.2	26.9	21.3	35.8	48.4	22.8	27.4
Grant of the Federal Employment Agency	24.0	24.3	21.7	37.1	30.7	28.1	2.2	13.5	7.8
other (e. g. equity capital)	9.9	13.4	7.8	9.0	13.5	7.8	11.4	11.3	12.6
For information: volume fractions									
Bank loans (without current account)	32.1	50.0	39.6	21.4	32.8	35.2	54.3	71.6	48.1
Overdraft facility	4.6	7.0	2.7	6.4	9.8	3.4	0.9	3.4	1.3
Promotional loans	27.2	15.0	25.0	34.9	19.2	16.3	11.1	9.8	41.8
Loans, donations from relatives, friends etc.	16.7	14.2	22.7	13.5	15.4	31.6	23.3	12.6	5.5
Grant of the Federal Employment Agency	8.4	7.4	8.5	12.4	11.9	12.6	0.1	1.9	0.5
other (e. g. equity capital)	11.0	6.3	1.6	11.3	10.8	0.9	10.4	0.7	2.8

Shares in the first paragraph of rows for all new entrepreneurs (n=803, 644, 780), full-time entrepreneurs (n=334, 283, 316) and sideline entrepreneurs (n=467, 356, 457). Shares in the second paragraph of rows for all new entrepreneurs (n=514, 420, 517), full-time entrepreneurs (n=237, 189, 228) and sideline entrepreneurs (n=277, 228, 285) conditional on using financial means. Shares in the third paragraph of rows for all new entrepreneurs (n=150, 117, 155), full-time entrepreneurs (n=94, 77, 95) and sideline entrepreneurs (n=56, 39, 59) conditional on using external financial means (Sample sizes for the years 2010–2012 resp.). The calculation of volume shares in the fourth paragraph of rows is based on the 95 % of new entrepreneurs with the lowest external financing volume (95 % percentile) to contain the influence of outliers.

The financing source "Overdraft" entails credit lines, checking accounts and overdraft as well as credit lines of credit cards. Reading note: In 2012, 26.4 % of all full-time entrepreneurs used bank loans conditional on employing external financial means.

Table 5: Influencing factors on financing difficulties

Dependent variable: Do financial difficulties exist?					
Model: probit estimation (yes: y=1, no: y=0)					
Characteristics of new entrepreneurs	dF / dx (1)	t-value (2)	Characteristics of start-up projects	dF / dx (3)	t-value (4)
Gender (= female)	0.011	0.73	Extent (= part-time)	-0.044	*** -2.87
Age (Ref.: 35–44 years)			Form (Ref.: new firm)		
18 to 24 years	0.024	0.81	Takeover	0.002	0.07
25 to 34 years	0.010	0.51	Partnership	-0.011	-0.56
45 to 54 years	-0.020	-1.01	Industry (Ref.: commercial services)		
55 to 64 years	-0.038	* -1.66	Manufacturing	0.040	1.11
Migration background (Ref.: German)			Construction	0.047	1.42
Obtained German citizenship	0.071	** 2.20	Trade	0.067	*** 3.06
EU27 citizens (without Germany)	0.059	1.30	Personal services	0.023	1.40
non-EU citizens	0.209	*** 4.06	Other	0.008	0.24
Educational attainment (Ref.: vocational training)			Innovation (Ref.: no market novelty)		
University	-0.044	*** -2.60	Regional market novelty	0.101	*** 3.77
Technical college	0.001	0.03	Domestic market novelty	0.043	1.11
Technical school	0.012	0.41	Worldwide market novelty	0.045	0.99
No degree	0.026	1.04	Size (Ref.: without team members, without employees)		
Labour market status (Ref.: employee)			without team members, with employees	-0.015	-0.84
Self-employed	0.046	** 2.08	with team members, without employees	0.012	0.45
Unemployed	0.071	*** 3.13	with team members, with employees	0.018	0.68
Out of labour force	0.000	0.00	Utilization of financial resources (Ref.: 1 up to 10,000 EUR)		
Main start-up motive (Ref.: opportunity)			No financial resources	-0.040	*** -2.68
Necessity	0.038	** 2.12	> 10,000 up to 25,000 EUR	0.086	*** 3.14
Other	-0.024	-1.44	> 25,000 EUR	0.123	*** 4.26
Region (= Eastern Germany)	0.024	1.28			
Year					
2008	-0.016	-0.69			
2009	-0.051	** -2.29			
2010	-0.018	-0.87			
2011	-0.008	-0.33			
Number of observations				2,763	
Observed probability			14.3		
Estimated probability			14.3		
Log likelihood					-1,014.1343

