

Merz, Joachim; Paic, Peter

Working Paper

Start-up success of freelancers: New microeconometric evidence from the German socio-economic panel

FFB Diskussionspapier, No. 56

Provided in Cooperation with:

Research Institute on Professions (FFB), Leuphana University Lüneburg

Suggested Citation: Merz, Joachim; Paic, Peter (2006) : Start-up success of freelancers: New microeconometric evidence from the German socio-economic panel, FFB Diskussionspapier, No. 56, Universität Lüneburg, Forschungsinstitut Freie Berufe (FFB), Lüneburg

This Version is available at:

<https://hdl.handle.net/10419/67887>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Forschungsinstitut
Freie Berufe

Start-up success of freelancers

New microeconometric evidence from the German Socio-Economic Panel

Joachim Merz and Peter Paic

**FFB Discussion Paper No. 56
February 2006**



Fakultät II - Wirtschaft und Gesellschaft

Postanschrift:
Forschungsinstitut Freie Berufe
Postfach 2440
21314 Lüneburg

ffb@uni-lueneburg.de
<http://ffb.uni-lueneburg.de>
Tel: +49 4131 677-2051
Fax: +49 4131 677-2059

**Start-up success of freelancers –
New microeconometric evidence
from the German Socio-Economic Panel**

Joachim Merz¹ and Peter Paic

FFB Discussion Paper No. 56

February 2006

ISSN 0942-2595

Revised version of our contribution to the CREPS Workshop **Entrepreneurship Research with German Micro Data**, University of Lüneburg, e.novum, October 5, 2005

¹ Prof. Dr. Joachim Merz, Dipl. Betriebswirt, Dipl. Sozialökonom Peter Paic, Universität Lüneburg, Fachbereich Wirtschafts - und Sozialwissenschaften, Forschungsinstitut Freie Berufe (FFB), Professur „Statistik und Freie Berufe“, CREPS (Center for Research in Entrepreneurship, Professions and Small Business Economics), IZA (Institute for the Study of Labour (Merz)), Scharnhorststr. 1, 21332 Lüneburg, Tel.: 04131 / 677- 2051, Fax: 04131 / 677- 2059, e-mail: merz@uni-lueneburg.de; paic@uni-lueneburg.de, <http://ffb.uni-lueneburg.de>

Start-up success of freelancers – New microeconometric evidence from the German Socio-Economic Panel

Joachim Merz and Peter Paic

FFB Discussion Paper No. 56, February 2006, ISSN 0942-2595

Abstract

If certain start-up characteristics will indicate a business success, knowing such characteristics could generate more successful start-ups and more efficient start-up counseling. Our study will contribute to this by quantifying individual success determinants of freelance start-ups. The data base for the microeconometric analyses of the survival of the first three years is a revised German Socio-Economic Panel (SOEP) for 1992 until 2002, which allows to incorporate institutional, personal and family/household socio-economic variables. We describe and discuss the data work to achieve compatible information over time within a revised GSOEP and present microeconometric rare events logit, logit and probit results.

The start-up success measured as the probability to survive the first three years is first of all influenced by an active labour force participation with its acquired skills and working experiences just before the start-up period (rank 1), followed by a non-university degree as the highest general human capital indicator (rank 2), a general (non-linear) experience indicated by age (rank 3) and the business related background (rank 4) as the type of liberal profession in the group of the liberal medical professions and the liberal technical and scientific professions.

JEL: J23, J21, D10

Schlagwörter: *Gründungserfolg, Freiberufler, Sozio-ökonomisches Panel, Rare Events Logit (Logit, Probit)*

Zusammenfassung

Wenn bestimmte Charakteristika einer freiberuflichen Existenzgründung einen Hinweis auf einen entsprechenden Geschäftserfolg geben könnten, dann könnte das Wissen um sie eine erfolgreiche Gründung unterstützen und eine entsprechende Beratung effizienter gestalten lassen. Unsere Studie will hierzu einen Beitrag leisten und individuelle Erfolgscharakteristika einer freiberuflichen Gründung quantifizieren. Die Datenbasis der mikroökonomischen Analysen für ein dreijähriges Überleben als Erfolgsindikator ist das überarbeitete Sozio-ökonomische Panel (SOEP) für die Jahre 1992 bis 2002. Diese Datenbasis erlaubt es insbesondere institutionelle, personelle und familiale Charakteristika des mikro-sozialen Umfeldes einer Gründung einzubeziehen. Wir beschreiben und diskutieren die Arbeit an der Datenbereinigung, um kompatible individuelle Informationen über die Zeit innerhalb des sozio-ökonomischen Panels zu erhalten und präsentieren die Resultate verschiedener Analysemethoden (Rare Events Logit-, Logit- und Probit- Ansatz). Als wichtige Prädiktoren schälen sich heraus: die Gründung aus einer unmittelbaren Erwerbsätigkeit heraus, eine nicht akademische Ausbildung, allgemeine Lebenserfahrung (nichtlinear) über das Alter, und der geschäftliche Hintergrund des freiberuflichen Berufsfeldes aus den Freien Heilberufen und den Freien technischen und naturwissenschaftlichen Berufen.

JEL: J23, J21, D10

Keywords: *start-up success, freelancers (liberal professions), German Socio-Economic Panel, rare events logit, logit, probit*

Start-up success of freelancers – New microeconometric evidence from the German Socio-Economic Panel

Joachim Merz and Peter Paic

1 Introduction

The question of which factors finally lead to start-up success is one of the central questions of the start-up research. The answer can help start-ups make the 'right' decision and supply instrumental information on economic policy. Even though research on start-ups of the self-employed in general has been done (for an overview see Schulte 2002, Ekkenga, Fritsch and Schmude 1998), the situation for liberal professions (freelancers) is still hardly transparent, a group after all which comprises about 20 percent of all self-employed people and which is particularly relevant for the growing service sector (cf. BMWi 2002). There are findings by Merz and Paic 2004 on setting-up freelance businesses as compared with other self-employed (entrepreneurs), but none on the freelance start-up success as far as we know.

This article is aimed at reducing this research gap by examining the success of freelance start-ups. The central question is: Which parameters/determinants have an influence on the success of freelance start-ups – judged by the probability of survival of a freelance start-up business after three years? The results of our study reveal for the first time empirically relevant insights about the crucial influential parameters for a start-up success in the liberal professions. The Socio-Economic Panel (SOEP) of the German Institute for Economic Research (Deutsches Institut für Wirtschaftsforschung, DIW), which supplies the base data for this study, has been used before for research on 'setting up business' (cf. Pfeiffer 1994, Uhly 2000), but not yet for freelance start-ups. The SOEP is one of the few panel data bases that considers explicitly the group of the liberal professions in the Federal Republic of Germany. Since it is a longitudinal dataset, the SOEP can locate freelance start-ups and trail their further existence. However, the SOEP is subject to some limitations which require a re-working of the dataset. Therefore, the amendment of frequent changes within the group of self-employed people in the SOEP dataset is a central contribution of this study.

About the structure of this study: Against the background of the well-known theoretical approaches in start-up research (for an overview see Preisendorfer 2002, Wippler 1998) we deduce hypotheses for a freelance start-up success. The criterion for measuring success is the survival for at least three years after starting business. From the descriptive results we will deduce features of successful and unsuccessful freelance start-ups. The results of the multivariate analyses quantify the competing explanatory factors with the help of rare-events logit, logit and probit models. They test the influence the determinants and hypotheses have on a freelance start-up success, in our case the probability of surviving three years after the business foundation. A conclusion stating the characteristic features of successful freelance start-ups will conclude this study.

2 The liberal professions in the Socio-Economic Panel

The Socio-Economic Panel (SOEP) is a micro dataset which repeatedly conducts in a representative survey every person older than 16 years in private households in Germany and which is provided by the German Institute for Economic Research (Deutsches Institut für

Wirtschaftsforschung, DIW). Since 1984 these micro data are generated annually by following the same people in Germany (SOEP project group 2004, www.diw.org/soep). The SOEP divides the group of the self-employed into four different categories. These are the farmers, the liberal professions, other self-employed people and assisting family members.

This annual survey thus enables complex analyses in particular about the group of liberal professions over a period of time. However, the SOEP is also subject to some limitations that don't allow theoretically relevant aspects of a freelance start-up success to be analysed. The SOEP ascertains representative individual and household data, but not specific data of those working as self-employed freelancers. As a consequence no differentiation between e.g. original and derivative freelance start-ups can be made in the SOEP.

All in all, the SOEP offers, as compared with other databases, the most comprehensive socio-economic information and analysis possibilities about liberal professions and is in general an excellent data source for research on setting-up freelance businesses.

Criticism about the subdivision and integration of self-employed people in the SOEP relates to the categorisation and structure of the group of self-employed, to the varying conclusion of co-workers and to problems of interpreting the differentiation of the different groups of self-employed people (cf. Pfeiffer 1994, Uhly 2002). Concrete hints to the interpretational problems and the respondents' faulty answer behaviour in the single sub-categories of the self-employed people in the SOEP have led to according corrections that we would like to point out briefly. A high number of changes over time within the groups of self-employed became apparent, in particular among the freelancers and other self-employed start-ups. The high rate of businesses start-up out of a previous entrepreneurial occupation – especially among the freelance start-ups, but also among entrepreneurial start-ups, who worked as freelancers the year prior to setting up their business – suggests, apart from a possibly faulty encoding, the respondents' faulty answer behaviour or else their interpretational problems concerning the sub-categories of the self-employed in the SOEP. The present results lead to the assumption that the respondents' answers regarding their category of self-employment vary, especially between the two sub-categories of the liberal professions and the entrepreneurs.

In order to verify the characteristics of these changes all those respondents, who had answered questions about their freelance activities in at least one year over the research period from 1992 to 2002, were regarded in particular. These people were screened via the sub-category "liberal professions" from within the variable on "professional status of self-employed people" for the overall research period. This way, a total of 969 people were extracted from the SOEP dataset.

We have then compared individually the selected persons' answers' plausibility for each wave in the variable "current status self-employed" with their answers to the control variables about their new self-employed occupation (the kind of change in their work-life), with the occupation classification ISCO-88 (International Standard Classification of Occupations from 1988), the industry according to NACE (Nomenclature des statistiques des activités économiques de la Communauté Européenne) and with the classification of occupations according to the Federal Statistical Office (Statistisches Bundesamt, KldB) (SOEP Gruppe 2003, Hartmann and Schütz 2002).

The structure and the specific national characteristics of the KldB make it possible to differentiate most clearly, as compared to other job titles, between a freelance and an entrepreneurial occupation.

The answers concerning the change each selected respondent made are first of all checked for confirmation of this change within self-employment with the answers to the variable about a change in their work-life. If this change is not confirmed by the control variable, the answers

are compared with the KldB. If there is no parallel change of the occupation and the job title, the change is a non-plausible change.

Only from an overall perspective on each specific individual check over time and with further control variables can the changes of the kind of occupation within the group of the self-employed be plausibly comprehended. The check revealed five main different patterns of changes between freelance and entrepreneurial occupation.

- (1) Single “critical changes“ between a freelance and an entrepreneurial occupation as well as between an entrepreneurial and a freelance occupation (e.g. see respondent 1501 in table 1).
- (2) Multiple “critical changes“ between a freelance and an entrepreneurial occupation as well as between an entrepreneurial and a freelance occupation (161701).
- (3) Another pattern was a “critical change“ within self-employment from freelancers to entrepreneurs when the number of employees/co-workers increased (51201).
- (4) There was also an increased occurrence of problems regarding the answer behaviour of self-employed people in the first year of their self-employment (2204901).
- (5) Faulty answers like e.g. from an actor (7225401) or a dentist (2699202) who were coded as farmers.

Table 1 gives an overview of selected examples of faulty answers over each considered wave between 1992 and 2002.

The respondents are listed according to the person’s number assigned by the SOEP on the left side of table 1. They are followed from left to right by the variable “current status self-employed“ for each of the waves from I to S. The variables about the “current status self-employed“ listed in chronological order next to each other have the following sub-categories with the numbers adopted from the SOEP terminology: farmers ([1] Land.), liberal professions ([2] FB), self-employed with up to 9 co-workers ([3] Selb.), self-employed with more than 9 co-workers ([4] Selb.), assisting family members ([5] Mith.).²

Table 1: Overview of faulty changes in the SOEP from 1992 to 2002

year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
RESP. NO	ip4802	jp4802	Kp5102	lp4302	mp4102	np3502	op3502	pp3802	qp3602	rp4002	sp4002
1501	2	2	2	2	2	4	2	2	2	2	2
51201	4	3	2	2	2	4	.	.	.	.	.
161701	3	2	3	3	2	3	4	4	4	4	4
162401	3	2	3	3	3	5	5	4	2	2	2
2160202	.	.	.	.	.	.	4	2	4	4	4
2204901	.	.	.	.	.	.	2	4	3	-2	3
2205001	.	.	.	.	.	.	2	4	4	.	3
7225401	.	.	.	2	2	4	3	2	1	.	2

Source: Self-made table. SOEP 1992-2002. Legend: 2=independent, 3=self-empl., 4= self-empl., 5= self-empl., 6=ass. family member, -2= missing answers, dot = no answer.