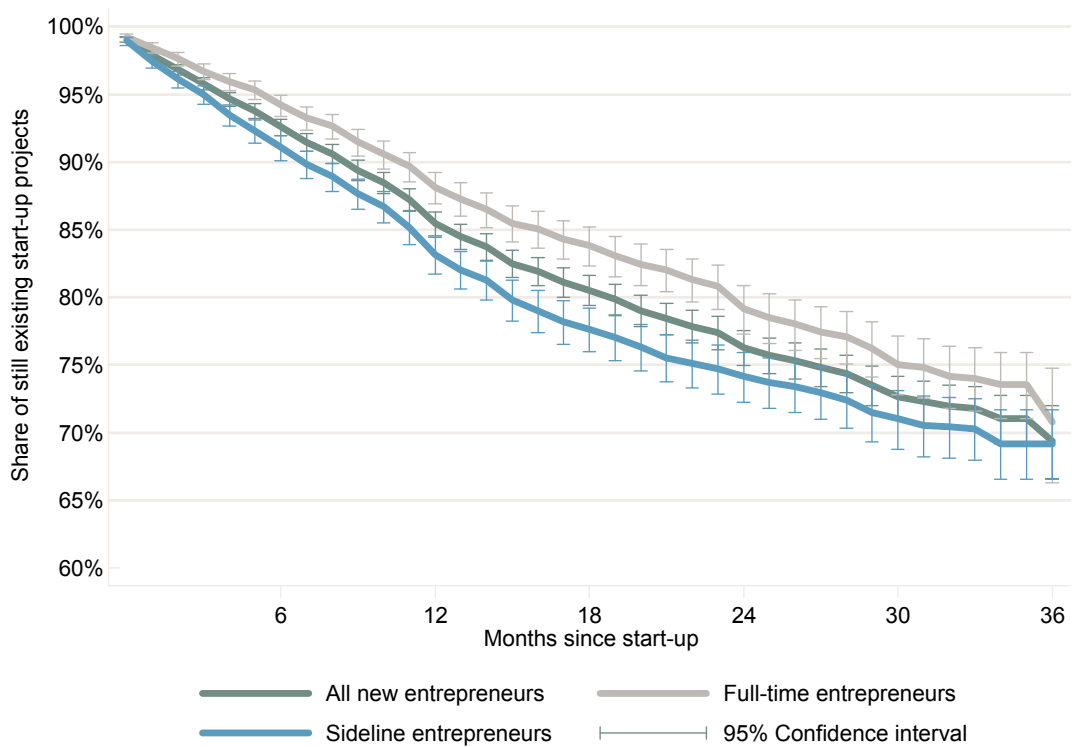
Coefficients are average marginal effects. ***, **, * effects significant at the 1 %, 5 %, 10 % level t-values heteroscedasticity consistent. Estimations are based on the pooled observations of survey waves 2008–2012. Further explanatory variables: dummy for mobile phone, city size (five categories).

Table 6: Influencing factors on financing difficulties for previously unemployed entrepreneurs

Dependent variable: Do financial difficulties exist? Model: probit estimation (yes: y=1, no: y=0)					
Characteristics of new entrepreneur	dF / dx (1)	t- value (2)	Characteristics of start-up projects	dF / dx (3)	t- value (4)
gender (= female)	0.125	*** 2.84	Extent (= part-time)	-0.086	** -2.18
age (Ref.: 35–44 years)			Form (Ref.: new firm)		
18 to 24 years	0.094	1.04	Takeover	0.141	1.47
25 to 34 years	-0.006	-0.11	Partnership	0.096	1.23
45 to 54 years	0.111	*** 2.05	Industry (Ref.: Services)		
55 to 64 years	-0.003	-0.04	Non-services	0.100	1.44
Nationality (=German)	-0.242	*** -2.94	Trade	0.053	0.92
Educational attainment (Ref.: vocational training)			Innovation (Ref.: no market novelty)	0.110	* 1.72
University	-0.079	-1.55	Team partners (=yes)	0.193	** 2.23
Technical college	-0.133	** -2.57	Employees (= yes)	-0.015	-0.31
Technical school	0.099	0.97	Utilization of financial resources (Ref.: 1 up to 10,000 EUR)		
No degree	-0.047	-0.72	No financial means	-0.102	** -2.21
Main start-up motive (Ref.: opportunity)			> 10,000 up to 25,000 EUR	-0.064	-1.03
Necessity	-0.046	-1.00	> 25,000 EUR	-0.007	-0.08
Other	-0.0172	-0.22			
Region (= Eastern Germany)	-0.009	-0.21			
Year (Ref.: 2012)					
2008	0.004	0.05			
2009	0.001	0.02			
2010	0.056	0.88			
2011	0.053	0.76			
Number of observations			346		
Observed probability			19.94		
Estimated probability			19.85		
Log likelihood			-140.01832		

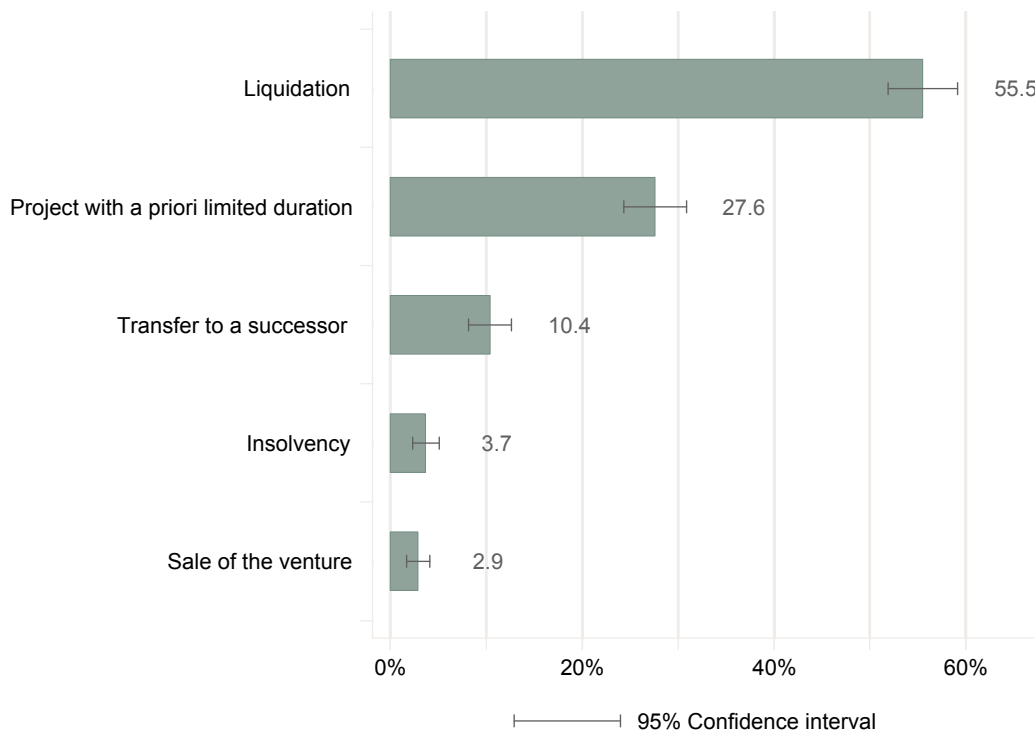
Coefficients are average marginal effects. ***, **, * effects significant at the 1 %, 5 %, 10 % level, t-values heteroscedasticity consistent. Estimation for pooled observations of the survey waves 2008–2012. Further explanatory variables: dummy for mobile phone, city size (five categories).