² From 2000 onward the sub-categories of the variable “current status self-employed“ were extended to comprise six sub-categories.

All 969 selected people were checked and corrected in the SOEP with the help of the control variables. An example will explain this method of decoding³. The SOEP respondent number 1501 in table 1 is almost consistently working as a freelancer in the research period from 1992 to 2002 (2). The year 1997 is the only exception where that respondent is self-employed with up to nine co-workers (4). The person number 1501 was then checked for possibly taking up a new self-employed occupation. Such an answer was not given in the control variable. Next the person was checked for a change of job title. Here too, no change of the title of job the person does could be ascertained in the KldB. Since this person was working as an apothecary according to the KldB over each wave and gave “freelance occupation” as an answer in ten out of eleven observed waves, the answer “self-employed” in 1997 was a faulty answer or a wrong coding. The answer made in the year 1997 was therefore decoded (corrected) from self-employed (4) to freelance (2).

A total of 811 changes in the dataset were made for 465 respondents, i.e. almost 52 percent of all selected and checked respondents were affected by a correction. After the correction the number of freelancers decreases by almost a third from 969 people to now a total of 688 people. The number of start-ups from self-employment, which was exorbitantly high in the original SOEP dataset, was significantly reduced by correcting the wrong answers. The corrected SOEP dataset now contains a significantly more realistic picture of the liberal professions and therefore of the freelance start-up activities.

3 Theoretical approaches of a freelance start-up success

There is no unified theoretical approach to entrepreneurial start-ups on a microeconomic level, neither in the German nor in the international start-up research (Schulte 2002; Merz 2001a, b; Brüderl, Preisendorfer and Ziegler 1996). An important criterion for choosing suitable theoretical approaches is the incorporation of statements after the time the business was set up as well as statements about the personality of the business founder. The most widespread theoretical approaches in start-up research are: people-related approaches, institutional economics, industrial economics and organisational ecology (cf. Schulte 2002).

The focus of our study is on the success of freelance start-ups. The deduction of the hypotheses about freelance start-up success is based on the one hand on theoretical models of person-related approaches – e.g. push and pull factors (cf. Shapeo and Sokol 1982, Plaschka 1986) – as well as on more specific approaches like the human capital theory (Becker 1975; Mincer 1970, 1974) which proved to be a successful predictor in many analyses (cf. e.g. Dworschak 1986, Doré and Clar 1997, Hamilton 2000). On the other hand, the industrial economics approach of an incomplete competition (cf. Bester 2002) is applied as well. From the theoretical models and the so far existing empirical results we deduce five main hypothesis about freelance start-up success.

According to findings of previous studies made by Simon (2002) and Heil (1997) about the interrelation between the geographical background and start-up success, originating from the East German states does have a negative impact on the start-up survival probability. This thesis seems plausible enough against the background of weaker East German economic power and thus a lower demand of services from the liberal professions.

H1 success: A geographical origin from the East German states has a negative impact on the probability of a freelance start-up survival.

³ For an exhaustive documentation of the correction of the SOEP dataset see Paic 2005.

According to the general human capital theory, start-ups with a higher professional education tend to have better chances of succeeding. Based on the productivity effects of the human capital theory it is assumed that a higher school and professional education as well as years of work experience have a positive impact on the chance of freelance survival. Such a positive impact on the start-up survival chances is generally expected from a university degree as well. But some studies on self-employed start-up success doubt this impact (cf. for an overview Brüderl, Preisendorfer and Ziegler 1996). However, for the liberal professions, which are marked in particular by their highly qualified and intellectual characteristics, a university degree (sometimes a prerequisite) is assumed to have a positive impact on the chances of surviving. This assumption about success deduced from the human-capital theory proved to be very productive in previous studies (cf. Simon 2002; Brüderl, Preisendorfer and Ziegler 1996).

H2 success: A higher general human capital has a positive impact on the probability of a freelance start-up survival.

The assumptions of the specific human capital theory can be applied to the freelance start-up success in form of better survival chances. According to them, freelance start-ups with previous knowledge of being self-employed, as superiors and with the specific knowledge about their business and industry, should have a better chance of surviving. These assumptions are also supported by previous empirical studies (cf. Brüderl, Preisendorfer, Ziegler 1996, Wanzenböck 1998). We will apply these particular human capital assumptions even more specifically to the freelance start-up success. Previous work experience in an area characteristic and close to the liberal professions should increase the chances of the freelance start-up survival. More concretely, positive effects on the survival probability are expected from previous self-employed or employed occupations. Occupations that are untypical for the liberal professions, such as civil services in general, should have a negative impact. These theoretical assumptions about the freelance success from the productivity and selection effects of the human capital theory as well as the assumptions about freelance peculiarities can be expanded by a psychological moment from the theoretical approach of the push and pull factors. The theory model of the push and pull factors supposes that previously unemployed start-ups have a lower chance of surviving. Their "escape" into self-employment is a sign that they did not want to set up a business according to this theory. They are supposed to lack the entrepreneurial spirit and to have the short-term motive of securing their income, which is detrimental to a lasting business success. Applying this theory to the freelance start-up success, one would assume a low survival probability for start-ups previously unemployed or not employed. These assumptions are in turn supported by the human capital theory that postulates a decreasing productivity effect the greater the time since the work knowledge and experience were gathered, i.e. the "depreciation effect on human capital" (cf. Paic 2005).

H3 success: A higher specific human capital has a positive impact on the probability of a freelance start-up survival.

A reliable indicator for the start-up success should be the income from a freelance occupation. A higher income as early as the first year after having started the freelance business should improve the prospects of success for a three-year survival. Start-ups with a higher income, unlike start-ups with a lower income, should be considerably better able to survive the start-up phase, since they can be said to have had initial success and since they have a greater financial scope and therefore better prospects (cf. Paic 2005).

H4 success: A higher income from a freelance occupation in the first years after having started the business has a positive impact on the probability of a freelance start-up survival.

The assumptions of an incomplete competition are particularly suitable for representing the freelance peculiarities of the associated professions ("Kammerberufe"). Although the

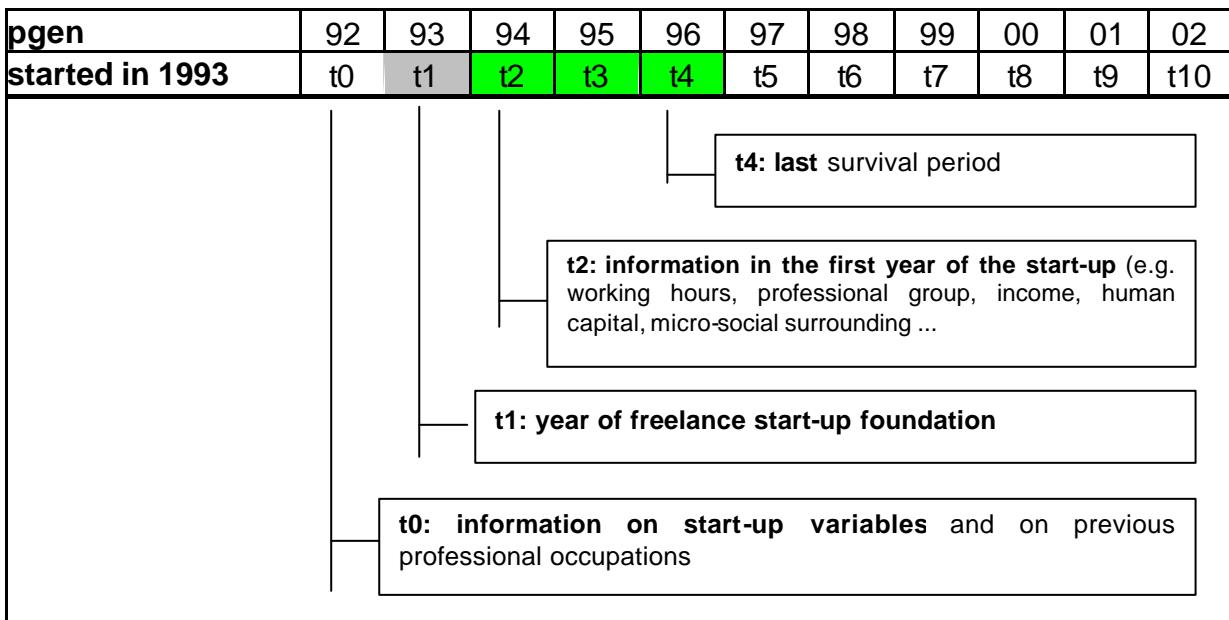
intensity with which each of the liberal associated professions interfere with the freelance competition varies, the barriers restricting the access to the market can be assumed to have a general effect on the probability of survival of a freelance start-up. A greater chance of surviving is assumed for start-ups in the associated liberal professions than for start-ups in the non-associated professions. Whereas the non-associated freelance start-ups are exposed to the market, start-ups of associated liberal professions are under certain protective mechanisms asserted by the associations that protect them from free competitors (cf. Paic 2005).

H5 success: Start-ups within the associated liberal professions have a positive impact on the probability of a freelance start-up survival.

4 Descriptive results about a freelance start-up success

The SOEP dataset contains no direct information about the length of time freelance start-ups survive. These pieces of information have to be extracted from each wave and worked into a new variable, which provides the information as to whether a new freelance business has survived for three years or not. Figure 1 shows the time relations of the endogenous and exogenous variables in our three-year-survival model. The independent variables at the point of time t2 are generated under the assumption of the structuring influence of the so-called “imprinting factors” at the beginning of a freelance start-up (cf. Hannan and Freeman 1977, 1989). If someone sets up a freelance business at the point in time t1 and is still working as a freelancer at the point in time t4, it means the start-up business survived three years (and gets code 1 in the success variable). If the person is no longer working as a freelancer at the point in time t4, it means the start-up business did not survive (and gets code 0 in the success variable).

Figure 1: Time correlation of the endogenous and exogenous variables in the model



Source: SOEP 1992-2002.

Because of the relatively low sample number of freelance start-ups in the SOEP, we use a pooled data model for the analysis. The structure of the representation of the descriptive results follows the different theoretical approaches and the hypothesis deduced from them about a freelance start-up success. The empirical relevance of the stated hypothesis will be

undertaken at the end by presenting multivariate results. We have recourse to data from a total of 139 start-ups from originally 232 freelance start-ups in the three-year research model.

We present central results about the freelance start-ups as a whole as well as about the group of surviving and non-surviving founders. In addition, the results are interpreted in their class-specific development. The survival quota allow initial conclusions to be drawn about the peculiarities and characteristics of successful freelance start-ups. Within all descriptive tables the column of the survivors, i.e. the successful start-ups, also contains the information of a univariate t-test comparing the share of the survivors among the start-ups of one group (e.g. age group up to 29 years) with the quota of the survivors among the start-ups of all other groups of one category (e.g. age category with all its age groups; a<10%: *, a<5%: **, a<1%: ***).

Table 2: Person-related results about the three-year survival of start-up freelancers. SOEP pooled 1992-2002

Person-related micro-social surroundings	Start-ups in total		survived			not survived	
	n	%	n	sign.	Surv. %	%	
Age							
up to 29 years	13	9.7	4 *		30.8	5.3	9
30 to 39 years	63	47	38		60.3	50.7	25
40 to 49 years	31	23.1	21		67.7	28.0	10
50 to 59 years	16	11.9	8		50.0	10.7	8
60 years onwards	11	8.2	4		36.4	5.3	7
Total	134	100	75	56.0	100	59	100
Gender							
male	83	59.7	47		56.6	62.7	36
female	56	40.3	28		50.0	37.3	28
Total	139	100	75	54.0	100	64	100
Marital status							
married, co-habiting	75	56	38		50.7	50.7	37
married, separated	3	2.2	3		100	4.0	0
single	47	35.1	27		57.4	36.0	20
divorced	8	6	6		75.0	8.0	2
widowed	1	0.7	1		100	1.3	0
Total	134	100	75	56.0	100	59	100
Number of children in hh							
no children	75	56	38		50.7	50.7	37
one child	27	20.1	19 *		70.4	25.3	8
two children	21	15.7	12		57.1	16.0	9
more than two children	11	8.2	6		54.5	8.0	5
Total	134	100	75	56.0	100	59	100
Area							
East Germany	29	21.6	19		65.5	25.3	10
West Germany	105	78.4	56		53.3	74.7	49
Total	134	100	75	56.0	100	59	100

s-%: Survival quota: survived/start-ups in total (in %)

Source: SOEP 1992-2002. Own calculations. pooled data. unweighted data;

t-test significances: a<10%: *, a<5%: **, a<1%: ***.

Table 2 shows the **results of the person-related evaluation**. The majority of all start-ups is given within the **age-group** of the 30 to 39-year-olds (significant on a 10% level). Overall, the two age-groups of those between 30 and 39 years of age and those of the 40 to 49-year-

olds feature the highest survival quotas. Apparently, middle age – against the background of the general human capital – as well as work experience have a positive effect on a three-year survival.

More than 60 percent of the researched freelance start-ups were undertaken by members of the male **gender**. Seen from the perspective of each gender, it shows that 50 percent of all female start-ups still exist after three years, whereas the survival quota for men is 57 percent. Overall, the share of surviving male start-ups is clearly above the average of all surviving start-ups: successful freelance start-ups are marked by a significantly higher share of male start-ups.

As regards the **geographical perspective**, the West German start-ups dominate numerically as opposed to the East German ones. The percentage of East German start-ups of all freelance start-ups corresponds roughly to the percentage of East Germans in the total population of the Federal Republic of Germany. Out of the 29 East German start-ups 19 survive the first three years as compared with 105 West German start-ups and 56 survivors. Seen from the class-specific perspective, 53 percent of the West German start-ups survive the first three years. The percentage of East German surviving freelancers is 65.5 percent. In the end, the percentage of start-ups still existing after three years in East Germany is (not significant) higher than in West Germany, contrary to our hypothetical assumption (H1).

With regard to the **actual weekly working hours** (cf. table 3) from the business-related results, the class of working hours “up to 10 hours”, with a share of 30.6 percent for all start-ups, and the highest class of working hours of “more than 40 hours”, with a share of 41 percent, stand out (highly significant). The high percentage of start-ups in the lowest class of working hours suggests a relatively high number of freelance start-ups as a second occupation. Those freelance start-ups who work 40 hours a week in their first start-up year have a survival quota of over 70 percent. Thus a high working hour intensity is positively correlated with a start-up success.

83 people finally responded their personal **monthly gross income from a freelance occupation** in the SOEP. As table 3 shows the income class “more than one thousand € to two thousand €” with a share of more than 27 percent is the most frequent class of all freelance start-ups, followed by the highest income class. Overall, the group of surviving start-ups is clearly marked by an income of more than one thousand € to two thousand € in their first year. Compared with all start-ups, start-ups with an income of under one thousand € and in the middle income class (two thousand € to four thousand €) have a lower start-up quota. All in all, a higher income at the time of founding the start-up proves to have a higher survival quota. The t-test, reveals significant differences between the lowest income class and all other classes and supports our second hypothesis of a higher survival probability with a higher income in the first year after the start-up foundation.

There is a tendency for all freelance start-ups to be “**rather content**“ with their work in their first year. About 58 percent of those who are “rather discontent” with their work and a good 72 percent of those who are “rather content” belong to the group of the surviving freelance start-ups. An accordingly inverse picture can be found for the group of the non-surviving start-ups.

Further business-related descriptive results regard the kind of profession and the being an associated profession (table 3). With a share of 38.8 percent the liberal artistic, journalistic and pedagogical professions form the biggest group of freelancers, dominating numerically the group of surviving as well as the group of the non-surviving freelance start-ups.

In a category-specific comparison the highest three-year survival rate can be found for the liberal medical professions – 75 percent survive. They are followed by the liberal legal and

commercial consultancy professions with a survival quota of 61.5 percent. The group of the liberal technical and scientific professions, with a share of survivors of 51.6 percent, and the group of the liberal artistic, journalistic and pedagogical professions, with a share of survivors of only 40.7 percent, are both below the average. All in all, the liberal medical professions have the highest survival quota of all professional groups by far, followed by the liberal legal and commercial consultancy professions. The group of non-surviving freelance start-ups is clearly dominated by the liberal artistic, journalistic and pedagogical professions. Their share of non-surviving start-ups is almost 60 percent.

The above categorisation of each of the freelance professional groups as well as the differentiation according to **associated professions** and non-associated professions was retrospectively added to the SOEP for the overall research period.

Table 3: Business-related results about the three-year existence of start-ups from the pooled data 1992-2002

Business-related background	Start-ups in total		survived			not survived	
	n	%	n/sign.	Surv. %	%	n	%
Working hours per week							
up to 10 hours	41	30.6	12 ***	29.3	16.0	29	49.2
over 10 to 20 hours	10	7.5	7	70.0	9.3	3	5.1
over 20 to 30 hours	10	7.5	6	60.0	8.0	4	6.8
over 30 to 40 hours	18	13.4	11	61.1	14.7	7	11.9
more than 40 hours	55	41	39 ***	70.9	52.0	16	27.1
total	134	100	75	56.0	100	59	100
pers. gross income							
up to 1,000 €	16	19,3	8 ***	50.0	12,3	8	44,4
over 1,000 € to 2,000 €	23	27,7	20	87.0	30,8	3	16,7
over 2,000 € to 3,000 €	15	18,1	12	80.0	18,5	3	16,7
over 3,000 € to 4,000 €	10	12,0	9	90.0	13,8	1	5,6
over 4,000 €	19	22,9	16	84.2	24,6	3	16,7
total	83	100	65	78.3	100	18	100
contentment with work							
rather discontent	48	44	28	58.3	38.9	20	54.1
rather content	61	56	44	72.1	61.1	17	45.9
total	109	100	72	66.1	100	37	100
Profession							
liberal medical prof.	28	20.1	21 **	75.0	28.0	7	10.9
liberal legal/commercial	26	18.7	16	61.5	21.3	10	15.6
liberal tec./scientific	31	22.3	16	51.6	21.3	15	23.4
liberal artistic/journ./pedag.	54	38.8	22 **	40.7	29.3	32	50.0
total	139	100	75	54.0	100	64	100
Associated professions							
non-associated profession	103	74.1	53	51.5	70.7	50	78.1
associated profession	36	25.9	22	61.1	29.3	14	21.9
total	139	100	75	54.0	100	64	100

s-%: Survival quota: survived/start-ups in total (in %)

Source: SOEP 1992-2002. Own calculations. pooled data. unweighted data;

t-test significances: a<10%: *, a<5%: **, a<1%: ***.

Almost three quarters of the freelance start-ups observed in the SOEP are non-associated professions. Accordingly, the non-associated professions dominate numerically the group of

survivors as well as the non-survivors. The percentage of the surviving freelance start-ups within the associated professions is higher than for the non-associated professions. This finding is congruent with the assumption that associated professions have better chances of survival in their protected market surrounding than the non-associated professions.

The **findings about the human capital** are summarised in table 4. As their **highest school degree** level A is dominant with 71 percent of all freelance start-ups (significance level 5%). Other school degrees are rather rare among the freelance start-ups (cf. table 4). From a class-specific perspective, the 71 percent of A-level graduates in the group of the non-survivors stand out as quite a high percentage. Only five start-ups come from secondary school or higher education school and three have a different degree. It is remarkable that the majority of freelance start-ups with one of these degrees usually survive.

Table 4: Findings about the human capital and the three-year existence of start-ups from pooled data 1992-2002

Human capital	start-ups total		Survived			not survived	
	n	%	n/sign.	Surv. %	%	n	%
School degree							
Secondary school	5	3.8	4	80.0	5.4	1	1.8
O-levels/GCSE	25	19.1	18 *	72.0	24.3	7	12.3
Higher education/GNVQ	5	3.8	4	80.0	5.4	1	1.8
A-levels	93	71	46 **	49.5	62.2	47	82.5
Other degrees	3	2.3	2	66.7	2.7	1	1.8
Total	131	100	74	56.5	100	57	100
Job training							
Apprenticeship	32	62.7	20	62.5	57.1	12	75.0
Vocational school	2	3.9	1	50.0	2.9	1	6.3
Health service	7	13.7	7 **	100	20.0	0	0.0
Technical college	3	5.9	3	100	8.6	0	0.0
Civil service training	3	5.9	2	66.7	5.7	1	6.3
Other training	4	7.8	2	50.0	5.7	2	12.5
Total	51	100	35	68.6	100	16	100
University degree							
University degree	91	67.9	50	54.9	66.7	41	69.5
No university degree	43	32.1	25	58.1	33.3	18	30.5
Total	134	100	75	56.0	100	59	100
Employment status prior to start-up							
Non-working	33	23.7	10 ***	30.3	13.3	23	35.9
Unemployed	18	12.9	13 *	72.2	17.3	5	7.8
(Blue-collar) worker	3	2.2	2	66.7	2.7	1	1.6
Employed	63	45.3	38	60.3	50.7	25	39.1
Civil servant	6	4.3	3	50.0	4.0	3	4.7
Self-employed	16	11.5	9	56.3	12.0	7	10.9
Total	139	100	75	54.0	100	64	100

s-%: Survival quota: survived/start-ups in total (in %)

Source: SOEP 1992-2002. Own calculations. Pooled data. Unweighted data;

t-test significances: a<10%: *, a<5%: **, a<1%: ***.

Concerning specific **job training**, over 38 of the freelance start-ups have had vocational training. The group of apprenticeship dominates with a share of almost 63 percent. The group-specific perspective shows that 62.5 percent of the freelance start-ups with an

apprenticeship survive the first three years of their freelance occupation, which is clearly dominant if we neglect the small number of respective start-ups in the other groups.

All in all, each group - except for the apprenticeship - is very small because around 62 percent of start-ups have no specific job training at all. Still, the findings, in particular those about job trainings in the health services (significant at 5%) and the technical colleges, are of interest. All freelance start-ups with one of these two job trainings survive. Yet again, the sample number for the research period with 7 and 3 respondents respectively is extremely low.

A **university degree** is dominant among freelance start-ups: 67.9 percent of all freelance start-ups have such a university degree. With a university and non-university degree 55 respective 58 percent survive the first three years. Contrary to the assumptions made in the second hypothesis, the descriptive results show a slightly more favourable picture with regard to the freelance start-up survival chances for a start-up without a university degree. This is in some contrast to our hypothesis.

Though many freelance occupations require a university degree, this finding suggest some particular influence of the non-academic freelancers and is congruent with the dominant A level school degree discussed above.

From the corrected SOEP dataset the **employment status** prior to the freelance start-up was generated in order to estimate the influence specific human capital has on the chances of survival. The biggest class is the one with start-ups who were previously employed comprising 45.3 percent. Compared with the average survival quota of all freelance start-ups, especially a previous occupation as an employee or as self-employed as well as a previous unemployment have a positive effect on the survival quota. Those people who were unemployed before setting up their freelance business are in the lead. 72.2 percent of all previously unemployed start-ups survived the first three years of their freelance occupation. 60.3 percent of the previously employed and 56.3 percent of the previously unemployed start-ups survived.

Previous employment: A previous non-employment has a negative effect on the survival quota; or in other words: a previous employment increases the start-up success (significant at 1%). However, interpreting the findings one has to bear in mind that only the bigger groups are those of the employed with 63 people and of the non-working with 33 people. The sample numbers in the other groups are below 20 people. Overall, a positive effect on the survival quota showed for previously employed and self-employed occupations as well as for a previous unemployment, which, of course, is preceded by an employment. A negative effect occurs if a start-up person was not working the year before starting their business.

The results support our assumptions of the third hypothesis about the specific human capital.

5 Multivariate analysis about freelance start-up success

The multivariate analyses – compared to the univariate descriptive analyses above – have the advantage to show the significance of the competing explanatory patterns. The corrected SOEP dataset 1992 to 2002 serves as our database. The SOEP-dataset, however, does not supply comprehensive information on all 139 start-ups. In particular details on the income from freelance occupations as well as the subjective influential parameters are increasingly missing. For this reason we have information on 104 freelance start-ups at our disposal for the multivariate analysis.