Abandoning of start-up projects



Kaplan-Meier survivor functions within the first 36 months after entry for all entrepreneurs, full-time entrepreneurs and sideline entrepreneurs. Estimations are based on pooled observations of survey waves 2008–2012; n=3,618 / 4,028 full-time / sideline start-up projects started between August 2005 and December 2012. Reading note: 18 months after start-up, about 84 % of all full-time start-up project still exist, 16 % were abandoned within the first 18 months.

Figure 17: Estimated survival function of start-up projects



The numbers beside the bars are the share of a specific reason to abandon a start-up in all reasons to abandon a start-up. The analysis is based on all start-up projects that were begun within 36 months before the interview date and were abandoned at the time of the interview (n=717). Reading note: 2.9 % of all start-up projects started and abandoned within the last 36 months were sold.

Figure 18: Form of start-up abandoning, 2010–2012

Table 7: Influencing factors of abandoning start-up projects

Dependent variable: abandoned start-up businesses in month t after founding, given the project existed till t					
Model: logistic hazard rate model with random effects (project terminated: $y(t) = 1$; project still exists: $y(t) = 0$)					
Characteristics of new entrepreneur	dF / dx (1)	t-value (2)	Characteristics of start-up projects	dF / dx (3)	t-value (4)
Gender (= female)	-0.0002	-0.33	Extent (= part-time)	0.0013 **	1.99
Age (Ref.: 35–44 years)			Form (Ref.: new firm)		
18 to 24 years	0.0109 ***	4.60	Takeover	0.0006	0.48
25 to 34 years	0.0027 ***	3.34	Partnership	0.0064 ***	5.23
45 to 54 years	-0.0002	-0.36	Industry (Ref.: commercial services)		
55 to 64 years	-0.0002	-0.28	manufacturing	-0.0001	-0.07
Migration background (Ref.: German)			Construction	-0.0011	-0.91
Obtained German citizenship	0.0038 **	2.35	Trade	0.0042 ***	3.46
EU27citizens (without Germany)	-0.0005	-0.36	Personal services	-0.0006	-0.87
Non-EU citizens	0.0018	0.94	Other	-0.0050 ***	-4.67
Educational Attainment (Ref.: vocational training)			Innovation (Ref.: no market novelty)		
University	-0.0001	-0.08	Regional market novelty	0.0054 ***	3.40
Technical college	-0.0021 **	-2.51	Domestic market novelty	-0.0005	-0.31
Technical school	-0.0031 **	-2.58	Worldwide market novelty	0.0007	0.35
No degree	0.0000	0.01	Size (Ref.: without team members, without employees)		
Professional status (Ref.: unemployed)			Without team member, with employees	-0.0014 *	-1.82
Employed	-0.0030 ***	-2.69	With team members, without employees	0.0037 **	2.42
Self-employed	-0.0057 ***	-4.33	With team members, with employees	-0.0004	-0.39
Out of labour force	-0.0035 ***	-2.80	Utilization of financial resources (Ref.: 1 up to 10,000 EUR)		
Main start-up motive (Ref.: opportunity)			No financial resources	0.0031 ***	3.64
Necessity	0.0030 ***	3.64	> 10,000 up to 25,000 EUR	-0.0024 ***	-2.77
Other	-0.0013 *	-1.87	> 25,000 EUR	-0.0044 ***	-5.05
Region (= Eastern Germany)	-0.0011	-1.40			
Number of start-up projects (persons)				5,882	
Of that abandoned within 26 months				884	
Mean duration of abandoned start-up projects				15.4 months	
Observed monthly abandonment probability				0.97 %	
Log likelihood				-4,708.8026	

Coefficients are average marginal effects. ***, **, * effects are significant at the 1 %, 5 %, 10 % level, t-values heteroscedasticity consistent. Estimation for pooled observations of the survey waves 2008–2012. Further explanatory variables: dummy for survival time, survey waves, mobile phone, city size.

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