As already apparent in the above descriptive section of our analysis, not all groups are always covered with different non-response items. Therefore not all the determinates presented in the

descriptive part can be integrated into the multivariate model about the freelance start-up success. The sample numbers of freelance start-ups in each wave drop down to sometimes less than 10 people. For this reason a longitudinal, paneleconometric approach is not appropriate; for our multivariate analysis with competing explanatory pattern we therefore use a pooled dataset.

The dependent variable in the research model about the start-up success is the dichotomous variable of a freelance start-up that survives three years. The analysis relies on a logit, probit and rare-events logit model (relogit) that quantifies the explanatory factors for the probability of surviving three years, i.e. the thus assessed start-up success. In principle, the logit and probit estimates reveal similar results for the area of the middling success quota, but will be different with regard to very small respective very large survival quotas. To handle these marginal quotas in an appropriate way we also use a rare-events-logit model, which was especially developed for small success quotas of certain groups (King and Zeng 2001a, 2001b; for its usage in start-up research see also Wagner 2004).

The **very overall result of the multivariate analysis** based on table 5: all three methods for all explanatory variables show a similar picture with regard to the sign and the significance of the coefficients and – together with a significant overall goodness of fit - underlines the robustness of our further single results.

An older **age** has a positive impact on the three-year-survival probability of a freelance start-up. All models show a significant non-linear effect of the age on the probability of surviving. The results support our human capital theory assumptions (H 2) of a higher age against a background of general longer working experiences.

The start-up person's **gender** has no significant impact on the probability of a three year surviving. Thus, gender plays no significant role in the freelance start-up success, other factors are dominant.

Table 5: Results of the logit, probit and relogit models on the basis of the pooled corrected SOEP data 1992-2002

Theoretical approach/model	Relogit		Logit				Probit			
	Coefficient	P-value	Coefficient	P-value	marginal effect	rank	Coefficient	P-value	marginal effect	rank
Endogenous variable: start-up survived three years (yes/no)										
Constant	-12.663	.009	-16.597	.014	-2.766		-10.243	.009	-3.000	
Person-related approaches										
Age	.711***	.002	.999***	.004	.166	15	.609***	.003	.178	15
Age2	-.803***	.002	-1.131***	.004	-.189	8	-.691***	.003	-.202	8
Women	.187	.722	.241	.722	.040	11	.183	.652	.053	12
Micro-social background										
Marital status (ref: single)										
married, cohabitating	-.646	.249	-.898	.195	-.150	9	-.510	.207	-.149	9
Number of children in hh	.181	.483	.265	.368	.044	12	.142	.408	.042	11
East Germany	.704	.264	1.011	.199	.143	13	.560	.223	.144	13
General human capital										
School degree (ref: secondary)										
O-levels	-.805	.495	-1.258	.351	-.252	5	-.696	.362	-.233	6
A-levels	-.956	.353	-1.515	.206	-.215	7	-.871	.196	-.221	7
University degree	-1.318**	.034	-1.828**	.028	-.252	6	-1.080**	.028	-.265	5
Specific human capital										
Work before start-up (ref: empl.)										
not working	-2.385**	.094	-3.655**	.036	-.723	1	-2.161**	.030	-.72	1
unemployed	-1.48	.348	-2.364	.198	-.508	3	-1.392	.181	-.494	3
civil servant	-1.843	.169	-2.879*	.066	-.455	4	-1.686*	.055	-.457	4
entrepreneur	-2.019	.181	-3.102*	.066	-.648	2	-1.813*	.056	-.633	2
Business-related background										
Contentment with work	.606	.210	.838	.166	.145	14	.502	.163	.151	14
Personal gross income (10⁴)	1.164	.358	1.748	.289	0.291	19	1.049	.272	.307	19
Associated profession	.485	.412	-.651	.445	-.117	10	-.366	.475	-.114	10
Profession (ref. artist)										
liberal medical professions	2.146**	.015	3.037***	.004	.325	18	1.803***	.003	.341	18
liberal legal/commercial	1.026	.193	1.370	.182	.180	16	.800	.191	.191	16
Liberal techn./scientific	1.612**	.030	2.215**	.0180	.248	17	1.314**	.016	.265	17
LR-statistic chi square					37.983				38.521	
p-value/n					.006/104				.005/104	

Note: Marginal effect for dummy variable is $P|1 - P|0$; Source: SOEP 1992-2002. Own calculations, t-test significances: a<10%: *, a<5%: **, a<1%: ***.

Neither did the **micro-social background** of the start-up's **marital status** prove to have a significant impact. As compared with the reference of the "single start-up persons" the "married start-up persons" display a minus sign in the coefficient, but they have neither in the logit and probit model nor in the relogit model a nearly significant value.

The **number of children** as a further family indicator and possible indicator for a particular work performance in the freelance start-up household has no significant impact on the survival probability either. This is the results all three estimate models arrive at.

Surprisingly, according to the descriptive results about the **geographical origin of the start-ups**, no significant values showed up in the logit, probit or in the relogit model. As compared to West German start-ups no significant influence was found for the survival probability of East German start-ups. This means the fifth hypotheses about the freelance start-up success, according to which originating from the East German states has a negative impact on the survival probability because of assumed lower productivity, was not confirmed. In contrast, the survival quota is higher in East German start-ups, however not significantly different to West Germany.

Regarding **general human capital** the parameters of the school degree and the university degree were examined. Among the highest school degrees no significant impact on the three-year survival probability was seen for the freelance start-ups with O-levels or A-levels as compared to a secondary school degree.

A university degree shows in all models a significantly negative impact on the survival probability. Even though the significance value decreases slightly in the relogit model, this finding is surprising against the background of the freelance features and characteristics. For a great number of liberal professions a university degree is a prerequisite for their job. But then again, a very high survival quota for freelancers without a university degree but with training in the health service or a college degree, for instance, instead became already apparent in the descriptive results. Their high survival quota as well as the generally low sample number of 104 start-ups have to be taken into consideration when interpreting these results. Therefore, general human capital theory assumptions from the second hypothesis about school and university degrees cannot be confirmed.

The **specific human capital** examines the impact of a previous occupational activity on the survival probability of a freelance start-up. As compared with the reference of the employees all other influential parameters feature a minus sign in the coefficient. This is true for the results of all three estimates. Thus, active occupational experiences and acquired skills support a start-up success of freelancers in particular. Note that according to the former occupation as a civil servant and as an entrepreneur the probit and logit model have significant (in contrast to the relogit model) negative coefficients showing a diminishing probability to survive when working before in these occupational status. Altogether, the third hypothesis about the positive impact the specific human capital has on the start-up success is confirmed.

The **business-related background** of the freelance start-ups tests the influence the starting income, the associated professions and the professional group have on the three-year survival probability.

The **personal gross income** of freelance start-ups in their first year after setting up their business has no significant overall impact on their survival probability.⁴ The result is slightly surprising against the background of the descriptively gained insights about the survival quotas (albeit with inconsistent results for a growing income). Therefore, the fourth

⁴ Missing values were replaced by the arithmetic mean value.

hypotheses, according to which a higher income increases the survival probability of start-ups, is not confirmed, a first year (income) success is not a reliable predictor for surviving the first three years.

As regards the **professional groups** clearly differing results show. As compared with the liberal artistic, pedagogical and journalistic professions (reference group) the liberal medical professions (1% significance level) and the liberal technical and scientific professions (5% significance level) have a positive impact on the three-year survival probability of a start-up. The results for the medical professions are highly significant in the probit and logit model and still significant at a 5% level by the relogit model. Only the liberal legal and commercial consultancy professions show no significance, as compared to the liberal artistic, pedagogical and journalistic professions. Here it is in particular the positive impact the liberal medical professions have on the chances of surviving that stand out.

Marginal effects

Since the applied discrete choice models are non-linear models the sign of coefficients indicates in a right way the final impact on the survival probability, but not its direct marginal contribution, the direct impact of a changing explanatory variable to the success probability. Thus table 5 in addition shows the marginal probability effect (and its rank) if one explanatory variable is changed infinitesimal (at the mean of the other variables). Note, that the marginal effect for a dummy variable is computed as the probability with dummy=1 minus the probability with dummy=0 to consider the non-infinitesimal metric. The result supported again by all three models: The start-up success measured as the probability to survive the first three years is first of all influenced by an active labour force participation with its acquired skills and working experiences just before the start-up period followed by a non-university degree as the highest general human capital indicator, the (non-linear) experience indicated by age and the business related background as the type of liberal profession.

6 Conclusion

This paper for the first time of its kind examined the freelance start-up success with the corrected data of the Socio-Economic Panel for the years 1992 to 2002. The descriptive and multivariate analysis allowed us to locate some central influential parameters for a three-year survival after the business foundation.

The **descriptive results** reveal the following characteristics of a typical successful start-up freelancer. The age of surviving start-ups is between 30 and 49 years. Men show a clearly higher survival rate compared to women. Start-ups with single marital status survive more frequently. Likewise start-ups in East Germany survive the first three years more often. Start-ups with weekly working hours of more than 40 hours feature a high survival rate. Freelance start-ups with an income from their freelance occupation of more than one thousand € in their first year show very good survival quotas. Start-ups in the liberal medical professions and of the liberal legal and commercial consultancy professions also have a high survival rate. An apprenticeship or a qualifying job training increases the chances of surviving. Those start-ups who acquired working skills as employed or self-employed or unemployed (with skills of their former occupation) before they set up their business show a high survival rate. Table 6 shows the central features of freelance start-up from the descriptive results.

Table 6: Overview of central features and characteristics of freelance start-ups from the descriptive results

Characteristics	Successful freelance start-ups ...
Person-related	are between 40 and 49 years old are predominantly male are most of them singles
Business-related	work more than 40 hours a week have an income of more than one thousand € a month come from the liberal medical professions or the liberal legal and commercial consultancy professions come from the associated professions
Geography-related	come from East Germany
Human capital	have accomplished an apprenticeship/job training were previously employed, self-employed or unemployed (with skills from former occupation)

Source: SOEP 1992 – 2002. Self-made table.

The descriptive results focus on a respective univariate explanation. In the multivariate analysis, however, competing explanatory factors have to prove their significance. Our **multivariate analysis** estimated the influential parameters of a three-year survival probability with the help of the logit, probit and relogit model, to handle marginal survival quotas in an appropriate manner.

Altogether, the similar results of all three model types concerning the sign and significance of a respective coefficient underlines the robustness of our results.

The start-up success measured as the probability to survive the first three years is first of all influenced by an active labour force participation with its acquired skills and working experiences just before the start-up period (rank 1), followed by a non-university degree as the highest general human capital indicator (rank 2), a general (non-linear) experience indicated by age (rank 3) and the business related background (rank 4) as the type of liberal profession in the group of the liberal medical professions and the liberal technical and scientific professions.

Table 7 gives an overview of the central multivariate results of the survival probability.

Our assumptions in the first hypothesis were not confirmed. We assumed the East German states to have a negative impact on the survival probability of a freelance start-up as opposed to the West German states. But the descriptive results showed a higher survival quota among the East German start-ups, which found, however, no significant confirmation in the multivariate results. In the end, the interrelation of a weaker East German economic productivity and a lower freelance start-up success is not true. Apparently, the freelance start-ups adjusted to the market surrounding so that there are no significant differences between East and West as regards the three-year survival.

Neither can the multivariate results support the second hypothesis about the start-ups' general human capital. On the contrary, a university degree proved to have a negative impact. This is due to freelance occupations that don't require a university degree and that offer excellent chances of survival especially in the area of the liberal medical professions.

The assumption about the specific human capital in the third hypothesis was confirmed. A negative survival probability showed for previously not active in the labour force against the background of decreasing productivity effects in connection with the pull-factors. In connection with the assumptions of the push and pull model as well as the decreasing productivity effects from a previous non-employment a significant negative impact on the survival probability of freelance start-ups is shown. The negative impact of a previous occupation – compared to an occupation as an employee - as a civil servant was likewise confirmed in the logit and probit model. A negative impact compared to a former occupation as an employee became apparent for the previously self-employed in the results of both estimators.

The generally positive postulation of a previous self-employed occupation is not reflected in our research with regard to freelance start-ups. It is rather specific knowledge for the future freelance occupation that is decisive.

Table 7: Overview of the positive and negative significant influential parameters on the freelance survival probability.

Kind of influence	Significant influential parameters on the freelance start-up probability
	Specific human capital: start-up out of an active labour force participation (rank 1) General human capital: lower than university degree (rank 2) Higher age: general experience (rank 3) Type of liberal profession engaged (rank 4)
Positive	higher age start-up out of an active occupation liberal medical profession compared to arts profession liberal technical and scientific profession compared to arts profession
Negative	a university degree a previous non-employment compared to employees a previous occupation as civil servant compared to employees a previous self-employed occupation compared to employees

Source: SOEP 1992 to 2002. Self-made table.

The fourth hypothesis is rejected according to which a higher income in the first start-up year increases the survival probability. No overall significance showed. But in the end it is not implausible, considering that especially in the initial phase the resource expenditure for the start-up is particularly high and taken into account by many start-ups. Apparently, start-ups tide themselves over during the first year, a higher first year income thus is in some contrast to further success.

Neither had the associated professions significant impact on the start-up success. The assumption of better survival chances compared with the non-associated professions, due to a market surrounding protected by the associations, was not confirmed by the multivariate results. Yet the results of each professional group point out some correlations. Thus, the non-associated artistic, pedagogical and journalistic professions in particular have a lower survival probability as opposed to the other groups. When it comes to start-ups in the liberal medical

professions of both non-associated and associated professions, the differentiation between associated and non-associated professions proved to have no impact. The varying intensity of regulations in the various associated professions also speaks for the missing impact.

All in all, despite the use of a pooled data model, the data material of the present study is not sufficient, in particular for evaluating individual sub-groups due to a low sample number of freelance start-ups. Desirable further aspects and analyses, about a university degree and about the associated professions for example, are therefore not possible, yet desirable. Analysing the survival probabilities for a longer period of five or eight years would make sense. Although the limited sample number again restricts the possibilities of the analysis. We did not present the five-year survival probabilities because the sample number of freelance start-ups in the five-year survival model dropped to 90 people. For the same reason we also refrained from doing a panel-econometric estimate. Since the sample number of the liberal professions in the SOEP panel increases heavily with the recent high-income random sample survey, one should be able to use a panel-econometric evaluation method for future waves.

The insights gained here about the influential parameters of a three-year survival probability are a first step in researching the freelance start-up success. The research model about freelance start-up success, with the gauge of a three-year survival, was able to reveal initial interesting and significant results and influential parameters. By way of our new results which require some quite time-consuming reworking of the data we would particularly like to encourage the use of the Socio-Economic Panel for further studies in the field start-up research.

Bibliography

- Becker, G. S. (1975), Human Capital: A Theoretical and Empirical Analysis; 2nd edition, New York: Columbia University Press.
- Bester, H. (2003), Theorie der Industrieökonomik. 2. überarbeitete und erweiterte Auflage. Berlin: Springer Verlag.
- Brüderl, J., Preisendorfer, P. und R. Ziegler (1996), Der Erfolg neugegründeter Betriebe. Eine empirische Studie zu den Chancen und Risiken von Unternehmensgründungen. Betriebswirtschaftliche Schriften Heft 140. Berlin: Duncker & Humblot.
- Bundesministerium für Wirtschaft und Technologie BMWi (2002), Bericht der Bundesregierung über die Lage der Freien Berufe. Dokumentation Nr.: 509, Berlin.
- Doré, J. und G. Clar (1997), Die Bedeutung von Humankapital. In: Clar, G. et al. (Hsgb.), Humankapital und Wissen. Grundlagen einer nachhaltigen Entwicklung, Berlin: 159-174.
- Dworschak, F. (1986), Struktur von Arbeitseinkommen. Methodische und inhaltliche Probleme von Regressionsanalysen mit Querschnittsdaten für Mikrosimulationsmodelle. Hallstadt.
- Ekkenga, J.; Fritsch, M. und J. Schmude (1998), Antrag zur Einrichtung eines DFG-Schwerpunktprogrammes „Interdisziplinäre Gründungsforschung“.
<http://rggs10.geographie.uni-regensburg.dewirtgeo/projekte/dfggrund/antrag.html>
- Hamilton, B.H. (2000), Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment. In: Journal of Political Economy, 108/3, 604-631.
- Hannan, H. A. und J. Freeman (1977), The population ecology of organizations. In: The American journal of sociology (AJS), Bd. 82, 5. 929-964.
- Hannan, H. A. und J. Freeman (1989), Organizational Ecology. Cambridge. Harvard University Press.
- Heil, H. (1997), Entwicklung junger Unternehmen in Ost- und Westdeutschland. Data-Befragung mit Eigenkapitalhilfe geförderter Unternehmen. Deutsche Ausgleichsbank (ed.), Wissenschaftliche Reihe, Vol. 7, Bonn.
- King, G und L. Zeng (2001a), Logistic Regression in Rare Events Data. In: Political Analysis 9 (2). 137-163.
- King, G und L. Zeng (2001b), Explaining Rare Events in International Relations. In: International Organisation 55 (3). 693-715.
- Merz, J. und P. Paic (2004), Existenzgründungen von Freiberuflern und Unternehmern – Eine Mikroanalyse mit dem Sozio-ökonomischen Panel. In: Merz, J. und J. Wagner (eds.) Perspektiven der Mittelstandsforschung. Ökonomische Analysen zu Selbständigkeit, Freien Berufen und KMU. Vol. 1, 117-138.
- Merz, J. (ed.), (2001a), Existenzgründung, Vol. 1: Tips, Training und Erfahrungen, FFB-Schriften Nr. 11. Baden-Baden: Nomos.
- Merz, J. (ed.), (2001b), Existenzgründung, Vol. 2: Erfolgsfaktoren und Rahmenbedingungen, FFB-Schriften Nr. 12. Baden-Baden: Nomos.
- Mincer, J. (1970), The Distribution of Labour Incomes. A Survey with special Reference to the Human Capital Approach. In: Journal of Economic Literature, 8 Jg., H.8, 1-25.
- Mincer, J. (1974): Schooling, Experience and Earnings, New York: Columbia University Press.
- Paic, P. (2005), Das freiberufliche Gründungsgeschehen. Eine empirische Untersuchung zur Gründungsaktivität und dem Gründungserfolg mit Daten des Sozio-ökonomischen Panels und einer eigenen Onlineerhebung. Dissertationsschrift an der Universität Lüneburg. Noch nicht veröffentlicht.
- Pfeiffer, F. (1994), Selbständige und abhängige Erwerbstätigkeit. Arbeitsmarkt und industrieökonomische Perspektiven. Frankfurt am Main, New York: Campus Verlag.
- Plaschka, G. (1986), Unternehmenserfolg. Eine vergleichende empirische Untersuchung von erfolgreichen und nicht erfolgreichen Unternehmensgründern. Wien. Wirtschaftsuniversität.

- Preisendörfer, P. (2002), Erfolgsfaktoren und Unternehmensgründungen. Theorieansätze und empirische Ergebnisse. In: Corsten H. (Hrsg), Dimensionen der Unternehmensgründung. Erfolgsaspekte der Selbständigkeit. Grundlagen und Praxis der Betriebswirtschaft Band 71. München: Schmidt Verlag, 43-79.
- Schulte, R. (2002), Finanzierungs- und Wachstumstheoretische Aspekte der Frühentwicklung von Unternehmen und deren empirische Analyse. Eine dyadische Panelanalyse von Existenzgründungen. Habilitationsschrift an der Universität Dortmund.
- Schulte, R. (2004), Was ist „Gründungserfolg“? – Überlegungen zur Operationalisierung eines folkloristischen Begriffs. In: Merz, J. und J. Wagner (eds.) Perspektiven der Mittelstandsforschung. Ökonomische Analysen zu Selbständigkeit, Freien Berufen und KMU. Vol 1, 203-228.
- Shapero, A., Sokol, L. (1982): The social dimensions of entrepreneurship; In: Kent, C.A., Sexton, D.L., Vesper, K.H. (eds.): Encyclopedia of entrepreneurship, Englewood Cliffs: Prentice-Hall, 72–90.
- Simon, A. (2002), Existenzgründungen von Unternehmen und Freiberuflern. Abläufe und Determinanten mit Daten des Sozio-ökonomischen Panels. Diplomarbeit am Forschungsinstitut Freie Berufe. Universität Lüneburg.
- SOEP Gruppe (2004), Das Sozio-ökonomische Panel. Leben in Deutschland. <http://www.diw.de/deutsch/sop/uebersicht/index.html>
- SOEP Gruppe (2003), Haisken, J.P. and R. Frick (Eds.), DTC Desktop Companion to the German Socio-Economic Panel Study. Version 7.0, Deutsches Institut für Wirtschaft (DIW), Berlin.
- SOEP Gruppe (2002), Hartmann, J. and G. Schütz, Die Klassifizierung der Berufe und der Wirtschaftszweige im Sozio-ökonomischen Panel. Neuverkodung der Daten 1984-2001. Infratest Sozialforschung. München.
- SOEP Gruppe (2002), Rosenblatt, v. B., SOEP 2001 – Methodenbericht zum Befragungsjahr 2001 (18 Welle) des Sozio-ökonomischen Panels. Infratest Sozialforschung, München.
- Uhly, A. (2000), Zur neuen Selbständigkeit- Eine segmentationstheoretische Analyse auf der Datenbasis des Sozio- ökonomischen Panels. Dissertation an der Universität Saarbrücken. Frankfurt am Main: Peter Lang.
- Wagner, J. (2004), Are Young and Small Firms Hothouses for Nascent Entrepreneurs? Evidence from German Micro Data. In: Applied Economics Quarterly 50, No. 4, 379-391.
- Wanzenböck, H. (1998), Überleben und Wachstum junger Unternehmen, Wien, New York.
- Wippler, A. (1998), Innovative Unternehmensgründungen in Deutschland und den USA. Wiesbaden.

Forschungsinstitut Freie Berufe (FFB), Universität Lüneburg

Publikationen

1 FFB-Jahresberichte

FFB-Jahresbericht 2003/04, FFB-Jahresbericht 2001/02, FFB-Jahresbericht 1999/00, FFB-Jahresbericht 1997/98, FFB-Jahresbericht 1996, FFB-Jahresbericht 1995, FFB-Jahresbericht 1994, FFB-Jahresbericht 1993, FFB-Jahresbericht 1992, FFB-Jahresbericht 1991, FFB: 10 Jahre Forschung und Lehre 1989-1999, FFB-Forschung und Lehre 1989-1998, FFB-Forschung und Lehre 1989-1997, FFB-Forschung und Lehre 1989-1996.

2 FFB-Bücher in der FFB-Schriftenreihe

Ehling, M. und J. Merz, 2002, Neue Technologien in der Umfrageforschung, FFB-Schriften Nr. 14, 181 Seiten, ISBN 3-7890-8241-4, NOMOS Verlagsgesellschaft, Baden-Baden. *Preis: € 31,-*

Merz, J., 2002, Freie Berufe im Wandel der Märkte, FFB-Schriften Nr. 13, 168 Seiten, ISBN 3-7890-8107-8, NOMOS Verlagsgesellschaft, Baden-Baden. *Preis: € 29,-*

Merz, J., 2001, Existenzgründung 2 – Erfolgsfaktoren und Rahmenbedingungen, FFB-Schriften Nr. 12, 232 Seiten, ISBN 3-7890-7462-4, NOMOS Verlagsgesellschaft, Baden-Baden. *Preis: € 40,- / € 71,- (i. Vb. mit Band 1)*

Merz, J., 2001, Existenzgründung 1 – Tips, Training und Erfahrung, FFB-Schriften Nr. 11, 246 Seiten, ISBN 3-7890-7461-6, NOMOS Verlagsgesellschaft, Baden-Baden. *Preis: € 40,- / € 71,- (i. Vb. mit Band 2)*

Merz, J. und M. Ehling, 1999, Time Use – Research, Data and Policy, FFB-Schriften Nr. 10, 571 Seiten, ISBN 3-7890-6244-8, NOMOS Verlagsgesellschaft, Baden-Baden. *Preis: € 49,-*

Herrmann, H. und J. Backhaus, 1998, Staatlich gebundene Freiberufe im Wandel, FFB-Schriften Nr. 9, 234 Seiten, ISBN 3-7890-5319-8, NOMOS Verlagsgesellschaft, Baden-Baden. *Preis: € 34,-*

Herrmann, H., 1996, Recht der Kammern und Verbände Freier Berufe, Europäischer Ländervergleich und USA, FFB-Schriften Nr. 8, 596 Seiten, ISBN 3-7890-4545-4, NOMOS Verlagsgesellschaft, Baden-Baden. *Preis: € 56,-*

Merz, J., Rauberger, T. K. und A. Rönnau, 1994, Freie Berufe in Rheinland-Pfalz und in der Bundesrepublik Deutschland – Struktur, Entwicklung und wirtschaftliche Bedeutung, FFB-Schriften Nr. 7, 948 Seiten, ISBN 3-927816-27-2, Lüneburg. *Preis: € 95,-*

Forschungsinstitut Freie Berufe (FFB) (Hrsg.), erstellt vom Zentrum zur Dokumentation für Naturheilverfahren e.V. (ZDN), 1992, 1993, Dokumentation der besonderen Therapierichtungen und natürlichen Heilweisen in Europa, Bd. I, 1. Halbband, 842 Seiten, Bd. I, 2. Halbband, 399 Seiten, Bd. II, 590 Seiten, Bd. III, 272 Seiten, Bd. IV, 419 Seiten, Bd. V, 1. Halbband, 706 Seiten, Bd. V, 2. Halbband, 620 Seiten, ISBN 3-88699-025-7, Lüneburg (nur zu beziehen über das Zentrum zur Dokumentation für Naturheilverfahren e.V. ZDN, Hufelandstraße 56, 45147 Essen, Tel.: 0201-74551). *Preis: € 385,-*

Sahner, H. und A. Rönnau, 1991, Freie Heilberufe und Gesundheitsberufe in Deutschland, FFB-Schriften Nr. 6, 653 Seiten, ISBN 3-927816-11-6, Lüneburg. *Preis: € 58,-*

Burmester, B., 1991, Ausbildungsvergleich von Sprachtherapeuten, FFB-Schriften Nr. 5, 54 Seiten, ISBN 3-927816-10-8, Lüneburg. *Preis: € 9,-*

Sahner, H., 1991, Freie Berufe in der DDR und in den neuen Bundesländern, FFB-Schriften Nr. 4, 177 Seiten, ISBN 3-927816-09-4, Lüneburg. *Preis: € 25,-*

Trautwein, H.-M., Donner, H., Semler, V. und J Richter, 1991, Zur tariflichen Berücksichtigung der Ausbildung, der Bereitstellung von Spitzenlastreserven und der Absicherung von Beschäftigungsrisiken bei Seelotsen, mit dem Anhang Steuerliche Aspekte des tariflichen Normaleinkommens der Seelotsen, FFB-Schriften Nr. 3, 183 Seiten, ISBN 3-927816-07-8, Lüneburg. *Preis: € 19,-*

Sahner, H. und F. Thiemann, 1990, Zukunft der Naturheilmittel in Europa in Gefahr? FFB-Schriften Nr. 2, 81 Seiten, ISBN 3-927816-06-X, Lüneburg. *Preis: € 6,-*

Sahner, H., Herrmann, H., Rönnau, A. und H.-M. Trautwein, 1989, Zur Lage der Freien Berufe 1989, Teil III, FFB-Schriften Nr. 1, 167 Seiten, ISBN 3-927816-04-3, Lüneburg. *Preis: € 25,-*

Sahner, H., Herrmann, H., Rönnau, A. und H.-M. Trautwein, 1989, Zur Lage der Freien Berufe 1989, Teil II, FFB-Schriften Nr. 1, 955 Seiten, ISBN 3-927816-02-7, Lüneburg.

Preis: € 20,- / € 35,- (i. Vb. mit Teil I)

Sahner, H., Herrmann, H., Rönnau, A. und H.-M. Trautwein, 1989, Zur Lage der Freien Berufe 1989, Teil I, FFB-Schriften Nr. 1, 426 Seiten, ISBN 3-927816-01-9, Lüneburg.

Preis: € 20,- / € 35,- (i. Vb. mit Teil II)

3 FFB-Bücher

Merz, J., D. Hirschel und M. Zwick, 2005, Struktur und Verteilung hoher Einkommen - Mikroanalysen auf der Basis der Einkommensteuerstatistik, Lebenslagen in Deutschland, Der zweite Armuts- und Reichtumsbericht der Bundesregierung, Bundesministerium für Gesundheit und Soziale Sicherung, Berlin (<http://www.bmgs.bund.de/download/broschueren/A341.pdf>)

Merz, J. und J. Wagner (Hrg.), 2004, Perspektiven der MittelstandsForschung – Ökonomische Analysen zu Selbständigkeit, Freien Berufen und KMU, Merz, J., Schulte, R. and J. Wagner (Series Eds.), Entrepreneurship, Professions, Small Business Economics, CREPS-Schriftenreihe Vol. 1, 520 Seiten, Lit Verlag, ISBN 3-8258-8179-2, Münster. *Preis: € 39,90*

Merz, J. und M. Zwick (Hrg.), 2004, MIKAS – Mikroanalysen und amtliche Statistik, Statistisches Bundesamt (Serie Editor), Statistik und Wissenschaft, Vol. 1, 318 Seiten, ISBN 3-8246-0725-5, Wiesbaden *Preis: € 24,80*

Hirschel, D., 2004, Einkommensreichtum und seine Ursachen – Die Bestimmungsfaktoren hoher Arbeitseinkommen, Hochschulschriften Band 82, 416 Seiten, Metropolis-Verlag Marburg, ISBN 3-89518-441-1.

Merz, J., 2001, Hohe Einkommen, ihre Struktur und Verteilung, Lebenslagen in Deutschland, Der erste Armuts- und Reichtumsbericht der Bundesregierung, Bundesministerium für Arbeit und Sozialordnung, 128 Seiten, Bonn, zu beziehen über: Bundesanzeiger Verlagsgesellschaft mbH, Südstraße 119, 53175 Bonn.

Ehling, M. und J. Merz u. a., 2001, Zeitbudget in Deutschland – Erfahrungsberichte der Wissenschaft, Band 17 der Schriftenreihe Spektrum Bundesstatistik, 248 Seiten, Metzler-Poeschel Verlag, ISBN 3-8246-0645-3, Stuttgart. *Preis: € 16,-*

Krickhahn, T., 1995, Die Verbände des wirtschaftlichen Mittelstands in Deutschland, 351 Seiten, DUV Deutscher Universitäts Verlag, ISBN 3-8244-0245-9, Wiesbaden. *Preis: € 62,-*

Spahn, P. B., Galler, H. P., Kaiser, H., Kassella, T. und J. Merz, 1992, Mikrosimulation in der Steuerpolitik, 279 Seiten, Springer Verlag, ISBN 3-7908-0611-0, Berlin. *Preis: € 45,-*

4 FFB-Reprints

Merz, J., Kumulation von Mikrodaten – Konzeptionelle Grundlagen und ein Vorschlag zur Realisierung.; in: Allgemeines Statistisches Archiv, Issue 88, S. 451-472, 2004 **FFB-Reprint Nr. 35**

Merz, J., Einkommens-Reichtum in Deutschland - Mikroanalytische Ergebnisse der Einkommensteuerstatistik für Selbständige und abhängig Beschäftigte, in: Perspektiven der Wirtschaftspolitik, Vol. 5, Issue 2, S. 105-126, 2004 **FFB-Reprint Nr. 34**

Merz, J., Vorgrimler, D. und M. Zwick, Faktisch anonymisiertes Mikrodatenfile der Lohn- und Einkommensteuerstatistik 1998, in: Wirtschaft und Statistik, Issue 10, S. 1079-1091, 2004

FFB-Reprint Nr. 33

Ackermann, D., Merz, J. and H. Stolze, Erfolg und Erfolgsfaktoren freiberuflich tätiger Ärzte – Ergebnisse der FFB-Ärzteamfrage für Niedersachsen, in: Merz, J. and J. Wagner (Eds.), Perspektiven der MittelstandsForschung – Ökonomische Analysen zu Selbständigkeit, Freien Berufen und KMU, Merz, J., Schulte, R. and J. Wagner (Series Eds.), Entrepreneurship, Professions, Small Business Economics, CREPS-Schriftenreihe Vol. 1, Lit Verlag, Münster, pp. 165-190, 2004 **FFB-Reprint Nr. 32**

Hirschel, D. und J. Merz, Was erklärt hohe Arbeitseinkommen Selbständiger – Eine Mikroanalyse mit Daten des Sozioökonomischen Panels, in: Merz, J. and J. Wagner (Eds.), Perspektiven der MittelstandsForschung – Ökonomische Analysen zu Selbständigkeit, Freien Berufen und KMU, Merz, J., Schulte, R. and J. Wagner (Series Eds.), Entrepreneurship, Professions, Small Business Economics, CREPS-Schriftenreihe Vol. 1, Lit Verlag, Münster, pp. 265-285, 2004 **FFB-Reprint Nr. 31**

Burgert, D. und J. Merz, Wer arbeitet wann? – Arbeitszeitarrangements von Selbständigen und abhängig Beschäftigten: Eine mikroökonomische Analyse deutscher Zeitbudgetdaten, in: Merz, J. and J. Wagner (Eds.), Perspektiven der MittelstandsForschung – Ökonomische Analysen zu Selbständigkeit, Freien Berufen und KMU, Merz, J., Schulte, R. and J. Wagner (Series Eds.), Entrepreneurship, Professions, Small Business Economics, CREPS-Schriftenreihe Vol. 1, Lit Verlag, Münster, pp. 303-330, 2004

FFB-Reprint Nr. 30

Merz, J. und M. Zwick, Hohe Einkommen – Eine Verteilungsanalyse für Freie Berufe, Unternehmer und abhängige Beschäftigte, in: Merz, J. and M. Zwick (Eds.), MIKAS – Mikroanalysen und amtliche Statistik, Statistik und Wissenschaft, Vol. 1, pp. 167-193, 2004 **FFB-Reprint Nr. 29**

Merz, J., Schatz, C. and K. Kortmann, Mikrosimulation mit Verwaltungs- und Befragungsdaten am Beispiel „Altersvorsorge in Deutschland 1996“ (AVID '96), in: Merz, J. und M. Zwick (Hg.), MIKAS – Mikroanalysen und amtliche Statistik, Statistik und Wissenschaft, Vol. 1, S. 231-248, 2004

FFB-Reprint Nr. 28

Merz, J., Was fehlt in der EVS ? – Eine Verteilungsanalyse hoher Einkommen mit der verknüpften Einkommensteuerstatistik für Selbständige und abhängig Beschäftigte, in: Jahrbücher für Nationalökonomie und Statistik, Vol. 223/1, p. 58-90, 2003 **FFB-Reprint Nr. 27**

Merz, J. und M. Zwick, Verteilungswirkungen der Steuerreform 2000/2005 im Vergleich zum „Karlsruher Entwurf“ – Auswirkungen auf die Einkommensverteilung bei Selbständigen (Freie Berufe, Unternehmer) und abhängig Beschäftigte, in: Wirtschaft und Statistik, 8/2002, p. 729-740, 2002

FFB-Reprint Nr. 26

Merz, J., Time Use Research and Time Use Data – Actual Topics and New Frontiers, in: Ehling, M. and J. Merz (Eds.), Neue Technologien in der Umfrageforschung – Anwendungen bei der Erhebung von Zeitverwendung, p. 3-19, 2002 **FFB-Reprint Nr. 25**

Merz, J., 2002, Time and Economic Well-Being – A Panel Analysis of Desired versus Actual Working Hours, in: Review of Income and Wealth, Series 48, No. 3, p. 317-346, FFB-Reprint Nr. 24, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-Reprint Nr. 24**

Schatz, Ch., Kortmann, K. und J. Merz, 2002, Künftige Alterseinkommen - Eine Mikrosimulationsstudie zur Entwicklung der Renten und Altersvorsorge in Deutschland (AVID'96), in: Schmollers Jahrbuch, Journal of Applied Social Sciences, Zeitschrift für Wirtschafts- und Sozialwissenschaften, 122. Jahrgang, Heft 2, S. 227-260, FFB-Reprint Nr. 23, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-Reprint Nr. 23**

Merz, J. und M. Zwick, 2001, Über die Analyse hoher Einkommen mit der Einkommensteuerstatistik – Eine methodische Erläuterung zum Gutachten „Hohe Einkommen, ihre Struktur und Verteilung“ zum ersten Armuts- und Reichtumsbericht der Bundesregierung, in: Wirtschaft und Statistik 7/2001, S. 513-523, FFB-Reprint Nr. 22, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-Reprint Nr. 22**

Merz, J., 2001, Was fehlt in der EVS? Eine Verknüpfung mit der Einkommensteuerstatistik für die Verteilungsanalyse hoher Einkommen, in: Becker, I., Ott, N. und G. Rolf (Hrsg.), Soziale Sicherung in einer dynamischen Gesellschaft, S. 278-300, Campus Verlag, Frankfurt/New York, FFB-Reprint Nr. 21, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Reprint Nr. 21

Merz, J., 2001, 10 Jahre Forschungsinstitut Freie Berufe (FFB) der Universität Lüneburg – Forschungsschwerpunkte und Perspektiven, in: Bundesverband der Freien Berufe (Hrsg.), Jahrbuch 2000/2001, der freie beruf, S. 158-174, Bonn, FFB-Reprint Nr. 20, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Reprint Nr. 20

Merz, J., 2000, The Distribution of Income of Self-employed, Entrepreneurs and Professions as Revealed from Micro Income Tax Statistics in Germany, in: Hauser, R. and I. Becker (eds.), The Personal Distribution of Income in an International Perspective, S. 99-128, Springer Verlag, Heidelberg, FFB-Reprint Nr. 19, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Reprint Nr. 19

Merz, J., 1998, Privatisierung, Deregulierung und staatlich gebundene Freie Berufe – Einige ökonomische Aspekte, in: Herrmann, H. und J. Backhaus (Hrsg.), Staatlich gebundene Freiberufe im Wandel, S. 67-114, FFB-Schriften Nr. 9, NOMOS Verlagsgesellschaft, Baden-Baden, FFB-Reprint Nr. 18, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Reprint Nr. 18

Merz, J., 1997, Die Freien Berufe – Laudatio zur Verleihung der Ehrendoktorwürde des Fachbereiches Wirtschafts- und Sozialwissenschaften der Universität Lüneburg an Prof. J. F. Volrad Deneke, in: Bundesverband der Freien Berufe (Hrsg.), Jahrbuch 1997, der freie beruf, S. 133-151, Bonn, FFB-Reprint Nr. 17, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Reprint Nr. 17

de Kam, C. A., de Haan, J., Giles, C., Manresa, A., Berenguer, E., Calonge, S., Merz, J. and K. Venkatarama, 1996, Who pays the taxes? The Distribution of Effective Tax Burdens in Four EU Countries, in: ec Tax Review, p. 175-188, FFB-Reprint No. 16, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Reprint Nr. 16

Merz, J., 1996, MICSIM – A PC Microsimulation Model for Research and Teaching: A Brief View on its' Concept and Program Developments, SoftStat '95 – Advances in Statistical Software 5, in: Faulbaum, F. and W. Bandilla (eds.), Stuttgart, p. 433-442, FFB-Reprint No. 15, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Reprint Nr. 15

Burkhauser, R. V., Smeeding, T. M. and J. Merz, 1996, Relative Inequality and Poverty in Germany and the United States using Alternative Equivalence Scales, in: Review of Income and Wealth, Series 42, No. 4, p. 381-400, FFB-Reprint No. 14, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Reprint Nr. 14

Merz, J. 1996, Schattenwirtschaft und Arbeitsplatzbeschaffung, in: Sadowski, D. und K. Pull (Hrsg.), Vorschläge jenseits der Lohnpolitik, S. 266-294, Frankfurt/New York, FFB-Reprint Nr. 13, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Reprint Nr. 13

Merz, J., 1996, MICSIM – Concept, Developments and Applications of a PC Microsimulation Model for Research and Teaching, in: Troitzsch, K. G., Mueller, U. Gilbert, G. N. and J. E. Doran (eds.), Social Science Microsimulation, p. 33-65, Berlin/New York, FFB-Reprint No. 12, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Reprint Nr. 12

Merz, J., 1996, Market and Non-Market Labour Supply and the Impact of the Recent German Tax Reform – Incorporating Behavioural Response, in: Harding, A. (ed.), Microsimulation and Public Policy, p. 177-202, Amsterdam/Tokyo, FFB-Reprint No. 11, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Reprint Nr. 11

- Merz, J. und R. Lang, 1996, Alles eine Frage der Zeit!? – Bericht über ein FFB-Forschungsprojekt zum Thema 'Zeitverwendung in Erwerbstätigkeit und Haushaltsproduktion – Dynamische Mikroanalysen mit Paneldaten', in: Uni Lüneburg – 50 Jahre Hochschule in Lüneburg, Jubiläums-Sonderausgabe, Heft 19/Mai 1996, S. 51-55, FFB-Reprint Nr. 10, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-Reprint Nr. 10**
- Merz, J. und D. Kirsten, 1996, Freie Berufe im Mikrozensus – Struktur, Einkommen und Einkommensverteilung in den neuen und alten Bundesländern, in: BFB Bundesverband der Freien Berufe (Hrsg.), Jahrbuch 1996, S. 40-79, Bonn, FFB-Reprint Nr. 9, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-Reprint Nr. 9**
- Deneke, J. F. V., 1995, Freie Berufe – Gestern, Heute, Morgen, in: BFB Bundesverband der Freien Berufe (Hrsg.), Jahrbuch 1995, S. 57-72, Bonn, FFB-Reprint Nr. 8, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-Reprint Nr. 8**
- Merz, J. and J. Faik, 1995, Equivalence Scales Based on Revealed Preference Consumption Expenditures – The Case of Germany, in: Jahrbücher für Nationalökonomie und Statistik, Vol. 214, No. 4, p. 425-447, Stuttgart, FFB-Reprint No. 7, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-Reprint Nr. 7**
- Merz, J., 1993, Statistik und Freie Berufe im Rahmen einer empirischen Wirtschafts- und Sozialforschung, in: BFB Bundesverband der Freien Berufe (Hrsg.), Jahrbuch 1993, S. 31-78, Bonn, FFB-Reprint Nr. 6, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-Reprint Nr. 6**
- Merz, J., 1993, Wandel in den Freien Berufen – Zum Forschungsbeitrag des Forschungsinstituts Freie Berufe (FFB) der Universität Lüneburg, in: BFB Bundesverband der Freien Berufe (Hrsg.), Jahrbuch 1993, S. 164-173, Bonn, FFB-Reprint Nr. 5, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-Reprint Nr. 5**
- Merz, J. and K. G. Wolff, 1993, The Shadow Economy: Illicit Work and Household Production: A Microanalysis of West Germany, in: Review of Income and Wealth, Vol. 39, No. 2, p. 177-194, FFB-Reprint No. 4, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-Reprint Nr. 4**
- Trautwein, H.-M. und A. Rönnau, 1993, Self-Regulation of the Medical Profession in Germany: A Survey, Faure, in: M., Finsinger, J., Siegers, J. und R. van den Bergh (eds.), Regulation of Profession, p. 249-305, ISBN 90-6215-334-8, MAKLU, Antwerpen, FFB-Reprint No. 3, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-Reprint Nr. 3**
- Herrmann, H., 1993, Regulation of Attorneys in Germany: Legal Framework and Actual Tendencies of Deregulation, in: Faure, M., Finsinger, J., Siegers, J. und R. van den Bergh (eds.), Regulation of Profession, p. 225-245, ISBN 90-6215-334-8, MAKLU, Antwerpen, FFB-Reprint No. 2, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-Reprint Nr. 2**
- Merz, J., 1991, Microsimulation – A Survey of Principles, Developments and Applications, in: International Journal of Forecasting 7, p. 77-104, ISBN 0169-2070-91, North-Holland, Amsterdam, FFB-Reprint Nr. 1, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-Reprint Nr. 1**
- ## 5 FFB-Diskussionspapiere, ISSN 0942-2595
- Merz, J. und Paic, P., 2005, Start-up success of freelancers – New microeconomic evidence from the German Socio-Economic Panel. FFB-Diskussionspapier Nr. 56, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 56**
- Merz, J. und Paic, P., 2005, Erfolgsfaktoren freiberuflicher Existenzgründung – Neue mikroökonometrische Ergebnisse mit Daten des Sozio-ökonomischen Panels, FFB-Diskussionspapier Nr. 55, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 55**
- Merz, J. und Stolze, H., 2005, Representative Time Use Data and Calibration of the American Time Use Studies 1965-1999, FFB-Diskussionspapier Nr. 54, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 54**

- Paic, P. und Brand, H., 2005, Die Freien Berufe im Sozio-ökonomischen Panel - Systematische Berichtigung der kritischen Wechsel innerhalb der Selbständigengruppe, FFB-Diskussionspapier Nr. 53, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 53**
- Merz, J., und Paic, P., 2005, Zum Einkommen der Freien Berufe – Eine Ordered Probit-Analyse ihrer Determinanten auf Basis der FFB-Onlineumfrage, FFB-Diskussionspapier Nr. 52, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 52**
- Burgert, D., 2005, Schwellenwerte im deutschen Kündigungsschutzrecht – Ein Beschäftigungshindernis für kleine Unternehmen?, FFB-Diskussionspapier Nr. 50, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 51**
- Merz, J., Böhm P. und Burgert D., 2005, Arbeitszeitarrangements und Einkommensverteilung – Ein Treatment Effects Ansatz der Einkommensschätzung für Unternehmer, Freiberufler und abhängig Beschäftigte, FFB-Diskussionspapier Nr. 50, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 50**
- Burgert, D., 2005, The Impact of German Job Protection Legislation on Job Creation in Small Establishments – An Application of the Regression Discontinuity Design, FFB-Diskussionspapier Nr. 49, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 49**
- Merz, J. und D. Burgert, 2005, Arbeitszeitarrangements – Neue Ergebnisse aus der nationalen Zeitbudgeterhebung 2001/02 im Zeitvergleich, FFB-Diskussionspapier Nr. 46, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 48**
- Merz, J., Böhm, P. und D. Burgert, 2005, Timing, Fragmentation of Work and Income Inequality – An Earnings Treatment Effects Approach, FFB-Diskussionspapier Nr. 47, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 47**
- Merz, J. und P. Paic, 2004, Existenzgründungen von Freiberuflern und Unternehmer – Eine Mikroanalyse mit dem Sozio-ökonomischen Panel, FFB-Diskussionspapier Nr. 46, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 46**
- Merz, J. und D. Burgert, 2004, Wer arbeitet wann? Arbeitszeitarrangements von Selbständigen und abhängig Beschäftigten – Eine mikroökonomische Analyse deutscher Zeitbudgetdaten, FFB-Diskussionspapier Nr. 45, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 45**
- Hirschel, D. und J. Merz, 2004, Was erklärt hohe Arbeitseinkommen der Selbständigen – Eine Mikroanalyse mit Daten des Sozio-ökonomischen Panels, FFB-Diskussionspapier Nr. 44, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 44**
- Ackermann, D., Merz, J. und H. Stolze, 2004, Erfolg und Erfolgsfaktoren freiberuflich tätiger Ärzte – Ergebnisse der FFB-Ärztebefragung für Niedersachsen, FFB-Diskussionspapier Nr. 43, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 43**
- Hirschel, D., 2003, Do high incomes reflect individual performance? The determinants of high incomes in Germany, FFB-Diskussionspapier Nr. 42, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-DP Nr. 42**
- Merz, J., and D. Burgert, 2003, Working Hour Arrangements and Working Hours – A Microeconometric Analysis Based on German Time Diary Data, FFB-Diskussionspapier Nr. 41, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-DP Nr. 41**
- Merz, J. und M. Zwick, 2002, Hohe Einkommen: Eine Verteilungsanalyse für Freie Berufe, Unternehmer und abhängig Beschäftigte, Eine Mikroanalyse auf der Basis der Einkommensteuerstatistik, FFB-Diskussionspapier Nr. 40, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 40**
- Merz, J., and D. Hirschel, 2003, The distribution and re-distribution of income of self-employed as freelancers and entrepreneurs in Europe, FFB-Diskussionspapier Nr. 39, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-DP Nr. 39**

- Stolze, H. 2002, Datenbankbankgestützte Internetpräsenzen – Entwicklung und Realisation am Beispiel der Homepage des Forschungsinstituts Freie Berufe (FFB) der Universität Lüneburg <http://ffb.uni-lueneburg.de>, FFB-Diskussionspapier Nr. 38, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 38**
- Merz, J., 2002, Zur Kumulation von Haushaltsstichproben, FFB-Diskussionspapier Nr. 37, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 37**
- Merz, J., 2002, Reichtum in Deutschland: Hohe Einkommen, ihre Struktur und Verteilung – Eine Mikro analyse mit der Einkommensteuerstatistik für Selbständige und abhängig Beschäftigte, FFB-Diskussionspapier Nr. 36, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 36**
- Merz, J. und M. Zwick, 2002, Verteilungswirkungen der Steuerreform 2000/2005 im Vergleich zum ,Karlsruher Entwurf Auswirkungen auf die Einkommensverteilung bei Selbständigen (Freie Berufe, Unternehmer und abhängig Beschäftigte), FFB-Diskussionspapier Nr. 35, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 35**
- Merz, J., Stolze, H. und M. Zwick, 2002, Professions, entrepreneurs, employees and the new German tax (cut) reform 2000 – A MICSIM microsimulation analysis of distributional impacts, FFB-Diskussionspapier Nr. 34, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-DP Nr. 34**
- Forschungsinstitut Freie Berufe, 2002, Freie Berufe im Wandel der Märkte - 10 Jahre Forschungsinstitut Freie Berufe (FFB) der Universität Lüneburg, Empfang am 4. November 1999 im Rathaus zu Lüneburg, FFB-Diskussionspapier Nr. 33, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 33**
- Merz, J., 2002, Time Use Research and Time Use Data – Actual Topics and New Frontiers, FFB-Discussion Paper No. 32, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-DP Nr. 32**
- Merz, J., 2001, Freie Berufe im Wandel der Arbeitsmärkte, FFB-Diskussionspapier Nr. 31, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 31**
- Merz, J., 2001, Was fehlt in der EVS? Eine Verteilungsanalyse hoher Einkommen mit der verknüpften Einkommensteuerstatistik für Selbständige und abhängig Beschäftigte, FFB-Diskussionspapier Nr. 30, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 30**
- Merz, J., 2001, Informationsfeld Zeitverwendung – Expertise für die Kommission zur Verbesserung der informationellen Infrastruktur zwischen Wissenschaft und Statistik, FFB-Diskussionspapier Nr. 29, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 29**
- Schatz, C. und J. Merz, 2000, Die Rentenreform in der Diskussion – Ein Mikrosimulationsmodell für die Altersvorsorge in Deutschland (AVID-PTO), FFB-Diskussionspapier Nr. 28, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 28**
- Merz, J., 2000, The Distribution of Income of Self-employed, Entrepreneurs and Professions as Revealed from Micro Income Tax Statistics in Germany, FFB-Discussion Paper No. 27, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-DP Nr. 27**
- Merz, J., Loest, O. und A. Simon, 1999, Existenzgründung – Wie werde ich selbständig, wie werde ich Freiberufler? Ein Leitfaden, FFB-Diskussionspapier Nr. 26, Fachbereich Wirtschafts - und Sozialwissenschaften, Universität Lüneburg, Lüneburg. **FFB-DP Nr. 26**
- Merz, J. und D. Kirsten, 1998, Extended Income Inequality and Poverty Dynamics of Labour Market and Valued Household Activities – A Ten Years Panelanalysis for Professions, Entrepreneurs and Employees in Germany, FFB-Discussion Paper No. 25, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg. **FFB-DP Nr. 25**

Merz, J., Quiel, T., und K. Venkatarama, 1998, Wer bezahlt die Steuern? – Eine Untersuchung der Steuerbelastung und der Einkommenssituation für Freie und andere Berufe, FFB-Diskussionspapier Nr. 24, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 24

Merz, J. und R. Lang, 1997, Preferred vs. Actual Working Hours – A Ten Panel Econometric Analysis for Professions, Entrepreneurs and Employees in Germany, FFB-Discussion Paper No. 23, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 23

Merz, J., 1997, Privatisierung und Deregulierung und Freie und staatlich gebundene Freie Berufe – Einige ökonomische Aspekte, FFB-Diskussionspapier Nr. 22, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 22

de Kam, C. A., de Haan, J., Giles, C., Manresa, A., Berenguer, E., Calonge, S., Merz, J. and K. Venkatarama, 1996, The Distribution of Effective Tax Burdens in Four EU Countries, FFB-Discussion Paper No. 21, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 21

Deneke, J. F. V., 1996, Freie Berufe und Mittelstand – Festrede zur Verleihung der Ehrendoktorwürde, FFB-Diskussionspapier Nr. 20, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 20

Merz, J., 1996, Die Freien Berufe – Laudatio zur Verleihung der Ehrendoktorwürde des Fachbereiches Wirtschafts- und Sozialwissenschaften der Universität Lüneburg an Prof. J. F. Volrad Deneke, FFB-Diskussionspapier Nr. 19, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 19

de Kam, C. A., de Haan, J., Giles, C., Manresa, A., Berenguer, E., Calonge, S. and J. Merz, 1996, Who pays the taxes?, FFB-Discussion Paper No. 18, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 18

Merz, J., 1996, Schattenwirtschaft und ihre Bedeutung für den Arbeitsmarkt, FFB-Diskussionspapier Nr. 17, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 17

Merz, J. und D. Kirsten, 1995, Freie Berufe im Mikrozensus II – Einkommen und Einkommensverteilung anhand der ersten Ergebnisse für die neuen und alten Bundesländer 1991, FFB-Diskussionspapier Nr. 16, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 16

Merz, J. und D. Kirsten, 1995, Freie Berufe im Mikrozensus I – Struktur und quantitative Bedeutung anhand der ersten Ergebnisse für die neuen und alten Bundesländer 1991, FFB-Diskussionspapier Nr. 15, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 15

Merz, J., 1995, MICSIM – Concept, Developments and Applications of a PC-Microsimulation Model for Research and Teaching, FFB-Discussion Paper No. 14, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 14

Rönnau, A., 1995, Freie Berufe in der DDR, der Bundesrepublik Deutschland und im wiedervereinigten Deutschland: Auswertungen von Berufstätigenerhebung und Arbeitsstättenzählung, FFB-Diskussionspapier Nr. 13, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 13

Burkhauser, R. V., Smeeding, T. M. and J. Merz, 1994, Relative Inequality and Poverty in Germany and the United States Using Alternative Equivalence Scales, FFB-Discussion Paper No. 12, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 12

Widmaier, U., Niggemann, H. and J. Merz, 1994, What makes the Difference between Unsuccessful and Successful Firms in the German Mechanical Engineering Industry? A Microsimulation Approach Using Data from the NIFA-Panel, FFB-Discussion Paper No. 11, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 11

Merz, J., 1994, Microdata Adjustment by the Minimum Information Loss Principle, FFB-Discussion Paper No. 10, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 10

Merz, J., 1994, Microsimulation – A Survey of Methods and Applications for Analyzing Economic and Social Policy, FFB-Discussion Paper No. 9, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 9

Merz, J., Garner, T., Smeeding, T. M., Faik, J. and D. Johnson, 1994, Two Scales, One Methodology – Expenditure Based Equivalence Scales for the United States and Germany, FFB-Discussion Paper No. 8, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 8

Krickhahn, T., 1993, Lobbyismus und Mittelstand: Zur Identifikation der Interessenverbände des Mittelstands in der Bundesrepublik Deutschland, FFB-Diskussionspapier Nr. 7, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 7

Merz, J., 1993, Market and Non-Market Labor Supply and Recent German Tax Reform Impacts – Behavioral Response in a Combined Dynamic and Static Microsimulation Model, FFB-Discussion Paper No. 6, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 6

Merz, J., 1993, Microsimulation as an Instrument to Evaluate Economic and Social Programmes, FFB-Discussion Paper No. 5, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 5

Merz, J., 1993, Statistik und Freie Berufe im Rahmen einer empirischen Wirtschafts- und Sozialforschung, Antrittsvorlesung im Fachbereich Wirtschafts- und Sozialwissenschaften der Universität Lüneburg, FFB-Diskussionspapier Nr. 4, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 4

Merz, J. and J. Faik, 1992, Equivalence Scales Based on Revealed Preference Consumption Expenditure Microdata – The Case of West Germany, FFB-Discussion Paper No. 3, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 3

Merz, J., 1992, Time Use Dynamics in Paid Work and Household Activities of Married Women – A Panel Analysis with Household Information and Regional Labour Demand, FFB-Discussion Paper No. 2, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-DP Nr. 2

Forschungsinstitut Freie Berufe, 1992, Festliche Einweihung des Forschungsinstituts Freie Berufe am 16. Dezember 1991 im Rathaus zu Lüneburg, FFB-Diskussionspapier Nr. 1, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-DP Nr. 1

6 FFB-Dokumentationen, ISSN 1615-0376

Merz, J. und P. Paic, 2005, Die FFB-Onlineumfrage Freie Berufe – Beschreibung und Hochrechnung, FFB-Dokumentation Nr. 12, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 12

Stolze, H., 2004, Der FFB-Server mit Microsoft Windows Server 2003, FFB-Dokumentation Nr. 11, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 11

Stolze, H., 2004, Zur Repräsentativität der FFB-Ärzteumfrage – Neue Hochrechnungen für Niedersachsen, Nordrhein und Deutschland, FFB-Dokumentation Nr. 10, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 10

Merz, J., Stolze, H. und S. Imme, 2001, ADJUST FOR WINDOWS – A Program Package to Adjust Microdata by the Minimum Information Loss Principle, Program-Manual, FFB-Documentation No. 9, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Dok. Nr. 9

Merz, J., Fink, F., Plönnigs, F. und T. Seewald, 1999, Forschungsnetz Zeitverwendung – Research Network on Time Use (RNTU), FFB-Documentation Nr. 8, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 8

Merz, J., 1997, Zeitverwendung in Erwerbstätigkeit und Haushaltsproduktion – Dynamische Mikroanalysen mit Paneldaten, DFG-Endbericht, FFB-Dokumentation Nr. 7, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 7

Merz, J. und F. Plönnigs, 1997, DISTRI/MICSIM – A Softwaretool for Microsimulation Models and Analyses of Distribution, FFB-Dokumentation No. 6, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Dok. Nr. 6

Merz, J. und R. Lang, 1997, Neue Hochrechnung der Freien Berufe und Selbständigen im Sozio-ökonomischen Panel, FFB-Dokumentation Nr. 5, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 5

Merz, J. und F. Plönnigs, 1995, Forschungsinstitut Freie Berufe – Datenschutz und Datensicherung, FFB-Dokumentation Nr. 4, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 4

Merz, J., Hecker, M., Matusall, V. und H. Wiese, 1994, Forschungsinstitut Freie Berufe – EDV-Handbuch, FFB-Dokumentation Nr. 3, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 3

Merz, J., 1993, Zeitverwendung in Erwerbstätigkeit und Haushaltsproduktion – Dynamische Mikroanalysen mit Paneldaten, DFG-Zwischenbericht für die erste Phase (1992-1993), FFB-Dokumentation Nr. 2, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 2

Merz, J. 1993, ADJUST – Ein Programmpaket zur Hochrechnung von Mikrodaten nach dem Prinzip des minimalen Informationsverlustes, Programm-Handbuch, FFB-Dokumentation Nr. 1, Fachbereich Wirtschafts- und Sozialwissenschaften, Universität Lüneburg, Lüneburg.

FFB-Dok. Nr. 1

Available also in English as:

Merz, J., 1994, ADJUST – A Program Package to Adjust Microdata by the Minimum Information Loss Principle, Program-Manual, FFB-Documentation No. 1e, Department of Economics and Social Sciences, University of Lüneburg, Lüneburg.

FFB-Dok. Nr. 1e

7 Sonstige Arbeitsberichte, ISSN 0175-7275

Matusall, V., Kremers, H. und G. Behling, 1992, Umweltdatenbanken – vom Konzept zum Schema, Arbeitsbericht Nr. 112, Universität Lüneburg, Lüneburg. Mikrosimulation in der Steuerpolitik, 279 Seiten, Springer Verlag, ISBN 3-7908-0611-0, Berlin.

Preis: € 6,-

Rönnau, A., 1989, Freie Berufe in Niedersachsen – Numerische und wirtschaftliche Entwicklung; Bedeutung als Arbeitgeber, Arbeitsbericht Nr. 60, Universität Lüneburg, Lüneburg. Mikrosimulation in der Steuerpolitik, 279 Seiten, Springer Verlag Berlin, ISBN 3-7908-0611-0, Berlin.

Preis: € 6,-

Sahner, H., 1989, Freie Berufe im Wandel, Arbeitsbericht Nr. 59, Universität Lüneburg, Lüneburg. Mikrosimulation in der Steuerpolitik, 279 Seiten, Springer Verlag, ISBN 3-7908-0611-0, Berlin. *Preis: € 6,-*

Sahner, H., 1988, Die Interessenverbände in der Bundesrepublik Deutschland – Ein Klassifikationssystem zu ihrer Erfassung, Arbeitsbericht Nr. 41, Universität Lüneburg, Lüneburg. Mikrosimulation in der Steuerpolitik, 279 Seiten, Springer Verlag, ISBN 3-7908-0611-0, Berlin.

Preis: € 6,-